

Smart Cities Mission

# WEBINAR SERIES

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## TECH CLINIC: Webinar Series

Besides bringing focus on Urban Health, COVID has also brought to the fore the important role that ULBs can play in each city fighting COVID. One of the tools used extensively in this period has been technology. COVID aside, the role of technology is undeniable in today's world, more in City Administration. Be it technology innovation in water supply, citizen service delivery, environmental management, smart devices.

Technology is all around us and it only helps us serve our citizens better, transparently, effectively and more importantly with speed. Hence, to keep abreast with latest technological innovations, an initiative was undertaken by Smart Cities Mission to engage with cities on various thematic areas related to use of technology and data, in the form of a series of 8 Webinars (Called TechClinic Webinars).

The TechClinic Webinars allowed cities to discuss issues faced in day to day city planning and operations in respect of technology. The topics covered ranged from e-governance, ICCG, IoT, GIS, Cyber security, Artificial Intelligence, Data Science, to best practices, procurement and learnings from various Smart Cities projects in key urban sectors (water, wastewater, mobility, energy, citizen services, waste management, environment, health & education etc).

These webinars provided platform for experience sharing and cross learning among cities stakeholders and were attended widely.

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## **COVID-19 War Room- Scaling up the BBMP Model**

Scaling COVID-19 war room deployed by Bengaluru Smart City & BBMP

2

## **Leveraging GIS for City operation**

GIS based approaches for planning and urban management in cities

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## **Industry Technology Solution for COVID-19**

Leading Technology solutions from the industry to handle COVID-19

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## **Cyber Security in Smart Cities**

Safeguarding data and securing privacy in Smart City ICT projects

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## **Addressing ICCC RFP Issues & Challenges**

Tackling barriers to successful RFP release and implementation

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## **Understanding and Implementing IndEA Architecture**

Eliminating siloed systems and improving citizen experience

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## **Understanding 'Make in India' norms for ICT projects**

Clarifying issues in procurement of Make in India in Smart Cities

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## **Addressing ICCC Technology Challenges**

Tackling issues ranging from DPR to O&M To Contracts concerns

# WEBINAR 1: COVID-19 War Room- Scaling up the BBMP Model



**Mr. Kunal Kumar** - Mission Director and Joint Secretary, Smart Cities Mission, MoHUA

**Mr. BH Anil Kumar** - Additional Chief Secretary, Government of Karnataka and Commissioner BBMP

**Ms. Hepsiba Rani Korlapati** - MD Smart City Bengaluru and Special Officer COVID 19 War Room

**Mr. Subhash Patil** - PWC

**Mr. Aneel K** - Quantela Inc

**Mr. Raghu Dharamraju** - Data Science Consortium

## CONTEXT

Besides bringing focus on Urban Health, COVID has also brought to the fore the important role that ULBs can play in each city fighting COVID. One of the tools used extensively in this period has been technology. To manage COVID-19 crisis, Bruhat Bengaluru Mahanagara Palike (BBMP), alongside Bengaluru Smart City has undertaken an innovative initiative by setting up a COVID-19 War Room. The war room has been set up with support from diverse technology partners. It has helped streamline communication, enable coordination, and manage critical operations to tackle the outbreak of COVID-19 in Bengaluru city. This episode of the webinar focused on War room IT blueprint, Governance Structure, Procedures and platform implemented at BBMP war room.

## INSIGHTS

- In the context of COVID-19, technology is being used for 4 main purposes : Information, Communication - city stakeholders and vice versa, Management, Preparedness.
- BBMP's model is an example of a successful public-private partnership
- The war room, set up in 24 hours, has become the main strategy room for COVID-19 cases in the City. It was set up with pro-bono contributions from various industry organizations
- The system works on an advanced system of forward-backward linkage - real time feedback from on ground is relayed to the war room and on-ground operations are modified accordingly
- BBMP has signed an MoU with IISc to develop pandemic predictive modelling software

## WAY FORWARD

- For pandemics like COVID-19 It is essential for several technology partners to come together and develop solutions across spectrum
- ICCC system can be used extensively even in a post COVID-19 time to improve the service delivery of ULB
- Further, cities should look at making their ICCC systems stronger. This will be an essential stem for any system that has to be linked with ICCC in future.

# WEBINAR 2: Leveraging GIS for City operation



**Vishnu Chandra**, Dy. Director General (NIC)

**Dr. D. Vasudevan**, IT Expert (Varanasi Smart City)

**Dr. Manosi Lahiri**, Founder (ML Infomap)

**Narinder Thapar**, Vice president, (ESRI India)

**Dr. Yogita Shukla**, Founder (Wo-Men Geospatial Coterie)

**Mr. Subhash Patil**, Partner, PWC

## CONTEXT

Responsible development requires robust spatial information that is refined and constantly updated. In addition, foresight and problem-solving skills are required to put data to good use. This challenge has made Geographic Information System (GIS) invaluable to city ecosystem to integrate every aspect of a city from conceptualization and planning to development and maintenance. Cities are relying on GIS to unlock power of spatial data that would otherwise be hidden. The webinar focused on GIS based approaches for planning and management in cities, geo spatial technologies and city-level use-cases.

## INSIGHTS

- GIS as a platform handles data related to Utilities, Infrastructure, public safety, governance, transportation and communication in Smart Cities
- In the fight against COVID-19, GIS technology has played a very critical role across areas, such as Contact tracing, monitoring etc
- The webinar focused on Base Map, Geo-Spatial database and generic web-based services.
- Varanasi Smart City has used the GIS technology extensively to fight COVID-19 across Shelter services, quarantine centers, deployment of hospital staff
- GIS framework has also been used for waste collection through Swachh Nagar app.

## WAY FORWARD

- GIS can effectively lay the foundation of administration in the city. It is useful across sectors such as, urban design, GIS based master plans, water distribution system
- For effective implementation of GIS, it is critical to possess adequate Base map
- ESRI has offered cities 6 months license to use their services for COVID related GIS application at no cost to cities.
- Different elements of geospatial technologies like Spatial data acquisition, spatial data processing, Integration, analysis & modelling, visualization and dissemination and update & maintenance and the process flow need to be integrated with the city administration to get best value from GIS.

# WEBINAR 3: Industry Technology Solution for COVID-19



**Mr. Rahul Kapoor** – Director, Smart Cities Mission

**Ms. Samhita Sharma**-Head Smart Infra, Public Sector, Microsoft India

**Mr. Narendra Patel** - Senior Vice President, Scanpoint Geomatics

## CONTEXT

To manage the COVID-19 outbreak in cities, several industry organizations have come forward and are offering their solutions to cities. The webinar focused on technology solutions from two such organizations and their proposal to the cities for handling the pandemic. Representatives from Microsoft India and Scanpoint Geomatics presented their solution offerings to the audience.

## INSIGHTS

Industry has partnered with Government bodies and given technological application in different Smart Cities . Microsoft has provided solutions such as: app for MCGM Maharashtra, Cova Punjab for Punjab, Apps on Azure for various cities. They have also developed a 9 solutions feature pack based on learnings derived through working closely with 20 states and 70 departments to help cities. Scanpoint Geomatics has developed IGIS-Covid19 Response and Monitoring system with features like; GIS based analysis for heat and cluster map, time series analysis, epicenter mapping and real time marking of containment zones on maps

## WAY FORWARD

For cities to succeed in fights like the one with COVID-19, it is essential for Government and private organization to collaborate. In response to COVID-19, it is extremely important to build technology platforms for mapping on the basis of location and time, containment zone and essential services.

# WEBINAR 4: Cyber Security in Smart Cities



**Tech Clinic  
WEBINAR SERIES**

Tech Clinic is a webinar series initiated by Smart Cities Mission, MoHUA on various thematic areas related to use of technology and data in Smart Cities. These webinars will cover topics ranging from IoT, AI, Artificial Intelligence, Data Science to best practices and learnings from various Smart Cities projects.

**Episode-4  
ADDRESSING CYBER  
SECURITY IN OUR SMART CITIES**

Smart Cities are leveraging technologies to delivery efficient urban services to citizens. However, Due to inherent security risks, it has opened up many avenues for cyber attackers who indulge in disruptive and malicious activities, sometimes criminal in nature.

If you are concerned about cyber security in your city and interested to know about top security challenges that our cities are facing, please register for this webinar. Who should join: Municipal Commissioners, CEOs/MDs of Smart Cities, Data / Technology Officers, CMO (Team leaders and ICT experts), Master System Integrators (MSIs), Researchers, Data enthusiasts and city officials.

Date & Time: **2<sup>nd</sup> June 2020, 3pm- 4pm**  
Register: [Click here to register](#)

**Speakers**

- Key note: **Rahul Kapoor**, Director, Smart Cities Mission
- Setting the stage - Top challenges: **Rahul Aggarwal**, Partner, PwC - Cyber Security
- Experience Addressing - City for the city: **K. K. Patel**, CEO, Vadodara Smart City
- Security Framework and Data privacy: **Rama Venkatesh**, CEO, Data Security Council of India

Session Moderator: **Rahul Aggarwal**, Partner, PwC



**Mr. Rahul Kapoor** – Director, Smart Cities Mission

**Mr. Rahul Aggarwal**- Partner, PwC – Cyber Security

**Ms. Rama Vedashree** – CEO, Data Security Council of India

**Mr. Manish Bhatt** – Vadodara Smart City

## CONTEXT

From a Cyber Security perspective, technology and IoT infrastructure is a prime target for attackers. MoHUA Framework for smart city solutions is tuned to the needs of the ecosystem. The key elements of cyber security policy for a city are based on focused planning, risks mitigation, capacity building and awareness at both governance and citizen levels

## INSIGHTS

Robust cyber-security reference frameworks by Government of India and MoHUA are important for the cities to adopt.. Cyber Security capacity and capability is limited in Smart Cities. Threat landscape is changing rapidly due to fast emerging technologies. Percentage of budget allocated towards cyber security landscape needs to be enhanced.

The Bedrock of planning smart cities and cyber security framework involves an institutional governance layer at the top, then technology and solutions layer and at last an assurance layer and 4 corresponding layers for deploying smart infrastructure viz. sensor layer, communication layer, data layer and application layers. Cyber security challenges come with inherent “contagion risks”

## WAY FORWARD

The focus of smart cities should be on building resilient systems. The Principle of “Data Security by Design” should be adopted.

At planning stage, assessment should be carried out with regards the risks associated and data security solutions that needs to be deployed for mitigation.

## WEBINAR 5: Webinar 5: Addressing ICCC RFP release issues & challenges

**Mr. Rahul Kapoor**- Director, Smart Cities Mission, MoHUA  
**Mr. Padam Vijay** – Smart Cities Mission Technical Team  
**Mr. Abhishek Dubey** – Smart Cities Mission Technical Team

**TECH CLINIC-5**

Thank you for your inspiring response to Tech clinic webinars - an initiative of the Smart Cities Mission.

Over the past two weeks of engagement, four such webinars have provided us with the opportunity to interact with cities, benefit from their ideas and understand areas of their interest and importance.

In this episode, we bring to you a session on "Addressing technology challenges & issues for ICCC RFPs release".

If you are facing barriers/challenges in preparation of tender for ICCC, or the tender has been unsuccessful after floating them, kindly register for this webinar, enter into discussion with peers & experts and collectively find way forward.

**9<sup>th</sup> June 2020**  
3-4 PM

**Agenda**

- Key note: Mr. Rahul Kapoor, Director Smart Cities Mission
- City of the day: Dr. Shalish Kumar Yadav, CEO, Ageraa Smart City
- Panelists (Smart Cities Mission Technical Team) - Mr. Padam Vijay, Mr. Abhishek Dubey
- Moderator: Padam Vijay

### CONTEXT

Many cities are in the process of DPR/RFP preparation for the ICCC. There are many barriers/challenges in preparation of tender for ICCC, or the tender has been unsuccessful after floating them.

### INSIGHTS

Contracts for ICCC tendering can have Step-in rights, or substitution clauses built into it, in addition to Performance Bank Guarantees, Security deposit, having adequate technical and financial eligibility conditions to reduce any issues later during implementation. Smart Cities have been able to leverage funds through PPP, Multi-lateral funding etc. However, innovative models of financing ICCC projects need to be explored. Selection of QCBS can help in novel problem areas and LCS (L1) for traditional problems. Some mechanisms to avoid collusion can be to have a pre-bid meet, making eligibility conditions transparent & simple, allowing for consortium

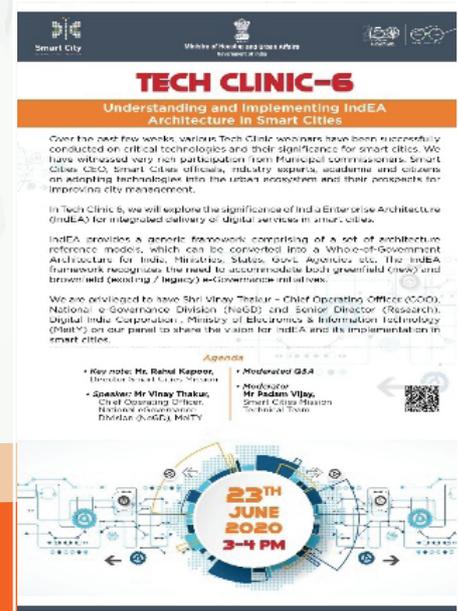
### WAY FORWARD

Cities may explore single MSI for achieving single point of ownership for project delivery/ use case and overall SLA, with integration to other IT infrastructure.

Similarly, opting for a state level ICCC or city level deployment is based on operational complexities, budget, capacities on ground, technology, future scalability & functional use cases to be implemented.

KPIs development should be seen at 3 levels: Operational, tactical and strategic. These KPIs must be discussed with stakeholders and ecosystem partners to ensure suitable incorporation

# WEBINAR 2: Understanding and Implementing IndEA Architecture in Smart Cities



**Mr. Rahul Kapoor** – Director, Smart Cities Mission

**Mr. Mr. Vinay Thakur**- Chief Operating Officer, National eGovernance Division, MeITY

## CONTEXT

There is a need for an enterprise architecture to deliver digital solutions that reduces redundancies, cost of system development and facilitates integration through one architectural system for all government data system and enterprise systems.

The factors creating the need for enterprise architecture are siloed systems, non-standard data, little system flexibility for quick changes, one citizen-multiple government experience etc..

## INSIGHTS

The India Enterprise Architectural (IndEA) framework achieves salience between insight, oversight and foresight through architectural thinking, sharing architecture best practices, enabling adoption of standards, accommodating greenfield and brownfield systems, capturing key architecture elements and their interrelationship, enabling governance through audit, and guiding EA development.

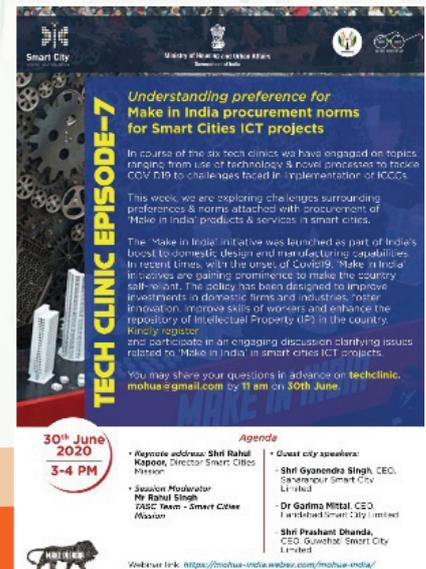
The Agile India framework from the perspective of adding capability, employs the approach of Identify-Define-Realise-Enhance to create Value.

## WAY FORWARD

IndEA offers interventions like Rationalized service portfolio, Business process Re-engineering, Data driven approach to integration, enable ecosystem for PPP service delivery and Target goals and KPI like Simple list of relevant schemes and services, Simplified service delivery, privacy and security, Ease of Use and High availability and quick turnaround.

The cities may look at this foundational framework while planning to deliver services to the citizens by use of digital technologies.

# WEBINAR 7: Understanding Make In India norms for Smart City ICT Projects



**Mr. Rahul Kapoor** – Director, Smart Cities Mission

**Dr. Garima Mittal** – CEO, Faridabad Smart City Limited

**Shri Gyanendra Singh**- CEO, Saharanpur Smart City Limited

**Shri Prashant Dhanda**- CEO, Guwahati Smart City Limited

## CONTEXT

The 'Make in India' initiative was launched as part of India's boost to domestic design and manufacturing capabilities. In recent times, with the onset of Covid19, 'Make in India' initiatives are gaining prominence to make the country self-reliant. The policy has been designed to improve investments in domestic firms and industries, foster innovation, improve skills of workers and enhance the repository of Intellectual Property (IP) in the country.

Deterrents are being encountered impeding the speed of Make in India initiative from the perspective of the market forces and the local manufacturers.

## INSIGHTS

Assembling in India qualifies as per the local content guidelines of DPIIT. Being a subsidiary doesn't qualify a company for "Make in India" but the local content. The amount of local content has been increased to 50% as per the latest guidelines.

Various relaxations given to start-ups such as purchase preference as laid down through guidelines by DPIIT & States have come up with their own policies to promote Start-ups. Foreign certifications may be considered when there is no equivalent certification in India.

Pre-bid meeting is an important platform for grievance redressal and can go a long way in ensuring a successful tender.

## WAY FORWARD

Make in India initiative aligns with the Atmanirbhar initiative launched by Hon'ble Prime Minister, to promote local manufacturing in India. Information asymmetry is the major concern for smart cities and must be reduced.

Local content in the proposal can be increased through partnerships, establishing production units or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training.

# WEBINAR 8: Addressing ICCC Technology Challenges

**TECH CLINIC EPISODE-8**

### Addressing technology challenges & issues pertaining to ICCC

This episode of the Tech Clinic will focus on technology challenges surrounding the implementation of ICCC projects in smart cities, ranging from preparation of DPRs, technical feasibility, ICCC implementation, O&M TO consortium management and administrative concerns.

Join us as we attempt to answer questions asked by cities on issues being faced by them in ICCC implementation and operationalisation.

Register here: <https://mohua-india.webex.com/mohua-india/onstage/g.php?MTID=edc014e39724d9374ed8dd5a7d99626a8>

**7<sup>th</sup> July 2020**  
3-4 PM

**Keynote:**  
Mr. Rahul Kapoor, Director- Smart Cities Mission

**Moderator:**  
Mr. Padam Vijay, Smart Cities Mission Technical Team

**Session Panel:**  
Mr. Padam Vijay, Mr. Abhishek Dubey, Smart Cities Mission Technical Team

**Mr. Rahul Kapoor** - Director, Smart Cities Mission, MoHUA

**Mr. Padam Vijay** – Smart Cities Mission Technical Team

**Mr. Abhishek Dubey** – Smart Cities Mission Technical Team

## CONTEXT

Technology challenges surrounding implementation of ICCC projects, ranging from preparation of DPRs, technical feasibility, O&M to administrative concerns are acting as barriers to effective and timely implementation of projects.

## INSIGHTS

Cities are the deciding authority when it comes to procurement under Make in India norms. The city can exempt technology not available under Make in India clauses.

Cities can utilise the ICCC Maturity Assessment framework to understand different use cases. The draft document will be available shortly.

ICCC implementation framework may be based on Micro Services architecture, but it is up to the city to set their technology agenda. It is important to ensure privacy is maintained through data anonymisation. A compendium of technologies used for COVID has been released on 5th Anniversary of the mission.

## WAY FORWARD

ICCC should act as a decision support system from where we can keep a tab on what is happening in the city. It can be crucial in deciding the judicious use of resources.

The Cities must work to integrate all available services for better Return on Investment realisation and deliver efficient services to the citizens,



## URBAN SANITATION: Webinar Series

COVID has underscored the need for urban sanitation with an urgency no other awareness program, mission or disease has been able to inspire. It has also revealed the fragility and strengths of our existing urban sanitation system. The Urban Sanitation webinars conducted as a joint initiative of the Smart Cities Mission and the National Institute of Urban Affairs featuring academics and experts to speak on slum sanitation, aspects of capacity building, safety of sanitation workers, and empowering local governments and slums in COVID management.

# Content

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## **Up-scaling Urban Sanitation Capacity Building post COVID**

Guidance on institutions providing training on urban sanitation

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2

## **Sanitation Workers Safety and COVID-19 Emergency Response**

Discussion on challenges and response to COVID sanitation workers

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3

## **Slum Sanitation and COVID-19**

Leading Technology solutions from the industry to handle COVID-19

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4

## **Empower Local Governments**

Urban Reforms Triggered by COVID-19 Challenges

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5

## **Fecal Sludge and Septage Management**

Understanding priorities of Indian Cities towards FSSM

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# WEBINAR 1: Upscaling Urban Sanitation Capacity Building Post COVID



**Mr. Rahul Kapoor** – Director, Smart Cities Mission

**Dr. Garima Mittal** – CEO, Faridabad Smart City Limited

**Shri Gyanendra Singh**- CEO, Saharanpur Smart City Limited

**Shri Prashant Dhanda**- CEO, Guwahati Smart City Limited

## CONTEXT

The ‘Make in India’ initiative was launched as part of India’s boost to domestic design and manufacturing capabilities. In recent times, with the onset of Covid19, ‘Make in India’ initiatives are gaining prominence to make the country self-reliant. The policy has been designed to improve investments in domestic firms and industries, foster innovation, improve skills of workers and enhance the repository of Intellectual Property (IP) in the country.

Deterrents are being encountered impeding the speed of Make in India initiative from the perspective of the market forces and the local manufacturers.

## INSIGHTS

Assembling in India qualifies as per the local content guidelines of DPIIT. Being a subsidiary doesn’t qualify a company for “Make in India” but the local content. The amount of local content has been increased to 50% as per the latest guidelines.

Various relaxations given to start-ups such as purchase preference as laid down through guidelines by DPIIT & States have come up with their own policies to promote Start-ups. Foreign certifications may be considered when there is no equivalent certification in India.

Pre-bid meeting is an important platform for grievance redressal and can go a long way in ensuring a successful tender.

## WAY FORWARD

Make in India initiative aligns with the Atmanirbhar initiative launched by Hon’ble Prime Minister, to promote local manufacturing in India. Information asymmetry is the major concern for smart cities and must be reduced.

Local content in the proposal can be increased through partnerships, establishing production units or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training.

# WEBINAR 2: Sanitation Workers Safety and COVID Emergency Response

**SANITATION WORKERS SAFETY AND COVID-19 EMERGENCY RESPONSE**

📅 29<sup>th</sup> May, 2020 ⌚ 3-4 PM

Webinar is for Smart Cities Mission City Officials, State Government officials, Urban Local Bodies, Training Institutes, Experts, Practitioners among others

Discussion will focus on:

- Advisories and Guidance issued by Govt regarding Sanitation Workers Safety
- COVID-19 and Urban Sanitation science studies
- Sanitation workers safety and work done at state level (case of Tamil Nadu and Gujarat) and at central level under NUJM
- Private Sector PPE Suppliers Assessment and Constraints

There will be short 5-7 minute presentation by speakers, followed by Q&A and Summing up

Please use this link to register for the webinar: <https://primetime.bluejeans.com/a2miregisteridskctujh>

Contact Details: Hari P. Mahiyavansi: hari@nuaa.org | Jyoti Dast: jidast@nuaa.org | Website: scdp.nuaa.org

**Mr. Rahul Kapoor** - Director, Smart Cities Mission, MoHUA

**Mr. Padam Vijay** – Smart Cities Mission Technical Team

**Mr. Abhishek Dubey** – Smart Cities Mission Technical Team

## CONTEXT

A responsible and sustainable approach to urban sanitation entails ensuring safety of urban sanitation workers. Sanitation workers become the first points of contact with potentially hazardous waste. Their safety determines overall community well-being. There have been guidelines and advisories issued by the Government of India, State Governments and protective gears prescribed by various ministries and departments based on type of sanitation activities and severity of risks involved. Still, there are gaps such as lack of clarity of guidelines on handling of liquid waste, no medical coverage and safety of sanitation workers needs special attention when it comes to practice. Inadequate redundancies in the workforce and shortage in PPE gear further stresses the need for eliminating health risks for our sanitation workforce.

## INSIGHTS

- Data and information about Covid transmission through solid and liquid waste is unclear. Although CPCB has guidelines, there are no clear guidelines on liquid waste
- Findings from Tamil Nadu Urban Sanitation Support Programme showed that not all workers across the state received PPEs and the quality of PPEs varied across cities
- The current focus is either on PPE and protocols, but what is most important is to use machines where manpower can be replaced to eliminate health risks for sanitation workers.
- It is important to also understand why sanitation workers do not want to use PPEs especially if the reasons are financial

## WAY FORWARD

- Civil society organization, city governments and local bodies – all have a role to play to ensure sanitation workers' safety. Personal protective equipment is a must. Housing societies should ensure that waste is chlorinated so that sanitation workers are not put at risk.
- We need to build redundancies in the workforce, ensure safety to workers, and treat them like medical workers given their exposure.
- Medical insurance for sanitation workers just like health workers needs to be given national importance.
- PPE distribution should be carried out regularly. Awareness among sanitation workers about health risks and remedies should be done through NGOs.

# WEBINAR 3: Slum Sanitation and COVID



**Mr. Siddharth Benninger**, Director, Institute for Sustainable Development, CDSA

**Ms. Renu Khosla**, Director, Centre for Urban and Regional Excellence (CURE)

**Mr. Depinder Kapur**, Senior Development and WASH expert, Team Lead, National Institute of Urban Affairs

**Dr. Meera Mehta**, Professor Emerita and Executive Director, Centre of Water and Sanitation (C-WAS), CEPT University, Ahmedabad

**Dr. Kaustuv Bandyopadhyay**, Director, Society for Participatory Research in Asia (PRIA) and Head, PRIA International Academy (PIA)

## CONTEXT

In India, around 65 million people or 17 per cent of the urban population live in informal settlements or slums. Slums in India lack basic necessities such as water, toilets, sewers, drainage, and a waste collection system. Overcrowding in slums due to space constraints make physical distancing and self-quarantining a huge challenge. All this leads to a high likelihood of the rapid spread of contagious diseases like COVID-19. The purpose of this Webinar was to understand the efforts made so far in arresting COVID 19 and how it can be further improved for the well-being in urban informal settlements.

## INSIGHTS

- There is a need of strengthening local resilience infrastructure to address capacity deficit issues.
- Identifying urban health threats can be done through various platforms such as iNagrik and sustainable resilience strategies to help multiple departments/ stakeholders to monitor as well as track the local threats, status and other social protection needs can be formulated
- Various innovative and local solutions currently being implemented in various slums settlements work as well or better than externally brought in solutions
- Issues faced by the sanitary workers pertain to poor contractual mechanisms, lack of SOPs in local government, unfair and untimely payments of wages, little support for rehabilitation and self-employment

## WAY FORWARD

- Allocation of ULB funds in 15th FC commission show that ULB funding has become more conditional. This directly affects the amount ULBs will be able to spend on activities including sanitation and need to addressed first and foremost.
- A system for community transparency should be created and disseminated at the state level
- CSOs must be engaged to promote slum sanitation in-terms of distribution of materials, livelihood promotion and skill development, disaster preparedness

# WEBINAR 4: Urban Reforms Triggered by COVID Challenges

**EMPOWER URBAN LOCAL GOVERNMENTS  
URBAN REFORMS TRIGGERED  
BY THE COVID 19 CHALLENGES**

📅 12<sup>th</sup> June, 2020 ⌚ 3-4 PM

Cities are referred to as engines of economic growth. However, in many states, local governments have limited administrative and fiscal powers. ULBs across India are responding to the best of their financial and human resource capabilities, to take on the challenges posed by Covid 19.

Their institutional limitations are now highlighted, and so is their dependencies on State Governments for implementing a timely, appropriate and effective emergency response.

The 74th CAA, 1992 sanctified the role of ULBs as 3rd tier of Government. However, with respect to functional and fiscal devolution, 74th CAA (vide Article 243W, 243 X and 243 Y) only provides the broad remit for State Governments to further devolve through their respective Acts, such functions, revenues and fiscal transfers. Hence functional role of ULBs, while within boundaries of the 12th Schedule, are dependent on State laws to devolve and empower them. Further, fiscal powers of ULBs are only to the extent the State Governments empower them.

Consequently, ULBs are faced with issues of governance, lack of data/coordination, fiscal constraints, non-inclusive planning, unhygienic living conditions of slums and the needs of urban poor.

The Webinar will engage with experts and practitioners in the field of Urban Governance and Reforms, to understand what larger Reform Agenda needs to be placed on the table today alongside the other historic reforms India is taking in other sectors, to make an opportunity out of the crisis that Covid 19 presents us with.

**SESSION TOPICS**

- Overview of the Urban Sector Governance Challenges and Priorities in Covid
- Strengthening Municipal HR and staffing.
- Strengthening Municipal Systems: Data management, Procurement.
- Constitutional Amendment required for strengthening Urban Local Bodies
- Measures to strengthen Revenue and Fiscal Independence of ULBs
- Inclusive cities agenda
- Slums Sanitation challenges
- Hygiene and healthy cities with sustainable solutions

**SPEAKERS**

<b>Mr. Kunal Kumar</b> Chief Executive Officer Urban Sector	<b>Ms. Sakshi Gudwani</b> Senior Program Officer Gates Foundation
<b>Dr. Dinesh Mehta</b> Professor Emeritus CWAS-CEPT University	<b>Ms. Pragyal Singh</b> Partner E&Y

**MODERATOR**  
Dr. Debdutta Kundu  
Professor IISB

Please use this link to register for the webinar: <https://primestime.ihugians.com/2m/register/webinar/city>

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**Dr. Dinesh Mehta** - Professor Emeritus, CWAS-CEPT University

**Ms. Kavita Wankhade**, Senior Lead, Indian Institute of Human Settlement (IIHS) Bengaluru

**Ms. Sakshi Gudwani**, BMGF, Program Officer, Gates Foundation

**Pragyal Singh**, Partner, E&Y

## CONTEXT

Cities are referred to as economic engines. However, in many states, local governments have limited administrative and fiscal powers. ULBs across India are responding to the best of their financial and human resource capabilities, to take on the challenges posed by Covid 19. Their institutional limitations are now highlighted, and so is their dependencies on State Governments for implementing a timely, appropriate and effective emergency response. functional role of ULBs, while within boundaries of the 12th Schedule, are dependent on State laws to devolve and empower them. Further, fiscal powers of ULBs are only to the extent the State Governments empower them.

## INSIGHTS

- 15th FC submitted an interim report in Feb 2020 in which the allocation for ULBs was increased over 14th FC, but much of this grant is conditional (33% against 20% earlier). Quick response from ULBs for COVID like situations has become more difficult.
- No comprehensive data on urban poor. Need for a large scale enumeration exercise. There is little data on the poor and migrants. Budget allocation can only be done when this is carried out. Lot of states rely on the 2011 SCC list and that needs a refresh.
- Waste collection efficiency is inadequate, communities are not engaged and there is not enough awareness. ULBs lack financial independence and efficiency in cost recovery due to ineffective governance structures between planning and administration. Segregation is less than 30% at a national level.

## WAY FORWARD

- We need a single window mechanism to register migrants workers and informal workers. Access to livelihood opportunities, legal aid and finance is limited especially to women.
- Under NULM, livelihoods centres and sub centres can act as migrant resource and registration centres where access to schemes for urban poor can be provided.
- ULBs should incentivise decentralized and local solutions at the ward level for energy, compost and biogas generation. Also enforcement through reforms on mandating municipalities and citizens to enable hygiene, safe and scientific practices which are sustainable. These could come through 74th Amendment.
- 12th schedule of Amendment Act include health and sanitation. States need to implement it.

# WEBINAR 5: Fecal Sludge and Septage Management Priority of Indian Cities



**Mr. G. Mathi Vathanan**, IAS, Principal Secretary, HUDD, Odisha

**Prof. Srinivas Chary Vadala**; ASCI, Hyderabad

**Ms. Kavita Wankhade**; Indian Institute of Human Settlement(IIHS), Bengaluru

## CONTEXT

Non-sewer sanitation is important for ensuring community health and hygiene in urban and rural areas. This webinar focused on the importance of fecal sludge and septage management in urban sanitation. Case studies from state scale up strategies of FSSM from Odisha, Tamil Nadu, Telangana and Andhra Pradesh were shared during this webinar and lessons for other cities and states were also highlighted.

## INSIGHTS

- FSSM techniques have been developed as part of a larger state strategy on urban sanitation. Sewers are for greenfield developments, cannot be used for retrofitting in a functioning city
- Odisha has taken a big leap recently by handing over the Operation and Maintenance of the Septage Treatment Plants (SeTPs) to women and transgender SHGs for ensuring inclusive sanitation by empowering communities
- Narsapuram Municipality's STP is the first in the country to convert human excreta to biochar which can be used as manure
- In Telangana, toilets built adhere to IS standards are integrated with ICT based building approval system

## WAY FORWARD

- Indian Cities need to develop macro level strategies for fecal sludge and septage management given that access to underground sewerage system is limited even within urban areas
- Utilization of existing facilities and clustering of SeTP to optimize resource utilization
- Gender intentional planning, special attention to vulnerable populations and behavior change communication should form the basis of any strategy for safe sanitation
- Integration with ICT based systems for O&M and approvals of Fecal sludge and septage treatment facilities should be the future
- O&M should be handed over to Self Help groups after selection and training to keep septage management local and inclusive

# URBAN SANITATION: Webinar Series

As Indian cities slowly ease the lockdown and reopen to activity, one of their biggest concerns will be to ensure people's safety while commuting. In cities across the world, there is a renewed emphasis on sustainable transport solutions like reclaiming street space for safe walking and cycling and rethinking public transport operations to ensure safe mobility. Indian cities can learn from these global best practices as they develop near and long term strategies to create sustainable and resilient transport systems.

There is an urgent need to create a peer-to-peer online learning platform to guide Indian city officials to develop a robust response to the pandemic. To fill this gap, the India Programme of the Institute for Transportation and Development Policy (ITDP), has joined hands with the Smart Cities Mission of the Government of India to conduct an interactive learning programme called Urbanlogue.

The Urbanlogue platform consists of a webinar series and other curated learning resources to support Indian cities in three aspects:

- Bringing national and international experts together to share their learnings and insights in developing robust transport solutions in response to COVID-19
- Bringing city administrators together to share COVID-19 related challenges and the steps they have taken to adapt and mitigate risks
- To collectively develop green transport solutions in the Indian context



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**Effective communication and outreach for sustainable mobility**

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# EPISODE 1: Public transport SOPs to ensure the safety of crew and passengers



**Mr. Kunal Kumar**, IAS, Joint-Secretary, Smart Cities Mission, MoHUA

**Mr. Dharmendra**, Pratap Yadav, IAS, Principal Secretary, TN Transport Department

**Ms. C Shikha**, IAS, Managing Director, Bangalore Metropolitan, Transport Corporation

**Mr. Sandeep Raizada**, General Manager, Delhi Integrated Multi-Modal Transit System Ltd.

**Ms. Shreya Gadepalli**, South Asia Programme Lead, ITDP

**Mr. Juergen Baumann**, Project Director, SMART SUT, GIZ

**Mr. Gerald Ollivier**, Lead Transport Specialist, The World Bank

## CONTEXT

- Before COVID-19, nearly 70 percent of trips in India were by walk, cycle, and public transport. It is crucial that we reimagine public transport to serve the people. Immediate measures should include ensuring the safety of the staff and users through regular disinfection, crowd control, and prompt communications and outreach. Going ahead, cities should also expand walking and cycling facilities, leverage technology to improve user experience, and treat public transport as a social obligation.

*Ms. Shreya Gadepalli*

- Some of the actions taken by Bangalore Metropolitan Transport Corporation (BMTTC) during the lockdown include establishing a strategic workforce, enabling health check-ups for the staff, and frequent sanitization. BMTTC has also introduced dynamic information displays in bus terminals, weekly passes, and QR code scanning on buses to begin the shift to digital ticketing. We have received feedback that digital passes are expensive for some people and are working to change that.

*Ms. C Shikha*

- To build public trust, the World Bank Green Label is a voluntary certification process to ensure bus operators communicate the steps they are taking to ensure safety. The approach will include preparing Standard Operating Procedures (SOPs), training modules, regular monitoring, and creating a digital platform for passengers to raise concerns.

*Mr. Gerald Ollivier*

## KEY INSIGHTS

### • Contactless travel & digital futures

• The need of the hour is to go digital. There is a cap on access to digital solutions but many people use smartphones nowadays to access essentials. Digital payment is the way to ensure total contactless travel. To manage overcrowding, people should have access to information about the availability of seats on buses and the estimated waiting time. Daily coupons with QR codes is a short term solution to COVID-19, and for the long term, cities should divide the e-ticketing into hardware and software and procure the hardware immediately.

### • Travel demand management measures

• Cities need to embrace travel demand management measures like parking management and congestion pricing to push users from private motor vehicles towards public transportation. Cities of one million population can get USD 10 million annually from parking charges. Cities like Bangalore and Chennai can get USD 100 million dollars every year that can ensure public transport is affordable. To ensure the survival of the public transport sector, it is crucial to think about alternate sources of finance.

# EPISODE 2: Instant street interventions to expand space for walking and cycling



**Mr. Kunal Kumar**, IAS, Joint-Secretary, Smart Cities Mission, MoHUA

**Mr. J Sraavan Kumar**, IAS, Municipal Commissioner, Coimbatore

**Ms. K Vijayalakshmi**, Managing Director, Hyderabad UMTA

**Mr. Raj Cherubal**, CEO, Chennai Smart City Limited

**Ms. Aswathy Dilip**, Senior Programme Manager, ITDP India Programme

**Mr. Peter Broytman**, The Senate Department of Environment, Transport and Climate Protection, Berlin

**Ms. Nupur Gupta**, Senior Transport Specialist, The World Bank

## CONTEXT

- Indian cities lack sufficient walking space, especially as we now try to maintain physical distancing. Cities like Paris, London, Berlin, Bogota, and Mexico City are embracing quick cost-effective techniques to ensure safe walking and cycling by expanding footpaths, promoting cycling as an alternative mode for short and medium trips, managing crowds in high footfall spaces, and repurposing streets as social spaces.

*Ms. Aswathy Dilip*

- When COVID-19 hit Berlin, the city was forced to build proper bicycle infrastructure within weeks, to support the mobility system and to increase space for physical distancing. Within a day of installing bike lanes, there was an increase in cycling and people were feeling safer on our roads. Although we removed 200 parking spots on one street to make space for a bike lane, 90% of the reactions were positive, and that is a big gain for the city.

*Mr. Peter Broytman*

- To ensure investment in sustainable mobility as a long-term opportunity, we must start with temporary and low-cost interventions, which is easily possible in the middle of this pandemic. This will help to gain public and political opinion. Once we showcase walking and cycling as viable mobility options, banks and multilateral agencies will be wedded to the sustainability agenda and funding will not be a constraint.

*Ms. Nupur Gupta*

## KEY INSIGHTS

### Challenges and the way ahead

There are two stumbling blocks in this process; on street parking and street vending. To make tactical interventions permanent, cities can reallocate space on currently empty streets and leverage public opinion to change political opinions. Funding would not be a constraint if we clearly show the impact of these sustainable options.

Gary Hamel once said, 'Why are we so often satisfied with "best practice" when we should be inventing bold new practices?' Maybe it's time we close some streets for cars, to create dense networks for pedestrians and cyclists. The World Bank is invested in funding and in pushing the ideas of sustainable urban mobility through integrated interventions. In India, under the Smart Cities Mission, peer to peer learning can create an environment to share and implement ideas.

# EPISODE 3: Cycling - A green means to COVID recovery



A special message from **Shri Hardeep Singh Puri**, Minister of State (Independent Charge), MoHUA  
**Mr. Praveen Pardeshi**, IAS, Additional Chief, Secretary, Maharashtra Urban Development Department  
**Mr. Kunal Kumar**, IAS, Joint-Secretary, Smart Cities Mission, MoHUA  
**Mr. Bhaskar Rao**, IPS, Commissioner, Bengaluru City Police  
**Mr. Sathya Sankaran**, Bicycle Mayor, Bengaluru  
**Ms. Aswathy Dilip**, Senior Programme Manager, ITDP India Programme  
**Ms. Antonella Bruzzese**, City Councilor for Urban Planning, Green and Public space, District 3 - Milan  
**Ms. Swati Khanna**, Senior Sector Specialist, Urban Development and Mobility, KFW

## CONTEXT

- Cycling can play a critical role in a green COVID recovery — as an affordable personal mode that enables physical distancing as well as a zero emission alternative to public transport for short and medium distance trips. We must ensure access to cycles for all members of the society and break the stigma around cycling to create safer, cycling-friendly cities.

*Ms. Aswathy Dilip*

- In India, the Bicycle Mayors have initiated different programs for citizens to experience 'streets for all'. These events are effective in bringing the local community together and in communicating the idea of sustainability. Cities should take the COVID-19 opportunity to conduct events, get people on the road, and build infrastructure for them.

*Mr. Sathya Sankaran*

- Cycling should become a positive idea of the elected representatives to ensure people take it up. In Bangalore, the bureaucracy is getting sensitised towards cycling and urban planning must move in the same direction. We need to encourage other members of the community such as cycle manufacturers, traders, and officials to join the dialogue so that we can build strength and support.

*Mr. Bhaskar Rao*

## KEY INSIGHTS

### **Inclusive and integrated cycling**

Cities can initially look at quick and temporary interventions, and then work towards the long-term by breaking the stigma around cycling. Often, cycling routes are planned in bits and pieces and there is a lack of continuity. Events like Open Streets and Cycle Day can be used to bring people together and for outreach.

### **Legislature and investment**

A mindset shift is needed, but also political involvement and investment, especially due to the push from COVID-19. The Green Mobility Partnership between the Government of Germany and Government of India is to the tune of 8000 crores. It covers non-motorized transport, first and last-mile connectivity, intermediate public transport, and buses.

# EPIISODE 4: Instant street interventions to expand space for walking and cycling



- Ms. V Manjula**, IAS, Commissioner & Additional Chief Secretary, Directorate of Urban Land Transport, Karnataka
- Mr. Rahul Kapoor**, Director, Smart Cities Mission, MoHUA
- Mr. Gerald Ollivier**, Lead Transport Specialist, The World Bank
- Ms. Shreya Gadepalli**, South Asia Programme Lead, ITDP
- Mr. Mohammed Mezghani**, Secretary General, UITP (International Association of Public Transport)
- Mr. Laghu Parashar**, Senior Technical Advisor, GIZ SMART-SUT Programme
- Mr. Prasanna Patwardha**, President, Bus & Car Operators, Confederation of India

## CONTEXT

- A survey done by ITDP on mode choices for job and education trips pre and post COVID-19 show that there might be a 48% increase in cycling, despite the infrastructure being poor in India. Indian cities need green mobility in the long-term, rather than investments into grey mobility. We always assume the funding is the problem but it is more likely misplaced priorities followed by lack of coordination and inability to implement projects.

*Ms. Shreya Gadepalli*

- During COVID-19, passenger revenues in public transport have dropped by 60-90% while cost of operations has increased. In order to recover, financial support, stimulus packages and tax exemption from the government are necessary. To increase funding for public transport, cities should have institutional reform leading to the creation of a public transport agency that will facilitate coordination between various agencies.

*Mr. Mohammed Mezghani*

- The state needs to have a consistent vision for urban transport, which is shared by political class, decision makers, and the people. At the state level, we should nudge the cities by offering funding and design support to plan and implement good quality pedestrian infrastructure. Financing public transport is not only for infrastructure, but should also include capacity building and communications.

*Ms. V Manjula*

## KEY INSIGHTS

### Green mobility investment

Cities should reallocate their budgets and secure resources for Non-Motorized Transport and Public Transport. While there have been few transformations like Complete Streets in Chennai and Pune, and TenderSURE streets in Bangalore, we need 30,000 to 40,000km of complete streets in India, to fight the competition from motor vehicles and the demand for steel flyovers.

### Funding as a way to push reform

We need to reform, nudge, and push - Rethink budget allocation within the sector and transfer it back to the most stable options. The government can support in 4 ways; (i) being technology agnostic, (ii) fostering research and innovation in mobility, (iii) building infrastructure to support new technology, and (iv) by innovating procurement. Need for capacity building, learning from good examples and building political support will also help change priorities.

# EPISODE 5: Integrated digital fare collection for formal and informal public transit



**Ms. D Thara**, IAS, Joint Secretary (A, L&E), MoHUA

**Mr. Kunal Kumar**, IAS, Joint-Secretary, Smart Cities Mission, MoHUA

**Mr. Prasanna Patwardhan**, President, Bus & Car Operators, Confederation of India

**Ms. Shreya Gadepalli**, South Asia Programme Lead, ITDP

**Mr. Justin Coetzee**, Founder & CEO, GoMetro

**Mr. Nikhil Agarwal**, Consultant, The World Bank, Co-founder - Chalo

## CONTEXT

- Digital payments have taken off in many areas, but not in public transport. We need to look at the primary hurdles, and how they can benefit multiple groups, whether they are users, operators, drivers. Digital solutions will be different in all categories of public transport, depending on the actors, incentives, and barriers. While market solutions are great, they should not replace or decide public policy questions.

*Ms. Shreya Gadepalli*

- Data changes the dynamics in the urban mobility sector. The key in urban mobility reform is to get every stakeholder to benefit from the same data set. Data can be collected and curated by the state, influenced by the operator, and should benefit the rider. In Africa, the city is now driving the agenda and using the data to inform key decisions.

*Mr. Justin Coetzee*

- The National Common Mobility Card is one card for every mode, that helps people travel and also offers access to additional services. This card can be used to integrate and organise the whole transport sector by making data accessible in one place. It can also be used to give real-time information to passengers, thereby increasing the ownership of public transport to the people.

*Ms. D Thara*

## KEY INSIGHTS

### **Inclusive digital payments in public transport**

The COVID-19 outbreak has posed unprecedented challenges for the formal and informal public transport systems and has now made digital, contactless payments a necessity. However, digital solutions are exclusive and we need to ensure equitability in these newly deployed mechanisms. While there is significant penetration of mobile telephony in India, a large number of people do not know how to use technology. By eliminating cash, there is a need for paper tickets or card systems, which require infrastructure and large investment. The investments should be precise and cater to the users who do not have such resources, by offering subsidies.

### **Data-driven decision making and privacy concerns**

80-90% of data collected in the public transport sector can be shared without privacy concerns. However, the remaining data is sensitive and cities should clearly define the custodian of the data, the methods of sharing it, and the ways in which it will be used. Cities like London have adopted a policy that makes data available to private enterprise — almost 400 companies utilise London's transport data to create tools for mapping, journey planning, and ticketing to improve consumer benefits.

# EPIISODE 6: Effective communication and outreach for sustainable mobility



**Mr. Kunal Kumar**, IAS, Joint Secretary, Smart Cities Mission, MoHUA

**Mr. Arun Bothra**, IPS, CMD-OSRTC and Managing Director, Capital Regional Urban Transport (CRUT)

**Ms. Rushda Majeed**, Country Representative, Bernard van Leer Foundation

**Ms. Aswathy Dilip**, Senior Programme Manager, ITDP India Programme

**Mr. Shashi Verma**, Director of Strategy and Chief Technology Officer, Transport for London

**Mr. Gerald Ollivier**, Lead Transport Specialist, The World Bank

## CONTEXT

- Everything is communication, especially in a crisis. Communication and outreach can inform travel choices, shape user behaviour, and lead to collaborative decision making. Cities should use effective tools, while also thinking of long-term strategies such as funding, monitoring and evaluation, and branding.  
*Ms. Aswathy Dilip*
- Communication and operations supplement each other in an organisation. However, communication can only yield results if good service and operations are established. During COVID-19, good communication will help to rebuild trust and bring back the ridership of public transport. At CRUT, we use innovative methods like memes, mascots, and games to engage with the public. We also respond to suggestions and criticisms quickly and this helps to create dedicated customers.  
*Mr. Arun Bothra*
- Behavioural change is often thought of as a long-term process, but our work has shown that it is possible to build culture through tactical interventions and day-to-day citizen engagement. Through community engagement and observational data, it will be possible to refine the user experience. Involving all sections of the community such as children, caregivers, and students in the design process helps to create a cultural change in the city.  
*Ms. Rushda Majeed*

## KEY INSIGHTS

- **Need for effective communication strategies**  
Effective communication strategies significantly increase public transport ridership, profit margins and stimulates demand as a whole. As we adjust to a new normal, it requires cities to listen, engage, spread awareness, and build public trust. Cities should set up communication teams, leverage technology and facilitate participatory decision-making processes.
- **Data and evidence-based communication**  
Data based approaches will help to understand the user, and this must be embedded in the system. During COVID-19, the campaign has to be focused on sustainability, and not just towards the health crisis. The underlying themes of sustainable mobility are constant despite this crisis: climate change, carbon emissions, air quality, road safety, and personal health. Cities should create agents of change to shape the long term strategy.
- **User-centric citizen engagement and communication**  
Cities should communicate with their citizens to inform, persuade, and engage through various online and offline communication tools. Citizen engagement helps cities understand citizen perspectives, improve awareness and collaborative decision making to induce positive behavioural changes.



**Ministry of Housing and Urban Affairs**  
Government of India