

# **Reference Document on Smart Cities Mission**

## **Capacity Building for Smart Data and Inclusive Cities**

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## COVER MEMO

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**TO:** GARIMA MITTAL, IAS

**FROM:** NIUA-IDS TEAM

**SUBJECT:** DOCUMENTS ON THE SMART CITIES MISSION AND WAYS FORWARD

**DATE:** 12 SEPTEMBER 2019

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In the accompanying Reference Document, we have meticulously listed 50 key documents related to the Smart City Mission, each one with a short description and a link to the full document. The list is broken down by key topic area, including a section on “ease of living”, which is something you emphasized in our last meeting with you.

We hope that this document will serve as a handy reference for you, and it is something you can dig into when you have a few moments. However, alone this document only begins to meet the objectives we discussed.

When we met recently, I noted your pragmatic approach to the Smart City Mission – namely your concern that we not get caught up in hype around the technology, but strive to use this Mission and the energy behind it to shape Faridabad into a better place to live for all its residents, especially the poorest and most marginalized. This is outstanding, and it perfectly aligns with what we, at IDS and NIUA, also hope to achieve through our shared work.

As you can see in the Reference Document, there are many new and important bits of guidance coming from the Central Government on issues related to data and smartness. In each one, you will notice a stated commitment to inclusiveness (alongside other, potentially conflicting priorities), but also a rather general tone.

We understand this as an indication that, while these issues are extremely important to our efforts to shape our cities that live up to their potential, no one yet has a clear idea of the best ways forward. Not only do we face the task of parsing these documents to get a clearer understanding of what new obligations and responsibilities they present us with, we have the opportunity to be creative in how we respond to their calls for action.

Now is not the moment for implementing a pre-decided plan. Now is the time to contribute to shaping that plan and for ensuring that it achieves the goals we care about. This includes making use of cutting-edge technologies and crafting a city data policy, but it can mean ensuring that those technologies are put to the use of strengthening our governing institutions and making life better for our citizens.

Please review this document, and let’s set up a time for us to discuss in detail with you and your staff, how we can understand the changing landscape of Smart City guidance and craft a strategy for achieving the legacy you want to see for Faridabad.

## **A Brief about Smart Cities Mission**

**Introduction:** The Government of India has launched the Smart Cities Mission on 25 June 2015. The objective is to promote sustainable and inclusive cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. The Mission is meant to set examples that can be replicated both within and outside the Smart City, catalysing the creation of similar Smart Cities in various regions and parts of the country. The idea is to look at compact areas, create a replicable model, which will act like a lighthouse to other aspiring cities.

Some of the core infrastructure elements in a Smart City would include:

- Adequate Water Supply,
- Assured Electricity Supply,
- Sanitation including Solid Waste Management,
- Efficient Urban Mobility and Public Transport,
- Affordable Housing, Especially for the Poor,
- Robust It Connectivity And Digitalization,
- Good Governance especially E-Governance and
- Safety and Security of Citizens, Particularly Women, Children and the Elderly
- Health and Education.

The strategic components of the Smart Cities Mission are city improvement (retrofitting), city renewal (redevelopment) and city extension (Greenfield development) plus a Pan-city initiative in which Smart Solutions are applied covering larger parts of the city.

**Selection Process:** The selection process of Smart Cities is based on the idea of Competitive and Co-operative Federalism and follows a Challenge process to select cities in two stages.

**Implementation Process:** The implementation of the Smart Cities Mission is done by a Special Purpose Vehicle (SPV) to be set up at city level in the form of a limited company under the Companies Act, 2013 and will be promoted by the State/UT and the Urban Local Body (ULB) jointly both having 50:50 equity shareholding. After selection, each selected Smart Cities have to set up SPVs and start implementation of their Smart City Proposal, preparation of Detailed Project Reports (DPRs), tenders etc.

The SPV will convert the Smart City Proposal into projects through Project Management Consultants (PMCs) and implementation thereafter

### **Faridabad Smart City Proposal:**

The Ministry of Housing and Urban Affairs (MoHUA) selected Faridabad under Smart City Challenge in fast track round (May 2016) based on the Smart City Proposal (SCP) submitted by the Municipal Corporation of Faridabad.

The city is envisioned *“to be an innovation hub for manufacturing by leveraging its economic strengths and transforming itself to a cleaner, greener city by introducing smarter way of living”*.

In line with the Gol guidelines, the SCP is divided into two categories: Area Based Development and Pan City solutions, as described below.

The ABD proposal covers many diverse use & activity components of the city and with the identification of the 1,267 Acre of area surrounding Badkal Lake. The proposals though very specific, are based on conceptual understanding of the context of Faridabad and are easily replicable in similar context. The key themes of the SCP are smart mobility, smart & sustainable civic infrastructure and smart urbanism.

The Pan City proposal is an integrated ICT based solution for management, monitoring & control of traffic system.

### Smart City Mission Documents

Following are the documents pertaining to the Smart City Mission.

- 1. Document Name:** Smart City Mission Statement and Guidelines  
**Description:** The pioneer guideline document of the mission in which discuss about the holistic picture of the mission and different process  
**Link:** <https://smartnet.niua.org/sites/default/files/resources/smartcityguidelines.pdf>
- 2. Website Name:** Smartnet Learning Modules  
**Description:** This Learning Modules provides a catalog of E-Learning Courses, MOOCs and Webinars, relevant to the urban sector.  
**Link:** <https://smartnet.niua.org/learn/modules>
- 3. Website Name:** Smartnet Libraray  
**Description:** This Library acts as a repository of key reference material like reports, guidelines, model documents, case studies and research on topics relevant to the urban sector. The Smartnet Library has been catalogued based on sectors, sub-sectors and types of documents.  
**Link:** <https://smartnet.niua.org/learn/library/2443>
- 4. Document Name:** India Smart Cities Awards (ISAC) 2019  
**Description:** The document discuss about the different categories and process of the smart city awards.  
**Link:**[https://smartnet.niua.org/smart-cities-awards-2019/pdf/Smart-City-Award-Contest\\_01-March.pdf](https://smartnet.niua.org/smart-cities-awards-2019/pdf/Smart-City-Award-Contest_01-March.pdf)

### **EASE OF LIVING**

- 5. Document Name:** Ease of Living Index 2019  
**Description:** This Index document discuss about the assessment framework to measure the ease of living of citizens living in the cities across three pillars of quality of life; economic ability; and sustainability, 14 categories and 50 indicators  
**Link:** <https://smartnet.niua.org/eol19/pdf/EOL-2019-Completed-Version.pdf>

6. **Video Name:** Ease of Living 2019  
**Description:** Introduction to Ease of Living.  
**Link:** [https://www.youtube.com/embed/\\_JL8mQ\\_2ah8](https://www.youtube.com/embed/_JL8mQ_2ah8)
7. **Document Name:** Municipal Performance Index - Assessment Framework 2019  
**Description:** This Index document discuss about the assessment framework to measure the sectoral performance of Municipalities across a set of five verticals namely Services; Finance; Technology; Planning and Governance which include 20 sectors and 100 indicators.  
**Link:** [https://smartnet.niua.org/eol19/pdf/MPI\\_Methodology.pdf](https://smartnet.niua.org/eol19/pdf/MPI_Methodology.pdf)

### **DATA SMART CITIES**

8. **Document Name:** DataSmart Cities Strategy  
**Description:** This strategy document aims to lay down the basic premise, foundational pillars and a suggested roadmap for cities to improve their readiness for intelligent use of data in addressing complex urban challenges.  
**Link:** [https://smartnet.niua.org/dsc/pdf/DataSmart\\_Cities\\_Strategy.pdf](https://smartnet.niua.org/dsc/pdf/DataSmart_Cities_Strategy.pdf)
9. **Document Name:** Data Maturity Assessment Framework  
**Description:** The Data Maturity Assessment Framework (DMAF) explain about methodology for cities self-evaluation of preparedness in data governance mechanism and availability of data itself for decision-making.  
**Link:** <https://smartnet.niua.org/dsc/pdf/dmaf.pdf>
10. **Website Name:** Open Data Platform  
**Description:** The platform, which helps cities to share and view their data.  
**Link:** <https://smartcities.data.gov.in/>
11. **Document Name:** India Urban Data Exchange (IUDX)  
**Description:** The data exchange platform provide catalogue service and consent service that will enable a data custodian.  
**Link:** <https://www.iudx.org.in/overview-of-iudx/>
12. **Video Name:** Data Smart Cities  
**Description:** Video that highlight the relevance of data and data driven governance.  
**Link:** <https://www.youtube.com/embed/yf65BEHLiM>

### **CLIMATE SMART CITIES**

13. **Document Name:** Climate Smart Cities Assessment Framework  
**Description:** The document explain about methodology for cities to assess their present situation and facilitate cities to adopt, implement and disseminating the best practices to make cities climate resilient.  
**Link:** <https://smartnet.niua.org/csc/pdf/booklet.pdf>

14. **Video Name:** Climate Smart Cities

**Description:** Video that highlight the relevance of climate resilience cities and assessment framework.

**Link:** <https://www.youtube.com/embed/dlQY3Cobwpk>

15. **Document Name:** Digital Payment Guideline

**Description:** This document discuss about the implementation process of digital payment mechanism at city level.

**Link:** [https://smartnet.niua.org/sites/default/files/digital\\_payments\\_for\\_smart\\_cities-guidelines\\_vf.pdf](https://smartnet.niua.org/sites/default/files/digital_payments_for_smart_cities-guidelines_vf.pdf)

**NATIONAL URBAN INNOVATION STACK (NUIS)**

16. **Document Name:** National Urban Innovation Stack (NUIS) - Strategy & Approach

**Description:** This strategy document contains an overview of the principles guiding the design and architecture of the NUIS and highlights some of the proposed features of the stack and programs envisaged. Also, discuss about vision, strategy and approach for the development of the NUIS.

**Link:**[https://smartnet.niua.org/sites/default/files/resources/national\\_urban\\_innovation\\_stack\\_web\\_version.pdf](https://smartnet.niua.org/sites/default/files/resources/national_urban_innovation_stack_web_version.pdf)

17. **Video Name:** NUIS: National Urban Innovation Stack

**Description:** Video that discuss about the National Urban Innovation Stack.

**Link:** <https://www.youtube.com/watch?v=okeDK9zHcS0#action=share>

18. **Website Name:** National Urban Innovation Stack Platform

**Description:** This is a learning and knowledge-sharing platform for exchange between cities, practitioners, academia, researchers and technologists.

**Link:** <https://www.nuis.in/nuis>

19. **Website Name:** National Urban Learning Platform (NULP)

**Description:** This is a learning platform, which provides information about different online courses with regard to the urban spectrum.

**Link:** <https://www.nuis.in/lms>

20. **Video Name:** National Urban Learning Platform (NULP)

**Description:** Video that discuss about the National Urban Learning Platform.

**Link:** <https://www.youtube.com/watch?v=yKV3ClldkMs#action=share>

**LIGHT HOUSE CITIES PROJECTS**

21. **Document Name:** Placemaking Project Guideline

**Description:** The Bhopal Smart City Development Corporation Limited (BSCDCL) has initiated the Placemaking Project Guidelines. BSCDCL has adopted a multi faceted approach to planning, design and management of public spaces to promote people's

health, happiness and wellbeing by undertaking various place making and tactical urbanism projects.

**Link:**[https://smartnet.niua.org/sites/default/files/resources/place\\_making\\_guideline\\_bhopal.pdf](https://smartnet.niua.org/sites/default/files/resources/place_making_guideline_bhopal.pdf)

22. **Video Name:** Implementation of Street Redesign Tajganj area (ABD)

**Description:** The video shows the recent changes that would attribute to enhance the appeal of a major tourist attraction, the Taj. Under the smart city Area development some of the initiative undertaken that are shown in the video.

**Link:** <https://smartnet.niua.org/content/7636246f-dd04-4878-a2b3-5cd3b79b23d6>

23. **Video Name:** Street Revitalisation and Junction Improvement Project: Varanasi

**Description:** This video summarizes the efforts of Varanasi Smart City to improve traffic through redesigning of the junctions.

**Link:** <https://smartnet.niua.org/content/f53468f2-b36e-4773-9d3a-ea2fedc24610>

24. **Document Name:** Concept Design: “All Abilities” Children Park

**Description:** Vizag Smart City, with an aim to enhance social infrastructure for the ABD area and encourage inclusive development, has pioneered the initiative of creating a special park for “kids with special needs” under Smart City project. The adjoining presentation provides key highlights of its Conceptual Design.

**Link:**[https://smartnet.niua.org/sites/default/files/resources/All\\_Abilities\\_Children\\_Park\\_Concept\\_FEB\\_22.pdf](https://smartnet.niua.org/sites/default/files/resources/All_Abilities_Children_Park_Concept_FEB_22.pdf)

25. **Document Name:** Revival of Mansagar Lake, Jaipur: A Case study

**Description:** This document discuss about the revival of lake Mansagar in Jaipur.

**Link:**[https://smartnet.niua.org/sites/default/files/resources/Doc%203\\_Revival%20of%20Mansagar%20Lake.pdf](https://smartnet.niua.org/sites/default/files/resources/Doc%203_Revival%20of%20Mansagar%20Lake.pdf)

26. **Video Name:** Revival of lakes: Udaipur Smart City.

**Description:** This video is a testimony for the various improvements made in the city of Udaipur.

**Link** <https://smartnet.niua.org/content/478fd2f2-cd0e-4c0d-b8db-9546694fba7f>

27. **Document Name:** Encouraging Design Practices for Sustainable Mobility in Indian Townships: A Guidebook

**Description:** A Guidebook, is WRI India’s publication that highlights the role of urban design interventions that can be applied in townships or gated communities in cities, that promote the use of sustainable modes such as walking, cycling and public transit.

**Link:** <https://smartnet.niua.org/content/549b0510-fb71-4625-8b89-90fc527c4220>

28. **Document Name:** Public Bicycle Sharing Bhopal

**Description:** Brief document shares the success & learnings from Public Bike Sharing: Bhopal.

**Link:**[https://smartnet.niua.org/sites/default/files/resources/pbs\\_presentation\\_-\\_bhopal.pdf](https://smartnet.niua.org/sites/default/files/resources/pbs_presentation_-_bhopal.pdf)

29. **Document Name:** Smart City Project Brochure: Pune  
**Description:** Project Brochure discuss about the Smart Initiatives of Pune Smart City.  
**Link:**[https://smartnet.niua.org/sites/default/files/resources/smart\\_cities\\_mission\\_pune\\_projects\\_for\\_launch.pdf](https://smartnet.niua.org/sites/default/files/resources/smart_cities_mission_pune_projects_for_launch.pdf)

### **BEST PRACTICES, HANDBOOKS & GUIDELINES**

30. **Document Name:** Smart Roads: Guideline  
**Description:** The guideline provides essential features to be present in Smart road.  
**Link:** <https://smartnet.niua.org/sites/default/files/resources/Smart%20Roads.pdf>
31. **Document Name:** Electric Buses in India: Technology, Policy and Benefits  
**Description:** This policy document discuss about addressing the challenges of electric buses, providing an environment to accelerate their adoption and implementation.  
**Link:**<https://smartnet.niua.org/sites/default/files/resources/Electric%20Buses%20in%20India.pdf>
32. **Document Name:** Smart Cities India Readiness Guide  
**Description:** This guide document briefs about the learnings and best practices  
**Link:**[https://smartnet.niua.org/sites/default/files/resources/Smart\\_Cities\\_Council\\_India\\_Readiness\\_Guide\\_v2016-02.pdf](https://smartnet.niua.org/sites/default/files/resources/Smart_Cities_Council_India_Readiness_Guide_v2016-02.pdf)
33. **Document Name:** Place Matters: Handbook of Global Best Practices on Place Making For Children  
**Description:** The book documents real-time global examples and acknowledge the initiatives that have contributed towards making cities better places for children.  
**Link:** [https://smartnet.niua.org/sites/default/files/resources/8\\_place\\_matters-handbook\\_of\\_global\\_best\\_practices\\_on\\_place\\_making\\_for\\_children.pdf](https://smartnet.niua.org/sites/default/files/resources/8_place_matters-handbook_of_global_best_practices_on_place_making_for_children.pdf)
34. **Document Name:** Integrated Solid Waste Management for Local Governments: A Practical Guide  
**Description:** This practical reference guide introduces key concepts of integrated solid waste management and identifies crosscutting issues in the sector, derived mainly from field experience in the technical assistance project Mainstreaming Integrated Solid Waste Management in Asia.  
**Link:**<https://smartnet.niua.org/sites/default/files/resources/tool-kit-solid-waste-management.pdf>
35. **Document Name:** Smart Cities: Digital Solutions for a more Livable Future: Mckinsey Global Institute (MGI)  
**Description:** This report analyzes dozens of current smart applications and finds that cities could use them to improve some quality-of-life indicators by 10–30 percent. It also finds that even the most cutting-edge smart cities on the planet are still at the beginning of their journey.

**Link:**[https://smartnet.niua.org/sites/default/files/resources/mgi-smart-cities-full-report\\_0.pdf](https://smartnet.niua.org/sites/default/files/resources/mgi-smart-cities-full-report_0.pdf)

- 36. Document Name:** CSR in India-Numbers Do Add up  
**Description:** The report covers the big 500 companies of India, and all of these companies were required to spend INR 1 Cr. or more on CSR projects for each Financial years.  
**Link:**[https://smartnet.niua.org/sites/default/files/resources/csr\\_in\\_india\\_numbers\\_do\\_add\\_up\\_report-2018\\_web-lite.pdf](https://smartnet.niua.org/sites/default/files/resources/csr_in_india_numbers_do_add_up_report-2018_web-lite.pdf)
- 37. Document Name:** Funding and Financing: Why improve inclusive growth?  
**Description:** This report explores the funding and finance options available to cities, and considers what types of approach are likely to be most appropriate.  
**Link:**<https://smartnet.niua.org/sites/default/files/resources/17-12-11-funding-and-financing-for-inclusive-growth.pdf>
- 38. Document Name:** Reconceptualising Smart Cities: A Reference Framework for India  
**Description:** This report tries to guide policy makers and urban practitioners in making critical decisions, in an accountable manner and spirit, which will truly make Indian cities smart.  
**Link:**[https://www.niti.gov.in/writereaddata/files/document\\_publication/CSTEP%20Report%20Smart%20Cities%20Framework.pdf](https://www.niti.gov.in/writereaddata/files/document_publication/CSTEP%20Report%20Smart%20Cities%20Framework.pdf)
- 39. Document Name:** Urban Flooding: Standard Operating Procedure  
**Description:** This document explains about Standard Operating Procedure (SOP) to make disaster resilient cities  
**Link:**[https://smartnet.niua.org/sites/default/files/resources/SOP%20Urban%20flooding\\_5%20May%202017.pdf](https://smartnet.niua.org/sites/default/files/resources/SOP%20Urban%20flooding_5%20May%202017.pdf)
- 40. Document Name:** Resilient Cities Report 2018  
**Description:** This document provides the latest knowledge, good practices, challenges, and innovations for creating more cities that are resilient.  
**Link:** [https://smartnet.niua.org/sites/default/files/resources/rc2018\\_report.pdf](https://smartnet.niua.org/sites/default/files/resources/rc2018_report.pdf)
- 41. Document Name:** Smart Parks: Guideline  
**Description:** The guideline provides essential features to be present in Smart Park  
**Link:** <https://smartnet.niua.org/sites/default/files/resources/Smart%20Parks.pdf>
- 42. Document Name:** Robust Building Data: A Driver For Policy Development  
**Description:** The policy document on robust datasets  
**Link:** [https://smartnet.niua.org/sites/default/files/resources/03.es\\_data\\_low\\_0.pdf](https://smartnet.niua.org/sites/default/files/resources/03.es_data_low_0.pdf)
- 43. Document Name:** National Data Sharing and Accessibility Policy  
**Description:** The guideline discuss about accessibility and easier sharing of non-sensitive data amongst the registered users and their availability for scientific, economic and social developmental purposes.

**Link:**[http://www.dst.gov.in/sites/default/files/nsdi\\_gazette\\_0.pdf](http://www.dst.gov.in/sites/default/files/nsdi_gazette_0.pdf)

44. **Document Name:** An Overview of the Smart Cities Mission in India  
**Description:** The paper tries to provide an empirical reading of the Mission.  
**Link:**<https://cprindia.org/system/tdf/policy-briefs/SCM%20POLICY%20BRIEF%2028th%20Aug.pdf?file=1%26type=node%26id=7162>
45. **Document Name:** Integrated ICT and Geospatial Technologies: Framework for 100 Smart Cities Mission  
**Description:** The document has been developed with the aim to demystify the role of ICT in developing Smart Cities.  
**Link:** <https://smartnet.niua.org/sites/default/files/resources/Integrated-ICT-Geospatial-Technologies-2015%20%28Nasscom-Accenture%29.pdf>
46. **Document Name:** Data Driven Transportation  
**Description:** The resources include a Framework document, Workbook, Evaluation Metrics, and Best Practices Compendium  
**Link:** <https://smartnet.niua.org/dt>
47. **Document Name:** Shape Your Waterfront, How to promote access, resiliency, and ecology at the water's edge  
**Description:** This document discuss about access, resiliency, and ecology at the water's edge  
**Link:** [https://smartnet.niua.org/sites/default/files/resources/WEDG\\_Jan2016\\_Mid-Res.pdf](https://smartnet.niua.org/sites/default/files/resources/WEDG_Jan2016_Mid-Res.pdf)
48. **Document Name:** Guidelines for National Lake Conservation Plan  
**Description:** This document attempts to help the proponents in proper prioritization of lakes based on scientific selection criteria. It lays down guidelines for preparation of detailed project reports and focuses upon the responsibilities of the State Governments to work in close partnership with the Government of India in protection, conservation and sustainable management of lakes.  
**Link:** [https://smartnet.niua.org/sites/default/files/resources/NLCP\\_guideline\\_0.pdf](https://smartnet.niua.org/sites/default/files/resources/NLCP_guideline_0.pdf)
49. **Document Name:** India's Smart Cities Mission Smart for Whom? Cities for Whom?  
**Description:** This report presents the findings of Housing and Land Rights Network analysis about Smart cities Mission as well as a set of recommendations for the government and other involved actors  
**Link:** [https://www.hlrn.org.in/documents/Smart\\_Cities\\_Report\\_2018.pdf](https://www.hlrn.org.in/documents/Smart_Cities_Report_2018.pdf)
50. **Document Name:** Building Block(chain)s for a Better Planet  
**Description:** This document explains about the potentials and opportunities of block chain technology.  
**Link:** [https://smartnet.niua.org/sites/default/files/resources/wef\\_building-blockchains.pdf](https://smartnet.niua.org/sites/default/files/resources/wef_building-blockchains.pdf)