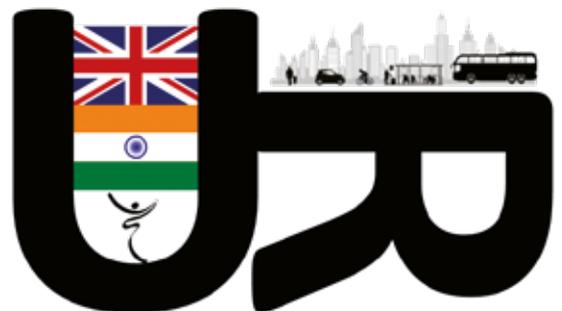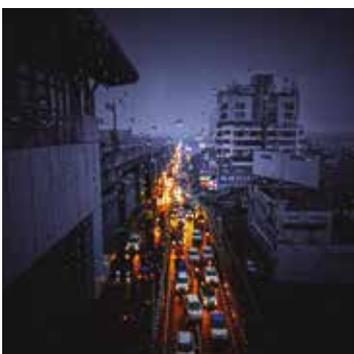# WHERE NEXT FOR URBAN TRANSPORT POLICY?

LESSONS FROM THE SMART CITIES MISSION

02

WHERE NEXT FOR URBAN TRANSPORT POLICY?

LESSONS FROM THE SMART CITIES MISSION

CONTENTS

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EXECUTIVE SUMMARY

This report focuses on understanding the implications of the governance reforms associated with the Mission on transport policy, implementation and outcomes within cities.

In 2015 the Government of India launched the Smart Cities Mission, aiming to harness the opportunities afforded by technological innovations to address India's challenges of urbanisation. The Mission's five year funding programme intended to stimulate innovation within 100 cities, primarily to support initiatives across e-governance and citizen services; waste, water and energy management, and urban mobility.

The Under Reform project (**https://underreform.org/**) studied the process around the development of transport projects within the Smart Cities Mission. Transport is important for three reasons. First, it is integral to all aspects of environmental, economic and social progress. Second, it is at the vanguard of shifts to connected, increasingly automated and networked mobility services which are synonymous with 'smart' solutions. Finally, the governance challenges of integrated delivery of urban transport in India have remained largely unresolved.

This report focuses on understanding the implications of the governance reforms associated with the Mission on transport policy, implementation and outcomes within cities. In particular we examine the role of the new institutional arrangement of the Special Purpose Vehicle (SPV) and how this institution works alongside the more established institutions within India's urban governance space (across centre, state and local scales). The project therefore provides lessons beyond, and not bounded by, the Smart Cities Mission itself.

The findings and insights provided in this publication are based on a sustained engagement with the Mission and city stakeholders through three workshops, and over 90 interviews, all conducted between 2018 and 2019 at both a national and local level. Four case cities were selected for study (Jaipur, Bengaluru, Kochi and Indore) each with distinct characteristics that enabled an understanding of some of the diversity of implementation of the Smart Cities Mission.

This report sets out to answer the following questions:

1	How did the establishment of a Special Purpose Vehicle for delivering the Smart Cities Mission work in conjunction with existing institutions?
2	How did the process of delivering the Smart Cities Mission work out in the case study sites and how did this relate to the goals of the Mission?
3	What were the key impacts on urban mobility and what learning can be taken from this about future urban transport reforms?

It finds that the Smart Cities Mission has enabled a number of positive developments. In particular, the proposal development process was accompanied by high levels of citizen engagement. The establishment of the SPV has brought with it a focus on programme management and an ability to contract new skills to accelerate the delivery of projects, tackling a weakness of previous initiatives. Moreover, after initial start-up delays, it appears that the SPVs are rapidly accelerating project delivery. Progress has been more rapid in States that already had established transport related SPVs, from which the new SPV structure could learn, share resources or be modelled.

The model of delivering Mission innovations through an SPV does come with a number of limitations. Some relate to the short 'mission' focus of the initiative and some are more enduring issues with establishing new task-specific bodies more generally. The SPVs have appeared as another agency in an already crowded institutional environment. Because of the focus on spend and implementation, the SPVs have not tried to implement interventions which require tackling the poor institutional coordination issues which beset cities in India. Greater attention should therefore be paid to the governance context into which any reforms are being asked to operate. Because of the 'perform or perish' ethos of the programme there has been a focus on what can be done quickly. The speed of implementation, which is one goal of the programme, increasingly marginalised public participation in our case study sites, which was another goal.

We are certain, given the challenges of dealing with a rapidly urbanising economy this will not be the last urban reform initiative. We make ten recommendations for improvement, some of which are relevant to the Mission today and some that are of wider importance to future urban reform processes. Our overall reflection is that the appeal of smart as a symbol of technological and social progress will not be fulfilled without also addressing the underlying lack of strategy and weak institutional coordination which beset most Indian cities.

KEY Recommendations

1 Urban reform initiatives should require clarity not just on how any new agencies are to be established but how they relate to and will be integrated with existing institutions.

2 Setting up new institutions creates a lag in delivery. Whilst the SPVs have demonstrated some benefits, greater freedom in proposing delivery models should be an option in bidding.

3 Development projects require continued public participation. Greater emphasis should be given to on-going influence from citizens and bodies such as the Smart Cities Advisory Forums.

4 There are tensions between the focus on rapid programme delivery and public participation. We suggest that future work focusses on understanding how public participation can improve scheme design, delivery and outcomes.

5 A wide bank of outcome oriented indicators of progress should be central to any monitoring surrounding performance of the SPVs in addition to fiscal and programme delivery metrics.

6 A clear set of options for the exit strategy at the end of time limited funding initiatives is important. Ambiguity risks focussing on short-termism or targeting behaviours towards financially self-sustaining activities rather than on those that may support longer term objectives.

7 Clearer objectives for capacity building need to be established to ensure that the longer-term value of initiatives such as the Smart Cities Mission develop local governmental capacity as well as capacity in the private sector. Funding to support this should be targeted at local officials as well as with national coordinating bodies.

8 An evaluation programme should be enacted now to try and understand the extent to which different interventions have improved the key outcomes which the Smart Cities Mission was set up to influence.

9 Future pilot programmes or missions should require cities to explain how such initiatives fit in with a wider transport master plan and how this integrates with the actions of the other key delivery agencies.

10 There remains an urgent need to revisit the case for integrated Urban Metropolitan Transport Authorities or alternative structures which can take action on urban mobility at a whole city scale, including maximising the benefits of smart solutions, and which can attract the talent necessary to lead the development of India's cities.

05

THE SMART CITIES MISSION:
KEY QUESTIONS

In 2015 the Government of India launched the Smart Cities Mission, aiming to harness the opportunities afforded by technological innovations to address India's challenges of urbanisation.

The Mission's five year funding programme intended to stimulate innovation within 100 cities, primarily to support initiatives across e-governance and citizen services; waste, water and energy management, and urban mobility.[i] The Mission was explicitly bottom-up, encouraging each city to develop its own vision of what 'smart' looks like in its own context, and set out city specific priority areas for Mission support. Flexibility was therefore embedded in the Mission design, with cities able to put forward proposals that included retrofitting or redeveloping existing infrastructure, pan and area based project proposals, across the areas they identified as strategic priorities.

Indicative of a new approach to investment by the Government of India, the Mission utilised a competitive, challenge led, approach to funding allocation. Cities were invited to bid for a share of the Rs. 48,000 crores funding available (over five years), with an average of Rs. 100 crore committed to each city per year of the programme.[i] Match funding had to be provided by the respective State/Urban Local Body, increasing the funding available. Once selected through an intra-state competition, each city developed a proposal with support from a Public Management Consultant (from a panel produced by the Ministry of Urban Development) and an external hand-holding agency.

The proposals were then assessed by a panel of experts, with those successful in the first round invited to implement their proposals, while those unsuccessful were invited to improve their proposals for re-submission to evaluation in a second round.

Each winning city is to deliver its smart city proposals through the use of a Special Purpose Vehicle (SPV), created for this purpose, which has 'flexibility to implement and manage' the Smart City Projects.[i] The SPV is created through the Companies Act 2013, and incorporated at the city level, with the State and Urban Local Body having 50:50 equity shareholding, with the option of private sector or financial institutions having a smaller equity stake (up to 20%). It is at the implementation stage, that the Under Reform Project draws its primary focus, analysing how four of the winning Smart Cities implemented their Smart City proposals specifically in relation to transport and mobility.

This project studied the process around the development of transport projects within the Smart Cities Mission. Transport is important for three reasons. First, transport is so integral to all aspects of environmental, economic and social progress that it is argued that without sustainable transport there cannot be sustainable development.[ii] Second, the global shifts towards smart phone enabled micro-mobility, Mobility as a Service and connected and autonomous vehicles means that any Smart City vision must address the transport sector.[iii] Finally, the governance challenges of integrated delivery of urban transport in India have remained largely unresolved in the face of rapid urban development.[iv] The challenge of integrated transport delivery, integral to urban development, is first recognised in the 2006 National Urban Transport Policy (NUTP), again in the 2014's revision of the NUTP[v] but is noticeably absent from the central themes and outputs of the Niti Aayog sponsored Global Mobility Summit of 2018[vi].

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Our focus on the Mission is on the innovative governance arrangements created through the Mission (notably the SPV) and how this supports the aim of delivering sustainable transport solutions capable of meeting India's urbanisation challenge. Importantly, the project therefore recognises and takes into consideration the context in which the Mission was implemented, acknowledging that the Mission sits alongside a suite of other policy programmes and funding opportunities (such as AMRUT), that are also designed to support urban development.

The project is therefore not an evaluation of the Mission. The focus is squarely on understanding the implications of the governance reforms on transport policy and planning, implementation and outcomes within cities. The project centres on understanding the role of the new institutional arrangement of the SPV and how this institution works alongside the more established institutions within India's urban governance space (across centre, state and local scales). The project therefore provides lessons beyond, and not bounded by, the Smart Cities Mission itself.

The findings and insights provided in this publication are based on a sustained engagement with the Mission and city stakeholders through three workshops, and over 90 interviews, all conducted between 2018 and 2019. Key national stakeholders involved in the design and implementation of the Mission were interviewed, as were stakeholders involved with Mission delivery and urban and transport governance in each of our four case study cities. The workshops aimed to garner a better understanding of the context of the Mission both nationally and within the cities, while the interviews covered topics including the nature of the application process; relationships between stakeholders; and the composition and role of the SPV in practice.

The four case cities selected for study were Jaipur, Bengaluru, Kochi and Indore. Each site was selected due to the distinct characteristics it had to enable us to understand something of the diversity of the implementation of the Smart Cities Mission. Jaipur for example had a strong focus around the UNESCO world heritage site of the Walled City where the arguments for area-based development seem clear. Kochi was highlighted in round one of the Smart City Mission assessment for its strong degree of public engagement in developing the bid.

Bengaluru is a much larger city and was not awarded funding until the third round of the process, bringing questions about the relative importance of the Mission to the city given other opportunities. Indore was selected as it was identified in our national workshop by the MoHUA as a high performing city on various civic initiatives, including cleanliness and sanitation. As the project explored a wide range of contexts, any similarities across sites can be seen as strong programme wide themes. However, the diversity also enables the factors underpinning different delivery approaches to be understood.

The collaboration with our case cities was further cemented when key officials visited the UK in September 2019, to exchange learning on transport governance and urban planning, with city officials from across the UK. That visit looked at the range of approaches being adopted to embed innovation into the transport strategies of England's largest cities (London, Birmingham, Manchester and Leeds). Through reflection on these approaches with the case sites, the project team was able to better understand the findings from the interviews and workshops in India. More about the Under Reform Project can be found at **https://underreform.org/**.

This document explores three key themes of institutional change, the process of delivering the Mission and the transport outcomes and sets out to answer the following questions:

1	How did the establishment of a Special Purpose Vehicle for delivering the Smart Cities Mission work in conjunction with existing institutions?
2	How did the process of delivering the Smart Cities Mission work out in the case study sites and how did this relate to the goals of the Mission?
3	What were the key impacts on urban mobility and what learning can be taken from this about future urban transport reforms?

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FINDINGS

Our key findings are split into three areas to answer our headline questions. In each section we provide a summary of the aims of the Mission in relation to the theme, then discuss our findings, and identify recommendations.

Institutional Arrangements

What were the Goals?

The Mission aimed to learn from, and overcome, challenges identified in previous urban development programmes, such as JNNURM. First, it hoped to speed up the process of project delivery through streamlining the decision making process, reducing the number of institutions involved in project delivery, including in providing permissions and approvals for different project elements. Second, and related, it aimed to increase accountability for project delivery, making it clear which institution was responsible for ensuring that the Smart City Projects were delivered on time and within budget. Third, it aimed to provide local level capacity for delivery of technologically innovative projects, for which existing expertise was limited, either because of lack of skills or lack of ability to attract the talent to work within the cities' existing governance structures and fiscal limits.

In order to meet these aims, the Mission mandated the creation of SPVs as a Limited Company through the Companies Act, which while owned by the State and Urban Local Body in an equal equity stake, would have the freedom and flexibility to implement and manage all aspects of the winning Smart City Mission projects within each respective city. The Ministry of Urban Development stated that one of the primary aims of mandating the SPV was to 'ensure operational independence and autonomy in decision making and mission implementation.' In turn, best practice on the relationship of existing governance actors to the SPV was outlined in the Mission guidance, to ensure its aims were reached.[vii]

This guidance included the Municipal Council delegating their rights and obligations with respect to the Smart City, to the SPV; the ULB delegating its decision making power available under the municipal act to the Chief Executive Officer of the SPV and the Urban Development Department/Local Self Government department/Municipal Administration delegating their approval and decision making powers to the Board of Directors of the SPV in which the State and ULB are represented. Moreover, the State had to delegate matters that require State government approval, to the High Powered Steering Committee for Smart Cities.[i] The Mission guidance also allowed for SPVs to appoint Public Management Consultants

" SPVs as its name carries…is special purpose because it is working on one thing and one thing only…then of course the efficiency of the project will [be] enhance[d]… decision making becomes faster because they have direct communication with the funding authorities [and] with the approving authorities and they work [with] the SPV for the same task.

INTERVIEWEE **"**

for the design, development, managing and implementing of area-based projects. A Smart City Advisory Forum was to be established in every city to "advise and enable collaboration amongst various stakeholders and will include the District Collector, MP, MLA, Mayor, CEO of SPV, local youths, technical experts" along with other local representation.[i]

What we found

Broad support for a task-based delivery body

Stakeholders across the cities recognised that existing governance entities within the cities such as the Urban Local Body and Local Self Government Departments, including civil servants and elected officials, are responsible for managing numerous different issues simultaneously, across the urban realm, which creates challenges for focused and fast programme delivery given capacity issues. It was argued that a focused and targeted delivery of transport projects was necessary and beneficial to city development, and therefore a targeted approach as embodied within the Mission, was welcomed. The ability to bring in new skills at competitive wages was seen as advantageous.

Stakeholders were of the view that a task specific entity, integrating decision makers together from across the city, should lead to faster decision making processes and having one organisation responsible for delivery may help to overcome inertia and 'focus attention' on what needs to be done in each city. Moreover, there was recognition within the cities of a 'perform or perish' ethos in the mandating of an SPV and within the Mission's challenge focus more generally. Stakeholders understood that the SPV needed to be set up quickly and work effectively, otherwise financial and political support for it could be withdrawn.

Where doubts were raised about the need for an SPV these related to the dominance of State level interests in what the SPVs did. Whilst representation of Urban Local Bodies was a stated requirement of the SPV governance boards, the overall approach suggests that these posts were not always filled and their roles were limited. We also note that the SPVs are supposed to have established a Smart City Advisory Forum but these did not feature as an influence anywhere in our findings. It appears that the early emphasis on more participatory processes was later shut out by the focus on delivery.

" If there is not a smart city project, no one was watching me. Now everyone is watching…what I am doing, what I am not doing. What I am not performing, why this project is this much late. I will be questioned from there. **"**

INTERVIEWEE

Getting up to speed

Despite the importance placed on the SPV by all stakeholders, we found a significant time lag in some instances between Smart City status being awarded and SPVs being created. It took stakeholders time to become familiar with the requirements of the Mission, procure consultants to support the setting up of the SPV, and bring together parties to form SPV boards. This has been reflected in the spend profile nationally, with 7% of the budget spent on projects delivered on the ground in the first 20 months of the Mission and a further 42% committed to projects which had started, a jump in rate of spend of more than 300% since the end of the first year.[vii]

Given the ambitious five year timescale of the SCM, the time it takes to establish new institutions has been a barrier to overcome in order to develop and deliver projects on the ground to the agreed spend profile. Experience of other institutional reforms around the world suggest that a bedding in period of at least two years is common and that rapidly upscaling work programmes is difficult if both the commissioning organisation and supply chains are not ready or capable.[viii] The timescale of a five year mission with a 'perform or perish' mentality has led the SPVs to focus on what can be delivered quickly. This is not necessarily the same set of projects that was initially envisaged in winning Mission proposals, where feasibility of delivery was not as critical to selection, nor are they necessarily the set of projects that would most effectively contribute to sustainability outcomes as we discuss below.

However, each SPV is being layered on to an existing governance context, which in turn affects its ability to increase its delivery in each city. We find that those cities that had existing and effective SPV's, such as Indore and Kochi, were able to set up their SPVs relatively quickly. In Indore, the city already had Atal Indore City Transport Services Limited (AiCTSL) as an SPV structure and within it a board that interfaced across different agencies effectively (e.g. the Municipal Corporation and the Indore Development Authority). Within this arrangement, there is a fixed and well understood structure of decision making and hierarchy of authority. Therefore creating an SPV for the Smart Cities Mission was, to a large extent, able to follow a similar format, with stakeholders comfortable with what is expected from such arrangements. Moreover, in Kochi the Smart City SPV shared infrastructure, leadership and space with the Kochi Metro Rail Limited SPV, in turn facilitating more rapid start-up of the Mission's programme.

Varied contexts: Varied performance

The establishment of an SPV provides a point of focus for the Mission's Project in each city. However, for a variety of reasons, it does not cut through all of the governance challenges which have stifled progress in previous urban development programmes.

In all cases the SPV was implemented as specified in the Mission guidance; as a Limited Company. However, in some cases there was confusion and concern about the relationship the SPV would have with existing governance arrangements in the city. In particular there was concern regarding whether the SPV would duplicate ULB activity, undermine the ULB's democratic mandate and accountability, or weaken the ULB's capacity in relation to the State. It may still be too early to tell if these concerns are well founded, however the extent to which they materialise seems to vary according to the different working relationships of the stakeholders on the ground in each city.

The areas where the SCM goals were being implemented quicker and with less contestation were in cities where the SPV was closely integrated within existing city structures and processes. In Jaipur, for example, there was strong alignment of interests around the heritage area of the Walled City. We suspect that scale plays a big part in this, as does political alignment between the local and state entities, as does experience of working closely together for a sustained period. In a city like Indore, there are a smaller number of agencies working at the city level, the same people are part of decision-making processes across multiple funding streams and build trust to delegate authority, in line with the Mission's best practice. Indore also seemed to have an advantage in the sense of being familiar with an SPV structure as the city transport service, AiCTSL, was created as an SPV in 2005.

However, in Bengaluru, the governance network is more complex, and priorities more contested. This was reflected also in the bidding process where different organisations led on bids in the early stages of the Smart Cities Mission and funding was not awarded until round three. This can be partially attributed to the population and physical growth of the city boundary and the impact this has had on the composition and structure of the Urban Local Body which saw a major growth in 2007[ix]. Moreover, the SPV must work with institutions that have multiple responsibilities that span across the city and beyond. The amount of funding available to the SPV is smaller as a proportion of the total spend in a city for bigger cities like Bengaluru and so it may have less power to influence.

By contrast, in Kochi, the status of the SPV as a delivery body was clearly established, but there were obvious tensions between the elected Mayor as a voice of citizen interests and the actions of the SPV which were more strongly being steered by the state. This tension resulted, in part from a very disjointed process between bid development and bid implementation. Bid development happened during an election period and involved consultants developing a submission informed by substantial participation. This kind of issue is inevitable as priorities will change over time and should be resolvable if the Board structures are balanced and working effectively.

What we find, therefore, is that the SPV does not, of itself, clear away coordination barriers. It is simply a focal point through which those issues may get resolved, at least around the areas and projects it decided to tackle.

Recommendations

1	Urban reform initiatives should require clarity not just on how any new agencies are to be established but how they relate to and will be integrated with existing institutions
2	Setting up new institutions creates a lag in delivery. Whilst the SPVs have demonstrated some benefits, greater freedom in proposing delivery models should be an option in bidding.

> " It's the nomenclature of the existing authorities. We have the Development Authority. Same way, under the banner of the Smart City Mission they are implementing the same projects. Similarly, the …Municipal Corporation…the same projects they are implementing. So as far as the Smart City Mission is concerned, the existing agencies are doing the same. "
>
> **INTERVIEWEE**

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Smart City Mission Delivery Process

What were the goals?

The Mission explicitly intended to move beyond a 'one size fit's all' approach to urban development, with each city expected '…to formulate its own concept, vision, mission and plan (proposal) for a Smart City that is appropriate to its local context, resources and levels of ambition'.[i] Cities were required to present comprehensive proposals for consideration by an expert panel, answering the question 'What kind of Smart City do they want?', with proposals containing their vision, a plan for how they were to mobilise resources to support the vision, and outline intended outcomes related to infrastructure upgrades and smart applications.[i]

Cities were expected to prepare their proposals using the principles of strategic planning and were also expected to include plans for both area-based and Pan-city initiatives.[i] The proposals were also required to outline the consultations held with the city residents and other stakeholders, with accompanying explanation of how the aspirations of those consulted were aligned with the proposal's vision. Moreover, the proposals were expected to explain the plan for how the projects would be financed, including the revenue model that would be utilised to attract private investment.

The evaluation criteria for the proposal echoed the proposal requirements, with emphasis placed on proposals scoring highly across six key areas; credibility of implementation; City vision and strategy; impact of proposal; cost effectiveness; innovation and scalability; and the process followed in developing the application.[i] Within these criteria, a city's previous performance was emphasised and in turn the desire to 'back winners'. For example, the extent to which cities had demonstrated improvements to transport services (including development of public transport and reduction of traffic congestion) over the past three years would count in their favour, as would demonstrating improvements to operational and administrative efficiencies over the previous three years, such as though provision of e-governance access to statutory documents and improvements in average times for building approvals.

The City's proposals also needed to be aspirational, summarising the impact of the proposal on economic activity, sustainability and inclusiveness, and effectively explain the role of information and communication technologies in helping to achieve these outcomes through the projects. Linked to this, proposals that demonstrated innovation in the use of these technologies, for example using smart solutions in area-based and pan city developments, would be looked upon favourably. Applications that also have the potential to be scalable and bolster urban resilience also scored well. Moreover, the proposals were expected to pay due consideration to how the impacts of the implementation would be monitored, with proposals that provided clear objectives, targets, and indicators against each aspect of the proposal, scoring more highly.

Significant emphasis was placed on the ability of projects to be financially sustainable, having considered the operation and management costs of projects and how they would be covered. Moreover, proposals that were able to demonstrate a diversity of sources of funding for their proposed projects scored higher than those that relied on central government and State/Urban Local Body funding more heavily.

The evaluation criteria also emphasised the need for engagement with citizens, with proposals expected to demonstrate how well "contrary voices" had been accommodated in the strategy, how much social media had been used in the consultation, and the extent of "co-creation" in the development of the proposals, identifying the level of consultation across stakeholders, including citizens, vulnerable sections of the community, ward committees, and citizen groups, including chambers of commerce.
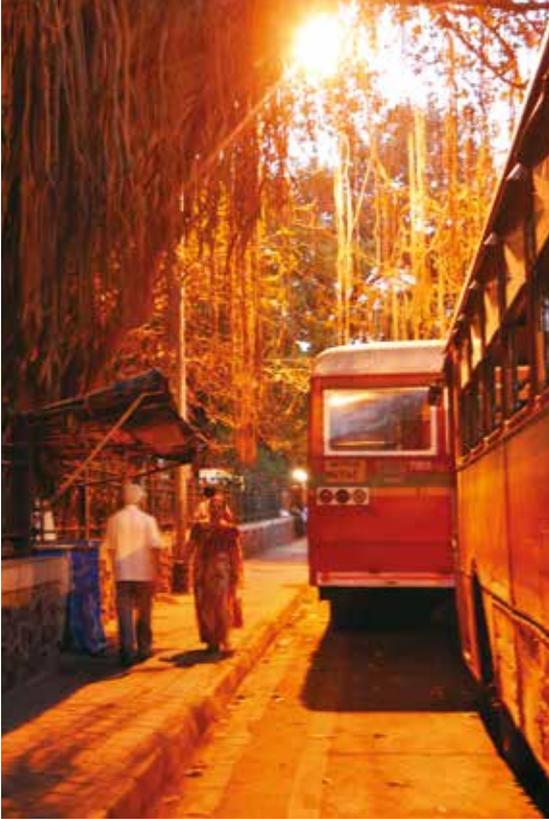
What we found

Welcome Public Engagement in the Bidding Stages

Significant attempts were made to engage citizens in the SCM bidding processes in each city. Jaipur for example ran both extensive on-line and face to face consultation about its proposals for the Walled City. Stakeholders were in general agreement that the initial public consultation process embedded with the SCM bidding process was a very positive way forward for determining planning priorities in India and strengthened the planning process. It allowed bureaucrats and the public to identify the unique selling points and characteristics of their city, and also articulate what its priorities should be. Members of the public provided strong messages about what they felt was important to their city's improvement, with transport identified as crucial. A range of different participatory approaches were also utilised, from workshops to online surveys.

In Indore, the use of a locally based planner as the external consultant for plan development helped focus the consultations and plan on local relevance and need. In the case of Kochi the bid development process was seen as positive because of the enthusiasm of the people and in particular the former Mayor, emphasising a more grassroots approach to participation. In Bengaluru the first bid was led by a grouping based around the technology sector development area but this was not successful.

However, there were some limitations to participation. Given the short time frame between the SCM being announced and the deadline, some cities did not have time to engage as fully with the public as would have been optimum.

The use of external consultants to help with bid development was important to enable enough cities to be bid ready from the competition. However, sometimes external consultants lack familiarity with local context which makes good consultation and locally appropriate option selection more difficult. Strong partnership working with local bodies in such circumstances is critical. There was also a heavy emphasis on social media engagement in some places which will miss certain groups who do not have access to this technology.

Difference between bid stage and implementation of SCM proposals:

Whilst there was strong engagement at the bid development stage in most cases, there was an apparent disconnect between the projects identified as citizen priorities in winning SCM proposals and what is (and can be) delivered on the ground through the SCM. Divergence between initial planned interventions and actual realities on the ground can happen for many reasons. The SPVs have been adept at finding alternative options. However, the participatory processes embedded in the bid development stages have not, in most cases, been utilised in agreeing implementation priorities and project delivery post-award of the SCM status. At no point during any of our interviews or workshops did anyone refer to the Smart City Advisory Forum which is supposed to be an on-going process of advice, suggesting these are potentially not as influential as they could or should be.

There are two potentially significant implications of difference between the bids and the projects implemented. The first is that without good communication, the legitimacy of the SPV could be significantly undermined in the eyes of the public and also key stakeholders, for example the ULB. This in turn has the potential to foster and perpetuate mistrust between stakeholders. In some instances, ULBs are concerned that blame for this disconnect is (or will be) directed at them by the public, as the locally democratically elected body. In such cases, cooperation between the SPV and ULB, which is so important for effective project delivery, can be strained. The second issue is that the value of public consultation more broadly, is undermined in the eyes of the public. Given the positive engagement created by the SCM and the strength of consultation for creating robust city visions, a wearing away of this legitimacy may be problematic in the long term for future transport initiatives.

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Accountability processes emphasising speed rather than vision

A clear emphasis is placed on the SPV being accountable to the SPV board and then up the hierarchy to the state and the Government of India. However, despite the diversity of the evaluation criteria for the proposals, the main accountability and reporting mechanisms for SPV performance focus on project spend. This accountability mechanism therefore fosters an urgency to get projects delivered, without necessarily a focus on how or if the outcomes articulated in the original proposals are being achieved. Speed was most certainly at the forefront of the minds of SPV stakeholders and those in the State on the SPV governance board. A delivery discipline lacking in previous urban delivery initiatives was present. Stakeholders were keen to see projects delivered quickly due to the time limited nature of the SCM funding as noted earlier. Therefore, projects that were already earmarked for funding and in their latter stages of development, tended to take priority for implementation under the SCM banner (where previously it may have been through another fund). In essence then the cities were targeting the 'low hanging fruit' with the SCM funds.

By contrast to the frequent reference to spending and project tendering metrics, we saw no evidence of monitoring and evaluation of the wider societal outcomes which the investments might have been delivering and this was not discussed by those tasked with delivery. Whilst fiscal accountability for spend and assurance of project delivery are critical accountability mechanisms, and ones which were criticised for not being robust enough in the previous JNNURM programme, they are a narrow subset of the anticipated evaluatory metrics and do not relate to broader social outcomes. There is a large body of evidence from various international contexts to suggest that public sector bodies will strategically respond to targets to present themselves in the best light and this creates risks that those behaviours are not well aligned with better public service delivery.[x] Despite the intentions in the guidelines, the relative shift to focus on spend and speed compared with outcomes is a risk to the programme achieving its wider ambitions.

Funding mechanisms influencing project selection

It was unclear both between our city sites and also between stakeholders within a city how long the SPV and the SCM would be in place for. Some insisted it was five years and time limited, others that it would last in perpetuity if it could find the right revenue stream. Some thought it should last, while others thought it was a useful stimulus but perhaps not a model for the long-run.

One response to this uncertainty was for stakeholders to concentrate their emphasis on delivering projects that would or could create their own revenue streams. Such revenue streams would therefore make the SPV sustainable beyond the SCM period. For example Jaipur placed its transport emphasis on new multi-storey parking. Kochi had chosen a proprietary bank funded scheme for an integrated mobility card, with those taking up the card needing to hold an account with that bank. Whilst each decision might make sense in isolation we got no sense of consideration being given to the risks that scheme specific institutional arrangements may have on future integration with a wider city system.

Whilst some schemes were prioritised because of their revenue stream benefits, other projects, such as interchange renovation (a key element in Bengaluru) or smart traffic control systems are more difficult to monetise. International experience highlights how it is never the case that all projects needed for an effective transport strategy will or can be financially self-sustaining and a package approach is required.[xi] This package approach seemed difficult to achieve within the SCM as the projects were largely developed in specific, small, area-based environments. In addition, the ambiguity over funding beyond the first five years of the SCM led to reticence about taking on more transformative or large scale projects as they may not prove deliverable within such timescales.

> **❝** As far as local bodies are concerned, they are overburdened with so many local functions. Creation of the SPV means you have a dedicated, trend-oriented staff for that particular project who can really sustain it and continue the project over a period of time. **❞**
>
> **INTERVIEWEE**

Capacity increases but not capacity building

One of the stated aims of implementing an SPV was to increase capacity at the local level. Through the SPV arrangement there is now the ability to recruit expertise in specific, technical areas relating to project delivery, something that had been seen as a barrier to effective project delivery in past schemes. Our study finds that the introduction of private sector expertise has occurred in the cities, but in a more limited way than envisaged in the SCM proposals. Short term capacity is being increased through the procurement of private management consultants, with only a skeleton staff of SPV employees who are managing contracts. Delivery capacity in the short run has been increased.

There is however very little capacity building within existing institutions. There is a risk that once the SPV funding ends, the staff and expertise housed in it will leave and there will be a return to business as usual. It is not clear how the knowledge on the specific innovations will be protected within the city nor how lessons on transferability or scaling up will be delivered. Whilst we note there are national funds and national initiatives in this area, it is at the local level that the knowledge exchange and development programmes need to be embedded to get long-term value from these innovate deployments.

Recommendations

3	Development projects require continued public participation. Greater emphasis should be given to on-going influence from citizens and bodies such as the Smart Cities Advisory Forums.
4	There are tensions between the focus on rapid programme delivery and public participation. We suggest that future work focusses on understanding how public participation can improve scheme design, delivery and outcomes.
5	A wide bank of outcome oriented indicators of progress should be central to any monitoring surrounding performance of the SPVs in addition to fiscal and programme delivery metrics.
6	A clear set of options for the exit strategy at the end of time limited funding initiatives is important. Ambiguity risks focussing on short-termism or targeting behaviours towards financially self-sustaining activities rather than on those that may support longer term objectives
7	Clearer objectives for capacity building need to be established to ensure that the longer-term value of initiatives such as the Smart Cities Mission develop local governmental capacity as well as capacity in the private sector. Funding to support this should be targeted at local officials as well as with national coordinating bodies

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Implications for Urban Transport

What were the goals?

As set out in the introduction, this project studied the process around the development of transport projects within the Smart Cities Mission. However, this is just one aspect of a much wider remit of the Mission, covering matters such as housing, water and waste management, energy and e-governance reforms. With respect to transport the Smart Cities Mission Statement and Guidelines gave a significant steer as to what it expected from bidding cities with respect to transport solutions. The overarching goal was to promote "efficient urban mobility and public transport" and it was envisaged that 'solutions' might include measures such as:

❚ Smart Parking;
❚ Intelligent Traffic Management; and
❚ Integrated multi-modal transport.

As well as these technology orientated interventions, the document also references the need for "pedestrian friendly pathways, encouragement to non-motorised transport (e.g. walking and cycling),… non-vehicle streets/zones" and "Transit Oriented Development (TOD), public transport and last-mile para-transit connectivity.[i] Whilst it is clear that cities should establish their own vision for how this will work in an Area-Based Development or on a pan-city scale, the assessment criteria reference the above core elements, providing a steer.

The guidance document notes that the funds for the Smart Cities Mission may not be sufficient to deliver all of what is required and that Cities or States should look to other financing mechanisms such as Tax Increment Financing, Public Private Partnerships and integration with other government programmes such as AMRUT or Swacch Bharat to fund implementation.[i]

In the assessment of the proposals, there is a section on the extent to which there is clarity of the impacts of the proposals. This includes a focus on a clear set of outcome oriented indicators, linked to an understanding of what the projects will deliver and how these, in turn, feedback to the engagement of citizens in bid development processes. A small percentage (2%) of the programme budget was set aside for the MoUD (now MoHUA) to fund the mission directorate, connected activities and structures, conduct research, provide pilot studies and concurrent evaluation.[i]

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*❝*Even though the execution of power is with the SPV, if the SPV is doing a smart road, then the power is with the Public Works Department… The initial Government of India order said ask the state government to delegate. With this kind of delegation, even the state government may be at confusion. How can they delegate that part to some organisation which is operating in a small area? *❞*

INTERVIEWEE

What we found

Diverse Projects

Each of our four case sites took a different mix of projects to progress, suggesting that the guidelines provided sufficient flexibility to allow for contextual differences. At the time of our research, bike share schemes were being discussed and tendered (e.g. Jaipur, Kochi and Indore) through a PPP model involving the Mission. Parking infrastructure was a key feature of the developing project work in Jaipur at the edge of the Walled City whilst improved two wheeler parking was an on-going Area Based Development project in Indore. Urban public realm projects which created underground conduits for all services under footpaths known as 'Smart Roads' were prominent projects in Bengaluru, Jaipur, Kochi, and Indore. Major transport interchange renewal was planned in Bengaluru. At a pan-city scale, integrated ticketing initiatives were implemented to varying degrees. For example, in Kochi the scheme was to be operated by Axis bank. In Jaipur, the integrated ticketing service did not cover all buses at the time of our fieldwork whilst in Indore, the innovation benefited from the close integration with AiCSTL which runs the bus network. Intelligent traffic management systems were also being installed and there was much discussion of the potential of such schemes to deliver benefits to users.

Some of these schemes were under development and delivery prior to the Smart Cities Mission. In Bengaluru for example, the urban public realm improvements were being conducted under the 'TenderSURE' badge and were rebranded 'Smart Roads' under the Smart Cities programme. Public bike hire schemes are emerging in a range of cities and in places not covered by the Smart Cities progamme. A real-time bus information apps is already in place through Bengaluru Metropolitan Transport Corporation. It is not always the case, therefore, that the Smart Cities Mission made the projects possible or indeed that the Mission can be seen as transformative to the approach taken in each city.

However, what we do see, as noted above, is a focus on getting projects completed and so the volume of activity of the type signalled in the Mission document would not have happened without the focus of the programme. In Bengaluru for example, it was identified that more Smart Road projects could be delivered with the same funds than would have been the case outside of the Smart Cities Mission.

Unknown outcomes

Whilst the presence of new initiatives might be a precursor to delivering different and better outcomes, none of the case study sites could say what the impacts of the programme have been for mobility. The only evaluation metrics which our cities were engaged with were those relating to financial accountability and project spend against anticipated profile. Without understanding wider outcomes it is impossible to say that these projects are a beacon of innovation and best practice for other areas in a city or for other cities. We note that the small part of the programme budget (2%) which was set aside for a series of elements which include research and evaluation was held centrally, rather than being directed by the cities. Whilst it is too late to properly understand the impacts of the different projects due to the absence of robust pre-intervention data, it is still possible to provide some comparative performance analysis of the innovations in place, through this fund. However, it is critical that the local agencies are fully engaged in such a process if the learnings are to be carried forward and the indicators used meaningful. In all case sites, the vision of how the SCM projects fits within the overall city level system dynamics vision, was missing. There is an opportunity to produce such an understanding as one of the outcomes towards the end of the five year Mission period.

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Limited scale of ambition

It is well understood that for a transport strategy to be able to deliver significant improvements to quality of life, the environment and inclusive growth, it needs to be comprehensive. This means finding a balance of fiscal rules, road space allocation, road pricing, parking limitations, land-use planning, public transport fares and frequencies, traffic management and quality place-making.[xi] The Smart Cities Mission was targeted at a small sub-set of these issues and was running in parallel to other programmes such as AMRUT. It is not necessarily possible for developments in a small part of the city, as adopted with the Area-Based Development model of the Mission, to dictate the actions of agencies which are looking across the whole city.

In the international visit to the UK, our case study cities saw first-hand the strategy development process of the West Midlands, Greater Manchester and West Yorkshire.[xii] In each case, a wider transport and land-use strategy was clearly developed against which the case for urban mobility innovations could be assessed. The question then becomes – what outcomes will this innovation help achieve and what risks might it bring? Whilst the Smart Cities Mission signalled the importance of outcomes it did so without requiring the cities to demonstrate how this fitted into some kind of wider strategic development plan. This was evident in most of our research with agencies beyond the SPV not being clear about the strategic relevance of the proposals.

The site visit underlined the importance of an integrated urban transport authority which planned transport across the travel to work area of a city. Whilst each city has slightly different structures and powers they ensure delivery of a programme of multi-modal investment where intelligent mobility is assessed within wider business cases rather than as a stand-alone concern. Whilst our research does not set out to demonstrate the worth of such Urban Metropolitan Transport Authorities in India, the site visit reinforces the case to look again at the benefits their introduction could bring.

Cities remain limited in taking the agenda forward

As noted in the section above, there is very little evidence of capacity building at a local scale through the programme and there are risks that once the SPVs disband the capacity will ebb away to the private sector, particular consultants who don't have a sense or ongoing commitment to the unique needs of the city.

The decision to focus largely on Area Based Development has provided some opportunities to cut through institutional coordination delays in delivery which have plagued previous programmes. However, this has been partly a result of picking projects that did not require significant change to the rules or funding of the body of institutions which influence the delivery of

the transport system. A lot has been learnt on improving project spend but this continues to leave open the question as to whether and how to empower cities to be more ambitious and effective in their transport strategies and delivery. The Smart Cities Mission began as an opportunity to give agency to cities to think aspirationally and inclusively of the kind of infrastructures and services required and how these mapped onto the unique character of that particular city. However, it remains largely dominated by State actors.

This is perhaps the key cycle to be broken. Experience from elsewhere in the world in a wide range of contexts shows that strategic development powers are best placed at the city level. There is a strong desire to improve the state of Indian cities. However, there is not enough capacity at city level and so there remains limited evidence of an appetite to devolve meaningful powers to the cities. This means the real power to deliver change in transport for cities remains with the State. For the most part, governance at a distance continues and local capacity is not then built. We cannot answer from this research how best to break this cycle. The Smart Cities Mission has created a means of accelerating the uptake of innovations. Whilst the Mission does not give all of the answers to how best to reform urban transport policy and delivery in India, we have identified in this report how the experiences we researched can inform future urban reform programmes.

Recommendations

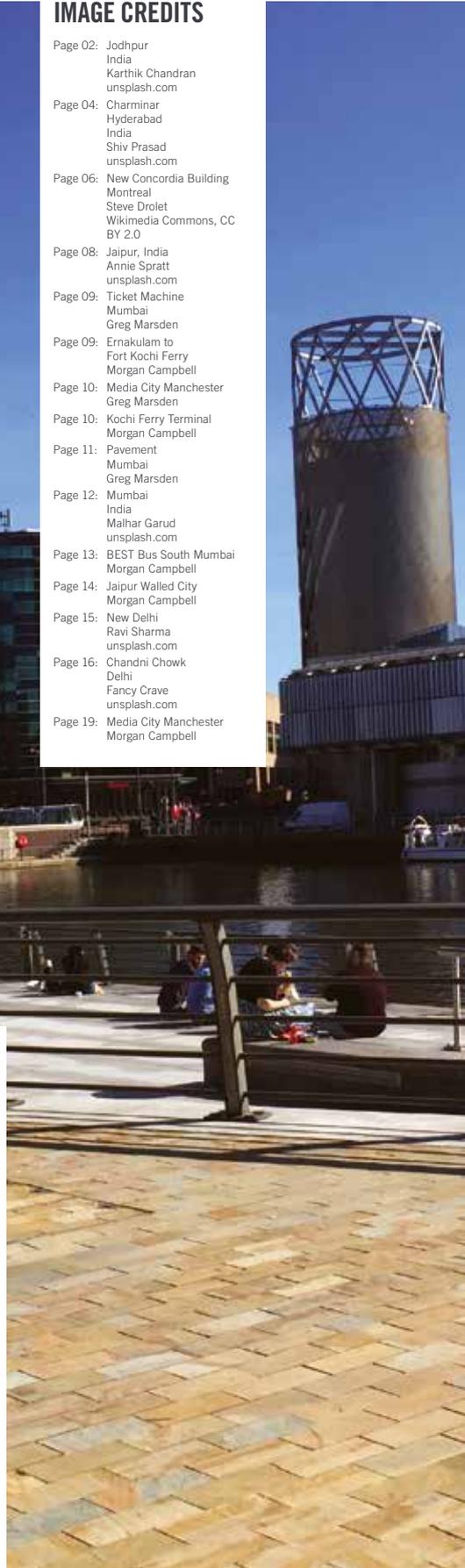|	
8	An evaluation programme should be enacted now to try and understand the extent to which different interventions have improved the key outcomes which the Smart Cities Mission was set up to influence.
9	Future pilot programmes or missions should require cities to explain how such initiatives fit in with a wider transport master plan and how this integrates with the actions of the other key delivery agencies.
10	There remains an urgent need to revisit the case for integrated Urban Metropolitan Transport Authorities or alternative structures which can take action on urban mobility at a whole city scale, including maximising the benefits of smart solutions, and which can attract the talent necessary to lead the development of India's cities.

References

[i] MoUD (2015) Smart Cities: Mission Statement and Guidelines, Ministry of Urban Development, http://smartcities.gov.in/content/innerpage/guidelines.php, various pages used throughout this document, direct quotes marked

[ii] Mobilizing Sustainable Transport for Development: Analysis and Policy Recommendations from the United Nations Secretary General's High-Level Advisory Group on Sustainable Transport (2016) https://sustainabledevelopment.un.org/content/documents/2375Mobilizing%20Sustainable%20Transport.pdf

[iii] Lennert, F., Macharis, C., van Acker, V. and Neckermann, L. (2017) Smart Mobility and Services: Expert Group Report for European Commission, https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=34596&no=1

[iv] MoUD (2014) State of the Art Review and Structures for UMTA and UTF – Developing Operations Documents for Urban Metropolitan Transport Authority and Urban Transport Fund, Final Report. http://www.sutpindia.com/skin/pdf/State%20of%20the%20Art%20Review%20(Final%20Report)%20-%20UMTA%20_%20UTF.pdf

[v] Ministry of Urban Development Government of India (2014). National Urban Transport Policy. https://urbantransportnews.com/wp-content/uploads/2018/08/National_Urban_Transport_Policy_2014.pdf [accessed 14.2.2020].

[vi] http://movesummit.in/themes.php

[vii] Chakraboty, P. (2019) India's Story of Making It to Inclusive Smart and Sustainable Cities

[viii] Marsden, G. and May, A.D. (2006) Do Institutional Arrangements Make a Difference to Transport Policy and Implementation? Lessons for Britain, Environment and Planning C: Government and Policy, 24(5):771-789 and BIS (2011) Strengthening UK Based Supply Chains: Construction and Infrastructure

[ix] For an overview of this change please see: http://bengaluru.citizenmatters.in/1968-all-about-bangalore-civic-agencies-1968

[x] Hood, C. and Dixon, R. (2015) A Government that Worked Better and Cost Less?: Evaluating Three Decades of Reform and Change in UK Central Government, Oxford University Press

[xi] May, A.D., Boehler-Baedeker, S., Delgado, L., Durlin, T., Enache, M. and van der Pas, J-W (2017) Appropriate national policy frameworks for sustainable urban mobility plans, European Transport Research Review (9: 7)

[xii] UK Study Tour Report. https://underreform.org/uk-study-tour-report

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WHERE NEXT FOR URBAN TRANSPORT POLICY?

LESSONS FROM THE SMART CITIES MISSION