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A critical review of India's Urban Governance reforms and its impact on transport sector: Case Studies of Bangalore and Jaipur

Ashish Verma*, Sanjay Gupta**, Mahim Khan*, Monika Singh**, Greg Marsden***, Louise Reardon****, Morgan Campbell***, Gayathri Harihara Subramanian*
*Department of Civil Engineering, Indian Institute of Science, Bangalore, India
**Department of Transport Planning, School of Planning and Architecture Delhi, India
***Institute for Transport Studies, University of Leeds, UK
****Institute of Local Government Studies, University of Birmingham, UK

Abstract
Transport is central to the development of urban areas because it directly affects the economic efficiency of the cities and the well-being of inhabitants. In the context of rapid urbanization processes, increasing travel demand, growing congestion, negative environmental impacts, the large size of investments, and the impacts of transport on daily human life, it is essential to formulate policies and strategies that enable the sustainable development of the transport sector in the cities. The redesign of the urban mobility governance system has played a pivotal role in seeking to promote more equitable, desirable, economically efficient, and environmentally sustainable cities in India. Recently, the Government of India implemented the Smart Cities Mission, to address sustainable development challenges in parts of 100 cities. This paper focuses on the implementation of the Smart City Mission to fulfil a threefold purpose (a) to examine the various governance reform initiatives implemented over the past few years to determine their impact on long-term infrastructure development projects and to identify those that could not be implemented (b) to give a detailed review of Smart Cities Mission and (c) to build a stakeholder map by conducting workshops with stakeholders, to understand the relationships between local actors, public officials, Non-Governmental Organizations, and institutions involved in sustainable transport infrastructure initiatives in Bangalore and Jaipur, and their connection to the new Smart City Mission initiative and delivery.
Keywords: Urban governance, Smart City Mission, Institutional arrangement, stakeholder mapping, sustainable development.

1. Introduction
India has had one of the world's fastest growing economies since the last two decades (Hawley, 2020). Such growth also results in adverse environmental, social, and financial impacts derived from modernization and rapid urbanization processes. As a result, several transport policies and initiatives have emerged to improve the quality of life of Indian citizens. Whereas cities have not traditionally been very strong units of governance in India, the pressure from rapid urbanization has contributed to significant endeavours to reform the urban governance in India. Urban governance reforms took shape in 1992 by enacting the 73rd and the 74th Constitutional Amendment Acts (CAA). This recognized municipal public administrations as a formal part of a three-tier governing system, along with the Union Government and the State Governments, the strengthening of urban decentralization, and the rise of the Urban Local Bodies (ULB), the National Transport Policy, the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), and the Smart Cities Mission (SCM) in 2015. The resulting transformations in policies, institutions, and administrations have been reflecting failures in coordination and integration among stakeholders into decision-making processes related to transport delivery and investing to meet the needs of citizens (Nallathiga, 2005).

In 2015, the Government of India launched the urban renewal and modernization program known as 'Smart Cities Mission' (SCM). This program aimed to harness technological innovations to address the challenges of urbanization in Indian cities. Through this mission, the Government of India intended to correct coordination and integration failures of the past urban transport policies. The cities that are a part of the Smart City Projects had the support of an official in the form of Special Purpose Vehicle (SPV) from the Ministry of Urban Development of India and an independent agent when they were going to develop their bids, projects, and proposals. The SPV was incorporated to ensure operational independence and autonomy in decision-making in the cities. Each city was required to create an SPV to plan, appraise, approve, release funds, implement, manage, operate, monitor, and evaluate the projects (Ministry of Urban Development 2015).

The idea of 'smart cities' has been addressed in urban planning studies in India and worldwide. Researchers have explored how technology is adopted in smart cities to create environmentally sustainable urban governance models. Harris and Donnelly (2011) argued that the concept of smart cities is not a current invention. In 1990, social movements advocated for alternative urban planning approaches in Oregon, United States, and proposed initiatives to create smart cities grounded on communication and information technologies. While across the globe, the word smart is critically engaging as a global term, in the Indian context, it is still considered as "providing basic or standard".

The configuration of governance reforms to attain sustainable and efficient urban transport through the SCM program has been analysed by researchers. Reardon, Marsden; Campbell, Gupta, and Verma (2018) addressed the SCM program through the lens of a multilevel governance approach arguing that this program contributed to urban governance's emergence with hierarchical links between central, state, and municipal institutions. This phenomenon goes against the decentralization regime enacted by the 74th Constitutional Amendment Act in India and impacts political participation and local projects for achieving sustainable urban development. Although all three tiers of governance are responsible for improving urban transport, substantial decision-making authority and financial capabilities are vested in the Central Government and State Government. However, states remain reluctant in devolving power to city jurisdictions, which has resulted in a fiscal deficit, a lack of coordination and integration among stakeholders, and a fragmented decision-making landscape that has brought problems to urban transport for many years (Batcha and Binti, 2013; Mukherjee and Gupta, 2018). If, as the Indian Government argues, poor coordination and limited capacity and accountability for programme delivery are at the heart of slow progress in urban transport reform, it is of significant interest to explore whether the Smart Cities Mission resolves these issues and/or creates new ones.

In addition to coordination, engagement of key stakeholders and the public has been seen to be a weakness in India. Hoelscher (2016) reviewed the evolution of the SCM agenda in India and argued that its success is uncertain because of the lack of participation of poor and vulnerable men and women of urban territories. Ghosh and Arora (2019) interpreted participation within the SCM projects. They asserted that even though the SCM program strives to include citizens in the imaginary of smart cities, there are obstacles to their involvement.

Therefore, the objectives of this paper are threefold: (a) to examine the various governance reform initiatives implemented over the past few years to determine their impact on long-term infrastructure development projects and to identify those that could not be implemented (b) to give a detailed review of Smart Cities Mission and (c) to build a stakeholder map by

conducting workshops with stakeholders, to understand the relationships between local actors, public officials, Non-Governmental Organizations, and institutions involved in sustainable transport infrastructure initiatives in Bangalore and Jaipur, and their connection to the new Smart City Mission initiative and delivery.

2. Review of major National Urban Policy reforms in India

The demand for transportation in the cities of India has grown significantly due to the increase in population (Singh 2005) resulting in migration from rural areas to small and large cities. The availability of motorized transport increases the income of households, commerce, and industries, generating a great demand for transport and vice versa, leading to congestion and delays. Problems related to urban transport in India have been addressed through numerous reforms. These reforms have been implemented from the nineties until the present day.

In 1992, a significant step was taken in India to empower the ULBs, for the first time, by enacting the 74th CAA and strengthening urban decentralization. Amendments to the Constitution were made to hold the ULBs accountable for the urban planning and development of their cities, which had been the responsibility of the state government. However, it is argued that, while the constitution amendment laid down a roadmap for decentralization and greater devolution of power at the state and local levels, the implementation is slow to take place. The ULBs continue to be primarily hamstrung, both financially and functionally (Vaidya 2009).

Before 2005, ULBs used their taxes as the primary source of capital and therefore, public transport was not their priority. Between 2005 and 2006, two significant measures were taken to achieve inclusive and sustainable mobility: The National Urban Transport Policy (NUTP) and Jawaharlal Nehru National Urban Renewal Mission (JNNURM). These policies represented a shift in paradigms of sustainable urban development. The Government of India approved the NUTP in April 2006, which primarily focuses on the mobility of people. The aim was to overcome the current level of congestion and balance the mobility disparities between the different social groups by making the public transportation system more accessible, inexpensive, and efficient. The Unified Metropolitan Transport Authority (UMTA), an Indian urban transport planning agency, was seen to be crucial in achieving this aim.

The Ministry of Urban Development (MoUD) mandated the establishment of UMTA to access bus funding under the JNNURM. However, only 15 cities have UMTA, which is relatively insignificant (Kochi Public Transport Day 2018). For those that are enacted, the realities are somewhat different to the expectations. In Jaipur, the establishment of UMTA remains confined to papers. Nonetheless, in Bangalore, the transport department is hampering its creation with the fear that UMTA may reduce its powers like issuing permits to buses, bus route rationalization, or registration of new vehicles (Times of India 2019).

Faced with rising urbanization and a growing backlog in infrastructure investments, the JNNURM was established in 2005 with the goal of transforming cities into "engines of economic growth" by incentivizing urban reforms at the state and local levels through the provision of grants to accelerate infrastructure development in major cities.

The main objective of the urban governance reforms developed by JNNURM was to improve ULB initiatives according to the 74th CAA, thereby enhancing their fiscal competence. Furthermore, JNNURM fostered urban structure development by ensuring quality service delivery and accountability by providing additional fundings. However, 25 state and union territories were found to have used less than 80% of the allocated budget from JNNURM

funds which again shows the reluctance of the state government to adopt the prescribed reforms and lack of technical capacity at the local level to proactively identify, plan and execute projects (Nandi and Gamkhar 2013, Kamath and Zachariah 2015).

The integration and coordination between urban transport systems, authorities, and decentralized decision-making processes that the 74th CAA inaugurated was seen as a problem for implementing mobility projects, but not as a solution. Policies and initiatives to make transportation in Indian cities efficient, sustainable, and enjoyable for citizens have not been successfully resolved with the NUTP, JNNURM, and UMTA. As a result, the reforms in urban governance regarding public transport in Indian cities failed to meet the mobility needs of citizens. In this context, the SCM program emerged. The Government of Indian mandates that each city has an SPV with a full-time CEO to present bids and compete for a sustainable infrastructure project related to transport. Furthermore, the SPV has nominees of the Central Government, State Government, and ULB on its board. The funds provided by the Government of India in the Smart Cities Mission to the SPV will be in the form of a tied grant and held in a separate Grant Fund. The existence of the SPV reflects the competitive, integrative, and coordinative essence of the SCM program in India.

The focus of SCM is to create sustainable and efficient urban governances in Indian cities considering technologies of information and communication that can help enhance public services, such as electricity supply, affordable housing, solid waste management, health, education, mobility, water supply, safety and security, and public transport (Ministry of Housing & Urban Affairs, 2015). The SCM scheme is based on competition for grants to develop infrastructure and development projects and give shape to smart cities in India, which the SPV supports. The SPV authorizes, plans, releases funds, enforces, manages, runs, tracks, and evaluates smart cities development initiatives.

This section provided a critical review of the transport reforms developed in India from the nineties to the present millennium. The next section will address the stakeholder mapping methodology that was used to help structure the analysis of the effects of the urban governance reforms in the Indian cities of Bangalore and Jaipur.

3. Methodology

Bangalore and Jaipur are chosen as the case study sites due to their strong identities as a technological and heritage-important city, respectively. Bangalore, the capital city of Karnataka, a state in South India, is known as the Silicon Valley of India because of its position as the nation's leading IT exporter. The city experiences the worst traffic congestion due to more focus on road-based infrastructure and lack of dedicated traffic management cells which make data-driven decisions. The city has good connectivity through public transport modes such as Bengaluru Metropolitan Transport Corporation (BMTC) and Bengaluru Metro Rail Corporation Limited (BMRCL), which are parastatal agencies.

Jaipur, being the capital of Rajasthan, a state in North-west India, is known as the Pink city of India. It is listed as one of the world heritage sites by UNESCO. The city, which was designed to be a commercial capital, has kept its local commercial, artisanal, and cooperative traditions alive to this day. The city has experienced exponential population growth, a sharp rise in vehicle ownership, and an increase in various allied activities, resulting in a slew of traffic and transportation issues (Agarwal & Swamy, 2011). The city has good connectivity through public modes such as Jaipur City Transport Services Limited (JCTSL) and Jaipur Metro Rail Corporation (JMRC) run by the state government. Considering the similarities and differences between Bangalore and Jaipur, both cities were chosen to analyze the complexity of implementing SCM projects. Although the position of Bangalore is more

critical within the country, it was not awarded funding within the SCM program until the third round of the process of competition for bids and grants, unlike Jaipur, which was awarded in the first round itself. This fact poses questions about the relative importance of the SCM to the city, given other opportunities. A few general socio-demographic and transport characteristics are summarized in Table 1. Mode share values of Bangalore and Jaipur are summarized in
Table 2.

Table 1: General socio-demographic and transport characteristics

Details	Bangalore	Jaipur
Population (number of persons)	1,27,64,935[1]	40,07,505[2]
Area (in sq. km)	8005[3]	467[4]
Altitude (in m)	920[5]	431[6]
Road network length (in Km)	6000[7]	2500[8]
Bus fleet size (in counts)	6501[9]	400[10]

Table 2: Mode share of Bangalore and Jaipur

Travel mode	Percentage %
Mode share of Bangalore (Source: CTTS report, 2010)	
Walk	34
Bicycle	4.5
Taxi	0.5
Auto	4.6
Maxi Cab	0.5
Two-Wheeler	21.4
Car/van	4.5
PT	30
Mode share of Jaipur (Source: Comprehensive Mobility Plan, Jaipur city, 2018)	
Walk	26
Bicycle	6
Car and Taxi	17
Two-Wheeler	27

[1] https://worldpopulationreview.com/world-cities/bangalore-population
[2] https://en.wikipedia.org/wiki/List_of_cities_and_towns_in_Rajasthan
[3] Comprehensive Traffic and Transport Study for Bangalore Metropolitan Region, June 2010
[4] http://jaipurmc.org/presentation/aboutmcjaipur/cityprofile.aspx
[5] http://www.bangaloreindia.org.uk/travel-tips/location.html
[6] https://en.wikipedia.org/wiki/Jaipur
[7] Mehta, 2019
[8] Mehta, 2019
[9] https://en.wikipedia.org/wiki/Bangalore_Metropolitan_Transport_Corporation
[10] Mehta, 2019

Auto Rickshaw	6
Metro	0
City Bus	18

Workshops with stakeholders were undertaken in 2018 to discover the current state of affairs of governance structure and mechanism and relevant development concerning SCM in Bangalore and Jaipur. The purposes of these workshops were to set a common platform for all stakeholders to discuss issues and concerns in connection to urban governance reforms and SCM program; identify critical stakeholders whose inputs would be significant and seek answers for some essential questions around the configuration of SPV in those cities, and the effect of this governance reform on implementation of the SCM. Subsequently, a stakeholder mapping exercise was conducted among the social agents related to urban transport in Bangalore and Jaipur to understand the interactions between them and the government agencies. The maps show the interactions between stakeholders through lines and arrows and reflect their positions in the SCM and the urban transport sector's decision-making processes. A stakeholder workshop was organized at IISc, Bangalore, on the 5th of September 2018. Organizations, directly or indirectly related to SCM, were identified and invited for the workshop. The workshop was attended by 31 participants from 19 organizations in Bangalore, such as Bruhat Bengaluru Mahanagara Palike (BBMP), Directorate of Urban Land Transport (DULT), Karnataka State Road Transport Corporation (KSRTC), iDeck (Smart City Consultant), among others. In Jaipur, the workshop was conducted on the 14th of September 2018 at HCM-RIPA Campus in Jaipur. It was attended by 32 participants from various organizations, such as Jaipur Development Authority (JDA), Jaipur Municipal Corporation (JMC), Jaipur Smart City Limited (JSCL), Town Planning Department, Ministry of Road Transport and Highways (MoRTH GoI), Rajasthan Road Safety, among others.

4. Case City of Bangalore

Bangalore city has witnessed tremendous economic development, industrialization, and urbanization in the last decades due to the information technologies boom. The Bangalore Urban Region, the Bangalore Rural District, and the Ramanagar District integrate the Metropolitan Region of Bangalore (BMR) in India. Public transport city services within Bangalore are majorly catered to by two agencies: the BMTC, a government-operated agency that provides bus transport facilities to the citizens, and the BMRCL, an SPV established by the governments of India and Karnataka to provide metro rail services.

4.1. Urban Governance reforms in Bangalore

Formed in 2007, the municipal corporation of Bangalore, namely Bruhat Bengaluru Mahanagara Palike (BBMP), was the amalgamation of the Two Municipal Council of Kengeri (100 wards of the erstwhile Bangalore Mahanagara Palike (BMP) or Bangalore City Corporation) and Seven City Municipal Councils (such as Dasarahalli, Rajarajeshwari Nagar, Krishnarajapuram, Bommanahalli, Byatarayanapura, Mahadevapura, and Yelahanka), and 100 villages around Bangalore. Over the past few decades, Bangalore has experienced accelerated promotion of parastatal agencies responsible for service delivery and infrastructure development, including Bangalore Development Authority (BDA), Bangalore Water Supply & Sewerage Board (BWSSB), Bangalore Metropolitan Region Development Authority (BMRDA), Bangalore Electricity Supply Company (BESCOM) and Bangalore Metropolitan Transport Corporation (BMTC).

Under the Chief Minister SM Khrisna, the Bangalore Task Force (BATF) was launched in 1999. Accompanied by NGOs, it worked with important agencies; for example, BMP,

BESCOM, BMTC, Bangalore Police, BWWSB, BDA, and BSN or Bangalore Telecom. BATF was responsible for developing the infrastructure of Bangalore, raising additional resources from citizens to ensure efficient service delivery by building the capacity of agencies. By the end of 2010, the contributions of BATF to sustainable governance reforms in Indian cities, and especially in Bangalore, were uncertain.

Then, JNNRUM was introduced and implemented. The Government of India released funds under JNNURM to a state-level nodal agency, known as Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), which would grant or loan to the implementing agency (Urban Development Department 2016). The Master Plan was prepared by the BDA in consultation with other stakeholders and was further modified based on Janaagraha (NGO) suggestions. However, out of the 39 infrastructure and governance projects, only 25 were completed. The lack of planning and capacity at the municipality led to the failure of this mission renewal in Bangalore (Hindustan Times, 2020).

In 2007, the State Government of Karnataka established the Directorate of Urban Land Transport (DULT) to ensure the integration and coordination of land use planning and transport infrastructure in urban regions. Due to the rapid growth of the city, the Bangalore Metropolitan Land Transport Authority (BMLTA) was also established in the same year. In 2015, the SCM was introduced. The SPV, Bengaluru Smart Cities Limited (BSCL), was established as a part of BBMP in 2018 for a five-year term. Since Bangalore qualified for the smart cities challenge in its third attempt, there have been many revisions in the smart city proposal.

4.2. Urban transport stakeholder mapping

The Bangalore stakeholders map is presented in Figure 1. This map illustrates the connections between the main stakeholders situated in the decentralized urban governance levels in Bangalore. In the first level, corresponding to the Government of India, the Ministry of Housing and Urban Governance, the Ministry of Finance, and the National Highway Authority of India play a central role. At the state and local level, equivalent to the Government of Karnataka, several stakeholders appear, such as the Directorate of Town & Country Planning (DTCP), the Urban Development Department, KUIDFC, UMTA, iDeck, BSCL, which is an SPV, BMRDA, BBMP, BESCOM, DULT, The Finance Department, Transport Department, KSRTC, Bangalore Traffic Police, and BMTC. Stakeholders linked to the Ministry of Finance and the Ministry of Housing and Urban Affairs are firmly connected. Meanwhile, stakeholders such as BMTC, the Transport Department, and the National Highway Authority of India are related. KSRTC does not have a significant relationship with other transport, financial, and urban authorities of the national, state, and local level. The arrows in Figure 1 indicate the direction of dependence. For example, the arrow pointing from KUIDFC to BSCL denotes that BSCL is dependent on KUIDFC for decision making or financial dependence. Double-sided arrows indicate interdependence. For example, the double-sided arrow between Finance Department and Bangalore Traffic Police denotes that they are mutually dependent, either fiscally or in the decision making process.

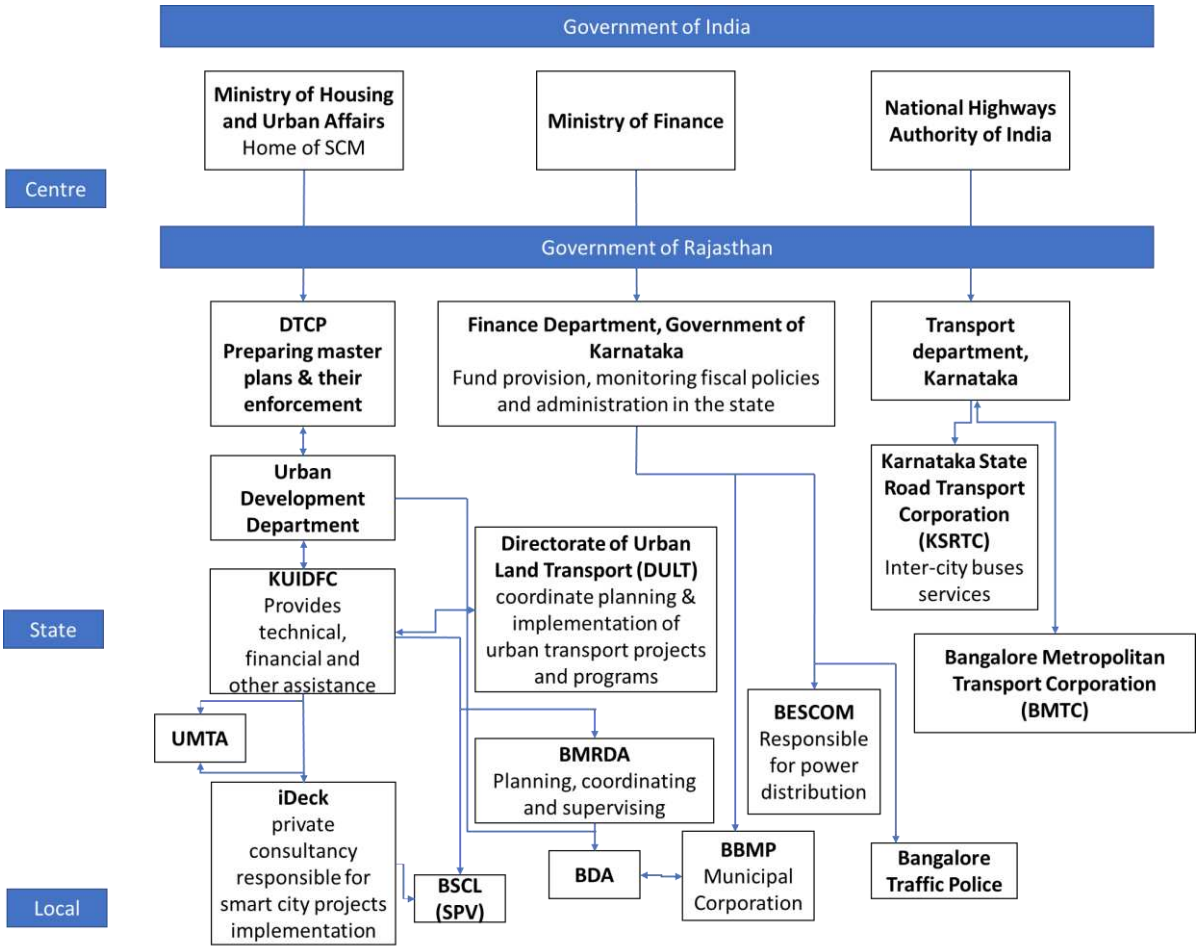

Figure 1: Stakeholder Mapping in Bangalore

The overlapping of functions and responsibilities is a significant issue in Bangalore. At the state level, the KUIDFC and the DTCP have been established with similar responsibilities, such as preparation of master plans, local area planning, circulation planning, and zonal regulations. As per the recommendations of the National Urban Transport Policy (NUTP 2014) regarding the setting up of unified Urban Metropolitan Transport Authorities (UMTAs) in million-plus cities, BMLTA (Bangalore Metropolitan Land Transport Authority) was created at DULT in 2007. The primary responsibility of DULT was to coordinate all land transport matters, supervise implementation of all transportation projects and evaluate and recommend transportation and infrastructure projects for bilateral central support. Other responsibilities were to serve as an empowered committee for all urban transportation projects, make decisions regarding integrated urban transport and land use planning, and foster the development of the projects. Nevertheless, proper channelization of authority to DULT/BMLTA and the lack of integration between associate organizations have resulted in the ineffective implementation of BMLTA. The SPV is expected to address the absence of integration by bringing various organizations under one umbrella hence improving the delivery process.

Some of the salient urban transport projects initiated as part of the Smart Cities Mission in Bangalore are as follows:

i. Major transport interchange renewal was planned in the city.

ii. At a pan-city scale, integrated ticketing initiatives were implemented to varying degrees.
iii. The urban public realm improvements were being conducted under the 'TenderSURE' badge, and 'Smart Roads' were rebranded under the Smart Cities program
iv. A real-time bus information app is already in place through Bengaluru Metropolitan Transport Corporation.

BBMP earlier executed the urban core redevelopment projects through TenderSURE, and the same has been taken up under the smart cities scheme. This change is expected to address the delay issues in releasing funds to the executing agencies, thereby ensuring their proactive involvement. Also, TenderSURE projects hold the executing agencies accountable for the project for a stipulated period, guaranteeing implementation quality. The scheme guidelines prescribe three monitoring committees, one at the national level (The apex committee), one at the state (high powered steering committee), and one at the local level (smart city advisory forum). The technical experts are proposed to be a part of the city-level advisory forum. There has not been significant involvement of technical experts in the SCM for Bangalore so far. The citizen engagement in the SCM was mainly observed during the initial proposal stages. The participation of the public primarily was to inform them rather than to consult them.

Similarly, the revisions of the proposals and the reasons for the modifications were not presented to the public. SCM evaluation for the transport-related initiatives in Bangalore has not been strictly defined in the guidelines of this urban governance program. The city scorecard prescribed in the guidelines is intended to obtain a relative ranking of the participating cities. No benchmarking concerning mobility indicators or liveability index has been conducted to evaluate smart cities. The participants also iterated the need for such benchmarking to measure resource utilization and the efficiency of the proposed governance reforms. One of the suggestions was to evaluate the reduction in expenditure of organizations on projects over time, before and after specific projects. In 2018, when the workshop with stakeholders was undertaken in Bangalore, the underlying fundamental was that the SCM scheme would achieve a substantial reduction in such expenditures. Likewise, considering the organizational issues that were indicated before, one assessment criteria could be the level of coordination and collaboration among stakeholder agencies.

Several points on the ground reality of the SPV structure and what stakeholders think about the SPV are deliberated in the workshop. The consultants (iDeck) who were initially tasked with implementing SCM projects were not involved in the proposal finalization and preparation phases, which Jannagraha handled. This made them unclear of what improvements were made and why. Although the primary responsibility of DULT is to coordinate all land transport matters, oversee the implementation of the projects, and appraise and recommend potential projects that can be taken up, the SPV led to drift in power from DULT which led to non-involvement of DULT at any level of the decision-making process. Also, the smart city proposals are not required to go through the municipal council, indicating a shift in the transfer of power away from the political and democratic system. The stakeholders suggested that frequent interactions between the Centre and the ULBs can be advantageous, especially for improved channelization of funds. It was mandated in the SCM guidelines that the CEO of the SPVs should not be related to any government body. Instead, it should be from the private sector; however, it was considered an advantage. For example, the stakeholders are convinced with the appointment of the Commissioner of the ULD

(BBMP) as the CEO of Bangalore SPV as they think that the CEO would have a broader picture of the city. In addition, it was suggested that the integration of the public transport organizations like KSRTC and BMRCL could significantly improve the projects undertaken for the SCM under SPV.

5. Case City of Jaipur

Renowned for its rich heritage, Jaipur is situated in Rajasthan State and is also known for being the "pink city" in India. The SCM project in Jaipur was implemented at the cost of 318.73 million USD. The project was fundamentally focused on retrofitting and redeveloping an area of 706 acres or either side of the Walled City between the Badi Chopad and Chhoti Chopad. As a smart city, Jaipur aspires to be a city recognized by its cultural heritage, tourism, and innovative and inclusive solutions to enhance the quality of life of all citizens. This aspiration is based on a history of successive urban governance reforms.

5.1. Urban Governance Reforms in Jaipur

Urban reforms in Rajasthan started with the 74th CAA. The Government of Rajasthan initiated the Rajasthan Urban Infrastructure Development Project (RUIDP) with the assistance of the ADB in 1999. Capacity building of Jaipur Nagar Nigam (JNN), which is the municipal corporation of Jaipur, to deliver services, including equipment and materials, training to officers, and e-governance schemes, was one of the essential project components. Simultaneously, an action plan for the urban renewal of Jaipur was prepared by the government and implemented through various agencies, such as the Jaipur Development Authority, the JNN, the Rajasthan Housing Board, and the Tourism Department. Jaipur Action Agenda reviews the progress made on the projects identified for the implementation and is looked after by the Jaipur Action Agenda Group (JAAG).

After the 74^{th} CAA and the Rajasthan Municipalities Act, the Jaipur Municipal Council emerged. The JDA Act has enacted after creating this council in 1982. The significant departments involved in the functioning and delivery of services and infrastructure were vested under this Act. The Rajasthan Housing Board (RHB) was also created at the same time. Presently, JDA is looking to plan and implement the city development plans and infrastructure within the area of JDA considered, including the JNN area. Although the JNN area is quite afar from the Walled City, its actions, mainly planning, operation and maintenance of selected infrastructure, are limited to this area and its immediate periphery. Line departments, such as the Public Health Engineering Department (PHED), still involve in delivering services and urban management (Department of Art, Literature and Culture 2013). There are a number of agencies responsible for the direction of the city of Jaipur apart from the municipal corporations, development authorities, and departments. Examples of these institutions are the JNN, JDA, PHED, PWD (Public Works Department), RHB, RSRTC (Rajasthan State Road Transport Corporation), Forest department, Tourism Department, and Archaeology Department. ADB-funded project is also involved in providing necessary infrastructure, urban development, and heritage conservation (Rao and Reddy 2018).

As mentioned earlier, the 74^{th} CAA provided the basis for administrative decentralization and the transfer of responsibilities between municipal, state, and national-level government institutions in decision-making matters. Accordingly, the Rajasthan State government has amended the municipal law by bringing conformity with the constitutional provisions related to decentralization. This fact had implications for the decision-making processes regarding urban transport within the SCM projects developed within Jaipur. Then, Jaipur was selected in the first round of the SCM competition, and, as a result, the SPV named Smart City Limited was formed in 2016. To implement infrastructural projects faster, this SPV was set up as a

parallel company with a team of experts. However, the accomplishment of the SPV could be assessed when the public delivery system is implemented. This fact has an incidence in the decision-making processes that involve urban transport stakeholders in Jaipur. The relationships among these agents are reflected in the Jaipur stakeholders map in the following section.

5.2. Urban transport stakeholder Mapping

Overlapping functions and responsibilities is a significant issue in Jaipur in terms of stipulated time to develop each project. For example, JDA and PDA are in charge of road construction in the city. If a particular stretch of road is constructed by one body, encroachments along it is another's function, tree plantations along the sides, and street lighting are yet other agency functions. There is no governing body in the transport department to regulate land use and related-by-laws along the city roads (Sharma 2017). Seven departments are primarily responsible for developing the transportation component of Jaipur. These departments prepare individual plans, and their lack of interdepartmental coordination leads to questioning their efficiency. Also, due to the lack of a common urban transport management law, several government agencies influence the development of the transportation facilities.

The Jaipur stakeholders map is displayed in Figure 2. This map shows the relationships among the main stakeholders located in the decentralized urban governance levels in Jaipur. Stakeholders related to the Government of India, such as the Ministry of Housing of Urban Affairs, the Ministry of Finance, and the National Highways Authority of India, appear at the centre-level of the map. They are linked to the Government of Rajasthan at the state and local levels. Connections between the Ministry of Urban Development, the Ministry of Local Self-Government, and the Department of Transportation are explicitly showed. These institutions are related in myriad ways to other local stakeholders such as the SPV known as JMRC and RUIDP, the JDA, RUDSICO (Rajasthan Urban Drinking Water Sewerage & Infrastructure), JNN, which is a ULB, the Collectorate, the Regional Transport Office, the Jaipur Traffic Board and the Jaipur Traffic Police.

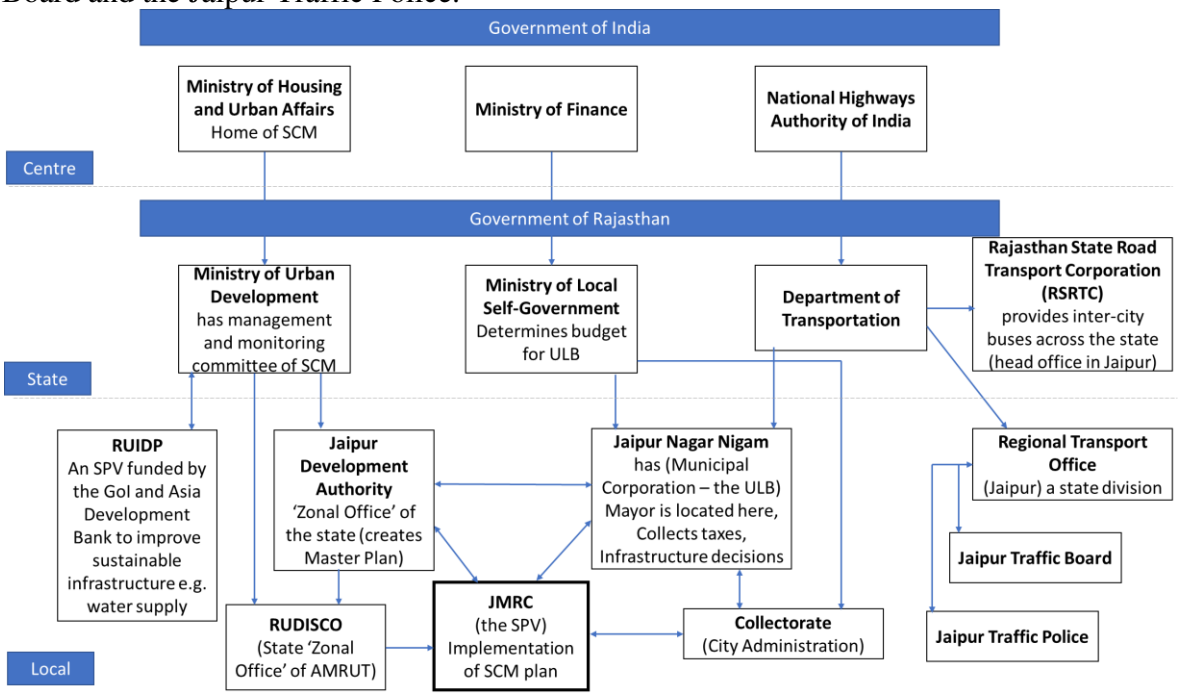

Figure 2: Stakeholder Mapping in Jaipur

Some of the salient urban transport projects initiated as part of the Smart Cities Mission in Jaipur are as follows:

i. Bike share schemes are being discussed and tendered through a PPP model involving the Mission.
ii. Multilevel parking infrastructure was a vital feature of the developing project work in Jaipur at the edge of the Walled City.
iii. Intelligent traffic management systems were also being installed, and there was much discussion of the potential of such schemes to deliver benefits to users.
iv. Jaipur had a strong focus around the UNESCO world heritage site of the Walled City, where the arguments for area-based development seem clear. Hence, there was a strong alignment of interests around the heritage area of the Walled City.

The stakeholders in the workshop highlighted the issues at different stages of planning, implementation, and enforcement. It was found that despite the formation of the Special Purpose Vehicle (SPV) for the Jaipur Smart City Proposal, no expert has been involved for the same. The reason, as was discussed, is probably the fact that the project is politically driven rather than demand-driven. No cohesion in decision is observed, and there is mismanagement of resources due to lack of integration of organizations. Some projects were delayed for many years due to the lack of inter-departmental cohesion. The project selection is not compulsorily based on an integrated approach, and the priority is given based on expenditure to be incurred. Various issues have been raised, like absence of any public consultation at any stage of project planning, switching from reactive mode to pro-active mode for any city-level project. It was suggested to involve academic institutions as a part of project consultation and contribution of youth professionals as a part of public consultation. There is a lack of an evaluation process to gauge the success of an implemented project. The safety factor in its entirety has not been made part of the Smart City proposal, which needs to be taken care.

It was emphasized that all states should have an umbrella agency like UMTA to promote the participation of all stakeholders from various organizations for integrated governance, which will help the Smart Cities Mission succeed. There are issues with sufficient funding for these organizations. It was proposed that at least 25% of the funds collected in the form of penalties and challans by the Rajasthan state can be extended to those organizations. Also, the data collection approach needs to be improved, and education and capacity building of stakeholders from all levels (district to rural) are essential. It was mentioned that the modal share of Non-Motorised Transport (NMT) has declined from the past few years; therefore, more innovative projects to attract people to shift to NMT and public transport modes should be brought out.

6. Conclusion and Policy Implication

This paper focused on the SCM program, its SPV mechanism, and the coordination and integration issues between urban transport stakeholders in Bangalore and Jaipur to fulfil a threefold purpose. First, this paper aimed to assess the effect of various governance reform initiatives implemented in recent years on long-term infrastructure development projects, as well as to identify those that could not be implemented Second, a detailed review of Smart Cities Mission is done and the initiatives that could not be executed are discussed. Third, a stakeholder map is built by conducting workshops with stakeholders, which helped defining the relationships between local actors, public officials, Non-Governmental Organizations, and institutions involved in sustainable transport infrastructure initiatives in Bangalore and

Jaipur and understand their coordination level within the SCM projects. The methodological strategy that sustained this research was based on stakeholder workshops and maps in Bangalore and Jaipur. This strategy allows a better understanding of the SCM program from a comparative approach and an accurate assessment of its capacity to enhance the daily life of Indian citizens in public transportation matters.

Bangalore and Jaipur present differences and similarities regarding cultural identity, society, imaginary as smart cities. While Bangalore is a modern and industrialized city, Jaipur is a historical place currently considered a world cultural heritage due to its Walled City and cultural richness. Concerning the SCM, SVP, and interactions among stakeholders around transport and mobility issues, both cities expressed a convergence: stakeholders in Bangalore and Jaipur highlighted problems such as overlapping functions, delays in the configuration and presentation of projects and bids for competition, and the lack of coordination and integration with government institutions and officials. The participants suggested to necessitate a continuous public involvement in the development projects. They also iterated the need for benchmarking to measure resource utilization and the efficiency of the proposed governance reforms. One assessment criterion could be the level of coordination and collaboration achieve among the stakeholder agencies. Even though the SCM program intended to provide solutions to coordination and integration difficulties between stakeholders and institutions, given the decentralized administration inaugurated with the 73rd and 74th CAA, it failed to offer a better sustainable development in Indian cities. The contributions to the mobility need of citizens in the SCM program are uncertain. Thus, the need for integrated urban metropolitan transport authorities or alternative system capable of taking action on urban mobility on a city-wide scale, including maximizing the advantages of emerging technology and capable of attracting the talent required to drive the development of Indian cities, remains an urgent need to examine.

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