Smart City – Karimnagar

Government of India
Ministry of Urban Development

Smart Cities Mission
Smart Cities Challenge – Stage 2

Municipal Corporation Karimnagar

Government of Telangana
AGENDA OF PRESENTATION

1. CITY VISION AND GOALS
2. Area Based Development
3. Pan City Solutions
4. Financials
KARIMNAGAR CITY PROFILE

Population

10,05,711

District

Population

2,61,185*

MCK

Population Density

1,100/km²

Demographic Profile: Population Trend

2001

205,653

2011

261,185

2021

339,540

Population live in 50 Slum

87,000 (34%)

Working Population

131,817

50.47%

129,368

49.53%

26,282

(10%)

(0-6 Years)

Sex Ratio

981

85.82%

Literacy Rate

Total Household

62,887 (Census 2011)

79,082 (SKS)

Population Density

11,000/km²

Growth Rate

30%

Major Landmarks

1. Bus Stand
2. Dist. Collector Office & Collectorate P.O.
3. Tower Circle
4. Municipal Corporation
5. Dr. Ambedkar Stadium
6. Town Police Station
7. Govt. Civil Hospital
8. Old Bazaar Circle
9. Circus Ground
10. Govt. Science College
11. Karimnagar Railway Station
12. District Jail
13. Archaeological Museum
14. Telangana Chowk
15. CSI Wesley Cathedral

Existing Land use: MCK

KMC Area

23.85 km²

KMC Boundary

(50 Wards)

Major Roads

Residential

13%

Commercial

4%

Industrial

3%

Public & Semi Public

10%

Water Courses

20%

41%

ROARR.
CITIZEN CONSULTATION

Engagement Strategy

Information & Knowledge
Share
Print, Social networking, websites, telecom & electronic

Citizen Connect

Stakeholder Consultations & Participation
Social platform, citizen hotspots, stakeholder meetings

Focused Group Discussions

Collaboration for Implementation
Vision statement, competitions, institutes, colleges

Community Mapping, community volunteers

Commitment for Decision Making
Ward Sabhas, cooperation, citizen juries

Technology Partners, institutes & citizens

Perception with Service Delivery

Electricity
School Education
Health

Good / Average

Water Supply
Public Transport
Streetlights

Below Average

Roads Traffic Management
Sewage Treatment
Public Toilet

Open Space
WATERBODIES

STORMWATER DRAINAGE

Housing
Slum development

15000 (likes + comments)
2600 comments
500 suggestions
260 comments
40 + meetings
50000 (17% of pop.)
11000 + participants

competitions & gatherings-3000+

LOGO DESIGN
FLASHMOB
BIKE RALLY
Paper presentation

Engagement Strategy

10000 suggestions
500 suggestions
400 suggestions

10000 suggestions

SREE CHAITANYA COLLEGE OF ENGINEERING
LNG & GAS TECHNOLOGY, KATLAKURGI, HASSAN DIST.

Department of Mechanical Engineering

A 2K16

Sree Chaitanya College of Engineering

LNG & Gas Technology, Katlakurgi, Hassan Dist.
Department of Mechanical Engineering

A 2K16
Citizen Pulse Survey

Sanitation
- Transport
- Health
- Safety & Security
- Parks & Open spaces
- Walkability
- Energy source
- Energy efficiency

Top Vision Themes
- Fostering natural & Culture Heritage
- Employment & Livelihood for All
- Water access, efficiency & Security
- Safety & Security
- Clean & Green city with leisure space
- Energy access, efficiency & Sustainability
- Best in class health care & Education Infra
- Congestion free and efficient Mobility
- Technology led Governance
- Thriving & Sustainable Business community

Citizen Pulse Survey
To develop Karimnagar into a major Regional COMMERCIAL, AND TOURISM HUB IN TELANGANA leveraging City’s Talent pool to create an Inclusive, and Gender sensitive society that utilizes Technology-enabled Governance to provide high quality of life to its citizens.

Primary Objective of Smart City Karimnagar is to improve the quality of life of even poorest of poor and improve happiness index
5 Vision Themes and Priority Goals

**Vibrant Economy Employment & Entrepreneurship**
- Employment/Skill/Entrepreneurship
- Facilitate availability of ‘Plug and Use’ Industrial Infrastructure
- Continued thrust on ‘soft infrastructure’ to attract/Retain Talent
- Develop the city into a commercial hub

**Pristine and Sustainable Environment**
- Increase adoption of Clean Energy and green spaces in the city
- Improve and maintain ambient Air Quality
- Mandatory Rain Water harvesting
- Identify and implement Actions to deal with Climate Change and build resilience

**Seamless Mobility**
- Make city Pedestrian and Non-Motorized Traffic friendly
- Surveillance and Street lighting
- Increase Public Transport adoption & use
- Tackle Infra deficits and trunk connectivity expeditiously
- Target Zero Accident Fatalities

**Universal access to Inclusive Best-in-Class Civic Services**
- Housing for All /Inclusion
- Universal Access of 24x7 water supply / waste-water mgmt
- 100% Compliance to SWM Rules 2016 / Open defecation free
- 24x7 Electricity and Broadband access

**Citizen-centric Technology-led Governance**
- Enhance Institutional Capacity
- Continue thrust on E-governance and M-Governance
- Unlock Revenue potential for Local Body and Civic Authorities
- Adopt a modern Master Plan along with effective enforcement
AGENDA OF PRESENTATION

- City Vision and Goals
- Area Based Development
- Pan City Solutions
- Financials
Options Identified for Area Based Development

Consultations with the public and expert for selection of an area-based development:

1. Retro fit - Central City
2. Retro fit + Greenfield – Near LMD
3. Retro fit – North Eastern City

Rating of Options

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
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<tbody>
<tr>
<td>No. of Wards</td>
<td>30</td>
<td>24</td>
<td>30</td>
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<tr>
<td>Population (lakhs)</td>
<td>1.8</td>
<td>1.4</td>
<td>1.6</td>
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<tr>
<td>Area (acres)</td>
<td>2392</td>
<td>2460</td>
<td>1935</td>
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<tr>
<td>Slum HHs (Nos.)</td>
<td>13,637</td>
<td>8,774</td>
<td>12,734</td>
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<tr>
<td>Green spaces (Ac.)</td>
<td>9.2</td>
<td>10</td>
<td>1.8</td>
</tr>
</tbody>
</table>
Area based development: area profile

Urban Renewal of Central City
Into Thriving Business Community

41% of Area (2392 acres)
60% of Population

Key Land Uses:
- ABD Boundary
- Slum Boundary
- Major Roads
- Public/Education/Religious
- Building: Residential, Commercial, Industrial & Transport

Road length: 229 km
Major Junctions: ~10
Parks and open spaces: 23
Civic Buildings: ~10 Acre (16 no.)
MAPPING OF ALL PROJECTS - AREA BASED PROPOSAL

- Modernization of Bus stand centre of excellence MLCP at R&B campus
- Retrofitting & Labour Adda at tower circle
- Retrofitting of Telangana chowk
- Modernization of Vegetable Market
- Museum Modernization
- Vegetable Market Redevelopment
- Open Yoga Park
- Waste Water Treatment
- Public Art Installation at major junctions
- Solar panels @ public and govt. buildings
- CCTV @ JUNCTIONS & IMP. PLACES
- Streetlights
- Toilets
- NMT parking
- Iconic Building
- Tourism information center
- Retrofitting of kamman
- Open Gym
- UG wiring
- 4G wifi
- Zebra crossing
- 4G
- Pedestrian zone
- RWH pits
- Green Promenade
- MLCP at R&B campus
- MLCP at RTC
- Market Yard modernization
- Open parking/ Auto Stand
- Pedestrian zone
- Zebra crossing
- Toilets
- Dustbin with sensors
- Pedestrian zone
- Zebra crossing
- Toilets
- Dustbin with sensors
Four Themes of Area-based Development

**Theme 1:**
Reconfigure City Center as a Trade & commercial Hub

**Theme 2:**
Economic Transformation

**Theme 3:**
Reinventing Urban Mobility

**Theme 4:**
Universal Basic Services

**Summary of ABP**

Four Themes of Area-based Development

**Smart City Karimnagar**

- **Theme 1:**
  - Reconfigure City Center as a Trade & commercial Hub

- **Theme 2:**
  - Reinforce Recreation & Tourism
  - Leverage City’s Riverfront advantage to Reinforce it as a major regional Recreation & Tourism hub with integrated blue-green network

- **Theme 3:**
  - Reinventing Urban Mobility
  - Smart, Secure and Eco-friendly Public Transportation for Karimnagar

- **Theme 4:**
  - Universal Basic Services
  - Physical and Social infrastructure embedded with Smart solutions
Theme-1 Economic Transformation- commercial hub: vibrant economy with employment and livelihood opportunities for all

Tower Circle Rejuvenation (4 acre)

Economic Revitalization

Redevelopment of Vegetable market (~500 shops)
Compact development
3 multilevel car parking
Mixed Use
No Vehicle Zone
Labour Adda

Modernization of bus stand
Centers of excellence @ bus stand
15 Hawking/vendor
Cashless transaction
Market yard redesign & modernization

Vegetable Market
Bus Stand
Centre of Excellence
Multilevel Car Parking
LEVERAGE CITY'S RIVERFRONT ADVANTAGE TO REINFORCE KARIMNAGAR AS A MAJOR REGIONAL RECREATION AND TOURISM HUB WITH INTEGRATED BLUE-GREEN NETWORK

**Recreation Hub**  
Manair River Front development

- Two-side river promenades
- Development of parks/gardens
- Boating facilities
- Public washrooms
- Seating arrangement
- Tree plantation
- Beautification of the surrounding
- Paved walkways
- Food Courts
- Dustbins
- Parking facilities

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**Development of Key Parks**

- Circus ground
- Open Air Theatre
- Open space for fairs
- Greenery @ edges
- Walkways
- Jogging track
- Open GYMS
- Dustbins
- Toilets
- Seating arrangement
- Decorative lighting

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**Recreational Nodes**

- Promotion of urban farming and open spaces to neighborhood parks

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**Integrated NMT Network** Connecting the Recreation and Tourism Hub @ Manair Dam with the recreational sub-/nodes in the city
Area Based Proposal...3

Theme 3: Reinventing Urban mobility through Intelligent, Green and Integrated Mobility

Seamless Mobility

Integrated development of Roads

Designated on site/5 open parking

Cycle Sharing System - 15 stations

Auto/bike Stands @ junctions

Typical Road Composition

Arterial Roads

Internal Roads

Junction improvements & FoB

Section Showing Road Upgrading

Cycle stations

Typical Road Composition

Arterial Roads

- Multi-use zone
- Carriageway
- Median
- Carriageway
- Multi-use zone

Internal Roads

- Multi-use zone
- Carriageway
- Median Carriageway
- Multi-use zone

Junction improvements & FoB

- Bicycle bypass
- Raised pedestrian crossings

Section Showing Road Upgrading

- Cycle stations
Theme 4: Provision of Universal Essential Services

**Basic Amenities**
- Water Management
- Waste Water Management
- Toilets
- Solid Waste Management
- Slum Rehabilitation
- Education
- Health Care

**Energy Security & Sourcing**
- Solar Roof Tops
- Underground Cabling
- LED Streetlights

**Urban water cycle**
- Civil Hospital to be upgraded
- Public Toilets

**Existing Vehicle GPS tracking System in MCK**

**E-health & Mobile Health**
- Sanitation

**Energy Efficiency & Security - Sourcing and Distribution**
- Sewage Treatment
- Dustbin with sensor
- LED Streetlights

**Energy Security & Sourcing**
- Solar Panel
- Electric Grid
- Wind Turbine
- Renewable Energy

**Urban water cycle**
- Water Treatment Plant
- Water Supply System
- Desalination Plant
- Rainwater Harvesting
AGENDA OF PRESENTATION

CITY VISION AND GOALS

Area Based Development

Pan City Solutions

Financials
Pan City 1 (PC1) - Develop a Smart, Secure and Eco-friendly Public Transportation for Karimnagar.

- Developing Single ticketing solutions,
- Traffic management systems including air quality sensors, surveillance cameras and connectivity
- Other information systems (including signages, PIS, PoS and GPS-enabled IPT systems).

**Intelligent Transportation System**

- Bus Shelters - 100
- Mini Bus - 168 on 50km BRR
- GPRS & GPS in autos - 168
- GPRS based ETM (Auto) - 8000

**Safety and Connectivity**

- CCTV Cameras, Wi Fi, Poles, Servers, Junction switches & Field Component at 100 junctions/critical locations across the city
- CCTV - 1200
- Wi Fi - 100

**Environment Watch**

- Air Quality Monitoring at 16 junctions
- CCTV Cameras, Wi Fi, Poles, Servers, Junction Switches & Field Component at 100 junctions/critical locations across the city
- Server
- Junction Switch Poles - 100
**Pan City 2 (PC2): Develop a Superior Social Infrastructure Delivery Mechanism to Create a Healthy and Talented Future Citizens**

- Healthcare service delivery through **Healthcare Management & Information systems**;
- Learning experience through **Smart / E-learning systems**;

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**Smart Healthcare and E-learning**

**Hospital Management System** - 3 UHC and District Hospital

- Patient Management System
- Pharmacy/Lab Management System
- Doctor Management System
- Digitization of Health Records
- CSR in Healthcare Delivery
- Billing and Payment System

**E-Learning Centres**

- Central Cloud
- Computers
- Podiums
- Routers
- Systems
- Smart Boards
- Training Teachers
Pan City 3 (PC3): Provision of Affordable and equitable 24x7 water supply project

- Intelligent water management solutions under PCS. Core Infrastructure under State Government funds and AMRUT
- Bulk Meters and Isolation valves with remote meter reading integrated to the Common command and control centre

Smart Water and ICCC

The three PCS shall be integrated to a state-of-the-art Intelligent Command and Control Centre and other allied governance modules with a Integrated City App
AGENDA OF PRESENTATION

- CITY VISION AND GOALS
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- Financials
# Financial Summary

<table>
<thead>
<tr>
<th>Component</th>
<th>Capital Cost</th>
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<tbody>
<tr>
<td><strong>Area Development Plan</strong></td>
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<tr>
<td>Economic and Commercial Development</td>
<td>267</td>
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<tr>
<td>Tourism and Recreational gateway</td>
<td>76</td>
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<tr>
<td>24x7 Water Supply (under implementation) + RWH</td>
<td>109</td>
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<tr>
<td>Sewerage (under implementation) + Septage management</td>
<td>75</td>
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<tr>
<td>SWM/ Sanitation</td>
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<tr>
<td>Integrated Road Development</td>
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<tr>
<td>Housing for All and Social Infrastructure</td>
<td>338</td>
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<tr>
<td>Energy</td>
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<tr>
<td>Others</td>
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<tr>
<td>Project development and escalation</td>
<td>110</td>
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<tr>
<td><strong>Sub-Total</strong></td>
<td>1,410</td>
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<tr>
<td><strong>PAN-City Initiative</strong></td>
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<tr>
<td>Traffic Management system with ITS, connectivity and surveillance</td>
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<tr>
<td>Smart Social Infrastructure</td>
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<tr>
<td>24/7 Water Supply</td>
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<tr>
<td>ICC and allied Governance modules</td>
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<tr>
<td>Project development and Escalation</td>
<td>37</td>
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<td><strong>Sub-Total</strong></td>
<td>468</td>
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<tr>
<td><strong>Total</strong></td>
<td>1,878</td>
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</tbody>
</table>

## Project financing

- **Smart City Funds**: 52% - Rs. 975 crore
- **Conv. Central**: 9%
- **Conv. State Govt**: 19%
- **PPP**: 9%
- **Others**: 11%
- **Loans/ ULB/Beneficiary**: 11%

*MLCPs and bus stand
*Bus shelters, PIS systems, CCTV cameras and Air quality sensors
• **Water Supply and Sewerage** - Mission Bhagiratha, AMRUT AND Other State Schemes
• **Green Spaces** - Haritha Haram
• **Solid waste management & Toilets** - Swachh Bharat Mission
• **Energy** - National Solar mission MNRE & IPDS Scheme
• **Connectivity** - Digital India
• **Housing** - Housing for all, 2 BHK Scheme
• **Economic Transformation**
  • **Livelihood** - National Urban Livelihood Mission
  • **Skill** - Skill India and National Knowledge network
  • **Incubation center** - Atal innovation mission
• **Other State Government schemes**
  • 20 point agenda
  • Arogya Lakshmi (Meal scheme for Women and children),
  • Aasara pensions (Social security for extremely vulnerable sections),
  • SHE Teams (Women safety) & SHG-linked social welfare schemes and Others
Thank You