



# **(RE)PRIORITIZING CITIZENSHIP**

Setting a new agenda for Smart Cities Governance





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## Workshop Report

Diksha Radhakrishnan and Magdalena Cooper

## Contributors





## INTRODUCTION

Satyarupa Shekhar

Governments around the world, certainly in India, are being pressured to improve transparency and accountability, and to use ICT to improve public administration - to be 'smart'. The phrase 'smart city' has become fashionable in government policies across the world, and despite the criticisms that this has received from academia and civil society, we see that this technocratic, commercial and top-down approach has become firmly entrenched in urban development programmes. Technology corporations, such as IBM, CISCO and Alcatel, among others, have lobbied for ICT-based development that would necessitate the use of sensors, cameras, high-bandwidth internet connectivity, Internet of Things and social networking, and they would unequivocally be the gainers in such situations. Alternative pathways to smart cities already exist where ICT has been used to strengthen communities, foster citizen participation and make cities livable, but the Indian and international policies do not recognise or incorporate them in policy making.

This, 'smart city' approach, has displaced the role of both governments and communities in participatory urban

planning and replaced it with decision making by corporations and solutions through technology. Rather than adopt a process of direct communication and deliberation between elected representatives and beneficiaries, this method and its implementation has been driven by technocrats and commercial interests of technology corporations. In the absence of the necessary checks and balances that are required in any well planned process, the claim that the large quantities of data, both personal and public that will be generated from such pervasive use of technology will be used for devising coordinated, intelligent solutions would endanger the public at large, particularly marginalised and vulnerable communities.

One question, this corporate-led and commercially-driven process of urban development prompts, is why cities and city residents do not already exhibit the characteristics that can make 'smart' cities. Related to this is whether the current approach can make the city smarter than the latent collective intelligence that cities already possess. The answer is that this 'smart city' approach envisions a utopian city that may, at best, be attractive to investment. It merely fosters consumerism

by directing people's choices to a few pre-determined options, and where all residents are perfectly aligned with the corporate vision of a city. Such an approach reduces the city from a political and social entity to one that functions on technology that uses data, monitoring and automated control mechanisms akin to a factory-made product. It does not recognise the complex network of environmental, social, economic and political dynamics of a city nor to provide nuanced solutions that will make the city inclusive, sustainable and resilient.

This report takes the Smart Cities Mission guidelines statement as a starting point: that smart cities are those that "use technology, information and data to improve infrastructure and services. Comprehensive development in this way will improve quality of life, create employment and enhance incomes for all, especially the poor and disadvantaged, leading to inclusive decision making". It follows two interwoven premises: that the Indian Smart Cities agenda and experience is fraught with threats for a divisive and exclusionary urban development; and that its corporate-led and commercially-driven agenda reflects the practice in

other parts of the world. We believe that the centrality of technology in urban development processes needs to be questioned and that there are alternative narratives that can combine community engagement, citizen-driven and technology-enabled approach.

This report brings together academics, activists and researchers to share their thoughts on the global and Indian smart cities agenda and its implications on citizenship. As the title of the report suggests, the basic premise of this compilation of perspectives is to bring the focus of governance back to everyday people and their everyday lives. The hype of information and communication technology and the 'smart' label has distracted us from what is going wrong with such a techno-centric approach. It does not purport to have the answers or even solutions; it attempts to bring to attention the societal tensions and disparities that the approach is causing, and attempts to underscore the disruptions that the focus on technology can and do cause.

In Section 1, we introduce the concept of citizenship in the digital age. Dr. Katherine Willis brings the question of whose right to the smart city to the fore and argues that ICTs are more likely to exclude citizens and reinforce marginalisation unless we recognise their relation with citizenship (Chapter 1). Dr. Ana Baltazar argues that that digital or technology-driven programmes tend to be exclusionary and favour capital at the cost of citizenship, wherever in the world they are implemented (Chapter 2).

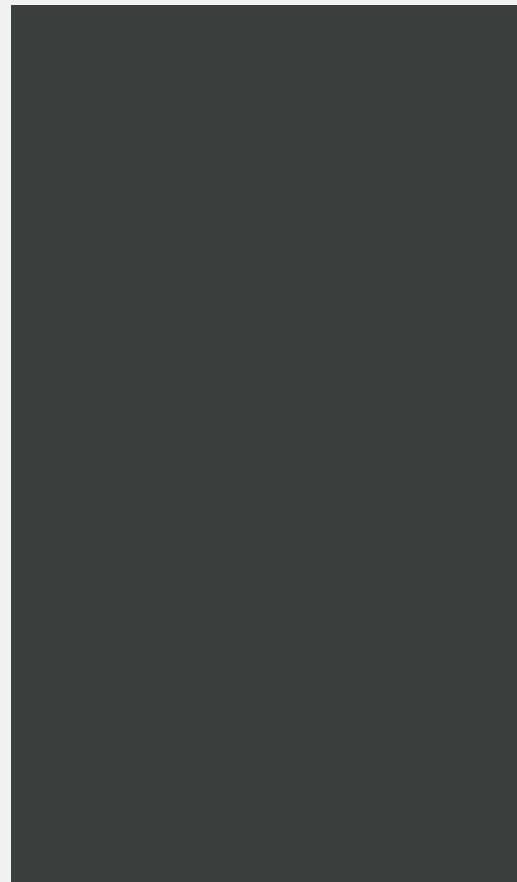
In Section 2, we present a simple overview of the Indian Smart Cities Mission. Magdalena Cooper gives an overview of the Indian Smart Cities Mission and highlights some key concerns that reveal the differences in aspirations of citizens from the Mission's strategy (Chapter 3). Himanshu Damle reasons that the viability of the financial architecture of the Special Purpose Vehicle meant to implement Smart City projects is highly questionable (Chapter 4). Mekala Rajagopal presents an analysis of the proposals made by the 20 cities that were selected in the first round of the Smart Cities Challenge. She reasons that the design of the Mission and its implementation is driven by the need to generate revenue, and is bound to favour the privileged and reinforce existing social inequities in access to civic services (Chapter 5).

In Section 3, we take a closer look at the experience of three Indian cities that were selected to be eligible for the Smart Cities Mission. In Chennai, Satyarupa Shekhar reflects on the process of preparing the proposal that was dominated by consultants and finds that the proposal is skewed in its focus on service and geography, and has relied on pre-existing plans (Chapter 6). In Pune, Ranjit Gadgil observes that the process was widely discussed and consultative, but that it was fraught with tensions between the elected representatives and bureaucrats, and the public consultations intense albeit superficial (Chapter 7). Bengaluru was included in the list of eligible cities late and is still in the process of preparing its plan. Brinda Sastry finds that like its precursor (JnNURM),



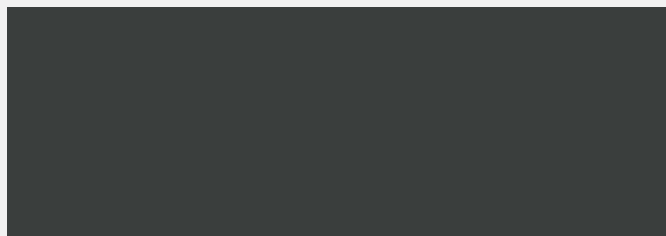
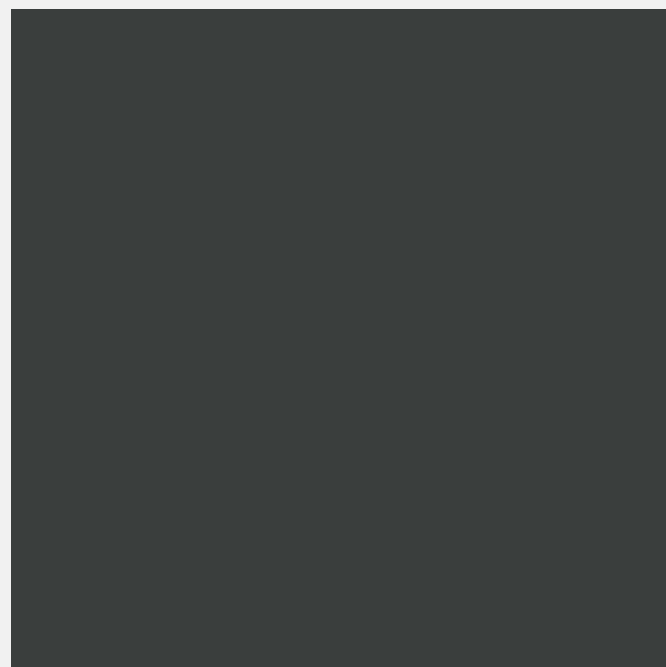
which sought to create a 'world class' city, the Smart Cities Mission will not make Bengaluru smart because of existing systemic governance and infrastructure lacunae (Chapter 8). These are but three perspectives and are in no way representative of the process, but can be seen to be indicative of the Section 4 brings more questions to the table. Madonna Thomas asks where is the space for different users within a restricted, highly controlled imagination of public spaces (Chapter 9). Satyarupa Shekhar points to the disempowering nature of the SPV structure which begs the question as to whether

there is room for democratically elected urban local bodies (Chapter 10). Nandini Chami shares stories of ICT initiatives that privilege the privileged and asks whether tech solutionism can be an appropriate approach to urban challenges in India (Chapter 11). Ana Baltazar challenges the traditional view that digital and technology inclusion can address problems of social and political inclusion and finds that while technology annihilates geographical distances, it also disempowers citizens and can result in fractured communities (Chapter 12).



We have also included the proceedings of a workshop with the same title and theme as this report. The purpose of the workshop was to discuss some of the key concerns surrounding the smart cities programme in India as well as devise pathways for challenging the idea of development that it sets forward. The discussions were preceded by a session of mapping and data collection that practitioners and communities could use to create alternative visions of development of their neighbourhoods using low-cost and paper-based methods. The workshop was hosted by the Citizen consumer and civic Action Group (CAG) as a part of its Transparent Cities Network initiative and supported by the Arts and Humanities Research Centre (AHRC), UK as part of an International Research Network initiative.

We intend for this report to present the main criticisms of the smart cities approach by bringing together stories from various perspectives, and contexts both Indian and international. We have taken a broad view of the approach, yet have tried to detail out the specific aspects that are problematic without being prescriptive. Needless to say, this report is not authoritative but meant to support, and encourage, a deliberative and thoughtful approach to urban development projects, such as JnNURM, AMRUT and Smart Cities Mission. The contributors of this report have identified the specific ways in which such programmes affect everyday lives by undermining citizenship. We hope that this inspires readers to consider the role communities can play in making development responsible and respectful of the lives and livelihoods of people, particularly marginalised and vulnerable communities.





## WHOSE RIGHT TO THE SMART CITY?

**Dr. Katharine Willis, Associate Professor, School of Architecture, Design and Environment, Plymouth University, UK**

### Citizenship

Implicit in the mechanisms of governance of cities and ICTs is the role of citizenship for those that inhabit the digital or smart city. Citizenship in a democratic city consists in the participation of citizens in the ways in which their conduct is governed by the exercise of political power in any system or practice of governance. Citizens participate by ‘having a say’ and ‘negotiating’ how power is exercised and who exercises it (Tully, 1999, p.170). As can be shown from the aspirations of the e-governance initiatives, ICT enabled civic engagement and participation is seen to enable new modes of citizenship. In her seminal text ‘A Ladder of Citizen Participation’ Sherry Arnstein outlines an eight rung ladder of different levels of participation; ranging from “non-participation” (manipulation and therapy) through “tokenism” (informing, consultation, placation), and increasing to “citizen power” (partnership, delegated power, citizen control) (1969, p.217). At one of the spectrum, tokenism “allows the have-nots to hear and to have a voice” whilst at the other citizen power is defined as decision-making power. There are many

discussions as to whether the promise of new forms of citizenship offered by ICTs actually deliver citizen control or whether they position the citizen as little more than tokenism where the citizen is a collector or provider of information on behalf of city governments. This is exemplified in some of the initiatives that offer ‘citizen sensing’ and participatory platforms as a means of democratising and giving equal access to city information. This can involve, for example, people being given small pollution sensors to carry with them as they drive or cycle around the city, and then this data being uploaded and combined with other people’s data to create pollution maps of the city. In this model, urban citizens become sensing nodes, or citizen sensors. In the digital or smart city discourse, producing ‘smart cities’ inevitably also co-produces what we could call a ‘smart citizen’ (Vanolo, 2013) which means that people have to be willing to adapt to, and to live in, smart cities. The smart city agenda therefore is not neutral, but has an effect on the way citizens are supposed to behave. Through promotion of new, citizen-centred forms of participation such as e-governance, citizens are encouraged to

participate in the making of smart cities, and are considered responsible for helping to achieve the aims of the smart city agenda for the city, regardless of whether they have actually ‘signed up’ for these objectives. This implies a form of control, where citizens and groups are invested with a moral obligation to behave in a certain way and adhere to the collective project of building smart cities; in this regard, the production of ‘smart citizens’ can be seen as an instrument of ‘government at a distance’. According to Vanolo ‘smartness is becoming a field of social control that makes intrusion in a person’s private life quite natural; as a result, we need to pay attention to the goals established in the framework’ (2013).

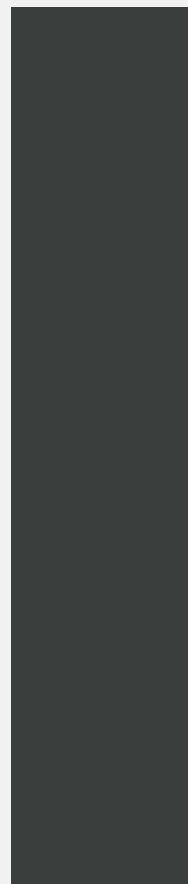
A further related issue is that citizenship in a digital city assumes and requires a level of digital skills and competency that can exclude or isolate many citizens; particularly those who already experience some form of exclusion; those living in deprived areas, or with poor education, the elderly or those with some of disability. This not only contributes to digital divides, but also to social divides, for example where those without employment are expected to apply

for jobs online and yet have no internet access because they cannot afford the connection. There are many examples of projects that have sought to counter this by providing more diverse and initiatives led locally by of communities and local organizations, which move beyond a 'one-size' fits all' approach and also draw on local knowledge, training and information. These include community led WiFi networks providing free internet access, open data initiatives and citizen mapping projects in developing countries with limited access to digital infrastructure (Nemer, 2015) These models of citizenship are not determined 'top down' by city governments but are 'bottom up' and includes a more diverse and inclusive group of participants, often led by their own local concerns or interests, and with more informal modes of social organization (Luque-Ayala & Marvin, 2015, p.2112). The common thread in these initiatives is that technologies need to serve and work for people and communities first in terms of their design and deployment, but also in relation to setting local civic and infrastructural priorities.

## BACKGROUND: MARGINALISED COMMUNITIES AND ICTS

*'Involvement with a technology makes certain interests salient [...] Once enrolled in a network individuals are motivated to address its failings and in some cases they also acquire potential power over its development.'* (Feenberg 2011:05).

We characterise marginalization according to Demo as 'the inability of a given community and its individuals to mobilise within the various spheres of individual and communal life' (Demo 1994). This includes communities that are in some way socially, economically or geographically excluded from mainstream society. Marginalised communities are often recognised as those that could benefit most from access to ICTs in order to address issues of geographic and economic exclusion (Unwin 2009; IFAD 2003). However one of the underlying problems of the role of ICTs in community development is that increasing technological access to ICT networks such as those characterized by Castells (2007), actually contributes to the perpetuation of existing divides. This is because access does not in itself overcome the broader challenges of the lack of technical





skills, poor economic opportunities and existing democratic divides (Mosberger et al 2003). ICTs can never be a simple counter to marginalisation because even when technology is made available to marginalized groups; ‘what usually happens is inclusion in the margins; they may be a little but more included, but they continue to the marginalised’ (Demo 2007: 06). In fact in many cases the introduction of ICTs in marginalised communities leads to the reproduction and reinforcement of existing social relations and power relations (Mbarathi and Diga 2014). That is because the communities involved often lack the circumstances and the understanding of the importance of technology for empowering themselves either as individuals or as a collective: they lack agency.

### THE PROMISE AND REALITY OF CITIZENSHIP IN THE SMART CITY

Between 2015-2016 I participated in research Network with partners from Brazil and the United Kingdom entitled: Smart Urbanism. The network studied the four smart cities of Glasgow, Bristol, Curitiba, and Salvador, all of which have a range of funded ‘smart city’ projects (some longer term, some planned). We found that the found that there were major differences between how smart is promoted and presented. Fundamentally there was a significant mismatch between the promise of citizenship in the smart city and the reality of what was delivered for local people.

#### *Smart Stories*

The network found that many cities use smart as a form of storytelling and promotion, with often little clear evidence or evaluation of the benefits of smart strategies for the city or citizens. The use of the term smart and the connotations surrounding it were often used to secure funding and investment from large companies promoting the smart agenda. In their research the network found some common themes in the smart stories told by cities. The themes were as follows:

- City problems being solved by technology through a paradigm of efficiency and optimization
- Generic solutions which were not based off of or for local problems and opportunities
- New forms of predictive governance
- Near futures where smart is always about to happen, but not usually delivered
- Storytelling and smart performing
- Connectedness of urban infrastructure
- Management of urban flows



- Academic, IT sector, and city partnerships
- No long term business models and is reliant on securing further, future funding to deliver medium and long term outcomes.
- The collapse between emergency situations and the everyday

However, what the network also found was that the actual delivery of smart cities looked different from what had been promised. Below are some of the common features found in delivery:

- Centralised management (often through a control room) of urban infrastructure e.g. traffic and public space.
- Citywide operating systems
- Open data platforms
- Citywide system of CCTV lampposts and sensor networks
- Crowdsourcing apps for city services
- Involvement of commercial partners in delivering, operating and maintaining city services
- City to city promotion, dissemination networks and city visions

### *Smart winners and losers*

The network found that the smart city agenda promises a new model of urban management that is delivered through an efficiency paradigm for city services. The underlying premise of these management systems is that smart delivers a better management of city infrastructure, which in turn delivers better governance through better services. However, this discourse is also opening up new tensions in the relationship between public and private sector in the management of cities. For example, IBM's and other corporate IT firms strategies are to establish the company as a partner in the delivery of future smart development. As such, this represents the targeted formation of new coalitions of public and private actors within the smart city who are not democratically elected. Thus, in the current smart cities agenda, the winners are the cities and the companies, often leaving out the rest of the population.

### *Smart citizens or usability testers?*

The network found that smart ideology positions the citizens as little more than a collector or provider of information on the behalf of city governments. The timescale of smart, where funding often dictates that projects are initiated and delivered





within fairly short timescales means that engagement with citizens is limited. Smart cities are assumed to be delivering benefits for citizens, but this is often not based on substantive understanding of what people actually need. In the smart city discourse smart citizens have to be willing to adapt to, and live in smart cities. Therefore the smart city agenda is not neutral, but has an effect on what acts of citizenship are acceptable and how citizens are supposed to behave.

## SUMMARY

As such the network found that the vision of a smart city does not necessarily enable smart citizenship. In order to enable smart citizenship there needs to be recognition that the smart city agenda is not neutral, but actually has an effect on the way citizens are supposed to behave and inhabit a city. Furthermore, local and context sensitive solutions to urban problems and challenges need to be developed. Finally, for citizens to fully engage in the smart city agenda, they need to have digital skills and capacities to respond to smart city projects.

Taking the findings of the Smart Urbanism Network into consideration the Whose Right to the Smart City Network aims to further research and disseminate knowledge surrounding the smart cities agenda with a special focus on citizenship and marginalized communities, focussing on the following challenges:

- » How to enable citizens to be active participants in smart city projects
- » How to ensure smart projects do not contribute to existing inequalities
- » How to ensure that smart projects are 'locally' relevant and not globally shaped/locally implemented so that they respond and benefit the particular aspects of individual cities/districts?
- » How to ensure long term and resilient implementation of smart projects and not costly and superficial fixes.
- » How to manage the funding and delivery of smart projects so that commercial/political interests do not take precedence over those of citizens.





## PRIVILEGING CAPITAL AT THE COST OF CITIZENSHIP

Ana Paula Baltazar

Regardless of the name given to the programme or project - whether in telecommunications, digital inclusion or smart city - the problem is similar: keeping the privilege of capital at people's expense, and that the State and professionals (including academics) tend to contribute to this when framing overall problems as global while they are local or even hyper-local.

### Pre-history of Telecommunications in Brazil

If we go back to the history of telephony in Brazil, we find that Brazil was one of the first countries to install a telephone line - in 1877, less than a year after the patent register in 1876. The aim was to connect the palace of the Portuguese Emperor of Brazil (Dom Pedro II) to his ministers, establishing from the beginning communication as a relation of privilege.

Later, at the time of the dictatorship in the mid 1960s, telephony started to be "explored" by a public company, Embratel, and in 1972 Telebrás was created to implement a general policy of telecommunication. In order to have a telephone at this time one needed to "buy" it, so people invested on telephones as they invest in real estate today. It is curious that from the beginning privilege was dominating and something that has no owner at first, goes to the hands of capitalists and becomes a great commodity to increase the capitals. If we look at the ideal of communication, the majority of

people had no access to this good in order to keep privileges and benefit the capitals. It is interesting to note that in 1988, when Telebrás was privatised, the value of telephony simply disappeared, as the bigger capital (a private Telebrás) decided to have all the value for itself, showing that priority is always of the stronger capital. The investors (minor capitalists) only mourned a bit, and lost their investments. In other words, telecommunications in Brazil was always in service of the capitals and not of ordinary citizens.

### Pre-history of Smart Cities in Brazil

In 2005 the labour government launched the programme of digital inclusion, which in my view was more a show of good intention than a real programme designed to deal with digital inclusion. It was done in a moment of political crisis, inviting a former right wing journalist, Helio Costa, to assume the Ministry of Communications, and he was the one who put this in practice, which is partially why the programme never actually achieved its purpose.

From 2005 onwards we had several programmes in this same direction (and not actually doing much) under different names, but with the same drive, which is digital inclusion (not citizenship or social inclusion). None of these programmes actually take people's wishes as their driver.



- Banda Larga nas Escolas - Broadband in schools
- Casa Brasil - Brazil house
- Centros de Recondicionamento de Computadores (CRCs) - Reconditioning of computers centre
- Cidades Digitais - Digital cities
- Computadores para Inclusão - Computers for inclusion
- Inclusão digital da juventude rural - Digital inclusion of rural youth
- Oficina para a Inclusão Digital - Workshop for digital inclusion
- Projeto Cidadão Conectado - Computador para Todos - Citizen connected project
- Plano Nacional de Banda Larga - National Broadband Plan
- Programa GESAC - GESAC program
- Programa de Implantação de Salas de Recursos Multifuncionais - Implementation of Rooms of Multifunctional Resources
- Programa de Inclusão Social e Digital - Digital and social inclusion program
- ProInfo Integrado - Integrated proinfo
- Redes Digitais da Cidadania - Citizenship digital networks
- Telecentros - Telecentres
- Territórios Digitais - Digital territories
- Um Computador por Aluno - One computer per child

## Smart Brazil and My Smart City (2016)

Just before President Dilma Rousseff went away for her impeachment trial in 2016, she signed a Decree (8776 - 11/05/2016) instating the programme Smart Brasil as part of the 2010 Plan of Broadband; within this programme there is the project “My Smart City”: Plan (Broadband) > Programme (Smart Brasil) > Project (My Smart City).

The project My Smart City starts with an analogy with the housing programme My House, My Life (Minha Casa, Minha Vida). This programme has in fact produced lots of housing, but has also increased the housing shortage. It subsidises the building industry, not the poor people that demand housing. The contractors chose what to build and where to build, the government pays them immediately and people are supposed to move to spaces that are not suitable to their habits and desires, and pay for them (probably for the rest of their lives). Once more this programme came to invest in capital, not in people. It started in 2008 and has certainly contributed to avoid economic crisis in Brazil, with the boom it produced in the building industry. However, this careless process has increased the prices of land and property everywhere (mainly in the poor suburbs), and this has certainly caused a wave of selling (irregular selling), and the original dwellers are again homeless (or squatting somewhere else, but they got an amount of money they never seen before, but not enough to buy another house with similar socio-spatial conditions, such as access to work, health, education, and also the relations of solidarity amongst the neighbours (mainly

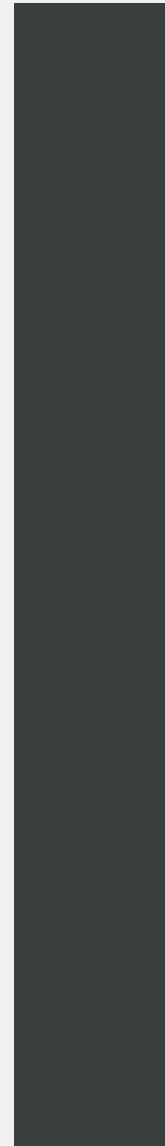


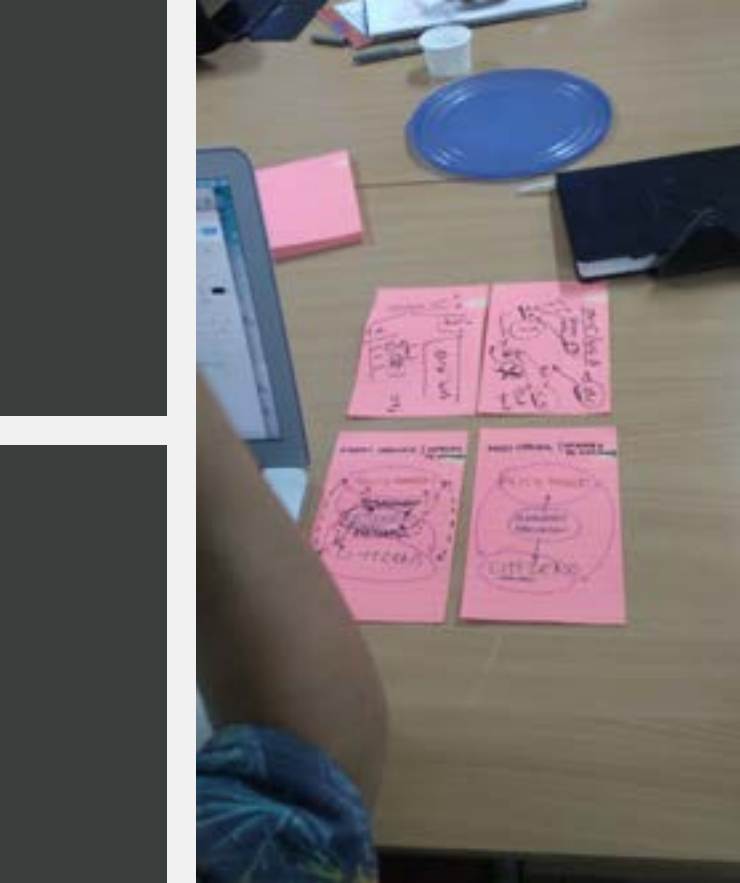
to enable the work of reproduction, such as domestic tasks, raising children, etc.).

So, there was no change in the relations of production with My House, My Life. The same tends to happen with My Smart City. The aim is to include people (with the word “MY”) in the discourse - implying their belonging (and participation), but they are not asked anything and they cannot take part in anything. The project is quite clear: in order to apply for the money, the municipality needs to have already a partnership with a contractor (a capitalist and not self-managed group from the community) for implementing the broadband. They ask the municipality to justify the social use of this broadband with preset items (not with particular demands of each community or group, and even less paying attention to differences within the same municipality).

### **Criticising the role of the State, Professionals and Academics**

What the State does (according to the derivationist theory of the State) is to invest in capitals, not in people. What professionals (architects very much included) do is to reproduce a missionary approach, imposing their culture onto others (as Garry Stevens (1998) says: if architects knew the power relations they were

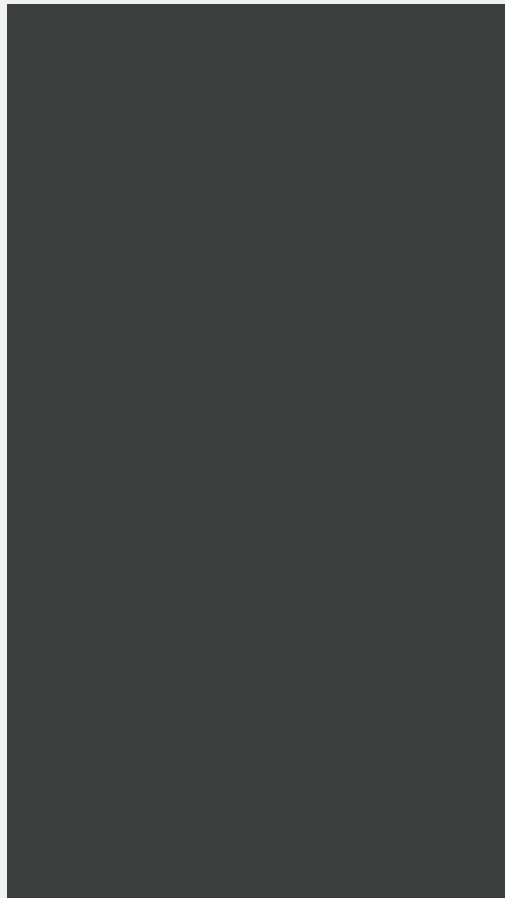




submitted to, they would not reproduce domination as they do). What is at stake, as Ivan Illich (1990) says, is that since the 1950s we have been creating needs for others and making them miserable. This happened after the Second World War, and might be crowned with the Kennedy's progress alliance and is consolidated by the operationalisation of (the war on) poverty by the World Bank in the 1970s. The development industry transformed entire populations into consumers, with a passage from *homo sapiens* to *homo miserabilis*, which for Illich is that "the human phenomenon is no longer defined by what we are, what we face, what we can take, what we dream; nor by the myth that we can produce ourselves out of scarcity, but by the measure of what we lack and, therefore, need." In other words, well-meaning professionals dealing with the poor are more interested in keeping their jobs, rather than with a politics that would foster autonomy (mainly collective autonomy of local groups). Rather than break the relations of dependency and promoting real autonomy, they keep defining needs and creating more relations of dependency between the poor and the professionals.

Rafael Alarcón (2015) has shown that different to the usual assumptions regarding digital capitalism, in Brazil (and he believes this is true for most places), there is no "digital inclusion" of the poor with the increase of broadband and of all the gadgets for consumerism. There is a great increase in the informal and badly paid work with creation of new subaltern jobs such as mobile chip selling, etc.

The point I would like to finish with is that we should not focus on digital inclusion (or smart citizenship) as digitally based. We need to think about possible ways to try and change the role of the State and our role as professionals. In the case of the State, this needs to change from being derivationist (investing in capital) to investing in people. This means assuming the need of not only changing the ownership of the means of production (as Marx proposed) but of changing the means of production themselves. This might be envisaged by means of new self management arrangements instead of the old capitalist and alienating arrangement for extraction of surplus value. This also implies change in policies (plans, programmes and projects as the ones proposed in Brazil up to now) going local and engaging citizens. In the case of academics, we can start doing research for public interest, meaning that the main subjects of research arise from common interests, not private interests, or looking at the resumption of the public sphere instead of perpetuation of the social sphere, to use Hannah Arendt's terms (Arendt, 1958). In the case of professionals it would be wise to step back: do not go to "help" and impose needs on people but create interfaces (instruments/tools) with which people might engage in the production of their own space. We have done lots of works with this idea of technical advisory with interfaces instead of technical assistance based on our "good intention".



## UNDERSTANDING THE INDIAN SMART CITIES MISSION

Magdalena Cooper

### Evolution of the Smart Cities concept in India

The idea of a smart city is not a new idea in India. Since the late 2000s and early 2010s, the concept of smart cities has emerged in Indian political discourse. In the early conceptualizations of smart cities, there was a focus on building new, or greenfield cities, which were intimately linked with the development of industrial settlements and Special Economic Zones (SEZs). The greenfield projects of both Dholera Special Investment Region (SIR) and Gujarat International Financial Tec (GIFT) City, both located in Gujarat where Narendra Modi was Chief Minister until 2014, are often touted as the first smart cities in India. Both of these cities were originally conceived as globally connected financial and technological hubs that would cater to a new Indian and world elite, they were both built from scratch in specially created SEZs and special investment regions, and as smart cities discourse gained popularity they were both reframed from industrial townships into smart cities in order to gain further funding and recognition. Additionally, the term smart has been used by multiple actors for a variety of urban projects including building new cities, applying technological fixes, developing industrial hubs and retrofitting areas within a city. By marketing themselves as smart cities, projects are better able to pull in funding and legitimize their approach.

It was during Modi's election campaign (for the General election 2014) that the idea of smart cities really came to the forefront of urban development discourse in India. Much of the discussion around smart cities implied the building of new cities with the election manifesto of the Bharatiya Janata Party (BJP) promising to build 100 new cities that would be "enabled with the latest in technology and infrastructure." This reflects Modi's pro-business approach to development which aimed at making cities into centres of investment for private capital and symbols of "efficiency, speed, and scale." Thus, smart cities became touted as global financial and technological hubs that would attract foreign investors and act as technocratic solutions for the routine problems faced by urban citizens. With the announcement of the SCM, smart cities became a national program for urban development.

### Indian Smart Cities Mission (SCM)

In June 2015 the Modi government announced the launch of the Smart Cities Mission (SCM). The mission is to develop 100 smart cities across India in response to the increasing challenge of dealing with a rapidly growing urban population. The goal of the SCM is to "promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment, and the application of 'Smart' Solutions" (Ministry of Urban Development, Government of India, p5). What is



clear from looking at the guidelines of the SCM is that there has been a shift in focus from building 100 new smart cities to making existing cities, and in fact only certain areas within them, smart.

The Central government will allocate INR 48,000 crore over five years to fund the SCM. Cities are selected for funding through a competitive process taking place in two stages. In the first stage of the competition, each state was given a number of cities to select for shortlisting. For example, Tamil Nadu was allocated 12 cities while many North Eastern states were only allocated one city each. The cities in each state were selected by a state level High Powered Steering Committee that used a specific formula for city evaluation. The formula was split into existing service levels in the city, institutional systems, self-financing, and past track records of the city in implementing Central schemes. The names of highest scoring cities from each state were then forwarded to the centre to be part of the 100 cities competing for funding.

In August 2015, 98 (grown to 109 by August 2016) shortlisted cities were announced beginning stage two of the competition. Each city was required to prepare a smart city proposal (SCP) according to a set of criteria outlined in the mission documents. A list of consultants was also provided to choose from for working with them to prepare the SCP. Cities worked hand in hand with private consultants and external hand holding agencies to create their SCP. Proposals were required to follow an area based approach where an existing area in the city would be made 'smart.' Additionally, SCPs were required to include a pan-city element focusing on improving city-wide infrastructure in one or more sectors. In January 2016, 20 winners of the first round of the competition were announced with the 13 winners of the second round announced in June 2016. The remaining cities will improve their proposals and compete in a third round set to take place over 2017-2018.

After a city is granted funding the Centre and State governments will work together to set up a Special Purpose Vehicle which is responsible for the implementation and partial financing of Smart City projects. The central government will give up to INR 200 crore to each city the first year followed by INR 100 crore for the next four years. The SPV and State Government are responsible for the remaining funds needed for project implementation.



## THE SMART CITY MISSION GUIDELINES

The Smart City Mission guidelines lay out the core infrastructure elements of a smart city and the typical features they envision in a smart city. These include adequate water supply, sanitation including solid waste management, efficient urban mobility and public transport, affordable housing for the poor, citizen friendly governance, and applying smart solutions to infrastructure and services in area-based development.

Under the guidelines, each SCP is required to lay out an area based development plan and a broader pan-city approach. The guidelines stipulate that the area of the city should be chosen in consultation with citizens, but doesn't define what forms the citizen consultations should take. The area-based plan should follow one of three strategies for development. The first is retrofitting, which introduces planning into an existing built-up area to make it more efficient and liveable. The second strategy is redevelopment which would effect a replacement of the existing built-up environment and enable co-creation of a new layout with enhanced infrastructure using

principles of mixed land use and increased density. The last strategy is green-field development which would introduce most of the smart solutions outlined in the guidelines into a previously 'vacant' area.

The guidelines also lay out the essential features of the Special Purpose Vehicle (SPV). They state that a special purpose vehicle will be created for each city to implement the SCM at the city level. The key functions of the SPV are to approve and sanction smart city projects, execute the smart city proposal with complete operational freedom, mobilize resources, approve and act upon monitoring reports and ensure the timely completion of projects. The states are responsible for ensuring that there is a dedicated revenue stream for the SPV and the SPV should also evolve its own creditworthiness for raising additional resources from the market. The SPV will be a limited company and will have 50:50 equity shareholding between the state government and the urban local body. Importantly, the guidelines also encourage states to delegate the rights and obligations of the municipal council with respect to the smart city projects to the SPV.

Finally, the guidelines highlight the financing structure and monitoring structure of the SCM. They specify that the SCM will be operated by a Centrally Sponsored Scheme where the central government will give INR 100 crore per city per year on a matching basis from the state/ULB. They also highlight that the project cost of each SCP will vary and thus the SPV will be required to create a revenue model that can attract additional funds to finance their projects. Funds from the central government will be released based on the timely submission of a city scorecard every quarter to the Ministry of Urban Development (MoUD), satisfactory physical and financial progress, achievement of milestones given in the SCP and a fully functioning SPV. The mission will be monitored at the national level, the state level, and the city level. The national level will be responsible for providing overall guidance to the mission as well as approving the release of funds and recommending mid-course corrections. The state level monitoring body will be responsible for providing guidance to the mission and providing a State level platform for the exchange of ideas, overseeing the intra state competition, and reviewing the



SCPs in the first round of the challenge. Finally, at the city level, there will be a Smart City Advisory Forum to advise and enable collaboration among stakeholders. The convener will be the CEO of the SPV.

### Key Concerns Surrounding Smart Cities

When examining the Smart Cities Guidelines and Mission several key concerns arise. The first is the reliance on technological solutions. The second concern is based on the influence of external interests in the SCM. The third is the use of an SPV to implement the projects. Last, there are issues with the inclusivity of the SCM especially in regards to area-based development and citizen consultation.

The smart city guidelines present a strong focus on the use of technology as a way to address urban issues. They promote the idea that technology can and will provide solutions to most urban problems. However, they fail to take into account the structures that enforce and maintain such problems. The guidelines brush over considerations of social and political aspects of urban issues. It should be noted that the outline e-governance as a solution to citizen unfriendly and cost ineffective governance, but they do little more to expand upon the ways in which technology and governance can converge. Additionally, they do little to elaborate on how technology tools can empower citizenry.

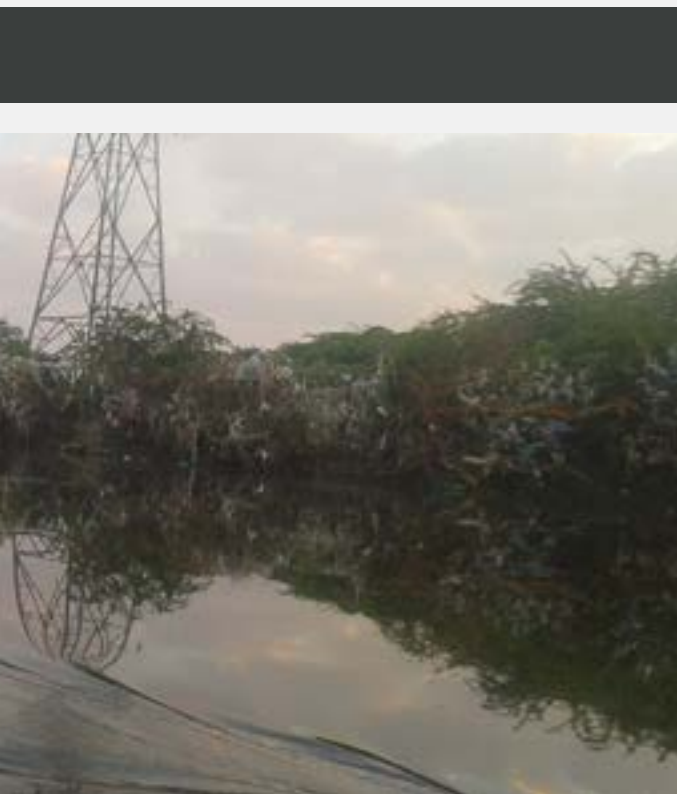
The influence of external interests both in shaping the idea of a smart city as well as the

actual proposals has been raised as a key issue surrounding the Mission. Smart cities came into the spotlight as a buzzword in the past decade when technology firms such as IBM and Cisco started to market the building of smarter cities through technology. Since then, smart cities have been heavily promoted by global companies like McKinsey Global Institute and PricewaterhouseCoopers, many of whom were consultants for the SCPs. First, given that a select set of actors have been heavily involved in promoting the idea of smart cities, a certain discourse around what is considered smart is being promoted. This discourse is technology centric and naturally, favours those companies promoting it. Additionally, the definition of smart solutions by the same companies that are involved in helping to create the SCPs raises concerns that the types of problems identified and solutions proposed will be beneficial to those companies.

Many concerns about the SCM are centred on the use of an SPV to implement a government project. SPVs will be required to generate adequate financing, much of which will likely come from the private sector. Additionally, private players or financial institutions will get an equity stake in the SPV. With such strong influences by private players on basic service provision and infrastructure, it is extremely difficult for the government to ensure the inclusiveness of marginalised populations.

In addition to concerns about inclusivity, there is concern that the Municipal Corporations will get side-lined as the SPV gets vested with powers to





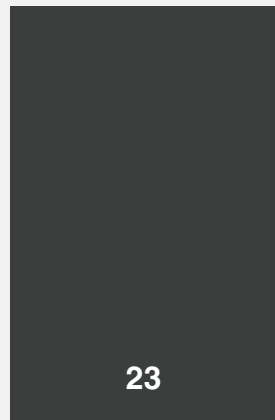
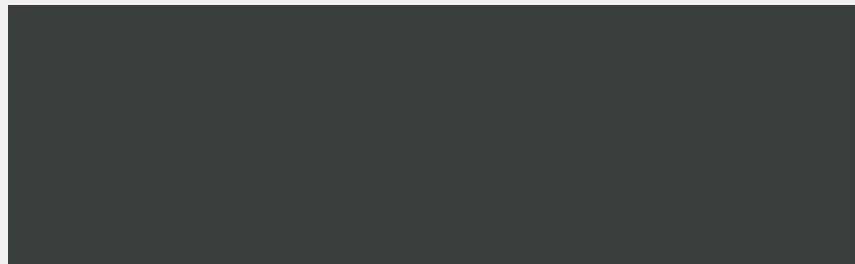
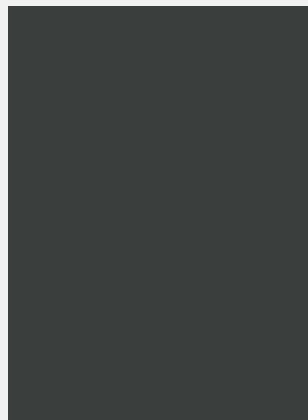
implement Smart City projects. The mission highly encourages the state government and urban local bodies to delegate the rights and obligations of the municipal council to the SPV with respect to smart city projects. This directly contradicts the 74th amendment to the constitution, which aims to empower urban local bodies. Additionally, it raises concerns about problems of coordination between the SPV and ULBs.

Issues of inclusivity are also raised when looking at the smart city guidelines. First, the focus on area-based development raises concerns that city enclaves will receive all of the smart solutions widening the disparity between city neighbourhoods, which is already large. Additionally, the coordination and integration of services between the smart area and the rest of the city will be complicated by the SPV's power within the smart area. Finally, as areas become more desirable to live in, those who cannot afford prices or services will likely be pushed out. The guidelines of the proposal do call for affordable housing for the poor, yet they do not specify what that would look like. Without groups who are able to advocate for the poor and engage with the SCM,

it seems likely that patterns of exclusion will be furthered.

All SCPs were required to be done in consultation with citizens to ensure inclusivity in the decision-making process. The guidelines specified that consultation should be done through both online and offline mechanisms, but did not go into further detail about what consultations should entail. As part of their SCP, each city was required to describe their citizen consultations but was not give a format or benchmarks by which to measure consultations or participation. This means that how much and in what way cities engaged with citizens was left entirely up to them. This raises concerns about the ability citizens really had to engage with and help shape the SCPs.

Finally, it should be highlighted that the vision of what a smart city is, is largely matched to the aspirations and world view of a particular set of actors and subset of the population. It privileges those who fit into that certain space while excluding those who cannot or will not conform. In the smart city, there is very little space for anyone at the margins to challenge, or even engage with, the SCM.



## SMART CITY OR ICT LAB: IMPLICATIONS OF PROJECTS DRIVEN BY NEED TO GENERATE REVENUE

**Mekala Rajagopal**

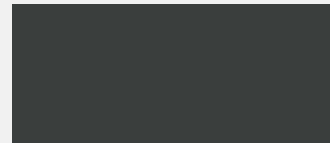
An analysis of the proposals of the first 20 cities gives us insights into the ways by which they plan to develop into “smart cities”. The major elements found in these proposals are adequate water supply, assured electricity supply, sanitation, urban mobility and public transport, affordable housing, IT connectivity and digitalisation, good governance, sustainable environment, safety and security, and health and education. Within each of these elements, there are several essential features, such as pedestrian friendliness and traffic management within the urban mobility element.

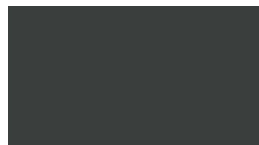
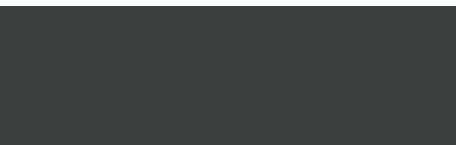
A cursory glance at all of these proposals reveals that the Smart Cities Mission is centred on incorporating ICT into daily life to generate revenue through all of these elements. To achieve this, the proposals suggest that the vast majority of their costs are to be funded by public-private partnerships that make up the SPV. Other sources of funding are government contribution and convergence with existing programs like the Swachh Bharat Mission, Jawaharlal Nehru National Urban Renewable Mission (JnNURM), and Jawaharlal Nehru National Solar Mission (JnNSM). Although the overall proportion of government funding to private funding is small, the intended creation of 100 smart cities would require the Indian government and state governments to put hundreds of thousands of crores towards these projects. This would most likely result in tariffs that would be harmful to the urban poor and may not be funding something that benefits them in the long run. Similarly, private partners would be likely to create additional taxes

and service charges to fund the project. These Round 1 proposals are not intended to be detailed implementation plans, but there are several factors that are missing from these proposals regarding the treatment of the urban poor that hopefully will be addressed in the Detailed Project Reports.

### Mediating ICT and urban services

In the proposals, the intended supply of utilities (primarily water and electricity) is almost always 24x7 100 percent coverage. This would be done through decentralized grids, dependence on solar power, water ATMs, SCADA systems, and other technologies. However, the proposals do not consider certain costs that these high-efficiency utilities would have on the public, especially the urban poor. Electrical networks and water supply are typically the most costly elements of the projects. The source of this money, as outlined before, will be mostly the private sector and public money for which harmful tariffs may be implemented. The control of the SPV over utilities is often concerning: in Coimbatore, for example, the SPV holds complete responsibility for funding the water supply. The proposals do not concretely state where the water pumps will be, making accessibility a concern, or what space the water treatment plants will be constructed on, making eviction another concern. Very few plans address supplying informal settlements utilities, since legal land rights are required to access water, sanitation, and electricity (let alone solar power). Additionally, not all slums are even recognized by governments for fear of greater obligations, so there is still basic logistical work





to be done that should take priority. Additionally, the management of power outages and supply shortages, which affect the poor more negatively, is another crucial part of any utility plan that is missing from almost all of the Smart City proposals.

The element of sanitation poses a similar incompleteness, especially when it comes to the meaning of smart sanitation management and smart trash collection. The role of technology often seems unnecessary in these proposals: live tracking of garbage bins, enabling bins with RFID technology, and installing voice guidance and message boards in public toilets seem more for show than for practicality. Some cities suggest reorganizing existing rag pickers and *kabadivalas* using biometric attendance or apps to self-organise. However, this does not account for digital literacy, and it is unclear whether the rag pickers themselves agreed to this idea (the proposals do not mention which elements are based on their input). Another ubiquitous feature of the proposals is door to door collection of waste, but it is doubtful that waste from informal settlements will be collected. Source segregation of waste seems to be encouraged but not facilitated by government-provided containers, like there are in some other countries. A few proposals also suggested “pay as you throw” policies in residences, which despite the effort to reduce waste, would harm the urban poor and encourage littering instead of disposal. When it comes to human waste, individual and public toilets as well as e-toilets are proposed without a mention of locations, accessibility, or maintenance. These ICT enabled e-toilets have, according to a developer, “multiple revenue options”, and are switched

on by inserting a coin<sup>1</sup>. Requiring payment for a supposedly public amenity intended for people without access to functioning toilets would not get to the root of the problem. In addition, providing public areas and households with infrastructure is not the solution to eliminating open defecation: the people themselves need to be willing and able to use these toilets. For example, the toilets that have been constructed already under the Swachh Bharat mission are almost unused by the actual population and open defecation continues<sup>2</sup>, so the Smart Cities Mission is essentially taking an easy way out in dealing with this issue.

Another key component of the Smart Cities Mission is urban mobility and transport. Common elements of almost all of the proposals are huge pedestrian corridors, e-rickshaws, bicycle shares with apps, surveillance and modelling of traffic, GIS tracking of buses, “smart” bus stops, and sensors for license and red light violation detection. The proposals do not mention whether or not the e-rickshaws would be operated by existing rickshaw drivers, or the projected effect of new e-rickshaws on transport jobs. Digital literacy and language barriers are not considered for the planned bus schedule, bike share apps, or parking-related apps, sensors, and digital display boards. The use of open space is another required element, for which Kochi, for example, proposes a “reconstitution of densely packed retail areas ...to free land for development of green pockets”, and Ahmedabad

1 “About EToilet.” Eram Scientific. Accessed July 10, 2016.

2 Sinha, Amitabh. “Toilets under Swachh Bharat Mission: Ready to Use, but Difficult to Flush Inhibitions.” The Indian Express. July 05, 2016. Accessed July 9, 2016.

proposes a “large contiguous open green park” over the existing *nallah*. These types of proposals blatantly disregard the role of the urban poor who live and work in these densely packed retail areas and *nallahs*, and unfortunately this almost always means they will be evicted. Street vendors are considered another obstacle to becoming a smart city, but some of the proposals have not mentioned plans for the future of street vending. Those that do propose organised vending zones or facilities. For example, in Udaipur’s proposal, “registered vendors [are] provided with geo-tagged RFID/GSM chips”, or in Chennai’s proposal, there is “enforcement of encroachment [of] Free Public Space, by employing special officer to inspect on daily basis”. These policies can be impractical for the vendors as they may be forced to relocate to an inaccessible location, or customers may not go out of their way to visit vending zones, both of which would hurt the vendors’ livelihoods. The level of micromanagement and potential for law enforcement to jump in suggests that the city governments see vendors as more of a burden than a part of the city’s personality. Some proposals are even more blunt: Delhi’s plan simply involves “clearing of unauthorised street

hawkers”. Again, this shows no regard for the livelihood of these people and is worryingly vague.

A significant portion of the proposals had no substantial or holistic elements in their approaches to affordable housing. Once again, this is a clear indicator that slum dwellers and other urban poor communities will simply be evicted or “gotten rid of” in these cases. Some cities do address the issue, usually proposing transforming slums into integrated housing societies or relocating slum dwellers and the homeless into alternative affordable housing. However, there are no mentions of the location or specific amenities of the housing or the definition of affordability. In past cases, relocated slum housing is very far from the city, and its quality and usability is low<sup>3</sup>. The city of Coimbatore proposes that “objectionable slums will be rehabilitated”, referring to the relocation of slum households along Valankulam lake as a successful model to replicate that reinforces their capacity. However, the people still living around

3 Raj, Manish. “Slum-dwellers Face Tough times after Being Relocated.” The Times of India. September 3, 2012. Accessed July 15, 2016.

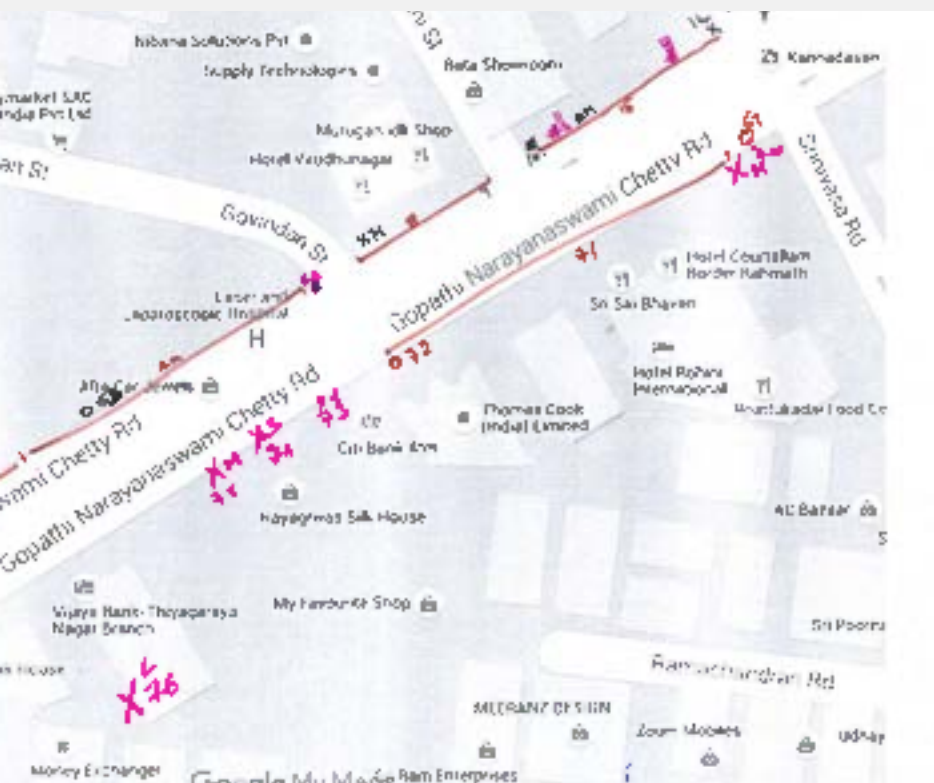




Valankulam lake have complained to the District Collector's office that more than half of them have not been allotted houses, while another group has said that the new slum rehabilitation is causing their homes to be demolished<sup>4</sup>. Replicating this careless relocation throughout the city would just result in more conflict. In addition, the proposals including redevelopment rather than relocation are missing some details, like whether the residents would be temporarily relocated while the existing settlements are being demolished. Finally, providing infrastructure, again, does not solve the problem: there needs to be more focused and purposeful effort to improve the overall quality of life of those living in informal housing. The most concerning aspect of this incomplete approach to housing is that several cities have ambitious goals that they have failed to concretely plan: the New Delhi Municipal Council, for example, has set a goal of zero percent of the city living in slums by 2025, but does not mention the word "slum" again in either its area-based or pan-city proposals.

IT connectivity and digitisation is fundamental to the Smart Cities Mission. When it comes to governance, the main mode of communicating to the public is often an online city dashboard, the public is often supposed to respond through a grievance hotline, app, or kiosk. The urban poor may not have physical accessibility to these kiosks, considering they are proposed for only certain "key locations". Most of the proposals do not address digital literacy and language barriers in usage of these e-governance features, issues particularly relevant in India and which primarily affect the urban poor<sup>5</sup>. Digital literacy workshops, which may seem like a solution, would only attract a certain audience, besides the fact that it would be extremely difficult to get such a massive city population digitally literate enough for the proposed heavy ICT dependency. Communicating the changes in citizen responsibilities (like digitised bill payment) to the public could be difficult to implement. E-governance could end up giving municipal governments an excuse to disregard the urban poor even more than they already do.

The other component of city governance is the improvement of culture, so most proposals include the redevelopment and reuse of old historical buildings as tourist targeted areas, largely controlled by the SPV. The new cultural hubs include new art squares, public recreational spaces, performance stages, which are constantly referred to as sources of revenue and economic drivers to be advertised. Corporations controlling



4 "Slum-dwellers of Valankulam Fear Being Left Homeless." The Times of India. March 18, 2015.

Accessed July 10, 2016.

5 Basu, Kaushik. "India's Digital Transformation." The Hindu. February 12, 2016.

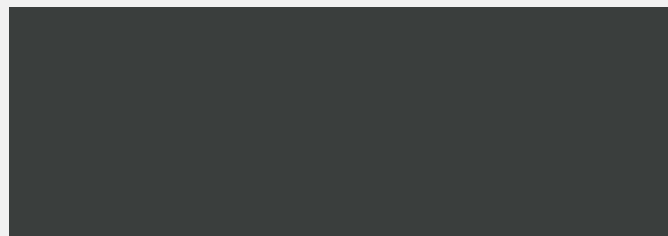
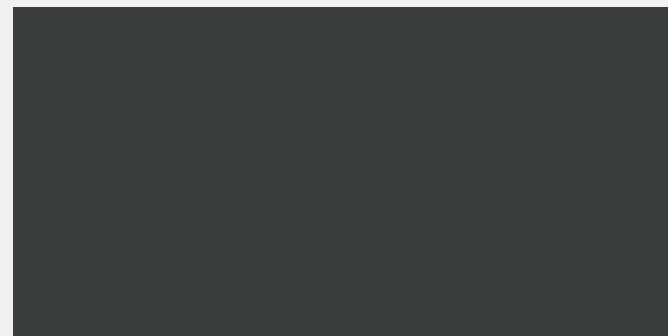
the city's cultural identity and focusing on profit would inevitably take a toll on the people who self-organize markets and performances in the city.

The Smart Cities Mission also requires improved safety policies for more vulnerable citizens. All but one of the cities have responded by proposing CCTV surveillance cameras throughout the city. This could prompt targeting of certain historically targeted groups, like ragpickers and labourers, by police to address crime, unless greater protection for individual privacy is also implemented. Using apps for crime reporting would be another conflict of digital literacy, especially since crime and education are often inversely proportionate.

The last element of the Smart City proposals is health and education, both of which especially impact the urban poor. Puzzlingly, the healthcare policies and education policies in this category do not necessarily overlap. The unfounded grouping of these goals into one element likely suggest that health and education, two of the areas where significant improvements would most easily make a city “smart”, are not priorities. This is only reinforced by the severe national budget cuts in both health and education in the past couple of years.

## CONCLUSION

From the proposals, one can gather that the Smart Cities Mission seems intent on generating revenue for the SPV through privatisation of resources and a dependence on ICT solutions. The Smart City proposals do not provide enough information on equitable access to their new policies, from solid waste collection to mobile parking apps. Despite the official “What is Smart City” document stating that there is no single definition of a smart city, most of the proposals suggest changes that do not consider the unique problems facing Indian cities. The problems we face are complex and cannot be solved by single-sided policies. If these missing details are not addressed in the DPRs, the Smart City Mission would risk deepening socio-economic inequalities in Indian cities.





## SELECTIVE SMARTNESS TRUMPS COLLECTIVE INTELLIGENCE: CHENNAI

**Satyarupa Shekhar**

Chennai, the capital of the state of Tamil Nadu, is the fourth largest urban agglomeration in the country with a population of 4.6 million in an area of 426 square kilometers. The city government, Corporation of Chennai, is one of several public agencies that is responsible for the delivery of infrastructure and services in the city. Despite their presence, Chennai has nearly one-third of its population living in slums and nearly 40 percent of the city's residents live in congested housing. More than 15 percent of the households do not have water supplied from a treated source, 5 percent do not have toilets, and 3 percent do not have waste water connections within their premises. There is only one hospital and 81 schools (primary, middle and secondary combined) per 100,000 people.

### SMART CITY PLAN PREPARATION

The Ministry of Urban Development (MoUD) unveiled the list of 109 cities nominated to take on the “smart” agenda in June 2015, out of which Tamil Nadu qualified to develop a whopping 12 cities of its own, including Chennai.

In July 2015, the Corporation of Chennai announced that civic body officials would prepare the proposal after consultations with residents and other stakeholders. It was likely that they would focus their efforts into the retrofitting of existing civic infrastructure. Redevelopment and green-field development would most likely not be prioritised due to the fact that the city largely lacks unused land. The proposal was expected to cover the retrofitting of public transport, non-motorised

transport, education or public health in at least 500 acres of land in the city. It was also intended to target various civic facilities such as bicycle tracks, walkways, pedestrian facilities, schools, hospitals and parks put together by diverse layers of digital innovations integrated through “smart” gadgets.

Chennai was eventually ranked and selected as the 18<sup>th</sup> city to be a part of the first phase of the Smart Cities Mission, which will therefore make it one of the first in the country to receive funding. It was one of two cities in the state (the other being Coimbatore) to qualify. Chennai's proposal contained infrastructure that have pan-city elements as well as those specifically related to T Nagar, the area chosen for the area based development.

Chennai's proposal was prepared by Jones Lang Lasalle (JLL). JLL was among 37 consulting firms that had been selected by the Ministry of Urban Development (MoUD) to support cities in preparing their smart city proposals. However, it is unclear how JLL was selected from among the 11 of those 37 who were specifically listed for Region 7 which includes Tamil Nadu, Kerala, Pondicherry and Lakshadweep.

The proposal mentions that extensive public consultations were conducted through meetings and online forums. In addition to the public, the proposal states that elected representatives and NGOs were consulted. However, it only states the opinions of the Mayor, a Member of Legislative Assembly, and lists only two NGOs - ITDP and Chennai City Connect among those consulted. Most problematic, however, is that vendors of specific solutions, software and technologies were consulted



and their suggestions, unsurprisingly, focus on technology-oriented solutions, such as chips, sensors and cameras.

### CHENNAI'S SMART CITY PROPOSAL

The neighbourhood of T Nagar was selected as the site for the area based development section of the proposal (through a voting procedure in which the Sholinganallur area actually garnered the most votes from the public, but was not the Corporation's preferred entry). In this section, Chennai's proposal listed a combination of several services that would be improved under the Smart City Mission. These were pedestrianisation, retrofitting of open spaces, footpath widening along main roads; cycle sharing network, multi-level car parks; integrating all the public transport; robust IT connectivity and digitisation; smart bus / e-rickshaw feeders; solid waste management; water supply management; sewage management; e-governance; and storm water management including a flood warning and monitoring system. The objectives are to improve the efficiency of service delivery, by curbing leakages, and generating revenues through service charges and taxes.

The pan city proposal focuses on two components: transport, including parking management, cycle lanes, street lights, surveillance system to monitor encroachments and supposedly for the safety of pedestrians, and an intelligent traffic management system, though there is no explanation of what this would mean or entail. Again, the focus is on

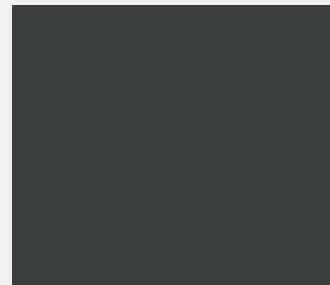
using chips, sensors, cameras, apps and meters to enhance the efficiency of the service and improve the revenue generation. This further highlights the emphasis on applying "smart solutions" to the city, as opposed to the demography and with little thought given to citizenship.

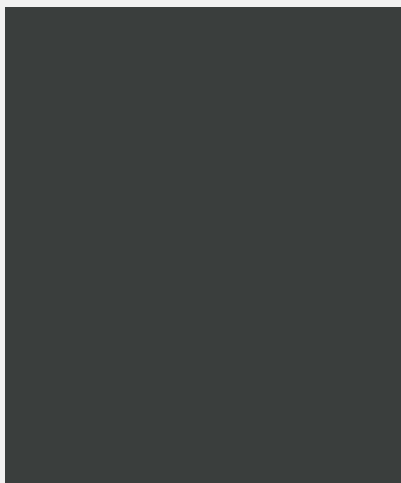
The execution of smart city projects under the Smart Cities Mission will be undertaken by a Special Purpose Vehicle (SPV) that will be created specifically for this purpose. According to the SCM guidelines, SPVs will plan, appraise, approve, implement, manage, monitor, release funds and evaluate the projects. This places significant powers and finances in the hands of a private company with little governance structures to ensure transparency, accountability and participation.

In May 2016, the Tamil Nadu state government issued an order for the formation of Chennai Smart City Limited (CSCL), a special purpose vehicle (SPV) for implementing the smart city proposals. It was set up under the Companies Act of 2013 and would be promoted jointly by the state government and the Greater Chennai Corporation, with 50:50 equity share-holding. The Chennai Corporation Commissioner was proposed to chair CSCL.

### KEY CONCERNS

The details in the proposal are very poorly organised, with the summary often not corresponding to the components and impacts. Ironically, the proposal mentions citizen participation as a critical factor in the success





of the projects, but it assumes that creating an online forum will address this. There are no suggestions or proposals for facilitating more meaningful engagement, nor ways by which citizens can provide inputs on the quantity, quality and fees for the services. The impacts are grouped as governance, spatial, economic, social and environmental, and are all - with few exceptions - related to the transit components of the proposal. Details on the number of households that are expected to benefit from the projects are not provided, nor the expected outcomes.

The proposal prioritises the development of T Nagar within the Area Based Development component. T Nagar has all manner of violations of the land use plan for the city, most notably the encroachments on lakes, affecting the drainage of the area and building violations that have been brought to the notice of the courts. However, the smart city proposal does not aim to address these but instead proposes to legalise these violations and improve the service conditions. What this will amount to is monetisation of planning and building violations, reward violators, and ignore the government's role in the degradation of the livability of the neighbourhood.

The proposed project mix does not reflect its own observation that T Nagar has residential, office and industrial buildings, and a mix of different income groups. For instance, it mentions the lack of basic services and poor state of housing in slums and informal settlements but these are conspicuously absent in the articulation of the problem and need for attention. The solutions proposed for water, sanitation and electricity focus on supply-side problems and are premised on the use of meters and sensors. They also do not address the aspect of availability of these services for sections of the population. Similarly, street vendors are articulated as a problem that needs to be addressed by their eviction to a hawkers' complex and regulating their presence through identity cards. This is a reflection of an old, failed action undertaken by the Corporation of Chennai in 2013 and reveals how the proposal has not taken cognizance of the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014.

In describing its 'smart' components, the proposal has proposed an unrealistic and pervasive use of technology. For instance, there is a proposal to use sensors to monitor choking of manholes and overflow of sewage. Sensors will also be used in "identification of flooding areas", though it is not clear whether those are areas prone to flooding or those that flood during specific spells of heavy rains; for weather forecasting and surveillance of reservoirs. RFID chips have been proposed for solid waste management, which harks back to an unsuccessful proposal by a technology vendor in 2014; it was not considered technically

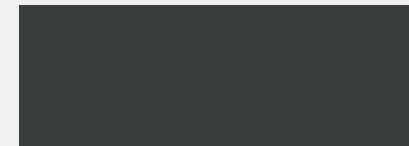
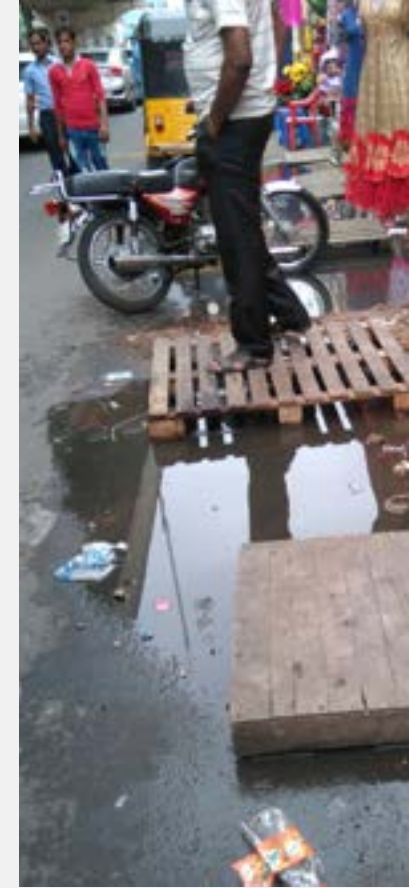
and feasible to install expensive chips in garbage dumpsters that are placed on street-sides and extremely prone to damage. There are also proposals to use sensors to automatically turn out street lights, digital signage and billboards, video surveillance of public spaces. In addition, there is a proposal for smart parking management which will provide real-time information on parking spaces, e-wallets to pay parking fees, and dynamic demand-based pricing.

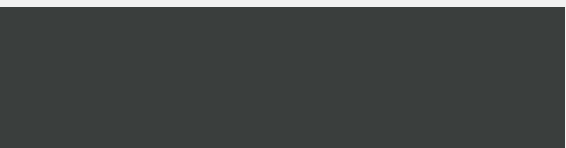
The concerns regarding the Special Purpose Vehicle as the planning, appraisal and implementation agency are shared with other cities, and are detailed in the chapter on SPVs. More specifically, the Chennai proposal details which rights and obligations of the various urban local bodies are to be delegated to the SPV. For instance, the Corporation of Chennai has to surrender its right to manage parking facilities and collect fees, land, right of way and its streetlights network, among others. Chennai Metropolitan Water Supply and Sewerage Board, the agency responsible for water supply and sewage services, has to hand over its rights to deliver these services. Similarly, Tamil Nadu Power Generation and Distribution Corporation Limited (TANGEDCO) will hand over its distribution network for the project site.

## CONCLUSION

The Smart Cities Mission undermines the idea of local self government that has been enshrined in the 74th Constitutional Amendment Act. It bypasses the real issues that plague urban local bodies (ULBs), particularly their legislative, financial and administrative autonomy. Without addressing these fundamental problems, ULBs are unlikely to move towards real outcome-oriented delivery of services. Overall there has been no clear articulation of the desirable outcomes that the proposed projects will help achieve. There are contradictions with certain outcomes that have been previously articulated by the city government. One instance is the objective of reducing private vehicles and on-street parking, but building more car parks and buying expensive technology to make parking more convenient seems to be at odds with that vision. Moreover, there is no vision for how this will scale up and the cost of scaling and replication, particularly if the technology is patented.

The proposal also discusses ways by which it will converge with other ongoing programmes and funding sources. However, it is not clear which components of the Smart City project will be funded from other projects, and what is the rationale for the requirement of the funds in this project. The setting up of the SPV could lead to solutions to be implemented at short timelines, with the primary focus on identifying immediate and quick fix solutions which may not be sustainable in the long term or holistic. For instance, improving the availability of water would need more than correcting for leakages; it would require augmenting water sources, restoring water bodies, minimising consumption, and avoiding negative environmental impacts. With no vision for institutional framework for urban development, it is a direct form of capital accumulation that relies on land monetisation and real estate valuation. In seeking to insulate urban local bodies from political chaos the Smart Cities Mission has privatised local governance, leaving little scope for creating inclusive, equitable and sustainable cities.





## THE MESSY ROAD TO THE SMART CITY: PUNE

**Ranjit Gadgil**

Pune - a large, politically independent and financially comfortable city in the state of Maharashtra, India with a population of roughly 3.1 million - is one of the first twenty cities selected by the Ministry of Urban Development (MoUD) as part of the nation-wide Smart Cities Mission initiative proposed by the current PM Narendra Modi. The entire area of 250 square kilometers is governed solely by the Pune Municipal Corporation (an urban local body), which often encourages forward-thinking proposals and citizen and local body participation in ensuring the betterment of the city in all areas of growth. These projects are often spearheaded by their keen municipal commissioner, Mr. Kunal Kumar, who has and continues to take a vested interest in bringing Pune to the forefront.

When Modi announced the SCM initiative, it was presented as a challenge for cities to compete amongst each other in presenting a proposal, which would then be reviewed. The cities would be selected in phases for project execution. Previously, under the Jawaharlal Nehru National Urban Renewal Mission (JnNURM), Pune was clubbed together with a neighbouring industrial city (its urban agglomeration) called Pimpri-Chinchwad in a joint proposal; however, it was revealed that the finances would be split. So when the same was proposed with the SCM, it was rejected by the MoUD, which then received criticism from the Nationalist Congress Party for being biased.

### PREPARATIONS FRAUGHT WITH TENSIONS

PMC's enthusiastic commissioner was eager to ensure that Pune would be selected in the first phase of the SCM. They made sure to prioritise e-governance,

and revamped their grievance portal and launched an e-newsletter, amongst other reforms. It also continued efforts to complete all pending projects, and establish a new bus rapid transit system. Moreover, the state government enacted the Right to Public Services Act in order to reduce corruption amongst government officials and increase transparency and public accountability.

The MoUD shortlisted consulting firms into a region-based list so that each of the 100 cities that had been nominated for the challenge would be assisted in drafting their city proposals. McKinsey & Co. were selected as the consultants for Pune (and no other cities, surprisingly), despite not being the lowest unique bid. This angered some in the PMC, even causing some councillors to approach the High Court, but to no avail.

Consultations of the public were intense, yet highly superficial. The general issues put forward were regarding water, waste, and traffic - which signified that not much had changed in a while. They carried out various stakeholder consultations with NGOs, businesses, the media and even party-wise and ward committee elected representatives. Technical consultations, although meaningful, ended up being hurried and not thorough enough for a proposed project of this magnitude.

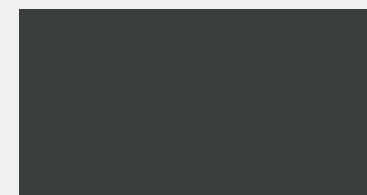
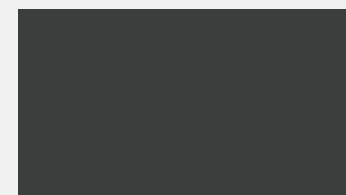
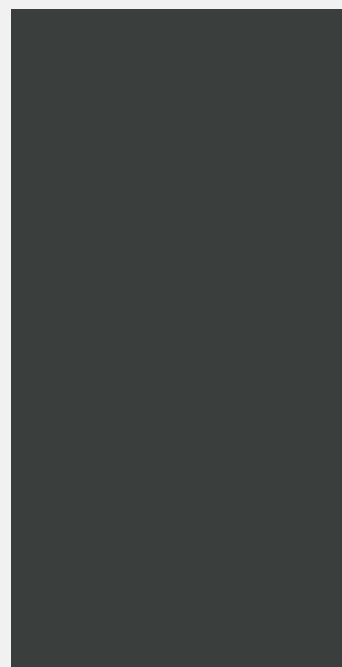
The final proposal itself was rife with issues. There seemed to be a greater importance given to getting Pune selected than actually drafting a proposal addressing issues the public cared about. The consultants therefore chose to tailor the proposal to the Smart City mandate and did not give much importance to what the people had to say. Many pre-existing proposals (such as the 24x7 water supply

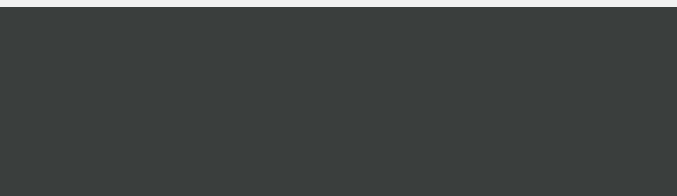
and the riverfront development projects) were added to the smart cities proposal, proving that not much deliberation or research went into it. Solid waste management emerged as the most important issue, and yet it received no acknowledgement in the proposal. Most importantly, the commissioner refused to share the final proposal after the consultations and prior to its submission, claiming that he did not wish for the ideas to be plagiarised.

With relation to area projects, various initiatives such as street redesigning, cycle tracks and a public bicycle scheme, multi-level street parking, smart-metering of water and rooftop solar projects were announced. INR 1800 crore would go toward the area project, and INR 500 crore for the pan-city proposal. This would be financed by the Special Purpose Vehicle grant, private-public partnerships, user charges for provided services as well as land monetisation - an unhealthy combination which suggested substantially less power in the hands of the public and the PMC.

With the original SCM initiative divided to target not only a general pan-city approach but also a specific area-based development project, an area called Aundh-Baner-Balewadi was selected from Pune. However, there seemed to be no explicit selection or voting procedure, so many questioned the choice, especially since the area had already been recently developed (even during the Commonwealth Youth Games), complete with modern infrastructure. Councillors from other, less developed areas were rather dissatisfied with the decision, which they believed was made as a result of corruption. The Commissioner attempted to appease them by claiming that these projects were only initial and that all areas of the city would be developed eventually.

There was also friction between BJP and other political parties, primarily due to the provision of a SPV, which would essentially give governing power to a private firm. Since the city council comprises of members from NCP, INC, MNS, BJP and SS, the majority were unhappy and decided to oppose the proposal. However, after receiving backlash from the media and being labelled “anti-city” and “anti-citizen”, the council decided to defer the vote to approve or reject the proposal to after the submission deadline! The Commissioner went directly to the state government to order a vote, and the proposal passed. Many politicians voiced their dissatisfaction and placed conditions on the SPV, which were eventually rejected by the MoUD as well





as the state government. Their efforts to control the establishment of the SPV were therefore futile.

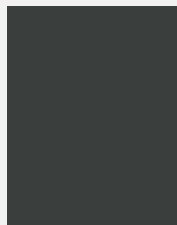
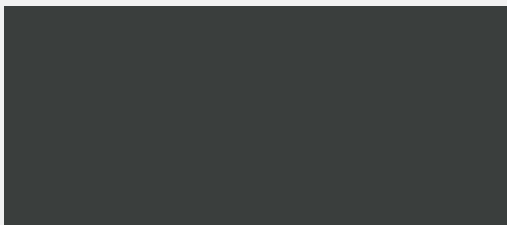
Pune was ranked second among the 97 cities that participated in the first round, which pleased the PMC and Commissioner immensely; the latter's political reputation intact once again. However, the BJP's "ownership" over the project annoyed the opposition, who decided to boycott Modi's inauguration (along with Pune's mayor, upon their request). Additionally, the Commissioner received flak for ignoring the city's problems and being preoccupied with the Smart City proposal, but he rationalised his decision by claiming that he was doing it all for Pune.

The Commissioner focused his energies on driving the formation of the SPV, which was established as a government company under the Companies Act, comprised of himself as the Chief Managing Director (CMD), a CEO (Additional Commissioner), the Police Commissioner, the Director of Town Planning, the PMPML CMD (or head of the Public Transport company), the Mayor, the Chairman of the Standing Committee, the Leader of the Opposition, two councillors and finally other directors, including one nominated by the central government. In accordance with their principles of transparency, the PMC uploads their meeting agendas and minutes on their website. However, the Commissioner was later replaced by the State Urban Development Secretary for no apparent reason, which was a problematic move because it once again essentially prevented an ULB from exercising control over the SPV. Eventually, the state government announced that all other

cities in Maharashtra would be made "smart", with funding assistance from MMRDA and CIDCO, and the formation of more SPVs to come.

## CHALLENGES FOR PARTICIPATION AND IMPLEMENTATION

Like the JnNURM, the SCM does promote some good practices; for example, with relation to transport, proposals towards public transport and improving conditions for non-motorised transport could revolutionise the quality of urban life. However, the SCM process is flawed and needs to be evaluated against the existing governance ecosystem. It does not take into consideration the deeply ingrained problems with ensuring public participation, an easy demand to make but substantially harder to execute in retrospect (previous projects have failed in this regard) as it requires thought, time and capacity to meaningfully incorporate the public voice in governance and decision making. Moreover, the issue of evictions needs to be assessed against prevalent practices, because if they increase as a result of the SCM, then it can be argued that the project is not all that "smart". Further, the SCM seems to disregard most statutory processes and acts, such as the Regional and Town Planning Act, for example. The SPV too comes with its own problems; it not only has a far wider scope than normal with the SCM, it has far more powers over land, taxation, user charges, etc. The structure of the SPV implies that private companies are necessarily involved, and that governance is taken away from the local urban body and the public - which is fundamentally against the 74th Constitutional Amendment Act.



## FROM WORLD CLASS TO SMART CITY : BENGALURU

**Brinda Sastry**

Bengaluru was not nominated as a Smart City in the first round of the Smart City Challenge. Recently, along with ten other capital cities, it was included in Stage II of the selection process and the Bruhat Bengaluru Mahanagara Palike (BBMP), the city government, is preparing to submit its Smart City Plan proposal.

### BENGALURU CONTEXT

The population was 8.4 million (2011 Census) and density is 4,378 persons/sq. km, which is the highest in the state of Karnataka. The next dense city is Mangaluru which has 416 persons/sq. km. The population growth rate in the last decade was 65.2% and increase in population was mostly due to migration and inclusion of seven City Municipal Councils, one Town Municipal Council, and 110 villages in 2007.

### MAJOR PROJECTS / PLANS

Several planning efforts and development projects have been undertaken in Bengaluru over the last decade (2006-16). The Bengaluru Regional Plan (BMR) Structure Plan 2031 is a policy plan laying the framework for development and growth of the metropolitan region. The Bangalore Development Authority (BDA) is currently revising the Bangalore Master Plan 2015 and the entire process is under wraps and not revealed to the public.

Bengaluru was selected to be one of the cities to implement the nation's largest flagship urban development scheme called JnNURM, where INR 66000 crore was budgeted for 68 cities over a period of five years (2008-13). Under this scheme several infrastructure projects and governance reforms were to be implemented. After the current NDA government came to power in 2014, this scheme was continued with minor changes under the name of AMRUT, with an additional investment of INR 173 crore in December 2015.

The Rajiv Awas Yojana (RAY), now named as the Housing for All, is also an important development programme that is meant to provide housing for the poor and weaker economic groups. Additionally, in the recent budget, the Chief Minister's special package of INR 5000 crore was announced for projects to be undertaken by the BBMP and the BDA. This includes solid waste management, signal free corridors, lake conservation, peripheral ring road development, subsidies for farmers, development of affordable housing, junction development, Tender Sure for road infrastructure enhancement, among others. The construction of the Metro Rail and replacement of infrastructure to curb loss of water supply through the Unaccounted for Water (UFW) project started by the BWSSB in 2012 is also underway. Bengaluru is also one of 100 cities selected as part of the Resilient Cities Network



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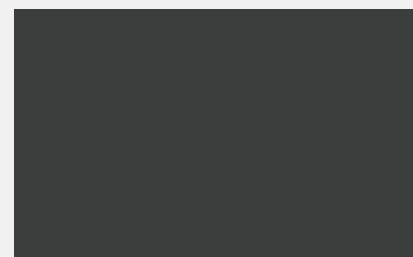
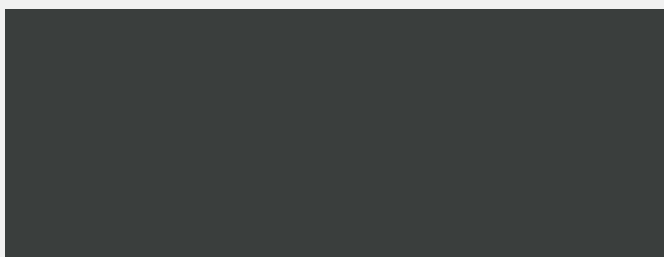
- Grant Thornton's appraisal of the JnNURM (March 2011)
- Ministry of Urban Development and Ministry of Housing and Poverty Alleviation internal assessments and status of project implementation (December 2011)
- Planning Commission mid-term appraisal of Urban Development in the 11th Five Year Plan (2011)
- Report by Planning Commission committee chaired by Arun Maira (March 2012)
- Comptroller and Auditor General (CAG) Report (April 2012)

These evaluations reveal that local governments have not been able to perform in terms of planning, utilisation of funds, completion of projects and implementation of reforms, as well as monitoring and evaluation of projects. This is attributed to their poor capacity for planning, lack of funds, poor coordination between implementing agencies, lack of a participatory process, lack of political will and state support, and limited understanding of reforms and their impacts.

Besides, many citizen-driven evaluations recorded in reports and proceedings of consultations, such as those mentioned below, indicate problems in the process and call for a re-definition of citizenship.

- Analysing the Impact of JnNURM Funded Slum Redevelopment Projects on Children Across India, A report by Action for Children's Environments (ACE), 2013
- A Policy Paper on National Strategy for the Urban Poor, Published by Hazards Centre, 2007
- National Consultation on the JnNURM and Rajiv Awas Yojana, Delhi People's Alliance, 2012
- Citizens' Groups: Half Time or Time Out: a collective view from below, Citizens' Review of the JnNURM; Hazards Centre, New Delhi, 2009
- Other national consultations in Bengaluru and other cities

These evaluations indicate that the City Development Plan (CDP) did not follow procedure for in-depth analysis, the Detailed Project reports





(DPR) did not match with the CDP's vision and goals, there was no participation in planning process, basic services were accessible only to those with the capacity to pay, there was little transparency or accountability in planning and implementing, the expenses of the poor had increased along with their exclusion from the city itself, and the block housing under the BSUP was not designed to suit the poor.

Also, it was observed that the government data and evaluations commissioned by them did not reflect the ground reality. Various academic writings and state-level analytical reports focused on only a part of the problem. Citizen-driven evaluations show that the Mission had problems with its design where the allocation of funds was linked to reforms, which in turn led to poor implementation. The Mission's one size fits all approach brought about uneven development. There was a gap in the people's perception of the Mission and the Government's vision. The process was not participatory, transparent and accountable, and the involvement of the private sector changed the dynamics of pursuing an inclusive and pro-poor agenda. Local bodies lacked the autonomy envisioned by the 74<sup>th</sup> CAA as they are controlled by state governments and there has been a nexus between the private sector and government, which has outplayed the role of citizen-government partnership. Besides, there are many informal networks and practices at play, which are bound to influence the outcomes of programmes such as the JnNURM and Smart Cities.

Collectively, the effect was that cities saw inefficient infrastructure implementation and service delivery, uneven development, and a lack of anticipated impacts on ground and benefits to citizens. The

JnNURM's intent, design and implementation were disconnected from the expected outcomes, citizens' expectations and on-ground impacts. This raises questions of whether the JnNURM has succeeded in addressing urban poverty, reforming governance, and making the local bodies efficient. Also, it urges us to identify the gaps in the people's perception of JnNURM and the outcomes as envisioned by the Government. The answers to these questions in the Bengaluru context will help us understand the challenges for implementing the Smart Cities Mission.

## HOW PREPARED IS BENGALURU TO BECOME A SMART CITY?

Data for JnNURM shows that by 2012 INR 652 crore of central funds were released for Bengaluru. Only 63% of the infrastructure and governance projects (UIG) were completed in 2012, and by 2014 about 81% were completed. Among the housing projects (BSUP) projects 76% were completed and of the total dwelling units built only 66% were occupied in 2012. The reforms score was 95% one of the highest among the metropolitan cities, and its credit rating was B, which makes it vulnerable to adverse economic conditions. This indicates that the local body has not been able to reach the targets.

Besides, Bengaluru was not recommended as a Smart City in the first round as it did not meet the initial criteria and qualify. This is because it has a low tax collection rate (62%), its population over shot the criteria, no financial audits has been done for projects by BBMP, BDA, BWSSB, and the ratio of public toilets to population is low in comparison to other cities. Now, as a result of political decisions,

it is among the five cities in the state competing for the Smart City Status.

Whether Bengaluru is chosen in the next round depends on the process the BBMP adopts in preparing the Smart City Plan and meeting the selection criteria. So far, all efforts to conduct outreach and gather information has involved employing mobile vans in eight BBMP zones and hiring a film actor as a brand ambassador to propagate the Smart City Mission, making news and TV announcements, and announcing an award of INR 100,000 for the best Vision Statement.

Technology adopted to gather information and support for the Smart City status included developing a mobile application – EyeOrta; opening a Facebook page for comments; use of Twitter, WhatsApp, SMS text, E-mail, missed call to vote and comment; and seeking feedback through the [www.mygov.in](http://www.mygov.in) website.

Other efforts include meeting with councillors and the Mayor, resident welfare association, members of the Legislative Assembly (MLA), military personnel, education institutions, and information technology and biotechnology companies. Kiosks were set up at the BBMP and an awareness programme was held on 24 June 2016, where MLAs and Council members presented their ideas for a Smart City. At this event, it was announced that NISPANA, a global provider of business solutions that catalyses business mergers and acquisitions and conducts training, conferences, exhibitions for various businesses, governments and industries, is designated as a knowledge partner for the Bengaluru Smart City Plan. Also, the BBMP has partnered with other individual urban planning and technology experts, as well as the NGO - Centre for

Smart Cities, Bengaluru, to prepare the plan which is due to be submitted on the 30 June 2016.

However, the outreach process was not transparent and no specific format for feedback was provided. The absence of ward committees meant that the 74th CAA was not implemented to involve the public. The public is unaware of how feedback will be collated and the awareness programme was poorly attended. The absence of the Mayor and many councillors was indicative of the level of interest and awareness. A few proposals presented by MLAs were mostly real estate ventures for redevelopment of vacant or underutilised lands.

### **Privatised and technocratic focus will undermine citizenship**

Generally the concern is that while the objective of the Smart City Mission is to make cities livable, sustainable and inclusive, the efforts are driven by asset creation rather than being value based. At a policy level, it is a challenge to integrate the smart city projects with the current Master Plan and other on-going projects. The Smart City Mission seems to lack a vision and a systemic approach that integrates across sectors and coordinates across departments. It needs to adhere to the Smart Cities Reference Framework adopted by the NITI AAYOG in 2015. The area-based proposals provide an opportunity for local area planning and demonstration of implementing the 74th CAA; however, they are not conceived in this manner. Besides, at a policy level, the implications of the Geospatial Information Regulation Bill, 2016, if passed, would be relevant to discuss.

The Smart City Mission claims that the process is not DPR driven like the JnNURM was, and that it seeks





citizen input in preparing the plan. Yet, the outcomes of the process are vendor-driven projects. The process has not been transparent and well publicised at ward level and the platforms where citizens' voices can be heard at the ward level are few, consequently becoming a threat to democratic governance. Further, to implement the SCP an SPV is to be formed that will be registered as a company, which would have full autonomy to conduct its functions and exercise financial powers, which is a way of outsourcing decision-making.

For monitoring and evaluation of the Mission, various national, state and city level committees and forums are to be formed; however, most of the representatives on these committees include bureaucrats, and financial and technical institutions. No Ward Committee member or councillor is included and community representatives are only in an advisory role at the city level. There is also a lack of a mechanism for evaluating the on-ground impact of the Smart city projects post-implementation. The above concerns collectively will influence our cities and bring about uneven and non-inclusive development, calling for a re-conceptualisation of citizenship.

## THE SMART CITY IS DEVOID OF PLACEMAKING AND PLACE MAKERS

**Madonna Thomas and Satyarupa Shekhar**

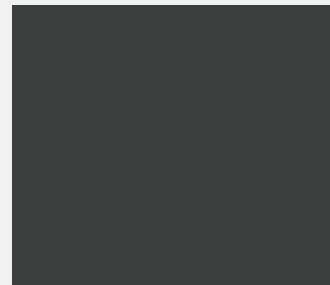
Pedestrians, vendors, chaos, street life, interactions. This is the picture that comes to mind when we think of Indian public spaces. Unfortunately, by focusing heavily on transit the Smart Cities Mission has reinforced the shift in planning paradigm from transportation to mobility. While transportation planning focuses on making places accessible to people, mobility seeks to make it efficient to get from one point to another. What the mobility-driven planning does is miss the in-between spaces of a city, limiting our experience to our origin or destination. Even thinking of different modes of transport, such as walking and cycling, still operates within the mobility framework. This overshadows the criticality of placemaking and its various ingredients - accessibility, affordability, comfort and sociability.

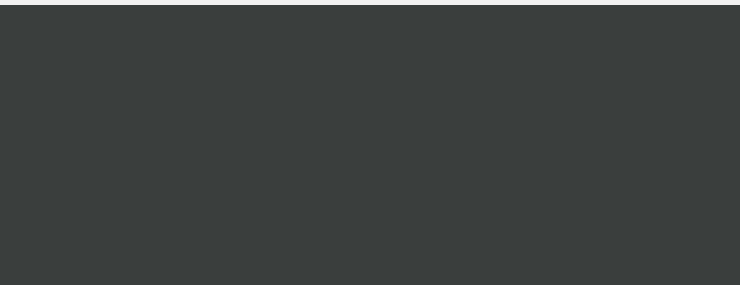
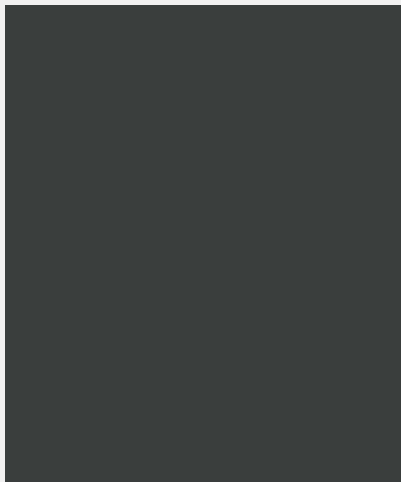
Placemaking is about reimagining public spaces such that people want to be there - they are spaces that are inclusive, support healthy lifestyles and vibrant local economies, and strong communities. Public spaces, such as streets, markets, parks, riverfronts and beaches, would be where all people are able to share, access and enjoy them. This would be combined with a transit system that is comfortable, accessible and affordable. Placemaking also incorporates aspects of the environment, heritage and economic development with principles of equity, health and safety. Because placemaking is connected with people and places, it connects multiple causes and deepens their impacts. It was within this context that we analysed the Smart City proposals.

### ANALYSIS OF SMART CITY PROPOSALS FOR MOBILITY

The relevant category in the Smart City Guidelines was mobility and cities had to propose solutions pertained to pedestrian friendliness, non-motorised transport, traffic management, open zones, parking arrangements, street lighting and street vendors. One of the features that are stressed on is walkable cities, with the road designed not only for use by private vehicles but also public transport vehicles, cyclists and pedestrians. Hence, it was not surprisingly to see three-quarters of the proposals demanded a road redesign with the footpath accessible to disabled persons, a little more than half proposed for car free streets or zones and cycle sharing systems each. Unfortunately, Surat and Kochi still consider creating skywalks over busy junctions and stretches as a step closer to walkable cities, the very same skywalks which studies have found will become obsolete.

Half of the cities selected proposed switching to LED lights while the remaining concentrated on energy sensors and solar power options. It is important to acknowledge the shift cities are making towards sustainable energy but the proposals are unclear if areas that are in dire need of street lights are being considered for this proposal. Does it make sense to experiment with technology in areas that already have a source of light in comparison to the impact it would make in localities that do not have street lighting to begin with?





In the interventions concerning street vendors, with the exception of Visakhapatnam, Indore, Davanagere and Coimbatore which have not included them in their proposal, a little more than half of the remaining cities have proposed creating hawker zones and issuing hawker licenses. Bhubaneswar and Kochi on the other hand are the only two cities that propose empowering street vendors with prospects for vocational training, which could contribute to new or high quality work opportunities right on the street. It is particularly interesting to see Davanagere envisaging their smart city to be a pedestrian paradise with the emphasis on the concept of ‘eyes on the street’ but has no provision for street vendors, who are considered a critical element for walkable neighbourhoods. The city instead proposes to use various sensors to understand traffic patterns, pedestrian movement and safety concerns. This vision is of a sterile environment, one that is at odds with the dynamism and vibrancy of Indian streets, which is also what makes them safe.

For open spaces to contribute to the liveability factor, all 19 cities with the exception of Jaipur proposed central recreational zones like parks, beaches or markets, to be converted to pedestrianised streets. Regrettably improvement of public transport infrastructure, apart from buses with GPS devices and bus stops with electronic displays of schedules is not thought of to support the successful conversion of these streets and areas into walkable neighbourhoods. Without a robust public transport system either the proposed areas could suffer a loss of visitors or people would violate the idea of these spaces being a pedestrianised zone. The latter could choke surrounding neighbourhoods and reverse the effect the proposed ideas were trying to create.

## KEY CONCERNS

It was interesting to look at the mobility sections within the Smart City proposals and find several similarities in the solutions across the 20 cities. This could be attributed to the ‘challenge method’ used by the Smart Cities Mission to award cities their funding. Even though cities were allowed to think of solutions that would complement their context, the submissions in Round 1 did not deviate much from the ‘suggestions’ made by the Ministry of Urban Development (MoUD). The solutions proposed involved strategies adopted by MoUD’s choice of precedents that mirror projects from cities across the world: car-free zones from New York, pedestrianised streets in Istanbul, bike-sharing systems from Hangzhou, and the surcharge added to single occupancy vehicles in London. This begs the question as to whether the cities thought the Mission guidelines were suggestions or stipulated requirements. Or more importantly, were they limited by the imagination of the ‘expert’ consultant firms.

In the traffic management and parking categories, all 20 cities proposed intelligent traffic management systems, smart parking systems and traffic sensors - all technology solutions that are mentioned in the guidelines. Not only are these technology solutions expensive to install and maintain, but like most technology are likely to become obsolete rapidly.

Suggestions for solutions for urban mobility in the SCM guidelines were smart parking, intelligent traffic management, integrated multi-modal transport and green-field development. Greenfield developments involve converting precious agriculture or grasslands into real-estate development projects that will have major adverse effects in the local ecology.

It was disturbing to see that many cities had a disciplined vision for public streets that is at odds with the realities of the Indian streetscape. Street vendors are an integral part of the Indian street's appeal contributing to the functional and aesthetic character, but they are considered to 'spoil the place' with their presence. The proposals seek to limit their work space to neat kiosks or even restrict their access to several areas of the city without proper consideration of the social and economic impacts will cause a major imbalance in the ecosystem.

Cities can tackle inequality by making public spaces inclusive, safe and accessible public spaces. Public spaces are important for vibrant cultural activities, livelihoods and recreation for city residents, particularly for the urban poor. However, none of the proposals explicitly provide for this. Nor do

they preserve the historically significant buildings and neighbourhoods.

## CONCLUSION

Progressive transportation planning addresses issues of land use, traffic, safety, transit modes ecology and people. In contrast, the recent past is filled with stories of cities building expensive infrastructure with little heed to these factors and based on the unilateral vision of experts, leaving out the role of placemaking and the perspectives of everyday people who continuously use and shape it. The Smart Cities Mission reflects the same lack of imagination.

The Smart City proposals reflect the lack of the transportation framework by which each city can understand what its current problems are, where the gaps lie and what solutions would be appropriate responses. They also reflect a vision of fractured city development, with the concept of walkability isolated from the built form and presence of street vendors, for instance. With the need to compete and the lack of sound technical capacity, readymade solutions suggested in the Mission documents make it easier for cities to access funding without the need to change inappropriate processes. Not only does this increase the likelihood of the Mission failing, it also does not improve the ability of city managers to ensure that our cities have adequate and good quality mobility infrastructure and public spaces that make cities liveable. Ultimately, it articulates a narrow vision of the public space that is devoid of citizens, especially the urban poor.



## WHERE DOES THE FINANCIAL VIABILITY LIE?

Himanshu Damle

'Smart' as an adjective or a noun is not really the question anymore as the growing narratives around it seem to impose the latter part of speech almost overwhelmingly. This could be a political strategy wrought by policy makers, IT honchos, urban planners amongst others to make a vision as expansive as it could be exclusionary. The exclusionary component only precipitates the divide *in-between* the inclusionary, thus swelling the former even denser. Turning from this generic stance about the notion of 'smart', it is imperative to look at a juggernaut that is swamping the political, the policy makers, the architects-cum-urban planners, the financiers, and most crucially the urban dwellers belonging to a myriad of social and economic strata. While a few look at this as an opportunity in revamping of the urbane, for the majority, it is turning out to be a silent battle to eke out a future amidst uncertainty. In a nutshell, the viability of such ambitions depends on clear-sightedness, which seems to be filling up the void via the ersatz.

One thing that needs to be clarified here is the use of 'smart' is quite clearly similar to the use of 'post' in some theories, where it is not the temporal factor that is accounted for, but, rather an integrative one, a coalition of temporal and spatial aspects. Many a times, intentions such as this constructed as a need, and the difference between with the necessity is subtle. Smart Cities were conceived precisely because of such rationales, rather than as cahoots of impending neo-colonization conspiracies. There is an urban drift, and this dense diaspora is allegedly associated with pollution, resource crunch, dwindling infrastructure resulting in a stagflation of economic growth. So, instead of having kiosks that are decentralised, the idea is to have a control that is central addressing such constraining conditions. With a central control, inputs and outputs find monitoring in-housed through networking solutions. Moreover, this looks like an e-governance schema. But, digging deep, this e-governance could go for a tailspin because of two critical questions. First, is it achievable? Second, how long would one look into the future as far as the handling and carrying capacity of data is concerned over these network solutions, since the load might exponentially rise without falling under any mathematical formulae, and could easily collapse the grid supporting this or these network(s)? This hypothesis takes on political robes when it looks at technology as its primary enemy. There is no resolution to this *constructed* bitterness unless



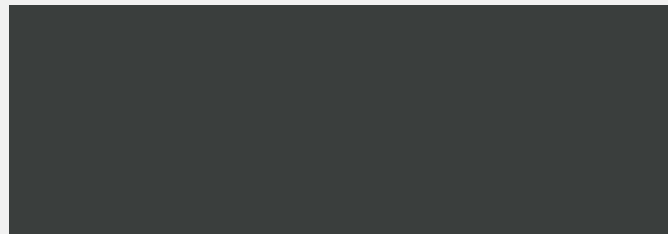
one accommodates one into the other. The doctrines of Ludditism are the cadence of the dirge for the 'Leftists' today.<sup>1</sup> The reality or surreality of smart cities are a corrosion of conformity of ideals spoken from the loudspeakers of 'Left', merely grounded on violations of basic human rights, and refusing to flip the coin to rationally transforming the wrongs into the rights.

Despite these discourses, what we need is an analysis of the finance industry and allied instruments. The notion that smart cities will soon become dystopian and centres of social apathy and apartheid is gaining momentum on one side of the camp due to a host of issues, one amongst which is the funds raised. In the immediate aftermath of Modi's election, the BJP Government announced INR 70.6 billion for 100 smart cities, which shrank in the following year to INR 1.4 billion. Aside from what has been allocated, the project is not run by the central government, but is purported to use an integrative approach between the central, state and local governments catalysed through a Special Purpose Vehicle (SPV). For understanding smart cities, it is obligatory to understand the viability of these SPVs through their architecture and governance.

These SPVs are invested with responsibilities to plan, appraise, approve, releasing funds, implement, and evaluate development projects within the ambit of smart cities. According to the Smart City Mission guidelines, every smart city will be headed by a full-time CEO, and will have nomination from the central and state governments in addition to members from the elected ULBs on its Board. Who can be the CEO is not clearly defined, but if experts are to be believed, these might be from the corporate world. Another justification lending credence to this possibility is the proclivity of the Government of India to go in for public-private partnerships (PPPs). The states and ULBs would ensure that a substantial and dedicated revenue stream is made available to the SPV. Once this is accomplished, the SPV would have to become self-sustainable by inculcating practices of its own credit worthiness, which would be realised by its mechanisms of raising

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<sup>1</sup> Luddites were a group of textile labourers in the 19th century who protested against the newly developing technology that economised on labour. The contemporary meaning is for anyone opposing industrialisation, automation and technology.





resources from the market. It needs to emphasised again that the role of the central government as far as allocation is concerned is in the form of a tied grant through creating infrastructure for the larger benefit of the people. This role, however, lacks clarity unless juxtaposed with the agenda that the central government has set out to achieve, which is through PPPs, JVs subsidiaries and turnkey contracts.

### CONFOUNDING ARCHITECTURE

If one were to look at the architecture of SPV holdings things get a bit muddled in that not only is the SPV a limited company registered under the Companies Act 2013, the promotion of SPV would lie chiefly with the state/union territory and elected ULB on a 50:50 equity holding. The state/UT and ULB have full onus to call upon private players as part of the equity, but with the stringent condition that the share of state/UT and ULB would always remain equal and upon addition be in majority of 50 percent. So, with permutations and combinations, it is deduced that the maximum share a private player can have will be 48 percent with the state/UT and ULB having 26 percent each. Initially, to ensure a minimum capital base for the SPV, the paid up capital of the SPV should be such that the ULB's share is at least equal to INR 100 crore with an option to increase it to the full amount of the first instalment provided by the Government of India, which stands at INR 194 crore for each smart city. With a matching capital of INR 100 crore provided for by the ULB, the total initial paid-up capital for the SPV would rise to INR 200 crore. If one was to consider the

GoI contribution of INR 194 crore then the total capital initially for the SPV would be INR 394 crore. This paragraph commenced saying the finances are muddled, but on the contrary this arrangement looks pretty logical, right?

There is more than meets the eye here, since a major component is the equity shareholding, and from here on things begin to get complex. This is also the stage where SPV gets down to fulfilling its responsibilities and where the role of elected representatives of the people, either at the state/UT level or at the ULB level appears to get hazy. The Board of the SPV, despite having these elected representatives has in no certain ways any clarity on the decisions of those represented making a strong mark when the SPV gets to apply its responsibilities. SPVs, now armed with finances can take on board consultative expertise from the market, thus taking on the role befitting their installation in the first place, i.e. going along the privatisation of services in tune with the market-oriented neoliberal policies. A list of such consultative experts has already been drafted by the Ministry of Urban Development. Such an arrangement is essentially dressing up the Special Economic Zones in new clothes sewn with tax exemptions, duties and stringent labour laws in bringing forth the most dangerous aspect of smart cities, viz. privatised governance.

Whatever be the template of these smart cities, social apathy would be built into it, where the only kinds of inhabitants who would walk free would be economically productive consumers and economically productive producers.



## SMART CITY SPV UNDERMINES LOCAL SELF GOVERNANCE

**Satyarupa Shekhar**

The execution of smart city projects under the Smart Cities Mission is to be undertaken by a Special Purpose Vehicle (SPV) that is to be created specifically for this function. This legal entity has been created solely to make cities more efficient and attractive investment destinations. If urban local bodies have been so severely hamstrung for revenues, then why have we seen so many instances of protests from them? Public officials in Mumbai, Nashik, Pune, Chennai and Kochi, among others, have indicated that SPVs will undermine the principle of local self governance and defeats the purpose of the 74th Constitutional Amendment Act which sought to empower urban local bodies.

According to the SCM guidelines, these SPVs will plan, appraise, approve, implement, manage, monitor, release funds and evaluate the projects. The guidelines specifically state that in order to “ensure operational independence and autonomy in decision making and mission implementation”, urban local bodies (ULBs) must delegate the rights and obligations of the municipal council to the SPV, and delegate the decision making authority under the municipal act to the CEO of the SPV.

The SPV will have a Board of Directors with representatives from the centre, state and local body. The guidelines state that the “Chairperson of the SPV will be the Divisional Commissioner/Collector/Municipal Commissioner/ Chief Executive of the Urban Development Authority as decided by the State Government”. However, it does not mandate the presence of an elected representative which makes

this decision-making body technocratic and driven by economic principles of efficiency. The Board also needs to include an independent director from the database maintained by the Ministry of Corporate Affairs. The SPV will have equity from the state government, ULB and private sources in a ratio such that the state and ULB shares are equal, and their combined share exceeds that of private equity. The Centre’s share of the funds can be used as the ULB’s share but these will be tied funds.

The guidelines for the SCM specify that state and local governments have to ensure that the SPVs have a dedicated and stable stream of revenue till it is able to raise credit in the market on its own, with the stipulation that it should ensure that the government contribution to the SPV is spent on outcomes that are for the public. However, it is also stipulated that the government contribution can be used only to create infrastructure. There is a danger of problems articulated as infrastructure problems instead of taking a holistic outcomes-based approach. This is particularly important because technology occupies a central role in the Smart Cities Mission and the notion of a smart city. As a result, cities have proposed and SPVs will purchase expensive technology, such as cameras, sensors and metres that will lead to newer problems. Unless the SPV can institute new processes for their upkeep and use, cities will be left with expensive technology and other infrastructure without any plans for either their maintenance or the capacity among city staff to maintain them.

There are several questions that come to mind with these guidelines. For instance, who bears the risk of the



SPV failing to become credit worthy for the market? Why should the governments not ensure that all of the SPV's activities - not just those financed by public funds - be in public interest when it is the rights and obligations of urban local bodies that have been delegated to it? The structure and terms for the SPV places significant powers and finances in the hands of the SPV which is essentially a profit motivated business entity. There is also a contradiction in the stated need to give complete flexibility, operational independence and autonomy to SPV, and the details which mandate that the centre's grants are tied, reflecting a lack of trust in ULBs and reluctance to devolve powers, and the Board to have a majority of government representatives without any representation for citizens, civil society or elected representatives. For citizens, this means that the SPV has little or no in-built mechanisms to ensure transparency, accountability and real public participation – key principles of democratic governance.

### **BYPASSING DEMOCRATICALLY ELECTED REPRESENTATIVES**

On May 25, 2016, the Government of Tamil Nadu (GoTN) published the directive for the creation of two Special Purpose Vehicles for the implementation of smart city projects in Chennai and Coimbatore. The Government Order MAWS/77 (hereafter GO77) lays out the conditions for the creation, composition and functioning of the private company that will plan, implement and monitor smart city projects in the two cities. Table 1 presents a reading of the potential positive and negative implications of its design as has been laid down in the Order.

Clause Number	Clause	Potential pitfalls
3 (i)	The SPV will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects.	This largely depends on the quantum and expertise of manpower and infrastructure provided to the SPV. The GO77 contains no details on these. For instance, what is the maximum limit of the funding that can be used for administrative expenses and consultancy fees is not specified.
3 (vi)	As per guidelines the CEO of the SPV will be appointed with the approval of the MoUD, for a fixed term of three years and will be removed only with the prior approval of the MoUD.	<p>This may provide stability and insulation against local political interference.</p> <p>However, the operative portion of GO77 is silent on this. There seems to be a dilution of rules as has been set out in the Mission guidelines and what has been laid down in GO77. For instance, the CEO position can be held by the Deputy Commissioner (Works) but there are no limits on the time for which this 'in-charge' position can be held.</p> <p>If the MoUD has agreed to these dilutions, and there are further amendments over a period of time, how can we be sure that the SPV is insulated against local political 'interference'?</p>
3 (vii)	The Municipal Council will be required to delegate its rights and obligations to the SPV.	<p>The reasoning here is that the delivery of public services by the SPV, rather than the city government and other public agencies, would improve efficiency.</p> <p>Delegating its rights and obligations to the SPV amounts to privatisation of public services. While it may lead to improved efficiency, it would be at the cost of access and affordability of the service by disadvantaged communities.</p> <p>The GO is silent about the administrative powers of the SPV. Ideally, if a task has been delegated to the ULB then it should have the authority and autonomy to execute it within the means available to it. However, the CoC needs to get administrative sanction from GoTN for works with estimates above INR 10 crore. This hinders the decision making process from the point of conceptualisation of the project. If the set-up is the same for the SPV then it is going to interfere with its decision making process.</p>
5 (i)	The GoTN can appoint the Additional/ Joint/ Deputy Commissioner (Works) as officer on special duty to create and manage the SPV till a CEO is appointed.	<p>There is no upper limit on the tenure for temporarily held positions. Within the CoC we have seen that key positions have been deliberately left vacant to suit departmental and organisational dynamics. For instance, the position of Senior Systems Analyst is the Head of the IT department. This position has been deliberately left vacant for multiple years so that a senior programmer can acquire the necessary experience required to meet the requisites of that position.</p> <p>The officers of the city government report to the ministers and civil servants in the state government and would not be insulated from the political interference that the SPV seeks to achieve.</p>

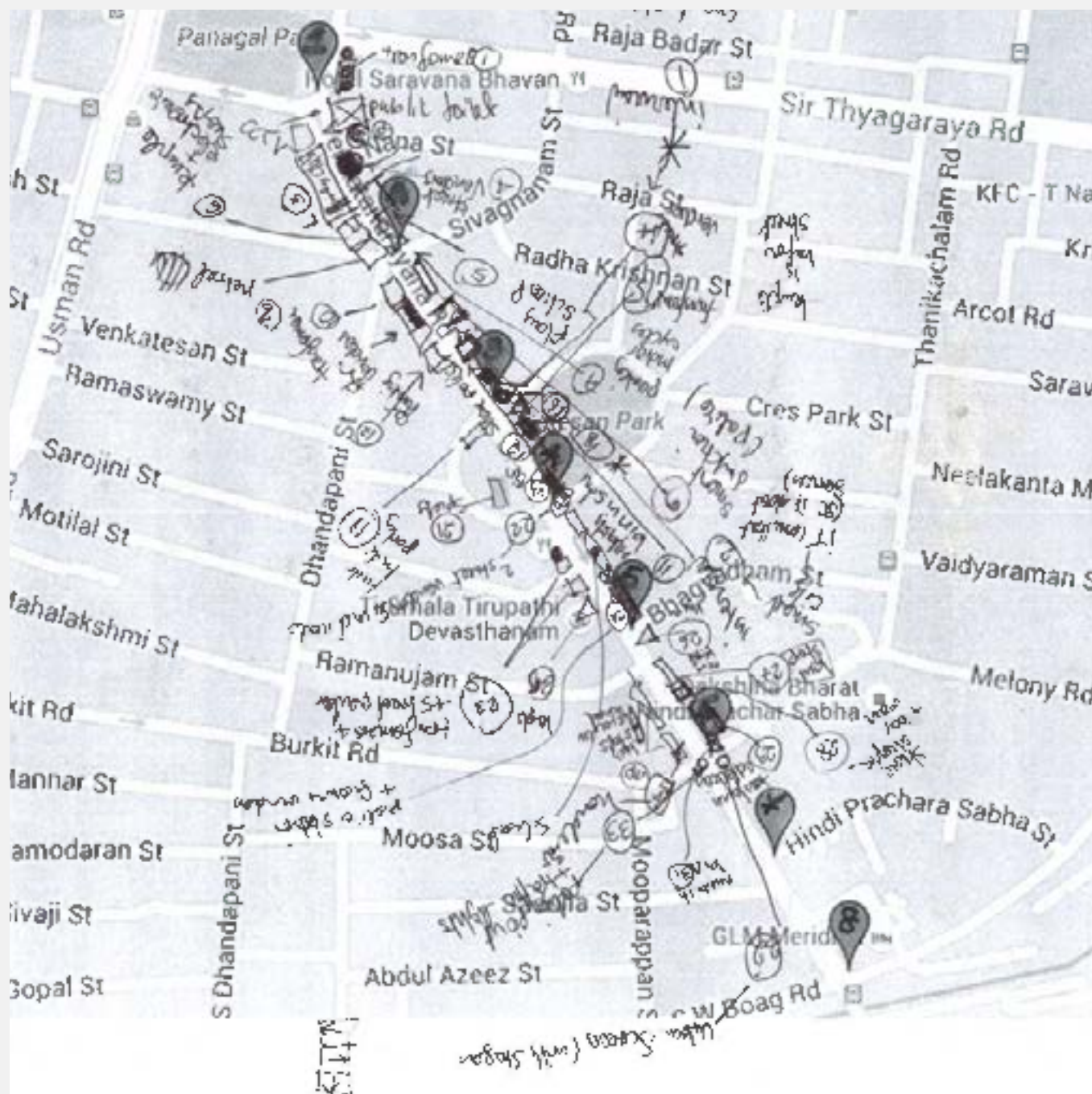
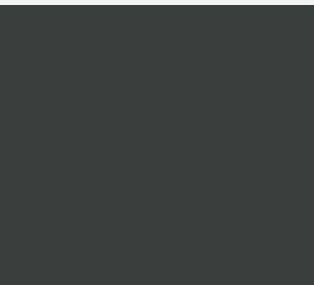
Clause Number	Clause	Potential pitfalls
5 (vii)	To appoint functional specialists and staff for each sector either on deputation basis or recruitment.	<p>The recruitment of specialists and staff for each sector will add the required in-house expertise when such projects are executed and when these are expanded to city-wide scales.</p> <p>Deputing staff from other departments is unlikely to give the necessary strength. Even today the CoC has issues of extreme workload, for instance in the engineering wing. The number of AEs is insufficient. The secretarial support to this wing is negligible even at the head office and absent in the wards. There are additional responsibilities like elections, natural calamities like floods, distribution of freebies, handling of court cases etc., to handle. Unless exclusive staff is provided, the project will not achieve the expected outcomes.</p> <p>Specialists with proper qualifications alone must be appointed without political interference in the selection process.</p>
5 (viii)	To appoint consultants for preparation of DPRs for identified project components under Smart City proposal.	<p>Consultants may bring in new expertise and approaches that the ULB lacks. However, past consultancy assignments have not ensured for knowledge sharing between the consultant and the ULB staff. Sharing knowledge should be an integral part of all consultancy assignments.</p> <p>The appointment of consultants will lead to outsourcing thinking and shirking from responsibility by SPV. This is not conducive to building the capacity of staff of the SPV.</p> <p>It is also important to prevent the “passing of the buck” of responsibility between the SPV and consultants.</p>
5 (ix)	The Board of the SPV will include representatives of the various agencies that deliver services in the city. It will also include representatives from the MoUD, an independent urban expert and an independent woman director.	<p>This could address the problem of coordination between multiple agencies, but is something that could have been done within the city government by empowering it under the 74th Constitutional Amendment Act.</p> <p>Ideally the Mayor should have been the chairperson. Making the Commissioner the chairperson has added to the technocratic nature of the composition of the body, and could shape its functioning accordingly.</p> <p>There is no representation from elected representatives, citizens and civil society organisations. In Pune, a certain number of municipal councillors will also be a part of the Board of the SPV. This could have been done in TN as well.</p> <p>There are no criteria or reasoning for the inclusion of an urban expert and woman as directors.</p> <p>If agencies assign junior level officers as representatives to the Board they not find it easy to coordinate between different departments and senior officers.</p>

## CONCLUSION

There are several issues that currently plague urban local bodies (ULBs), most notably their lack of financial and administrative autonomy. As it is, the state government does not follow all procedures laid down to make the ULBs truly effective. The setting up of the SPV, that is mandated to identifying solutions to be implemented in short timelines, is unlikely to result in long term, holistic sustainable results. At best they can be quick fix or 'band-aid' solutions. For instance, improving the availability of water would need more than correcting for leakages; it would require augmenting water sources, restoring water bodies, minimising consumption, and avoiding negative environmental impacts. The creation of SPVs not only bypasses these real issues, it exacerbates the lack of autonomy of the local bodies.

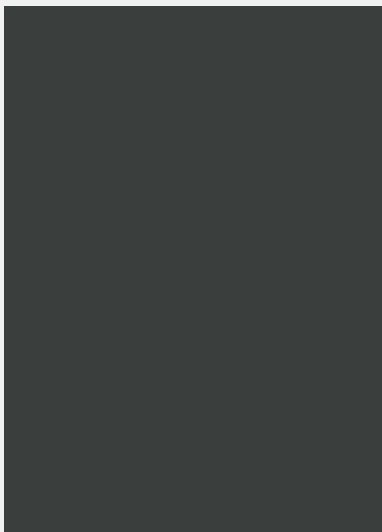
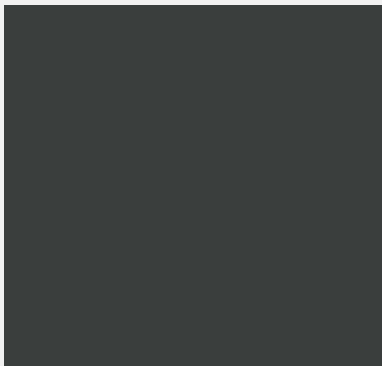
Efforts are still needed to strengthen the financial and administrative autonomy, and technical and managerial capacities of the ULBs. Being able to raise their own revenues has always been a challenge for most ULBs, but they still have not been able to improve revenue collection and financial management. Not only are they still responsible for the rest of the city, ULBs will also continue to provide to the SPVs. Most importantly, the growing inequities, as can be seen in slum populations, deprivations of basic services, and unemployment, need to be addressed by ULBs. They are still required to address the problems in our cities where they may not have the luxury of undertaking demonstration projects. Without addressing these fundamental problems, ULBs are unlikely to move towards genuine outcome-oriented delivery of services as envisaged in the Constitution of India.





[illegible]

the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50 percent, and the number of people 75 years of age or older has increased by 75 percent. The number of people 85 years of age or older has increased by 150 percent. The number of people 95 years of age or older has increased by 300 percent. The number of people 100 years of age or older has increased by 500 percent. The number of people 105 years of age or older has increased by 1,000 percent. The number of people 110 years of age or older has increased by 2,000 percent. The number of people 115 years of age or older has increased by 4,000 percent. The number of people 120 years of age or older has increased by 8,000 percent. The number of people 125 years of age or older has increased by 16,000 percent. The number of people 130 years of age or older has increased by 32,000 percent. The number of people 135 years of age or older has increased by 64,000 percent. The number of people 140 years of age or older has increased by 128,000 percent. The number of people 145 years of age or older has increased by 256,000 percent. The number of people 150 years of age or older has increased by 512,000 percent. The number of people 155 years of age or older has increased by 1,024,000 percent. The number of people 160 years of age or older has increased by 2,048,000 percent. The number of people 165 years of age or older has increased by 4,096,000 percent. The number of people 170 years of age or older has increased by 8,192,000 percent. The number of people 175 years of age or older has increased by 16,384,000 percent. The number of people 180 years of age or older has increased by 32,768,000 percent. The number of people 185 years of age or older has increased by 65,536,000 percent. The number of people 190 years of age or older has increased by 131,072,000 percent. The number of people 195 years of age or older has increased by 262,144,000 percent. The number of people 200 years of age or older has increased by 524,288,000 percent. The number of people 205 years of age or older has increased by 1,048,576,000 percent. The number of people 210 years of age or older has increased by 2,097,152,000 percent. The number of people 215 years of age or older has increased by 4,194,304,000 percent. The number of people 220 years of age or older has increased by 8,388,608,000 percent. The number of people 225 years of age or older has increased by 16,777,216,000 percent. The number of people 230 years of age or older has increased by 33,554,432,000 percent. The number of people 235 years of age or older has increased by 67,108,864,000 percent. The number of people 240 years of age or older has increased by 134,217,728,000 percent. The number of people 245 years of age or older has increased by 268,435,456,000 percent. The number of people 250 years of age or older has increased by 536,870,912,000 percent. The number of people 255 years of age or older has increased by 1,073,741,824,000 percent. The number of people 260 years of age or older has increased by 2,147,483,648,000 percent. The number of people 265 years of age or older has increased by 4,294,967,296,000 percent. The number of people 270 years of age or older has increased by 8,589,934,592,000 percent. The number of people 275 years of age or older has increased by 17,179,869,184,000 percent. The number of people 280 years of age or older has increased by 34,359,738,368,000 percent. The number of people 285 years of age or older has increased by 68,719,476,736,000 percent. The number of people 290 years of age or older has increased by 137,438,953,472,000 percent. The number of people 295 years of age or older has increased by 274,877,906,944,000 percent. The number of people 300 years of age or older has increased by 549,755,813,888,000 percent. The number of people 305 years of age or older has increased by 1,099,511,627,776,000 percent. The number of people 310 years of age or older has increased by 2,199,023,255,552,000 percent. The number of people 315 years of age or older has increased by 4,398,046,511,104,000 percent. The number of people 320 years of age or older has increased by 8,796,093,022,208,000 percent. The number of people 325 years of age or older has increased by 17,592,186,044,416,000 percent. The number of people 330 years of age or older has increased by 35,184,372,088,832,000 percent. The number of people 335 years of age or older has increased by 70,368,744,177,664,000 percent. The number of people 340 years of age or older has increased by 140,737,488,355,328,000 percent. The number of people 345 years of age or older has increased by 281,474,976,710,656,000 percent. The number of people 350 years of age or older has increased by 562,949,953,421,312,000 percent. The number of people 355 years of age or older has increased by 1,125,899,906,842,624,000 percent. The number of people 360 years of age or older has increased by 2,251,799,813,685,248,000 percent. The number of people 365 years of age or older has increased by 4,503,599,627,370,496,000 percent. The number of people 370 years of age or older has increased by 9,007,199,254,740,992,000 percent. The number of people 375 years of age or older has increased by 18,014,398,509,481,984,000 percent. The number of people 380 years of age or older has increased by 36,028,797,018,963,968,000 percent. The number of people 385 years of age or older has increased by 72,057,594,037,927,936,000 percent. The number of people 390 years of age or older has increased by 144,115,188,075,855,872,000 percent. The number of people 395 years of age or older has increased by 288,230,376,151,711,744,000 percent. The number of people 400 years of age or older has increased by 576,460,752,303,423,488,000 percent. The number of people 405 years of age or older has increased by 1,152,921,504,606,846,976,000 percent. The number of people 410 years of age or older has increased by 2,305,843,009,213,693,952,000 percent. The number of people 415 years of age or older has increased by 4,611,686,018,427,387,904,000 percent. The number of people 420 years of age or older has increased by 9,223,372,036,854,775,808,000 percent. The number of people 425 years of age or older has increased by 18,446,744,073,709,551,616,000 percent. The number of people 430 years of age or older has increased by 36,893,488,147,419,103,232,000 percent. The number of people 435 years of age or older has increased by 73,786,976,294,838,206,464,000 percent. The number of people 440 years of age or older has increased by 147,573,952,589,676,412,928,000 percent. The number of people 445 years of age or older has increased by 295,147,905,179,352,825,856,000 percent. The number of people 450 years of age or older has increased by 590,295,810,358,705,651,712,000 percent. The number of people 455 years of age or older has increased by 1,180,591,620,717,411,303,424,000 percent. The number of people 460 years of age or older has increased by 2,361,183,241,434,822,606,848,000 percent. The number of people 465 years of age or older has increased by 4,722,366,482,869,645,213,696,000 percent. The number of people 470 years of age or older has increased by 9,444,732,965,739,290,427,392,000 percent. The number of people 475 years of age or older has increased by 18,889,465,931,478,580,854,784,000 percent. The number of people 480 years of age or older has increased by 37,778,931,862,957,161,709,568,000 percent. The number of people 485 years of age or older has increased by 75,557,863,725,914,323,419,136,000 percent. The number of people 490 years of age or older has increased by 151,115,727,451,828,646,838,272,000 percent. The number of people 495 years of age or older has increased by 302,231,454,903,657,293,676,544,000 percent. The number of people 500 years of age or older has increased by 604,462,909,807,314,587,353,088,000 percent. The number of people 505 years of age or older has increased by 1,208,925,819,614,629,174,706,176,000 percent. The number of people 510 years of age or older has increased by 2,417,851,639,229,258,349,412,352,000 percent. The number of people 515 years of age or older has increased by 4,835,703,278,458,516,698,824,704,000 percent. The number of people 520 years of age or older has increased by 9,671,406,556,917,033,397,649,408,000 percent. The number of people 525 years of age or older has increased by 19,342,813,113,834,066,795,298,816,000 percent. The number of people 530 years of age or older has increased by 38,685,626,227,668,133,590,597,632,000 percent. The number of people 535 years of age or older has increased by 77,371,252,455,336,267,181,195,264,000 percent. The number of people 540 years of age or older has increased by 154,742,504,910,672,534,362,390,528,000 percent. The number of people 545 years of age or older has increased by 309,485,009,821,345,068,724,781,056,000 percent. The number of people 550 years of age or older has increased by 618,970,019,642,690,137,449,562,112,000 percent. The number of people 555 years of age or older has increased by 1,237,940,039,285,380,274,899,124,224,000 percent. The number of people 560 years of age or older has increased by 2,475,880,078,570,760,549,798,248,448,000 percent. The number of people 565 years of age or older has increased by 4,951,760,157,141,521,099,596,496,896,000 percent. The number of people 570 years of age or older has increased by 9,903,520,314,283,042,199,193,993,792,000 percent. The number of people 575 years of age or older has increased by 19,807,040



On the other hand, Massey (2006) argues that the idea of a globalised society in which technology annihilates distances is becoming a myth and depends on who you are. She talks about an island in the middle of the Pacific Ocean which though located in the most prominent economic route between the Americas and Asia, has its communities gone into increased isolation due to the increase in linkage and connection across the ocean by means of air travel. Similarly, in a more familiar everyday situation, fast trains do not stop in intermediate stations anymore, taking longer for people living in the middle to go to short distances. Following Massey's line of reasoning we may say that globalisation works to reinforce already established connections but not in favour of fragile situations. Massey insists that social and cultural differences are not globalise-able. No matter how global we are, these will not stop being a question of space (and of geography in Massey's words). Looking at the *favelas* in the light of Massey's discourse we realise that even the economic inclusion that is certainly happening is impregnated with peculiar singularities in each specific cultural and social context. It cannot be globalised in order to be understood.

Some people disagree with that and believe in a globally framed problem with a possible global solution. This seems to be the case of Mitra (2000), who proposed many educational experiments with children using computers. The most well known was the original Kalkaji experiment, also known as the 'hole in the wall', designed to check whether or not potential users in India would actually use PC based outdoor Internet kiosk without any instruction and if it could be left without any supervision. The

experiment proposed a hole in the wall of Mitra's office in which a computer screen was placed facing the outside with access to the Internet by means of a touchpad. It sounded like a good experiment and I was looking forward to hear more on it. Nevertheless, when I attended Mitra's lecture in Amsterdam at the Doors of Perception 6 Conference in 2000, I did not hear what I expected about the experiment itself but a lot about its 'non-invasive' character, its general outcomes and about what I understood as a simplistic way of framing the problem:

"21st century society is characterised by speed, change and material aspiration. Families are small, solitary and very mobile. Marriage, as a social contract, is fast losing its meaning and relevance. Children spend a lot of time on their own. They often grow up with single parents. The concept of permanence is very different today than it was even fifty years ago. Children expect change all the time. They are also aware of the fact that everything can change, including their parents, their home, their school and their friends. They are often solitary and non-communicative. They have few friends although many can be aggressively extroverted. Since they expect rapid change, they see very little relevance in retaining anything, including knowledge (Mitra, 2000)."

Hearing or reading it fast one tends to completely agree with Mitra's assertion. Nevertheless, it is not as simple as that, at least in Brazil, and I believe also in India. One cannot infer any socio-cultural difference, subtlety or peculiarity in his assertion. It is so generic that we tend to agree. Regardless of most of it being true or not for children in some

places in the world, the last sentence is the one that needs attention. He proposes a sort of syllogism between 'one expects rapid change' and 'one sees no relevance in retaining anything'. However, there is a missing link to make the syllogism work; it lacks an explanation. We could argue the opposite: that people who expect rapid change tend to retain a lot of things because they are afraid of losing their memories. It might sound sheer language precocity, but in fact, it demonstrates the rapid analysis and framing of the problem as global, which I am arguing against with the help of Valladares and Massey as described above.

Unfortunately, most of what has been done in Brazil towards the so-called digital inclusion departs from similar simplistic framing of problems ignoring the socio-cultural diversity intrinsic in each community, small group and individual. It is not as simple as counting people not using the Internet and computers to identify the digital divide; it is neither possible to ignore that it exists. The path for identifying the divide, which is more socio-cultural than digital, and to deal with it might be related to people's autonomy in the production of their space and not with providing each illiterate individual with a personal computer, which was mentioned as the Brazilian government's strategy in the BBC Digital Planet (2008), which has no sign of such accomplishment so far.

A series of workshops I have done with illiterate people has shown that any illiterate person is able to learn very quickly to operate a computer. The problem is that most of the people with whom I worked in the digital inclusion workshops had nothing in mind to do with a computer in the future. On the other hand, when provided with hybrid interactive interfaces to act upon the space, people proved that even if they have nothing in mind to do specifically with a personal computer and the Internet, they certainly grasped the potential of ICT for their autonomous actions on space: on collaboratively creating a space as they occupy it using digital technology. This understanding is the most precious digital inclusion we could envisage if we take into account the relevance of socio-cultural differences and their spatial or geographical locations.

This is not to say that children should not be provided personal computers by the State. However, this instrumentality alone is not enough to trigger a socio-cultural and digital inclusion. A serious project of digital inclusion in Brazil would depart from understanding what sort of socio-cultural inclusion is demanded by the citizens without imposing on them the preconceived wishes and desires of those formatting the project, usually from the dominant class.



# (RE)PRIORITIZING CITIZENSHIP IN SMART CITIES GOVERNANCE

## Workshop Report

### INTRODUCTION

The (Re)prioritising Citizenship in the Smart Cities Governance workshop took place in Chennai, India on June 26-28, 2016. The workshop set out to bring together a wide range of stakeholders from across India and the world to discuss the India Smart Cities Mission (SCM) design and the implications it has for citizenship. The workshop aimed to form a solid base for both understanding and further researching the SCM. Additionally it aimed to devise pathways for challenging the mode of development that the mission sets forward.

The workshop planned to have three main outputs:

- To develop and test out methods for mapping, enabling and evaluating smart citizenship
- To create an agenda for researching and understanding the Indian SCM.
- To create an action oriented framework for informing, challenging and evaluating citizenship in smart cities.
- To create a network of partners that could use and contribute to further research, knowledge building and action around the Smart Cities Mission.

In order to take full advantage of the wide range of perspectives and the limited time the workshop had short presentations followed by discussion. The focus was on networking and creating better understandings of the range of perspectives and viewpoints to facilitate collaboration. The workshop took place over three days with a focus on mapping the proposed smart area in Chennai on the first day, followed by presentations and discussion the second day, and discussion and collaborative work the third day.

### Workshop Activities

Day 1: Mapping of T Nagar neighbourhood

Day 2: Discussion and knowledge exchange of smart city context and approaches with key stakeholders

Day 3: Next steps and agenda for future work

### Context

The workshop drew on the knowledge and multitudinous perspectives from marginalised city contexts at a range of geographical level, with participants reflecting on how “smart” initiatives as a whole have (negatively) impacted cities, neighborhoods and regions in the UK and Brazil, as well as how the Smart Cities Mission has and continues to affect cities in India, with a particular focus on Chennai.

The participants brought a welcome assortment of outlooks and interpretations to the table, with backgrounds ranging from Public Accountability, Architecture and Urban Planning, to Street Vending and Digital Inclusion. They were:

- [Ana Baltazar](#), Architecture and Urban Planning, UFMG, Brazil
- [Ava Fatah](#), Media Architecture and Urban Digital Interaction, UCL, UK
- [Brinda Sastry](#), Urban Governance and Planning, Bengaluru
- [Dharmesh Shah](#), Waste Management/Environmental Health, CTaP - IIT Madras, Chennai
- Diksha Radhakrishnan, intern, CAG
- [Durganand Balsavar](#), Architecture (Urban Design, Rural Development), Chennai



- [Himanshu Damle](#), Public Finance and Accountability, PFPAC, Delhi
- [Karen Coelho](#), Urban Governance and Water Reforms, MIDS, Chennai
- [Katharine Willis](#), Architecture, Design and Environment, Plymouth University, UK
- [Magdalena Cooper](#), Public Policy, University of Edinburgh, UK
- [Mukul Kumar](#), City and Regional Planning, UC Berkeley PhD candidate, Chennai
- [Nandini Chami](#), Political Economy of ICT and Digital Inclusion, IT for Change, Bengaluru
- [Rajagopal Balakrishnan](#), Urban Studies, Planning and Justice, MIT, Boston, USA
- [Ranjit Gadgil](#), Transport and Urban Governance, Parisar, Pune
- [Saktiman Ghosh](#), Street Vending and Labour, National Hawker Federation, Delhi
- [Satyarupa Shekhar](#), Data, Governance, Politics and Economics, CAG, Chennai
- [Sudhir Kumar](#), Architecture and Planning, Commonweal, Chennai
- [Saravanan Kasi](#), Environmental Activism, Fisherfolk Federation, Chennai
- [Sevilam Parithi](#), Labour/Street Vending, Law, National Hawker Federation, Coimbatore
- [Tara Murali](#), Architecture and Urban Planning, CAG/INTACH, Chennai
- [Vaishnavi Jayakumar](#), Disability Rights Activism, Chennai
- [Vaishnavi Chidambaranathan](#), Solid waste management and Informal waste workers, CAG, Chennai
- [Venkat T](#), Labour and Housing, TN Labour Blog and MIDS, Chennai

Mapping citizenship in the Smart City

## Day 1 | 26 June, 2016

### T. Nagar district, Chennai

Day one was spent completing an afternoon mapping exercise in T.Nagar, Chennai. T.Nagar is a neighborhood in Chennai where the Smart City Proposal plans to implement the Area-Based plan. The group met at Panagal park and was given a short introduction to the mapping technology and the paper maps. Each group was assigned a street to map using Kobo, a digital survey and mapping tool, and a paper map for





more details and notes. They were told to look at elements on each street falling under the themes of housing, mobility, amenities, and recreation. After completing the streets the groups reconvened at the park to discuss their observations from the exercise.

For T Nagar, the city's proposal lists assured (24x7) supply of electricity and water, recycling waste water by augmenting sewage treatment capacities, rain water harvesting, and storm water management by monitoring using sensors. It also proposes several transport-related infrastructure projects, including cycle tracks, e-rickshaws with solar charging stations, smart parking for on-street parking, multi-level car parks, intelligent traffic systems for smart signalling, and automated street lights.

#### Discussion topics

The mapping exercise was meant to prompt participants to look at street level infrastructure in detail and visualize the ways in which the smart city proposal for Chennai could impact the area. After returning from the mapping exercise the group discussed each group's experiences and key takeaways. The discussion centred around people's observations of street infrastructure, including flyovers, barriers, and waste bins. Additionally, observations focused on discussions with street hawkers and local vendors about their knowledge of the smart cities.

#### Key themes

- » the importance and abundance of informal activities in the street
- » the visibility of formal and informal infrastructure of rubbish, water, sewage,

telecoms and electricity in the street

- » conflicts between vehicle and pedestrians
- » the smart city as proposed in the SCM seems very far removed from the everyday life of the T. Nagar district.
- » difficult to envisage how the water, waste, ICT and transportation objectives of the SCM will be realised.
- » Smart Citizenship Discussion and Knowledge Exchange

**Day 2 | 27 June, 2016**

**PII-RIND meeting room, Chennai**

There were presentations on the following topics:

- » International perspective on smart cities with specific focus on the UK and Brazil by Katharine Willis, Ana Baltazar, and Ava Fatah.
- » an overview of the SCM including outline of key concerns, presented by Magdalena Cooper.
- » financial aspects of the mission and especially the Special Purpose Vehicle (SPV) set up to implement each SCM proposal by Himanshu Damle.
- » smart cities, land use and the turn to technocracy by Rajagopal Balakrishnan
- » the use of technology and data in city governance by Nandini Chami from IT for Change.
- » perspectives on the role of Street traders and Hawkers from Saktiman Ghosh, chair of the Indian Street Traders Federation.

- » overview of Smart City Proposal of Pune by Ranjit Gadgil
- » overview of Smart City Proposal of Chennai by Satyarupa Shekhar
- » overview of Bangalore's urban development process leading up to the its preparation of the Smart City Proposal by Brinda Sastry.
- » perspectives on Jaipur Smart City advisory committee by Durganand Balsavar who had been on the, giving his perspective on some of the key areas of concern for the Smart City Mission.
- » overview of work with GIS to represent citizenship of local fishermen in Chennai regeneration projects by Saravanan Kasi.

## Discussion topics

The discussions that followed the presentations raised questions about the structure, legal framework, and financing of the Special Purpose Vehicle, the search for a different model of state development, the role of technology in urban development, and the role of citizens in the SCM. Key concerns centred around how little we know about the legal aspects and structure of the SPV making it extremely hard to understand the repercussions it could have for city governance and accountability. Additionally, many participants felt that many of the concerns arising from the Smart Cities Mission were concerns that were mirrored in other development programs in India - supposedly due to the ingrained corruption within politics - and thus that the SCM was not addressing underlying systems that led to unequal and exclusionary development.

The group further stressed that the term “smart” should be re-evaluated with respect to the citizens. For example, many expressed concerns that previous missions such as the JNNURM failed on various counts, and that the SCM would have similarly disastrous effects on the demography. The group agreed that we should look at “smart” as implying an evaluative, flexible and retrospective/reflective approach to urban and technological renewal as opposed to a blindly futuristic and idealistic proposition that certainly would not prioritize citizenship and the multitudinous livelihoods without which the city would not truly function.



## Key themes

- » issues of privatisation of urban services, resources and infrastructure through SPV
- » problematic of governance due to set up of SPV and lack of transparency/accountability
- » SCM was not addressing underlying systems that led to unequal and exclusionary development
- » SCM builds very clearly on previous urban renewal and regeneration projects (such as the JNNURM), but seems to show little reference to these
- » That informal inhabitants and users of the street such as street traders will be excluded and evicted in the SCM
- » The impacts of smart city projects are often in the poorer and hidden districts of the city. For instance the water initiatives will be met by creating a desalination plant in Ponneri, a smaller city on the outskirts of Chennai

## HOW TO ENABLE SMART CITIZENSHIP?

Day 3 | 28 June, 2016

### PII-RIND meeting room, Chennai

The discussion commenced following off of the posed questions: what were the next steps? What did people hope would result from the workshop and discussions? What viable action(s) could be taken in response to the SCM and its demographic consequences? After the back-and-forth, the group decided that it would be far more constructive to delve into the specifics of building a framework for researchers and practitioners (primarily, the citizens) to learn, engage and evaluate the SCM, and by extension, re-prioritise citizenship. The group split up into three in order to focus their efforts towards the three main aims: Learning, Engagement and Evaluation, with respect to the Smart Cities Mission in particular. Once the smaller groups reconvened following fruitful discourse, they presented their ideas and pooled in/offered thoughts on each other's proposals. After much deliberation, the group suggested possible future endeavours and next steps, and concluded the workshop on a positive note.

### Discussion topics

The overarching ideas built heavily upon the previous day's discussions, with emphasis on analysing the urban governance ecosystem within which the SCM has embedded itself, as well as an exploration of the deeper issues that affect governance in general - the lack of public participation (or even the presence of token participation), the absence of citizen-concerned



decision making and even the lethargic planning and execution of large-scale projects. The practitioners within the group expressed their grievances regarding how large urban reform missions were aimed at the elite population and would incur huge costs that would result in substantial ramifications for primarily the urban poor and the lower middle class (who are never considered as part of the “smart” agenda).

### Key themes

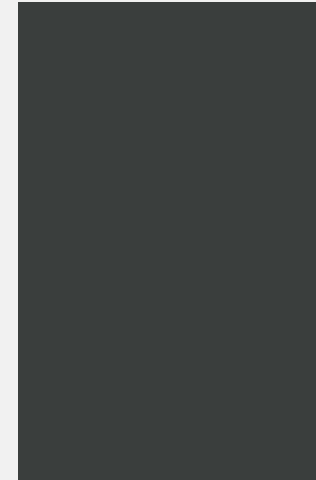
- » Need to define a framework to challenge and engage the smart cities project that will take into account key concerns for citizens
- » Framework needs to have capacity to enable citizens to ‘**learn, engage/challenge** and **evaluate**’ Smart cities at the meta, programme and city project levels

### CONCLUSION AND NEXT STEPS

It was decided that setting up a network would be necessary (although certainly not facile), and that its structure and formation would have to be established. Discussions would continue and an e-mail and file-sharing network would be set up, with CAG and the main organisers continuing research into “smart” citizenship, quite possibly delving into the legal framework behind the SCM. Certain members of the group decided to work on research and drafting position papers that could then be published in order to disseminate information and ameliorate public awareness of the project.

Members of the group requested for information support about the SCM, and support to evaluate proposals in their own cities. This prompted the question as to what materials and tools are needed for citizens to challenge and engage with smart cities. Since various members have ongoing research and advocacy efforts to challenge or support smart city projects in the city, the group agreed that they would share information on their methods and experiences. CAG also suggested that it would be open to conducting mapping and data collection exercises for different groups so that they could collect data in their own cities.





## ORGANISERS

This workshop was hosted by the Citizen consumer and civic Action Group (CAG) as a part of its Transparent Cities Network initiative. CAG is a non-profit, non-political organisation that works towards protecting citizens' rights in consumer, social and environmental issues. The workshop was organised by Satyarupa Shekhar, Director - Government Outreach and Advisory, CAG, with excellent research support from Magdalena Cooper and Diksha Radhakrishnan.

This work is part of an AHRC International research network on "Whose right to the Smart City?" between:

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- Dr. Ava Fatah, Associate Professor, The Bartlett School of Architecture, University College London, UK
- Dr. Ana Baltazar, Senior Lecturer, School of Architecture, Federal University of Minas Gerais, Brazil
- Satyarupa Shekhar, Director of Government Outreach and Advisory, CAG, Chennai, India

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### More information

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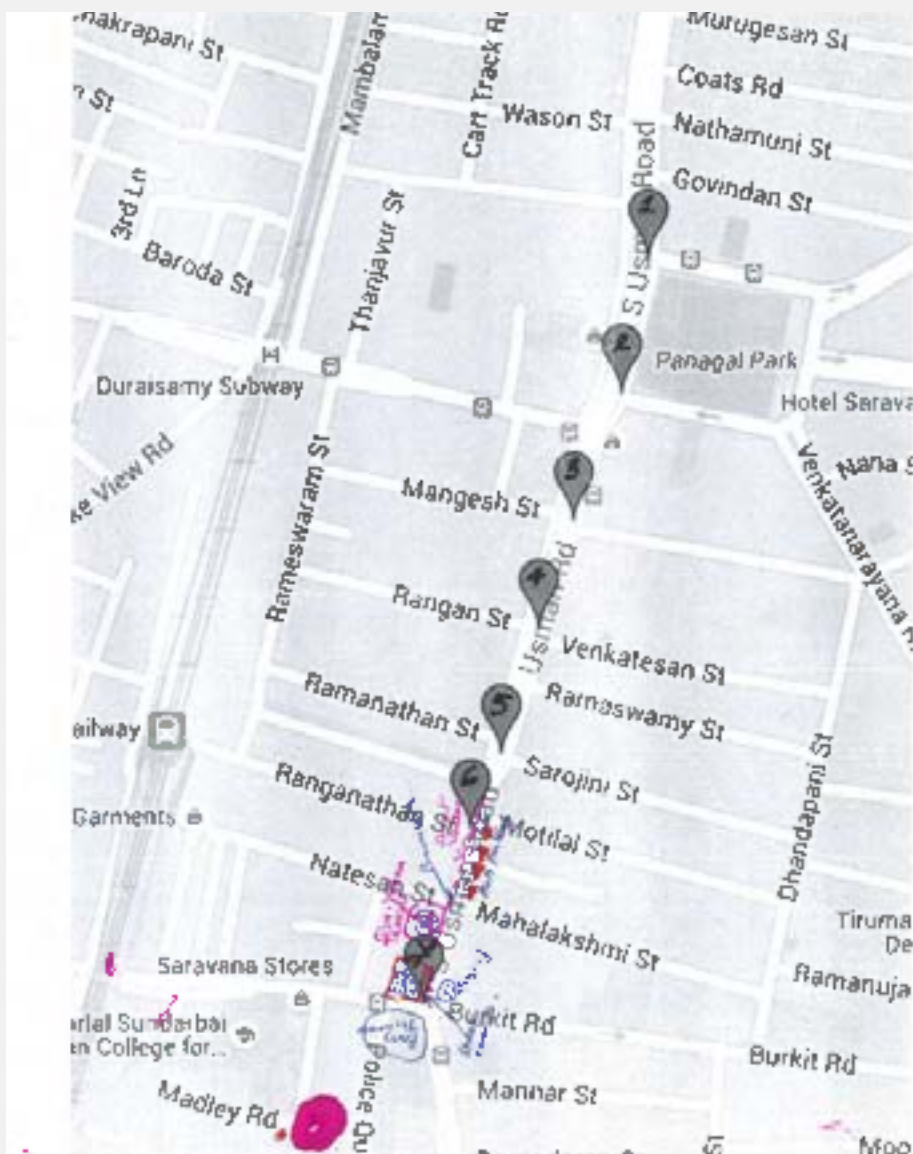
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