Preparation of
SMART CITY PLAN & PROPOSAL

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A GAME-CHANGING MISSION

• **Mission Transform-nation**: Define city’s competitive vision; area-based developments and Pan-city initiatives; mobilize resources; ensure outcomes

• ‘**Comprehensive**’ demonstration projects: integrating institutional, physical, social and economic infrastructure

• **Putting people first**: Using technology to improve the life of all citizens in a planned and sustainable manner

• **Aspirational & Competitive**: ‘Where you are today’ to ‘Where you want to be tomorrow’

• **Convergence**: missions, schemes, departments
A CHALLENGE

• FORM AN SPV
  – GOI + STATE/ULB = MIN. 50% HOLDING
  – PRIVATE = MAX 50% HOLDING
• DELIVER MINIMUM 2 PROJECTS
  – 1 PAN-CITY (COMPULSORY)
  – MIN. 1 AREA-BASED (RETROFIT/REDEV/GREEN)
• OPERATE & MANAGE LIFECYCLE
• DELIVER RESULTS & OUTCOMES
  – IMMEDIATE
  – 1 YR
  – 3-5 YR
1. PROFILE
Baseline, Mapping, KPIs, Self-Assessment

1. OPERATIONAL EFFICIENCY
   - Average time taken to give building plan approvals
   - Increase in property tax assessments and collections
   - Outages in a month (Scheduled / Unscheduled)
   - Reduction in NRW/UFW and AT&C/T&D losses
   - Increase in percentage of population covered by grid based power
   - Water & sewerage user charges collected as a percentage of current annual demand
   - Property tax collection as a percentage of annual demand
   - Cost management interventions like location tracking of vehicles, ambient light sensors, etc.

2. TRAFFIC SITUATION
   - Average traffic speeds
   - Average commute times and distances for different groups
   - Availability of pedestrian facilities and public transport
   - Congestion intensity on arterial city roads

3. ADMINISTRATIVE EFFICIENCY DUE TO ICT
   - Overall attendance of functionaries
   - Two-way communication between citizens and administration
   - Use of e-Gov to enable hassle free access to statutory documents
   - Dashboards that integrate analytics and visualization of data
   - Availability of basic information relevant to citizens

4. AVAILABILITY OF AFFORDABLE HOUSING
| Self-Assessment | Livability | Compactness | Open spaces | Walkability | Safety | Health | Water quality | Air quality | Energy efficiency | Identity and culture | Economy and employment | Citizen participation | Basic Infrastructure | Smart Solutions | IT Connectivity | Intelligent government services | Housing and inclusiveness | Underground electric wiring |
|----------------|-----------|------------|------------|------------|--------|-------|-------------|------------|----------------|------------------|---------------------|---------------------|---------------------|----------------------|-------------|----------------|---------------------|----------------------|-----------------------|
| LIVABILITY     | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Mixed use      | Health     | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Compactness    | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Open spaces    | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Walkability    | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Safety         | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Health         | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Water quality  | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Air quality    | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Energy efficiency | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Identity and culture | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Economy and employment | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Citizen participation | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| BASIC INFRASTRUCTURE | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Smart Solutions | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| IT Connectivity | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Intelligent government services | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Housing and inclusiveness | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |
| Underground electric wiring | Energy source | Energy supply | Sanitation | Water supply | Waste water management | Waste management | Transportation & Mobility | Underground electric wiring |

**SELF-ASSESSMENT**
2. CITIZEN ENGAGEMENT

5. What is the engagement strategy?

6. How is the engagement strategy affected by the citizen engagement process?

7. What were the citizen engagement methods used during the three rounds of engagements; give details of how many citizens were involved and what kind of individuals/groups/communities were involved.

8. What are the key insights/suggestions/feedback that emerged from each round of engagement?

9. Which of the suggestions or solutions provided by citizens during the engagement process have been incorporated into your smart city proposal?
3. VISION & GOALS

VISION
10. Overarching **Vision Statement** emerging from consultations
11. How does the Vision Statement **relate to the profile** of your city?
12. How does the Vision Statement include your city’s economic, social, environmental and spatial components?
13. How does the Vision Statement **summarize the impact** on key aspects—**main economic activity, sustainability and inclusiveness**?

GOALS
10. **Qualitative or quantifiable outcomes** that need to be achieved for each of the Smart City Features. Prioritize the initiative/solution that would get the area of focus to achieve ‘advanced’ characteristics.
11. **Convert quantifiable outcomes into goals** to realize the vision.
4. STRATEGIC PLAN

16. What could be the pan-city project/solution and the exemplary projects that can assist the city to achieve the stated goals?

17. What **partnerships and collaborations** are required to achieve the goals and vision?

18. How do you propose to initiate discussions with these potential partners?

19. Identify the kinds of **resources and arrangements required** to achieve the goals.

20. Describe the relationship between the goals/ objectives/ activities needed to achieve goals, along with targets and indicators. *(TABLE 2, p.13)*

21. Approach and methodology for **identifying the extents** of the pan-city proposal and the ‘sites’ for the area-based developments?

22. Why is the selected approach (retrofitting/ redevelopment/ greenfield or a combination) most suitable for the area(s) and for your city?

23. Describe how you have accounted for the de facto status of the land/property ownership, state of environment, gaps in infrastructure and services and so on.

24. Describe the **convergence** with other missions and initiatives of GoI: eg. AMRUT, HRIDAY, Shelter for All, Digital India, Make in India and Skill India.
ESSENTIAL ELEMENTS

Assured electricity supply (min. 10% energy requirement from solar)
  Smart metering; Energy efficient street lighting

Adequate water supply
  Waste water recycling, storm water reuse, rain water harvesting

Sanitation including solid waste management
  Robust IT connectivity and digitalization

Visible improvement in the Area
  Encroachment-free public areas

Intelligent traffic management
  Smart parking
  Non-vehicle streets/zones

Encouragement to non-motorised transport (e.g. walking and cycling)
  Pedestrian friendly pathways
  Innovative use of open spaces

Ensuring safety of citizens, especially children, women and elderly
BASIC REQUIREMENTS

• VISIBLE IMPROVEMENTS
  wires, hoardings, poles, railings, paving, etc.

• 24X7 WATER SUPPLY
  source management + reduction/reuse/recycling + dual-pipe system

• 24X7 POWER SUPPLY
  metering + demand management

• ZERO-WASTE
  segregation + reduce/recycle/reuse

(All should be on sustainable basis)
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<th>Objectives and Activities</th>
<th>Performance Indicator</th>
<th>Baseline (as of date xx)</th>
<th>Mission Target</th>
<th>For the Financial Year</th>
<th>For Half Year 1</th>
<th>Funds to be utilized</th>
<th>For Half Year 2</th>
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(?) Ensure safety for all citizens
CLEAR ALL DARK SPOTS
ENSURE RELIABILITY OF STREET LIGHTING
PROVIDE LIGHTING IN ALL PUBLIC PLACES
EFFICIENT WATER MANAGEMENT
INSTALL METERS
INSTALL SCADA

(Note: Above information to be provided for each project, every 6 months, till the completion of the project)
5. PAN-CITY SOLUTION

25. Summarize your idea for a pan-city proposal
26. How does the pan-city proposal relate to the vision and goals?
27. How socially inclusive is your pan-city proposal? Why?
28. Use data to describe the problem that your pan-city proposal tries to address.
29. Has your city made previous attempts to find a solution for the same problem? If so, when and how?
30. Are you adopting/adapting a model or ‘best practice’ that has worked in another city?
31. Key components of your pan-city proposal
32. Three greatest risks to the pan-city proposal: nature of risk, likelihood, likely impact, proposed mitigation
33. Three most significant success factors
6. AREA-BASED DEVELOPMENT/s

34. **Summarize** your idea for an area-based development.

35. What do the citizens consider the most important **Smart City features** to realize in the selected area? How to achieve these?

36. How does your area-based proposal **relate to the vision and goals**?

37. How does your proposal take care of **social inclusion**?

38. **Maps, diagrams, pictures, etc.** of the proposed area-based development, including the project boundaries, connectivity, significant relationships, etc.

39. **Key components** of your area-based development proposal (e.g. buildings, landscaping, on-site infrastructure, etc.)?

40. List out the **place-making characteristics** of the proposed development, related to urban form, mixed-use, open spaces, walkability, etc.

41. **3 greatest risks** that could prevent the success of the proposal? Describe each risk, its likelihood, the likely impact and the mitigation you propose.

42. **3 most significant success factors** (Residents’ support, land availability, planning regulation, financial investment, design quality, disaster resilience, etc.)
7. IMPLEMENTATION FRAMEWORK

43. Describe **short and long term scenarios**: critical milestones, realistic timelines, sequencing of efforts and events.

44. Describe the **SPV** (composition, structure, leadership & governance, holding pattern).

45. List the government departments, parastatal organizations and public agencies for **execution of project components**.

46. Describe the basic TORs for the private companies/corporations/organizations to be engaged with Execution and **O&M of projects**.

47. Describe **convergence** with other Government Schemes.

48. Describe **institutional linkages and civil society partnerships**.
COLLABORATIVE PROCESS

• STATE-LEVEL TASK FORCE
• ULB/SPV/ADVISORY FORUM
• CONSULTANT/HAND-HOLDING AGENCY
• PUBLIC ENGAGEMENT
  – Round 1: Establish vision, goals and strategies
  – Round 2: Feedback on pan-city and area-based developments
  – Round 3: Inform the citizens about your plans

• CITY PROFILE
  – Spatial and physical context
  – Ground realities
  – Past performance
  – Self-assessment

• STRATEGIC PLAN
• PAN CITY SOLUTION
• AREA-BASED DEVELOPMENT/S

SMART CITY ADVISORY FORUM

MISSION
HPSC
ULB
CITIZENS
8. FINANCING PLAN

49. **Estimated budget** for pan-city proposal and **how will it be financed**? If you seek loans or issue bonds, what revenue sources will be used to **pay back the loans**?

50. Estimated budget for area-based development and how financed? If you seek loans and issue bonds, what revenue sources will be used to pay back loans?

51. What is your plan for covering the **Operations & Maintenance costs for each of the project components** identified in Questions 31 and 39?

52. What are your **financial assumptions**? Do you have any **alternatives or fall-back plans** if the financial assumptions do not hold?
9. BENEFITS & IMPACTS

53. What will be the **measurable impact of your pan-city proposal**?
   - Governance Impact (eg. government response time to citizen complaints halved)
   - Spatial Impact (eg. built form changed to incorporate more density or more public space)
   - Economic Impact (eg. 10,000 new jobs created)
   - Social Impact (eg. better infrastructure provided for 1000 informal vendors)
   - Environmental impact (eg. water quality improved by reducing pollutants by half)

54. **How will you measure the success of your pan-city proposal** and when will the public be able to ‘see’ or ‘feel’ benefits?
   - Immediately
   - Year 1
   - 3-5 years

55. What will be the **measurable impact of the area-based proposal**?

56. Explain **how the impacts will be secured** through the application of any or all of Essential Components and Smart City Features.
EVALUATION

FORMAT

• **SCP Online Template**: 58 questions with word limits (in your folder); international and national experts give marks on each question

OVERALL CRITERIA

• **A. City-Level Criteria (30%)**
  Vision & Goals, Strategy, Citizen Engagement, Scope for improvement (Overall Assessment)

• **B. Pan-City and Area-Based Proposals (70%)**
  Concept, Impact, Process, Implementation Framework, Cost Effectiveness
THANK YOU