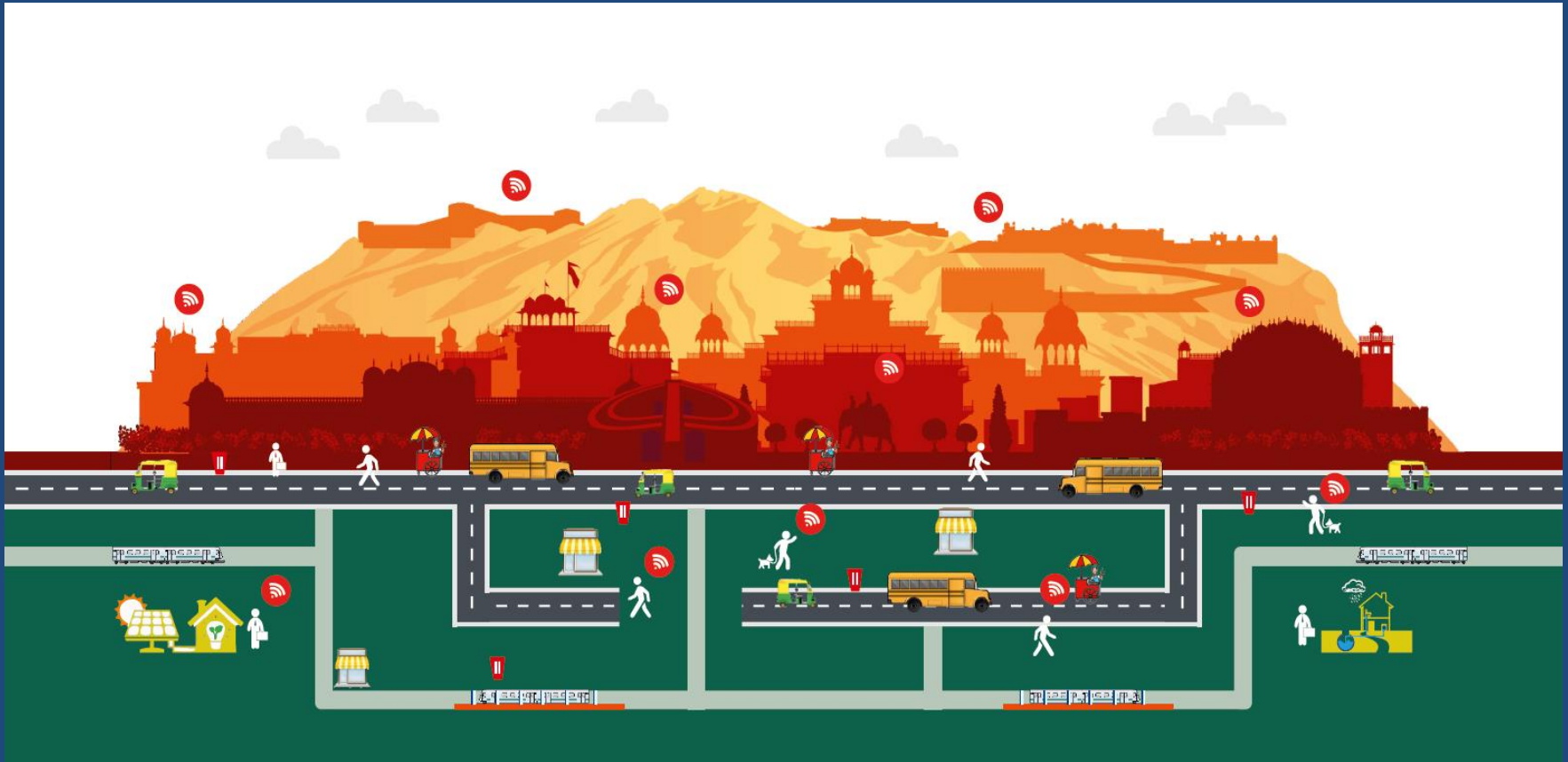




Preparing Smart City Proposal



Ashutosh A.T. Pednekar
Commissioner
Nagar Nigam Jaipur



Citizen Engagement & Insights



Vision



Goals



Plan & Strategy





Smart City - BASICS

1. Start early – adhere timelines
2. State level consultations and decisions
3. Appointment of Oversight Consultant
4. Quality of Base data & metrics
5. Bifurcation of tasks & exclusive responsibility





Smart City - CHECKLIST

- Smart Solutions, not more of old
- Citizen aspirations reflected in vision statement
- Fine tuning of self assessment criteria
- Connect between city vision & SWOT





Smart City - CHECKLIST

- Connect between strategic plan & implementation plan
- Non-ambiguity in proposals
- Consistency of costs & attendant revenue mobilization
- Convergence of central & state schemes
- Feasible, practical plans.

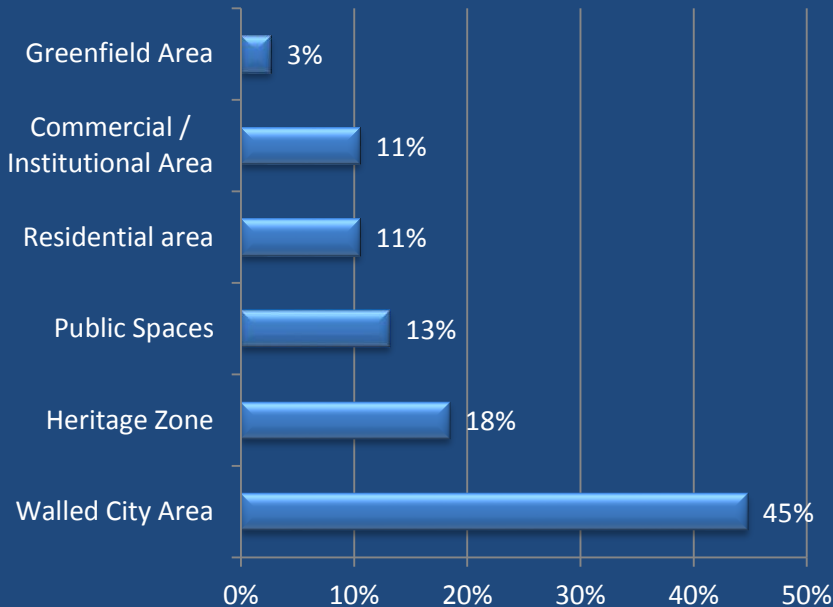




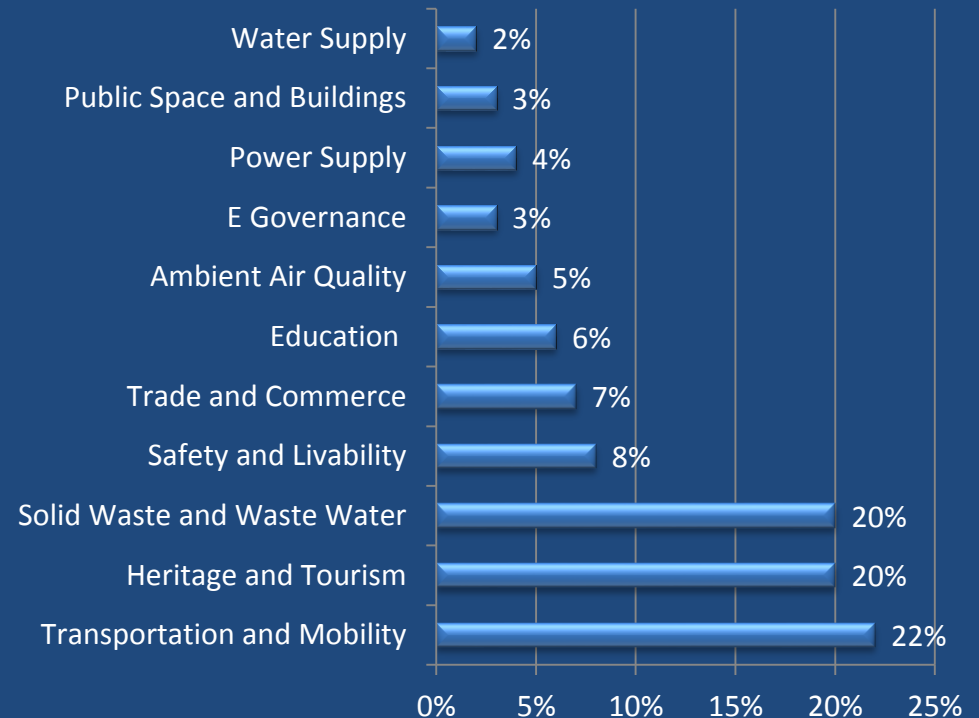
Citizen Engagement – Round 1

TOTAL SUGGESTIONS RECEIVED: 1,47,421

Round 1 Citizen Opinion Poll Outcome regarding preferred Area for Development



Round 1 Citizen Opinion Poll Outcome regarding Key Issues



Areas Evaluated:

1. Walled City Area (Retrofit)
2. Walled City Area (Heritage Zone)
3. Achrol (Green Field)
4. Chittorh – Knowledge City (Green Field)

6. PRN Nagar – (Retrofit)
7. Shivdaspura (Greenfield)
8. Ring Road (Greenfield)

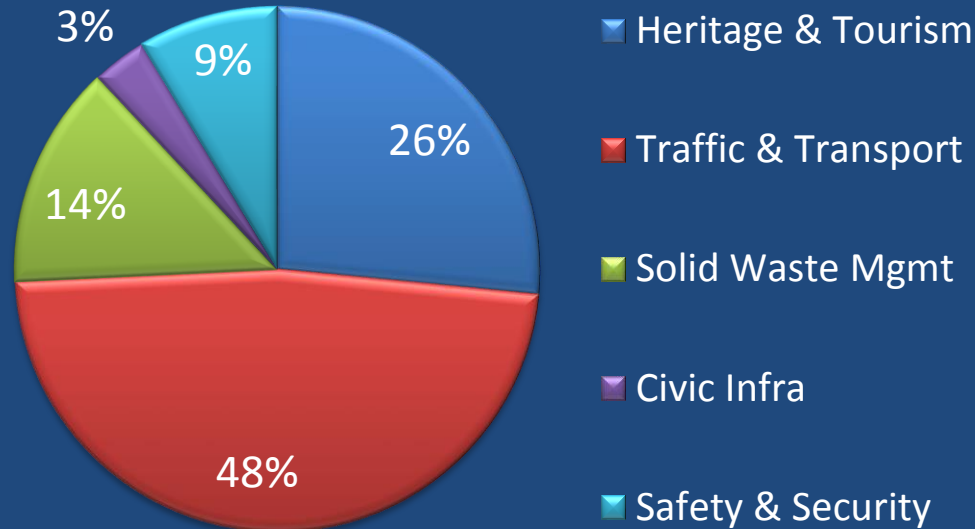


Feedback from Citizen Engagement – Round 2 Consultation

TOTAL CAMPAIGN OUTREACH:
16,47,421 (54%)

**TOTAL SUGGESTIONS RECEIVED: 1,47,421
(4.5%)**

SMS Polls Results validating Round 1 Insights

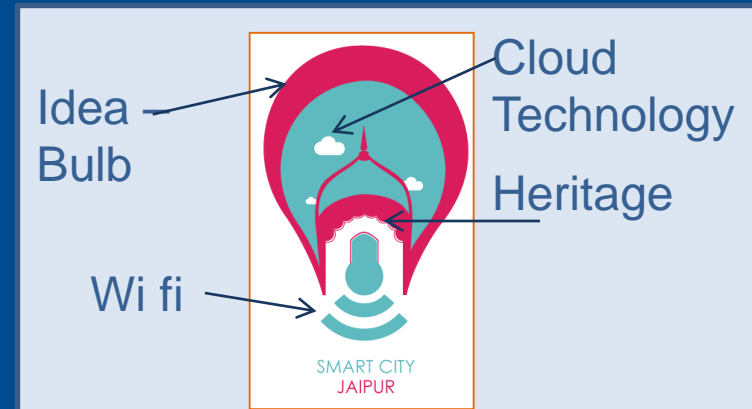




Smart City Jaipur – Vision

‘Jaipur Smart City **aspires to leverage its Heritage and Tourism**, and through **Innovative and Inclusive solutions**, enhance the **Quality of Life** for its **Citizens**

What our Logo signifies



Heritage and tourism - Develop a world class smart heritage zone by conserving and developing old heritage buildings along with provision of smart and sustainable infrastructure solutions improving overall tourist experience.

Innovative and inclusive – Innovative use of ICT for enabling better delivery of infrastructure and services; The proposal is also social inclusive with benefits targeted to citizens and visitors / tourist as well as lowest strata of society (waste recyclers and rag pickers)

Enhance quality of life – Jaipur city proposes solutions to improve public hygiene and cleanliness; promoting multi modal mobility to improve road congestion levels, increase tourists' activity to grow the economy of the city



Smart City Jaipur-Goals

Goals have been quantified for key metrics for each of the prioritized sector, with reference to the interventions suggested at pan city and area based development level.

Goals for Area Based Development Solutions:

Smart Heritage and Tourism Precinct: Adaptive reuse of old heritage buildings in project area with aim to conserve heritage and promote tourism with increase of average tourist time spent in Jaipur from 2.8 days to 3.5 days

Smart Mobility: To improve pedestrian mobility in the area by increased NMT share from 15% to 25% and 100% barrier free access in the area

Smart and Sustainable Civic Infrastructure: To enable coverage and monitoring of 100% Smart meters for water connections and 100% coverage of door to door collection adopting technology to dispose waste in environment friendly manner





Smart City Jaipur-Goals

Goals for Jaipur Pan City Solutions:

Smart Multi-Modal Mobility: To increase the share of public transport to 45% of total trips made in the city

Smart Solid Waste Management: To enable coverage and monitoring of 100% of solid waste management operations resulting in 10% reduction in the costs of operations





Smart City Plan & Strategy

Key Components

SMART HERITAGE AND TOURISM PRECINCT

- Adaptive reuse of heritage structures
- Rejuvenation of Talkatora lake, Baoris
- Heritage walks and Bazaar Street facade improvements, green roof tops
- Integration with common mobility card for monument entry payments
- Heritage App with QR Code for monument information
- Training and rating of Tourist guides, Tourism Police
- Promotion of traditional handicraft and textile workers
- Night market and vending zones
- Tourist interpretation centre





Smart City Plan & Strategy

Key Components Contd...

SMART MOBILITY

- Multimodal integration of fare and physical design
- Promoting and enhancing NMT mobility
- Promoting walkability and ensuring barrier free access
- Public bike sharing
- Smart signage's for traffic/tourism
- Intelligent parking system
- Common mobility card
- Smart IPT Stands and App
- ITS for traffic signal synchronization and bus information





Smart City Plan & Strategy

Convergence Agenda

- Swadesh Darshan scheme, Ministry of Tourism
- Heritage Conservation Project
- JDA Scheme of IT initiatives and other area development
- JVVNL
- JMRC UG stations-Station Accessibility for Badi Chaupar and Choti Chaupar Metro Station





Smart City Plan & Strategy

Measurable impact of the area-based development proposal

Economic Impact

- Reduction in traffic congestion leading to savings of Rs 30.6 crores per annum in man hours and fuel.
- Revitalization of Jaleb Chowk buildings will create new karkhanas and retail area of 6,000 sq m.
- Proposal of a night market, evening tourist circuit and water show shall result in tourists spending longer duration in the city from 2.8 days to 3.5 days, which shall result in greater spend per international tourist from US\$ 310 to a target of US\$ 387 and increase contribution from tourism to City's GDP from 13.68% to 15%.
- Training of tourist guides and allied tourism industry requirements shall create livelihood and employment options for 300 youth per year
- Creation of vending zones shall regulate the informal sector and provide jobs for 2,500 vendors



Smart City Plan & Strategy

Measurable impact of the area-based development proposal contd...

Social impact

- Encouraging and safeguarding walking improves safety and reduction of accidents involving pedestrians from 35 targeted to near zero accidents
- The area based development is designed to be barrier free targeted for 100% coverage which is currently zero
- Inclusion of street vendors and setting up of a night market for them will provide them a formal business opportunity. It is targeted to provide organised business opportunity to 700 vendors in night market and 1800 vendors in vending zone from current position of 1200 vendors operating informally in the area.
- With more eyes via vendors on the street, Panic Button, CCTV, Mobile App the area will be perceived safer, current crime rate in Jaipur is 780.6 per lakh population, we aim at a reduction to 346 per lakh population (Urban Indian average)



Smart City Plan & Strategy

IMPLEMENTATION PLAN ABD

| S.No. | Activity/Component | Indicator | Baseline(as on) | Target | Resources Required | Likely Date of completion |
|-------|--|------------------------------------|-----------------|--------|---|-----------------------------------|
| 1. | <p>Assured electricity supply with 10% from solar Monument and street lighting using energy efficient lighting systems Use of solar energy for project area using:</p> <p>a) Street Lighting with energy efficient sensors b) Select public building rooftops c)Traffic signals d) Bus stop lighting e) E-vehicle charging points f)Public toilets g) Monument Lighting h)Volunteering Residence</p> | Installed capacity of Solar PV(MW) | 0% | 2.03% | <p>Physical: (i) Identification of buildings, monuments, bus stops and public toilets ii) For existing LED lighting, compatible solar storage battery</p> <p>Financial: Funding requirement for this subproject is 41 cr. This project shall be financed through SCM</p> <p>Human -Capacity Building and technical assistance of operation and maintenance team</p> | 34 months from project start date |



Smart City Plan & Strategy

IMPLEMENTATION PLAN ABD

| S.No. | Activity/Component | Indicator | Baseline(as on) | Target | Resources Required | Likely Date of completion |
|-------|---|--|---|---|---|-----------------------------------|
| 2. | <ul style="list-style-type: none"> a) Road infrastructure along major corridor for NMT modes b) Barrier Free Footpaths incorporating universal designs c) Universal access to all public transport along major corridors d) Safe intersection design and raised pedestrian crossings e) Electric vehicles / IPT for last mile connectivity f) Solar Powered Charging stations for E-rickshaws | <ul style="list-style-type: none"> a. Footpath availability b. % NMV facilities c. % NMV share d. No of accidents involving pedestrian at two largest and critical junctions e. Air quality of SPM 10 | <ul style="list-style-type: none"> a.100%footpath availability -0% barrier free footpaths b.0% NMV facilities c. Current NMV share is 15% d. 35 accidents involving pedestrian at two largest and critical junctions e. 155 ug/m3 | <ul style="list-style-type: none"> a.100%footpath availability -100% barrier free footpaths b.100% coverage of all main roads by NMT infrastructure, segregated c. Target NMV share is 25% d. Target near Zero accident e. 60 ug/m3 | <p>Physical: Right of way free from encroachment, solar powered E rickshaw charging stations</p> <p>Financial: Total estimate for all components include 132 crore.</p> <p>5 crore is proposed to be converged by AMRUT. Balance funding of 127 crore to be covered under Smart City Mission Programme.</p> | 24 months from project start date |



Smart City Plan & Strategy

IMPLEMENTATION PLAN Pan City

| S.No. | Activity/Component | Indicator | Baseline(as on) | Target | Resources Required | Likely Date of completion |
|-------|---|---|--|---|---|---|
| 1. | <p>SMART MULTI-MODAL MOBILITY Open standard based common fare card/ticketing system</p> <p>Open-standards based fare card that can be used across tourist places such as monuments, transport modes such as city buses, private mini-buses/ tempos & metro, parking stands at metro stations, public bike sharing stands, smart auto/taxi stands and shopping malls & retail outlets</p> | <p>a. % of buses/ mini-buses operated by JCTSL that use a common fare card</p> <p>b. % of buses/ mini-buses/tempos operated by private operators that use a common fare card</p> <p>c. % of metro stations/parking stands/monument/public bike sharing stations</p> | <p>a. 0% of buses/mini-buses/tempos operated by JCTSL use a common fare card.</p> <p>b. 0% of buses/mini-buses/tempos operated by private operators use a common fare card</p> <p>c. 0% of metro stations/parking stands/monument/public bike sharing stations</p> | <p>a. 100% of buses/mini-buses operated by JCTSL that use a common fare card</p> <p>b. 75% of buses/mini-buses/tempos operated by private operators that use a common fare card</p> <p>c. 100% of metro stations/parking stands/monument/public bike sharing stations</p> | <p>Digital infrastructure for card issuance, card recharge & validation systems fare card management system and central clearing house application</p> <p>Financial Cost: INR 38 crores (Lifecycle cost including 5 year O&M)</p> | <p>a. 9 months from project start date for JCTSL buses.</p> <p>b. 24 months from project start date for private buses</p> <p>c. 9 months from project start date metro/parking stands/monument/public bike sharing stations</p> |



Convergence

| S.No. | Activity/Component | Department/agency/organization | Role/responsibility |
|-------|-----------------------------------|--------------------------------|--|
| 1. | SMART HERITAGE & TOURISM PRECINCT | ADMA and JNN | SPV to enter into MoU with ADMA and JNN with agreement on scope and implementation schedule and transfer sanctioned fund for implementation. |
| 2. | SMART MOBILITY | JNN | SPV to enter into MoU with JNN with agreement on scope and implementation schedule. JNN responsible for calling tender for DPR for smart mobility component, bid process management and award of work. |



Financial Timeline

| Milestone | Flow of funds | Target dates |
|--|---|---|
| Smart Heritage & Tourism initiatives (ABD) | Capital investment - INR 483.65 crore (includes INR 98 crore from convergence, 8% inflation, 10% contingencies) to be made within 36 months Revenue generation - INR 42.42 crore (at 1st year rates) | All sub-projects to be completed by - 36 months |
| Smart Mobility initiatives (ABD) | Capital investment - INR 150.32 crore (includes INR 5 crore from convergence, 8% inflation, 10% contingencies) to be made within 24 months Revenue generation - NIL | All sub-projects to be completed by - 24 months |



Financial Timeline

| Milestone | Flow of funds | Target dates |
|---|---|---|
| Smart & Sustainable Civic Infrastructure Initiatives(ABD) | <p>Capital investment - INR 888.45 crore (includes INR 372 crore from convergence, 8% inflation, 10% contingencies) to be made within 48 months</p> <p>Revenue generation - INR 11.32 crore (at 1st year rates)</p> | All sub-projects to be completed by - 48 months |
| Smart multi-modal mobility initiative(Pan City) | <p>Capital investment - INR 387.72 crore (includes INR 160 crore from convergence, 8% inflation, 10% contingencies) to be made within 24 months</p> <p>Revenue generation - INR 10.65 crore (at 1st year rates)</p> | All sub-projects to be completed by - 24 months |
| Smart Solid Waste Management(Pan City) | <p>Capital investment - INR 432 crore (includes INR 345 crore from convergence, 8% inflation, 10% contingencies) to be made within 24 months</p> <p>Revenue generation - No direct revenue from the project</p> | All sub-projects to be completed by - 24 months |



Smart City proposal cost estimates

| | Component | Total Project Cost | PPP | Convergence | GoI + GoR+ JNN - Smart City Grant | Jaipur Nagar Nigam – additional funds / own sources |
|---|--|--------------------|------------|-------------|-----------------------------------|---|
| 1 | Area Based Dev. (Walled City) | 1421.43 | 22 | 548 | 930 | 209.69 |
| 2 | Pan City 1 Smart multi-modal mobility | 384.94 | 150 | 32 | | |
| 3 | Pan City 2 Smart Solid waste management | 597.32 | 400 | 112 | | |
| | Total | 2403.69 | 572 | 692 | 930.0 | 209.69 |





TO SUM UP

- Citizen benefit centric plan not infrastructure centric
- Where city is and where it wants to be
- Timelines for quantifiable result delivery – immediate to 5 yr horizon
- Impact assessment – economic, social, inclusiveness, environmental
- Stand out but feasible projects
- Risk identification and mitigation measures
- Financing plan with special emphasis on O&M expenditure





Thank – You!

