

7 YEARS OF SMART CITIES MISSION, INDIA A REVIEW

- GAURAV DWIVEDI, KENNETH GOMES



7 Years of Smart Cities Mission, India

A Review

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Foreword: Unpacking the Smart Cities Mission

This century is a historic milestone for India. It is projected that around the middle of the century, for the first time in the region's history, the size of the population living in areas classified as urban will exceed the population in rural areas, making the 21st century India's urban century. In absolute numbers, the scale of the challenge is staggering, involving about 400 million new urban citizens, with a large component of this being in lower tier towns and the reclassification of currently rural settlements as urban. The process of urbanisation that took one and a half centuries in the West will have to be done in India in three to four decades. And it cannot be done using the urban paradigms of the past, for these will be unsustainable given the evolving crisis of climate change.

India's capacities in urban governance, planning, and management have historically been poor, and it is critical that Indian cities overcome this shortcoming with a high degree of innovativeness and urgency. In this light, the Smart Cities Mission (SCM) that the Government of India launched in 2015 is a critical new development, especially given: (i) the concept of the 'Smart City' is future-oriented, invoking deployment of cutting-edge capabilities in technology and management, and (ii) the SCM was launched with a short 5-year time span that implies it is envisaged as the catalyst for a new development paradigm (due to the Covid pandemic, the life of SCM has been extended to 2023). It is therefore important that a critical evaluation of SCM be done at this moment close to the end of the mission's life, and this study by the Centre for Financial Accountability (CFA) acquires great significance.

There are broad questions that spring to mind, a key one being "What exactly is a Smart City?" On this point, the SCM is evasive in its launch document, arguing that "There is no universally accepted definition of a smart city.....Even in India, there is no one way of defining a smart city." This definitional ambiguity on smart cities is a global phenomenon. There is scholarly literature on the subject that suggests this evasiveness is deliberate, the concept of the smart city masks an experiment to attract development capital from non-traditional sources, including admitting private investment and profit-seeking into urban governance, so ambiguity is useful as definitions can easily be shifted if anything goes



wrong. This leads to further questions. Does the admission of private entities into urban government, when combined with the data trails of digital technologies, lead to a form of surveillance capitalism that intrudes on a fundamental right to privacy? Does this, in turn, encourage a surveillance-based “Big Brother” state? How does the SCM impact the constitutional core of democracy and federalism, especially given the 74th Amendment to the Constitution of India that was operationalised in 1992 to set the constitutional parameters for urban local self-governance?

This CFA study deliberately does not take on overarching questions of this type. Rather, it wisely chooses to keep its ear close to the ground and track actual performance metrics on project articulation, funding, and execution. It examines tangible data through the lens of significant questions such as:

- Should the same funding formula be applied to all cities, overriding the specificities of local context and financial capacity?
- How are projects under SCM articulated, evaluated, and launched?
- How have different regions/cities performed comparatively under SCM?
- What are the sources of funding, what weightage does each source carry, and what is the interplay between these sources?
- What is the degree of transparency on release of funds?
- What is the participation, in terms of funding and operations, of the private sector through public-private partnerships?
- What has been the success rate in fund utilisation?
- To what extent is success linked to the source of funds?
- What has been the success rate on project completion?
- How does the rate of project completion compare to the rate of funds utilised?
- What light does this throw on the value and efficacy of projects taken up and completed under SCM?
- What has been the efficacy of measures taken on environmental issues?
- How effective have SCM's measures for involving citizen participation been?
- Beyond the life of SCM, what is the future of institutional infrastructures it has created, such as Special Purpose Vehicles?



This approach proves extremely useful for it throws light on local institutional capacities to tackle urban problems, both from the viewpoint of implementational effectiveness as well as the ability to assess purpose and priorities. Little purpose would be served in addressing broader policy or political concerns if there is no capacity to carry these concerns down the line. It is more useful to examine grounded data to assess the kind of institutional architecture we need to deal with the challenges that India's cities face.

Through its 'ear to the ground' approach in this report, CFA offers a valuable foundation of data analysis that will serve to address India's urban century. But as the poet observed, we have miles to go before we sleep.

Prem Chandavarkar
CnT Architects, Bengaluru

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List of Abbreviations

- Administrative & Operating Expenses
- Asia Infrastructure Investment Bank
- Asian Development Bank
- Atal Mission for Rejuvenation and Urban Transformation
- Central Finance Commission
- Chief Executive Officers
- City Level Advisory Forums
- Climate Centre for Cities
- Climate Smart Cities
- Confederation of Indian Industries
- Development Finance Institutions
- Developing Member Countries
- Deutsche Gesellschaft für Internationale Zusammenarbeit
- Federal Ministry of Environment, Nature Conservation, Nuclear Safety and Consumer Protection
- International Finance Corporation
- International Climate Initiative
- International Finance Institutions
- Internet of Things
- Japan International Cooperation Agency
- Jawaharlal Nehru National Urban Mission
- Memorandum of Understanding
- Ministry of Housing and Urban Affairs
- Multilateral Development Bank
- National Heritage City Development and Augmentation Yojana
- National Institute of Urban Affairs
- New Development Bank
- Public Private Partnerships
- Smart Cities Mission
- Smart City Plan
- Special Purpose Vehicle
- State Finance Commission
- Sustainable Development Goals
- Swachh Bharat Mission
- Technical University of Berlin
- Transnational Corporations
- UK Trade & Investment
- Urban Local Bodies
- US Trade and Development Agency
- Underground Drainage System
- World Bank
- A&OE
- AIIB
- ADB
- AMRUT
- CFC
- CEOs
- CLAFs
- C-Cube
- CSCs
- CII
- DFI
- DMCs
- GIZ
- BMUV
- IFC
- IKI
- IFIs
- IoT
- JICA
- JNNURM
- MoU
- MoHUA
- MDB
- HRIDAY
- NIUA
- NDB
- PPP
- SCM
- SCP
- SPV
- SFCs
- SDGs
- SBM
- TU Berlin
- TNCs
- UK
- ULBs
- USTDA
- UGD
- WB



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Executive Summary

The Smart Cities Mission was launched by Prime Minister Narendra Modi on June 25, 2015. It was envisaged as a large-scale urban infrastructure renewal and retrofitting initiative to make aimed at making urban infrastructure climate resilient and sustainable, providing for affordable housing, adequate electricity and water, and effective waste management. Efficient and environmentally sound public transport services and robust digitalisation were to ensure safety of citizens and better governance. To grant citizens “decent quality of life through the application of ‘smart solutions’” was a goal of the mission, while also promising easier citizen participation in governance via digital platforms.

The mission, initially planned to be completed by 2020, has been extended to 2023 due to lag in project implementation and completion. Furthermore, as per the findings of this report, this lag in project completion is distributed asymmetrically across the 100 cities, with some cities boasting a good track record, while others fared poorly in execution of projects. This asymmetry is also seen in utilisation rate of funds for these projects. Some cities have a good track record of percentage of projects completed; and yet, the funds utilisation rate for these projects has been poor -- this suggests that smaller projects have been completed first to present a better project completion rate.

The Union government committed Rs 48,000 crore, 100 crore for each city, over the span of five years, which would be matched equally by the state/urban local body (ULB) of the respective cities (50:50 ratio for all smart cities). This is in contrast to the Jawaharlal Nehru National Urban Renewal Mission, which took into consideration the financial and economic status of cities and consequently, decided on a 50:50 ratio for contributions coming from the centre and state/ULB for cities with population above a million, and a ratio of 90:10 for northeastern cities and 80:20 for other cities.

Under SCM, no such considerations have been taken into account. The burden on many states and ULBs is also accentuated as many cities, with less than robust financial status, have been selected from a single state. The Smart Cities Proposal Costs are very high compared to the average annual revenues of these municipal corporations. Additionally, many smart cities have a poor investment credit rating. Our findings show that funds



released by the state are lagging behind funds released by the Centre, and this may be due to excessive financial burden to release the committed funds for multiple cities, with poor financial status.

There is also a need for more transparency in the release of funds from the state, and its utilisation. That would help pinpoint where the lag occurs, since fund utilisation rate for many cities is not as good for funds received from the state as it is for funds received from the Centre.

It was observed that financing in the public-private partnership mode was concentrated in commercial infrastructure, real estate, social infrastructure, energy and transport. Sectors like logistics, manufacturing and communications have received a meagre share of PPP funds.

Despite initiatives for climate resilience and environmental sustenance, many Indian cities continue to be plagued with air pollution, extreme temperatures, poor water and waste management systems and sanitation. There is thus cause to be skeptical of the efficacy of measures undertaken.

A lack of citizen participation in decision-making about projects to be implemented was observed. The use of digital and online platforms to take local citizens' votes and feedback on the projects earmarked under the SCM led to exclusion of marginalised communities with limited access to online modes of interaction. This exclusion reflects in the meager share of expenditure on projects for welfare of poorer and marginal groups, especially in area-based development projects.

Lastly, although the Smart Cities Mission nears completion, several questions remain: The future of Special Purpose Vehicles (SPVs), for instance. Will these continue to own/operate and maintain these projects? Financial support to SPVs for constructing new projects and operating existing ones, and the long-term impact of SPVs on existing structures of governance, especially given the increasing privatisation of public assets and services, remains to be addressed. Will there be universal access to these public services in future? Will we see increase in tariffs for using these services? We can guess at answers to some of these questions, but a clear understanding is still elusive.

Introduction

The Smart Cities Mission (SCM) was launched in 2015, and was meant to conclude in five years. Centre for Financial Accountability has been researching and documenting various aspects of the mission. Reports are currently available on the financing of the mission and the role of international financial institutions in promoting and financing the mission. City-level studies have been conducted at Indore, Bhopal, Tumakuru and Bhubaneswar. One is currently ongoing, of Nagpur.

Given the continuous engagement with this mission, it was appropriate that a status review of SCM be undertaken, to estimate its accomplishments at the time when it was slated for completion. Recent reports suggest that the mission has been extended to 2023. This report was planned to be ready by 2020, when the mission would have ended – the pandemic, however, put paid to efforts to complete this study in that time.

SCM is a significant programme not only for the creation of urban infrastructure, but also for instituting institutional and governance structures in urban areas that were radical departures from the past. The mandatory creation of Special Purpose Vehicles (SPVs) as units autonomous of Urban Local Bodies for implementation of projects was a considerable leap. Earlier national urban renewal programs like the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) had not made such stark changes in governance.

When JNNURM was launched in FY 2005-06, the Union government had committed to an allocation of Rs. 66,085 crore over a seven-year period for 65 cities.¹ The total cost would be divided in the given ratios² – such as for cities with 4 million plus population and for cities with million plus but less than 4 million population, the Centre's share and state/ ULB share was 50:50, for cities/towns in the northeast, 90:10, and for other cities, 80:20. In contrast, the Smart Cities Mission saw a total of Rs. 96,000 crore committed by the Union and state governments, in 50:50 ratio for 100 cities.

This report is aimed at assessing the targets set under the mission; and what has been achieved so far. Parameters such funds released by Centre and states, utilization of these funds, project completion rates, round-wise city level performances, projects implemented

¹ https://accountabilityindia.in/sites/default/files/jnnurm_2013-14.pdf

² <https://mohua.gov.in/upload/uploadfiles/files/14Guidelines-JNNURM-English.pdf>



under Public Private Partnerships (PPP), and project data available on the India Investment Grid website are considered in this report. A thorough and complete assessment of SCM would involve asking fundamental questions about the need for these projects; questions of whom they are meant to benefit, and whether decision-making on choice of projects and priorities accorded to them was democratic. The ecological cost of the projects, not just their financial cost, ought to have been considered – a full assessment would consider whether the projects were ecologically sound, and whether public resources were indeed put to the service of the larger good. These larger questions have not been the focus of this document, since the aim here is to narrow the discussion to the terms set by the Mission itself, and to assess the performance on the basis of the aims set out at the launch of the SCM.

The data used for the study has been accessed from the Smart Cities Mission website dashboard³ to project a national picture of the status of work under the mission. The plotting of data on graphs and charts helps in better visualization of the progress under the mission.

More granular city-level data in terms of the kind of projects being tendered, implemented and completed would have offered insights into the progress of the project in different cities. Union and state fund utilization status for these projects, private sector participation, impacts on communities, public service delivery, etc would have been useful to consider. Time and resources, however, did not allow for such granular data, so those lie outside the scope of the present report. We hope to bring out more reports that will offer fuller treatment of those questions, with more detailed studies.

Gaurav Dwivedi & Kenneth Gomes
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³ <https://smartcities.gov.in/dashboard>

Smart Cities Mission in India

In the first phase of the Smart Cities Mission, 100 cities of India were targeted to be made “Smart”. Similarly, 500 cities were targeted for development under Atal Mission for Rejuvenation and Urban Transformation, AMRUT. The budget for SCM by the Union Government is Rs 48,000 crore; Rs 50,000 crore is the budget for AMRUT⁴.

In January 2016, under the first round of the SCM, 20 cities were selected through the “Smart City Challenge Competition”. In the later rounds, 79 cities were added to this mission; one city slot remained empty. Later, Shillong was selected as the 100th city. The government would spend approximately Rs 96,000 crore on these cities in the next five years. Of this, Rs 48,000 would come from the central kitty; a similar amount would be borne by state governments, under the terms of the mission.

In each of the selected cities, the central government would invest Rs 100 crore and a matching amount would be spent by the state government, in the form of a grant. The projects at the municipal level under the mission would be implemented through a Special Purpose Vehicle (SPV) which would be a limited company to create a parallel structure for implementing urban projects. The SPV would be formed based on a tripartite agreement between the central government, state government and the municipal body. A national council would be formed to monitor this, under a model followed globally, of the Smart Cities Council⁵.

Under the mission four modes have been proposed to undertake the development of a smart city – retrofitting, redevelopment, Greenfield development and pan city development. These modes would be used to develop around 500 acres of the selected cities where infrastructure already exists with the help of smart internet-based applications. The mission strategy⁶ gives the following definition of retrofitting, redevelopment, Greenfield development and pan city development -

Retrofitting - will introduce planning in an existing built-up area to achieve smart city objectives, along with other objectives, to make the existing area more efficient and liveable. In retrofitting, an area consisting of more than 500 acres will be identified by the

⁴ www.smartcities.gov.in

⁵ <https://smartcitiescouncil.com/>

⁶ <http://www.smartcities.gov.in/content/innerpage/strategy.php>

city in consultation with citizens. Depending on the existing level of infrastructure services in the identified area and the vision of the residents, the cities will prepare a strategy to become smart. Since existing structures are largely to remain intact in this model, it is expected that more intensive infrastructure service levels and a large number of smart applications will be packed into the retrofitted smart city.

Redevelopment - will effect a replacement of the existing built-up environment and enable co-creation of a new layout with enhanced infrastructure using mixed land use and increased density. Redevelopment envisages an area of more than 50 acres, identified by Urban Local Bodies (ULBs) in consultation with citizens.



Source - Ministry of Housing and Urban Affairs

Greenfield development - will introduce most of the Smart Solutions in a previously vacant area (more than 250 acres) using innovative planning, plan financing and plan implementation tools (e.g. land pooling/ land reconstitution) with provision for affordable housing, especially for the poor. Greenfield developments are required around cities in order to address the needs of the expanding population.

Pan-city development - envisages application of selected Smart Solutions to the existing city-wide infrastructure. Application of Smart Solutions will involve the use of technology, information and data to make infrastructure and services better.

The mission strategy further states that – “the smart city proposal of each shortlisted city is expected to encapsulate either a retrofitting or redevelopment or greenfield development model, or a mix thereof and a pan-city feature with Smart Solution(s). It is important to note that pan-city is an additional feature to be provided. **Since smart cities are taking a**

compact area approach, it is necessary that all the city residents feel there is something in it for them also. Therefore, the additional requirement of some (at least one) city-wide smart solution has been put in the scheme to make it inclusive"⁷. (Emphasis added)

The mission also seeks convergence with other Central and state government schemes, it states -- "there is a strong complementarity between the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and Smart Cities Mission in achieving urban transformation. While AMRUT follows a project-based approach, the Smart Cities Mission follows an area-based strategy. Similarly, great benefit can be derived by seeking convergence of other Central and state government programmes/schemes with the Smart Cities Mission. At the planning stage itself, cities must seek convergence in the SCP with AMRUT, Swachh Bharat Mission (SBM), National Heritage City Development and Augmentation Yojana (HRIDAY), Digital India, Skill development, Housing for All, construction of museums funded by the Culture Department and other programs connected to social infrastructure such as Health, Education and Culture"⁸.

Smart cities were selected under different rounds, after a "smart city challenge", a competition under which municipal bodies submitted proposals. Under the first round, 20 cities across the country were selected; 13 cities were later included under a fast-track round; 27 cities were selected under round three, and 30 cities under round four. Nine cities were later selected, bringing the total number of cities to 99.

⁷ <http://www.smartcities.gov.in/content/innerpage/strategy.php>

⁸ <http://www.smartcities.gov.in/content/innerpage/convergence-sp.php>



Source: Maps of India⁹

The last city included in the list, the 100th, was Shillong, after a proposal from the Meghalaya government was accepted in 2018.

⁹ <https://www.mapsofindia.com/government-of-india/smart-cities-project.html>

The detailed list of number of cities allocated to states based on urban population and number of statutory towns¹⁰:

State/ UT (No. of cities) - A & N Islands (1), Andhra Pradesh (3), Arunachal Pradesh (1), Assam (1), Bihar (3), Chandigarh (1), Chhattisgarh (2), Daman & Diu (1), Dadra & Nagar Haveli (1), Delhi (1), Goa (1), Gujarat (6), Haryana (2), Himachal Pradesh (1), Jammu & Kashmir (1), Jharkhand (1), Karnataka (6), Kerala (1), Lakshadweep (1), Madhya Pradesh (7), Maharashtra (10), Manipur (1), Meghalaya (1), Mizoram (1), Nagaland (1), Odisha (2), Puducherry (1), Punjab (3), Rajasthan (4), Sikkim (1), Tamil Nadu (12), Telangana (2), Tripura (1), Uttar Pradesh (13), Uttarakhand (1), West Bengal (4), Grand Total (100).

What is a Smart City?

Smart Cities Mission of the Government of India defines smart city as: “There is no universally accepted definition of a smart city. It means different things to different people. The conceptualization of Smart City, therefore, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents. A smart city would have a different connotation in India than, say, Europe. Even in India, there is no one way of defining a smart city”.

“In the approach of the Smart Cities Mission, the objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of ‘Smart’ Solutions. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will act like a lighthouse to other aspiring cities.”

“The core infrastructure elements in a smart city would include:

- I. Adequate water supply,
- II. Assured electricity supply,
- III. Sanitation, including solid waste management,
- IV. Efficient urban mobility and public transport,
- V. Affordable housing, especially for the poor,
- VI. Robust IT connectivity and digitalization,

¹⁰ http://www.smartcities.gov.in/upload/uploadfiles/files/No_of_Smart_Cities_in_each_State.pdf

- VII. Good governance, especially e-Governance and citizen participation,
- VIII. sustainable environment,
- IX. Safety and security of citizens, particularly women, children and the elderly, and
- X. health and education"¹¹.

Financing Smart Cities

Finances and financing mechanisms form a crucial aspect for the Smart Cities Mission which is a capital-intensive urban infrastructure development program. The central government and international and domestic financial institutions have proposed several measures to bring in the huge amount of funds that would be needed to build a smart city in the existing urban spaces.

Given the selection of 100 cities under the Smart Cities Mission, a huge capital expenditure is anticipated and to start with, the Government of India had allocated Rs 48,000 crore for the mission for the first five years. This amount will also be matched by the respective states. Given the Central and state contribution, the total would amount to Rs 96,000 crore over five years, almost 50% of the estimate of the proposed total expenditure of Rs 2,05,018 crore.

There is also the potential of the intersection of various other schemes such as the AMRUT scheme and Swachh Bharat with the Smart City Mission and, consequently, potential for funds allocated to the Mission from the other schemes. Additionally, funds were proposed to flow from Public Private Partnerships (PPP). Initiatives to encourage such arrangements have materialized -- a virtual PPP roadshow was organized by the Ministry of Housing and Urban Affairs and Invest India¹², where smart city leaders showcased their upcoming projects to potential investors.

"..PPP opportunities were showcased by CEOs from 10 Smart cities (Ranchi, Nashik, Nagpur, Srinagar, Pune, Gwalior, Imphal, Bilaspur, Shivamogga and Warangal) in four sectoral sessions, viz. urban transport, commercial infrastructure and hospitality, education and energy. The projects covered areas such as market redevelopment, multi-level smart parking, urban mobility, solar power generation, development of multi-modal transport hubs

¹¹ <http://www.smartcities.gov.in/upload/uploadfiles/files/What%20is%20Smart%20City.pdf>

¹² <https://pib.gov.in/PressReleasePage.aspx?PRID=1791622>

as well as establishment of educational hub." The opportunities under the Smart City Mission are also listed on the India Investment Grid website, for investors to browse and connect with promoters of projects they are interested in.

The Urban development ministry of India, has estimated a cost of Rs. 7 lakh crore (approximately USD 105 billion) to develop '100 Smart Cities' over the next 20 years, extending beyond the mission's initial five years. The cost of building a Smart City is quite high, and can be done only through public-private models. Given the huge cost, the opportunities too will be galore for corporates to encash¹³. **For instance, a joint study by ASSOCHAM-EY has estimated that in a hyper-connected India, the Internet of Things (IoT) has the potential to reach 2 billion connections, and unlock revenues of USD 11.1 billion by 2022**¹⁴. (Emphasis added)

The respective Municipal Corporations will play a central role in bringing funds in excess of the contribution of the Central and state governments. **They propose to generate funds for Smart Cities Mission implementation, through the current sources of income for municipal bodies, by increasing property tax, professional tax, entertainment tax, advertisement tax, entry tax among others.** (Emphasis added)

Additionally, funds would also be available on implementation of the recommendations of the 14th Central Finance Commission¹⁵. These recommendations include vacant land tax, user charges for water, electricity, telecom, gas, parking fees, tax on public transport and charges on changes in land and building use.

It has also been suggested that water supply and sewage should be charged separately from property tax and the charges should be increased to such levels that at least operation and maintenance cost is recovered. The increases should also be linked to inflation. The user charges should be recovered based on the quality of the services delivered. It has been recommended that public services like water supply, sanitation, sewage, transport, etc be delivered by private partners through PPP mode -- there are a total 180 opportunities amounting to USD 10.824 Billion, which are being implemented on PPP mode under SCM, on the India Investment Grid website.

¹³ <https://india.smartcitiescouncil.com/article/smart-cities-be-build-substantial-cost>

¹⁴ <https://telecom.economictimes.indiatimes.com/news/iot-to-unlock-revenues-worth-11-1-billion-by-2022-study/67250699>

¹⁵ <http://smartcities.gov.in/upload/uploadfiles/files/Financing%20of%20Smart%20Cities.pdf>

The other sources for generating funds that have been suggested are municipal bonds, green bonds, energy conservation bonds, pooled finance mechanisms from various financial institutions and bilateral and multilateral agencies. (Emphasis added). Projects financed by bilateral and multilateral development agencies are also actively supporting smart city projects at national and municipal level.

International Financial Institutions Financing Smart Cities

Various International Finance Institutions (IFIs), including multilateral, bilateral and regional institutions, subscribe to the Sustainable Development goals (SDGs)¹⁶ and provide subsidized, low financing-cost loans, or grants, to various state-level and municipal governments to finance projects, which fall under these SDGs -- these include quality education, clean water and sanitation, affordable and clean energy, industry, innovation and infrastructure, sustainable cities and communities, amongst others.

As per Asian Development Bank's (ADB) report¹⁷, three main channels have been observed via which financial and technical assistance is provided to developing and emerging economics --

- Government and related aid agencies, which largely provide grants (and some loans) for development assistance and humanitarian aid. Newer actors, like foundations, are also becoming more prominent in aid.
- Multilateral development bank (MDB) public sector arms, like the World Bank and the public arms of the regional development banks, which provide development loans and some grants to the public sector, sometimes including state-owned enterprises such as municipal corporations.
- Bilateral development finance institutions (DFIs) and the private sector arms of the multilateral development banks, which provide financial products and related advisory services to the private sector in developing countries.

Many of these international institutions such as ADB, IFC JICA, AIIB, WB, NDB amongst others focus on key areas such as infrastructure, capital markets, and financial sectors. In particular, The World Bank Group has introduced the Sustainable Cities Initiative, including the Cities Initiative being carried by its sister organization, International Finance Corporation (IFC), the

¹⁶ <https://www.undp.org/sustainable-development-goals>

¹⁷ <https://www.adb.org/sites/default/files/publication/29108/ifi-development-private-sector.pdf>



World Bank Group's private sector participation promoting agency, which will primarily focus on historic city conservation and regeneration, energy efficiency and climate change, brownfield development, municipal finance, solid waste management, water and wastewater, urban transport & social inclusion¹⁸.

A recent IFC analysis released in 2018 – *Climate Investment Opportunities in Cities* – also links city level policy decisions and actions to mitigate climate change with opening of new investment avenues to take a green, climate-friendly approach to urbanization and investments in green transport, buildings, and other low-carbon and resilient infrastructure. In the backdrop of the Paris Climate Agreement, limiting global warming and building urban climate resilience it says: “Cities cannot achieve their climate ambitions alone and must collaborate with all stakeholders, including business and investors. City governments play a key role in creating enabling conditions to attract private investment to reduce emissions, manage risks, and build climate resilience. **The private sector can play a central role in supporting cities through a combination of innovation, know-how, financing, and new service delivery models, and there is growing interest from the private sector to invest in climate-smart cities**”. (Emphasis added)

IFIs like WB, ADB, IFC, AIIB and bilateral agencies from the US, France, Germany, Japan, Singapore and others have increasingly shown interest in providing finances for the smart cities. ADB has focused on urbanization in various developing economics. Its long-term strategy 2020¹⁹ included the Urban Operational Plan which provides ADB and DMCs with a framework to achieve sustainable urban development based on the 3E (economy, environment, and equity) themes.

ADB has been able to leverage resources for livable cities through various trust funds and programmes, including those established under the Urban Financing Partnership Facility (such as the Urban Environmental Infrastructure Fund and the Urban Climate Change Resilience Trust Fund) and Water Financing Partnership Facility. These trust funds have supported the development of innovative components in projects, such as integrated city development strategies, climate risk and vulnerability assessments, riverbank improvements with flood risk management and urban greenbelts, and development of city regions and economic corridors.

¹⁸ <https://www.worldbank.org/en/region/eca/brief/sustainable-cities-initiative>

¹⁹ <https://www.adb.org/sites/default/files/institutional-document/32121/strategy2020-print.pdf>

As an example, the Cities Development Initiative for Asia (CDIA) supports cities in building their capacities and enhancing their readiness for faster project preparation and implementation. Similarly, the Urban Climate Change Resilience Trust Fund (UCCRTF) supports cities in building their capacities for incorporating climate change resilience principles in their planning and operation.

For its long-term strategy 2030²⁰, one of the main six sectors is Making Cities More Livable, which will focus on building institutions to improve cities' livability, foster integrated city development, combine policy reforms, capacity development, institutional strengthening, and knowledge management. ADB will support cities in DMCs to test new technologies and leapfrog to the use of the latest solutions such as preparing and implementing smart city plans to enhance city competitiveness and productivity and support localization and implementation of Sustainable Development Goals.

Various provisions have been made in terms of -

- Support to infrastructure and services in urban areas
- Scale up the use of proven digital technologies
- Ensure water security and adequate waste management
- Provide energy security
- Promote public mass transport.

ADB, given its stance on climate resilience urban infrastructure and commitments to SDGs, has provided financial and technical assistance to various Smart cities such as Bengaluru²¹, Aizawl²², Agartala²³ and Tripura²⁴ and more. It has also initiated a Strengthening Climate Change Resilience in Urban India²⁵ which intersects with the Smart Cities Mission across various environment and sustainable themes such as water and solid waste management, efficient public transport and more.

In 2018, the Ministry of Housing & Urban Affairs (MoHUA) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) signed an Indo-German technical agreement for an "Implementation Agreement in Sustainable Urban Development and Smart Cities in India."

²⁰ <https://www.adb.org/sites/default/files/institutional-document/495966/strategy-2030-op4-livable-cities.pdf>

²¹ <https://www.adb.org/projects/53192-001/main>,

²² <https://www.adb.org/projects/54335-001/main>,

²³ <https://www.adb.org/projects/53262-001/main>,

²⁴ <https://www.adb.org/projects/53276-001/main>

²⁵ <https://www.adb.org/projects/49106-001/main>

This consortium has been extended by partnering with Technical University of Berlin (TU Berlin), The National Institute of Urban Affairs (NIUA) and Climate Centre for Cities (C-Cube).

On behalf of Germany's Federal Ministry of Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), this consortium is jointly working on including the objective to foster climate-friendly solutions for urban infrastructure projects and area-based development within India's Smart City Mission planning and implementation stages.

This agreement laid the foundation for the Climate Smart Cities (CSC) project, which is funded under the International Climate Initiative (IKI), which extends financial support for projects on:

- Mitigating greenhouse gas emissions
- Adapting to the impacts of climate change
- Conserving natural carbon sinks with a focus on reducing emissions from deforestation and forest degradation (REDD+)
- Conserving biological diversity

A Climate Smart Cities Assessment Framework has been initiated for 100 Smart Cities



Source: Climate Smart Cities²⁶

Out of the 100 Smart Cities, only three cities are enlisted under IKI -

²⁶ https://urban-industrial.in/csc/our_work/national_level/climate_smart_cities_assessment_framework/index_eng.html

- In Bhubaneswar, technical and financial support has been provided for Storm Water Management, Construction & Demolition Waste (C&D waste) Management.
- In Coimbatore, C&D Waste Management, Urban Green Planning and Development of Urban Green Training are the targeted sectors.
- In Kochi, Green and flood resistant building framework, Solid waste management and Climate Action Plan have been implemented under this initiative

The impact of the climate crisis on urban communities appears to be significant in terms of water, energy, waste management, air pollution, livelihoods, etc. There are numerous projects that have been proposed by national and international agencies to create measures to mitigate and adapt urban systems towards climate resilience like clean transport, efficient water supply, energy and waste management and use of digital technologies to develop these systems. However, the effectiveness of these projects in developing universal systems on the ground is yet to be quantified. It is noteworthy that India was ranked last, out of 180 countries, in the Environmental Performance Index 2022²⁷, conducted by Yale University. Also, according to the World Air Quality Report 2021²⁸ released by IQAir in March 2022, India ranked 5th most polluted country among 117 countries. A Lancet report showed that 2.3 million Indians were estimated to have died “prematurely” in 2019, on account of air pollution.

Bilateral agencies have also been taking a lot of interest in implementation of smart cities projects. This programme has given them opportunities to promote trade and investment in urban infrastructure projects in India for the corporations based in their countries. A Memorandum of Understanding (MoU) has been signed between India and Germany²⁹ for collaboration on sustainable urban development and smart cities. It has also been reported that Germany would partner with India to develop Kochi, Bhubaneswar and Coimbatore as smart cities.³⁰

Meanwhile, in support of the Smart Cities initiative, the US Trade and Development Agency (USTDA) would be bringing together private sector expertise, technology solutions and best practices to mobilize smart city development in Ajmer, Allahabad, and Visakhapatnam. USTDA will host a series of reverse trade missions to connect officials from Uttar Pradesh,

²⁷ <https://epi.yale.edu/epi-results/2022/country/ind>

²⁸ <https://www.iqair.com/in-en/india>

²⁹ <https://www.geospatialworld.net/news/india-germany-sign-mou-for-smart-city-cooperation/>

³⁰ Germany partners with India to develop Kochi, Coimbatore, Bhubaneswar as smart cities (dnaindia.com)

Rajasthan and Andhra Pradesh and the cities of Allahabad and Ajmer, to best practices and technologies of the US.³¹

Similarly, the French government has signed a MoU for developing Chandigarh, Puducherry and Nagpur as smart cities³².

IE Singapore, a programme of the Singapore Ministry of Trade and Industry to help local companies to improve their operations outside Singapore, has signed an MoU with the Pune Municipal Corporation to assist with the implementation of its smart city projects. The MoU is expected to improve the city's management of water, wastewater, energy and transport infrastructure. IE Singapore has also previously signed an MoU on smart city projects with the Indian states of Rajasthan and Gujarat.³³

The UK Trade & Investment (UKTI) along with the Confederation of Indian Industries (CII) and India Electronics and Semi-conductor Association (IESA)³⁴ are organizing smart city roundtables to jointly explore opportunities between India and the UK in the development of Amaravathi, Pune and Indore as smart cities. Not to be left behind, Japan has signed a pact to develop Varanasi into a smart city by using the experience of Kyoto.

In addition to IFIs and bi-lateral agencies, **the lead smart city advocates include several leading Trans National Corporations (TNCs). They are involved in promoting the smart cities concept across the world. These include computer hardware, software and IT consulting company, IBM, network equipment and optical network manufacturer, CISCO, electricity, gas and water meter manufacturing company, Itron, heavy electrical equipment manufacturer, General Electric, computer and hardware manufacturers, Micorsoft and Oracle, smart grid network and communications network company, Silver Spring Network, Water Resources Management Group, energy and Internet of Things (IoT) manufacturing companies, AGT International and ABB, beverage manufacturer, South Africa Breweries, Japanese companies Hitachi and Toshiba, French company Schneider Electric, Chinese Huawei, Swedish company Erickson, Germany's Siemens, among others.** (Emphasis added)

These TNCs appear to be the major drivers in the process of building smart cities across various countries across the world.

³¹ FACT SHEET: U.S.-India Economic Cooperation and People-to-People Ties | whitehouse.gov (archives.gov)

³² France will partner India to build three 'smart' cities | Business Standard News (business-standard.com)

³³ <https://www.smart-energy.com/news/smart-city-projects-ie-singapore-pune/>

³⁴ <https://www.gov.uk/government/news/uk-india-can-make-great-smart-cities-together>

A Review of Smart Cities Mission

Smart Cities Mission was meant to cover an initial period of five years, and was set for completion by 2020. It has since been extended to 2023³⁵. This extension, in some sense, also shows that the mission is behind schedule. One of many reasons is the pandemic, which disrupted all schedules. However, even before the pandemic, there were clear signs that the performance under the mission was not meeting the benchmarks set at the outset. We can see the difference between budget allocation and actual expenditure, and the committed funds under the Smart City Mission.

This review of the mission is based on data collected from the public website of the Smart Cities Mission³⁶. The review analyses performance of the mission on various parameters such as cost of smart city proposals, round wise fund project cost, fund release and utilisation by the selected cities, funds released by Union and state governments, utilization by the city level special purpose vehicle companies, number of projects tendered and completed, quantum of funds proposed for the projects from different sources (loans, government, PPP and convergence), the number of PPP projects, sector-wise break-up of PPPs, the project completion rate, etc. It also looks into the budgets of the municipal corporations that have been selected for the mission and their financial situation in terms of surpluses and deficits.

The study was conducted during the period from September 2021 - March 2022, based on data upto the second week of March 2022.

7.1 SCM Proposal Cost

As per the selection criteria for inclusion in SCM, a city had to submit a proposal delineating the potential of developing various area-based and pan city projects, followed by a blueprint of the process of implementation and the proposed funding. Generally, as per the cities' proposals, which can be accessed on the Smartnet website³⁷, projects under the SCM were to be financed by:

Union Government - The central government had committed to finance a lion's share of the projects under the SCM

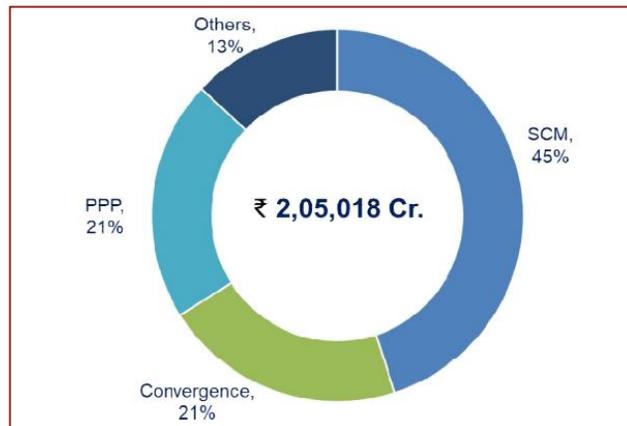
³⁵ <https://indianexpress.com/article/india/govt-extends-smart-cities-mission-timeline-to-2023-7653203/>

³⁶ <https://smartcities.gov.in/dashboard>

³⁷ <https://smartnet.niua.org/>

- Convergence Funds - The projects, under the smart city mission, extend to other schemes as well since these projects may also be included under an umbrella term of development, which is at the heart of many other schemes of the union government. These schemes include: Atal Mission For Rejuvenation And Urban Transformation, National River Conservation Plan, Swachh Bharat Mission (SBM), National Heritage City Development and Augmentation Yojana (HRIDAY), Digital India, Skill development, Housing for All and more.
- State's Matching Share - Each city's respective state has to commit funds equivalent to the funds released by the central government.
- Loans - The cities have also proposed funding coming from various financial institutions, bilateral and multilateral agencies.
- PPP - The cities have proposed to attract funds from various public and private partnerships/arrangements.
- Municipal Corporation Revenues - The remaining funding, if required, will be procured from Municipal Revenues.

As per the report submitted to the 17th Lok Sabha Standing Committee³⁸, smart cities under the mission have proposed to execute a total of 5,151 projects worth ₹ 2,05,018 crores in five years, starting from the date of selection of the city.



Graph 1 - Aggregate Proposed Share of Funds for Smart City Mission
Source: 17th Lok Sabha Standing Committee

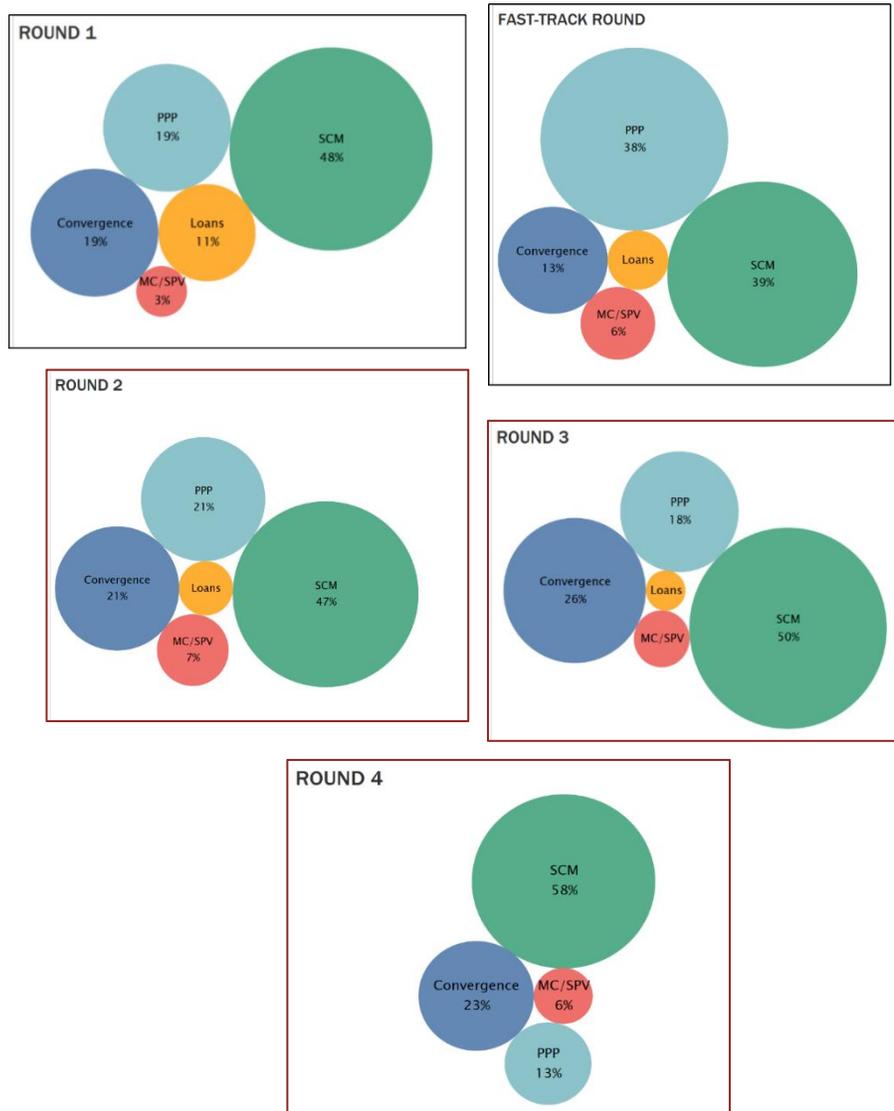
As is visible, the union government has committed to bear the lion's share of funding (45%) requirements of the cities, under the Smart City Mission (SCM), equally shared with the respective State governments, followed by PPP (21%) and Convergence (21%). The others constitute a small portion of the funding, arising in the form of loans or municipal revenues.

³⁸http://164.100.47.193/lsscommittee/Housing%20and%20Urban%20Affairs/17_Housing_and_Urban_Affairs_12.pdf

7.2 Round-wise Proposed Financing

The SCM took place in five rounds, with a total of 100 cities selected. (A list of the smart cities and the respective round in which they were selected has been provided in Annexure No. 1)

The data available shows the share of funds for each round as follows:



Graph 2.1 - 2.5- Round-wise proposed source of funding for Smart City Mission

The pie charts, given above, show the round-wise share of funding proposed by the smart cities. What is clear is that the lion's share of proposed funding is from what was committed under the mission, across all rounds. It is evident that this share under SCM increases, in

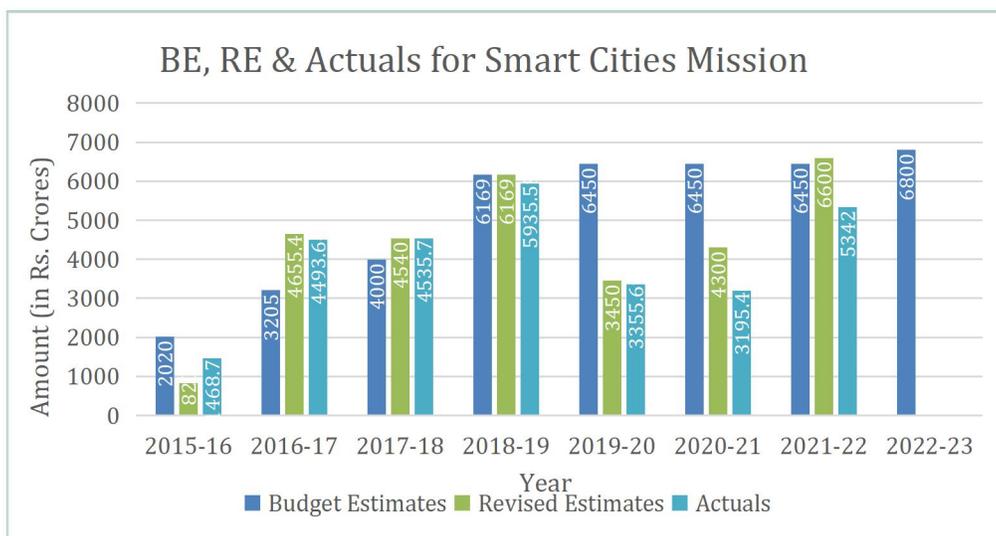
successive rounds. For Round 1, 2 and Fast-Track Round, the share of SCM remains below 50%, whereas for Round 3 and 4, the share is 50% and 58%.

This increase in the share of SCM has compensated for the fall in the share of financing from proposed PPPs, which increased during the Fast-Track Round and Round 2, and consequently, dropped below 20% for Round 3 and 4.³⁹ Proposed PPPs remained in the range of 14-21%, except for the fast-track round where it touched 38%

In all the rounds more than half the proposed project cost was to be met by the SCM and convergence funds, for Round 2 - 72%, Round 3 - 78% and Round 4 - 85% funds appear to be coming from SCM and convergence sources. Financing projects through loans is seen to be declining in the later rounds, similar to the percentage of PPPs for project financing in the cities. Finances from loans are the highest in Round 1 at 11% and for the rest it is minimal at 4% and 2%.

7.3 Budget Estimates and Centre’s Funds Released under SCM

The Twelfth Report of the Standing Committee on Housing and Urban Affairs (2021-22) on Demands for Grants (2022-23) of the Ministry of Housing and Urban Affairs⁴⁰ stated the budget allocation, revised estimates and actual expenditure as on 31 December 2021:



Graph 3 - Budget Estimates, Review Estimates & Actual Expenditure of MoHUA
Source: 17th Lok Sabha Standing Committee

³⁹ Interested readers can also view the city-wise proposed sources of funds and their share (ANNEXURE 2.1 - 2.6)

⁴⁰http://164.100.47.193/lssccommittee/Housing%20and%20Urban%20Affairs/17_Housing_and_Urban_Affairs_12.pdf

Financial Year	Budget Estimate (BE) in Rs crore	Revised Estimate (RE) in Rs crore	Actual in Rs crore
2015-16	2,020	820	1,468.76
2016-17	3,205	4,655.49	4,493.64
2017-18	4,000	4,540	4,535.73
2018-19	6,169	6,169	5,935.59
2019-20	6,450	3,450	3,355
2020-21	6,450	4,300	3,195.48
2021-22	6,450	6,600	5,342
2022-23	6,800		

Table 1 - Budget Estimates, Review Estimates & Actual Expenditure of MoHUA
Source: 17th Lok Sabha Standing Committee

It is evident that the budget allocated to the Ministry of Urban and Housing Affairs, for the Smart Cities Mission, has increased over the years, yet, actual expenditure has seen a drastic fall during the FY 2020-21. This could be because of Covid-19. The difference between the budget estimates and actual expenditure is 50.4% (FY 2020-21) respectively. The difference between the BE and actual expenditure during FY 2019-20 was 47%, which might not be attributed to Covid-19 since the impact of the pandemic and lockdowns began from March 2020.

More importantly, as per the Smart City Guidelines⁴¹:

The Mission is operated as a Centrally Sponsored Scheme and the Central Government has proposed to give financial support to the Mission to the extent of Rs. 48,000 crore over five years, i.e., on an average of Rs. 100 crore per city per year.

After Stage 1 of the challenge, each potential Smart City will be given an advance of Rs. 2 crore for preparation of Smart City Proposal (SCP) which will come from the city's share of

⁴¹<https://smartcities.gov.in/financing#:~:text=Financing%20of%20Smart%20Cities,-The%20Smart%20City&text=48%2C000%20crores%20over%20five%20years,available%20for%20Smart%20Cities%20development.>

the Administrative and Operating Expenses (A&OE) funds and will be adjusted in the share of the city.

In the first year, the Government proposed to give Rs. 200 crore to each selected Smart City to create a higher initial corpus. After deducting the Rs. two crore advance and A&OE share of the MoUD, each selected Smart City will be given Rs. 194 crore out of Rs. 200 crore in the first year followed by Rs. 98 crore out of Rs. 100 crore every year for the next three years.

Given these guidelines, the cities should have received ideally Rs. 194 crores by the end of the first year and Rs. 98 crores in each of the following years.

The table below shows the financial year in which the cities were selected.

Round	Selection Year	Number of Cities
Round 1	January, 2016	20
Fast Track	May, 2016	13
Round 2	September, 2016	27
Round 3	June, 2017	30
Round 4	January, 2018	10

Table 2 - Year of Selection Rounds & Number of Cities Selected

As per the selection years, Round 1 (20 cities) were to be given Rs 194 crores each in the FY 2015-2016 i.e. Rs 3,880 Crore (=194 x 20) were to be released by the central government in FY 2015-16. Similarly, in 2016-17, $(194 \times 40) + (98 \times 20) = (7760 + 1960) = \text{Rs } 9,720 \text{ Crore}$ (Rs 194 crore, as first year transfer of Rs 194 Crore, to 40 cities selected in Fast-track Round and Round 2, and Rs 98 crore, as second year transfer to 20 cities in Round 1). In contrast, the budget allocated during 2015-16 and 2016-17 was Rs 2,020 crore and Rs 3,205 crore respectively, which is much less compared to what was initially promised. The actual expenditure during these years was Rs 1,468 crore (2015-16) and Rs 4,493.64 crore (2016-17). This gap between the amount committed under SCM and actual expenditure has been observed in years prior to Covid-19, and has only fallen henceforth.

Number of cities chosen	Year	Number of Cities to receive 1st year funds committed (= Rs 198 crores)	Number of Cities to receive second year funds (= Rs 94 Crores)	Amount Committed	Budget Estimate	Actual Expenditure
20	2015-16	20		3,880	2,020	1,468.76
60	2016-17	40	20	9,720	3,205	4,493.64

Table 3 - Calculations of Amount Committed & Budget Allocation & Actual Expenditure

According to Second Report of the Standing Committee on Urban Development (2019-20) on Demands for Grants (2020-21) of the Ministry of Housing and Urban Affairs⁴², the reason behind the reduction in Revised Estimates for FY 2019-20 to Rs 3450 crore from the Budget Estimate of Rs 6450 crore was:

"...since these cities needed some time to start operations after setting up their SPVs and creating their human resources and appointing their staff and all that, we saw that this money was lying with them for a long time. Therefore, we have reduced the amount that we have given as first installment. That is one reason why this amount has come down. The second is, since all the cities have been selected, by 2018, we were in the process of selecting cities. So, the amount did not pick up that much. But now since all the cities have been selected and the initial 18 months is getting over, we expect a large amount of expenditure in 2020-21, which is why this Rs 3,450 crore has jumped upto Rs 6,450 crore in the next year"

As per the Ministry reports, it is suggested that the funds released prior to FY 2019-20 were left unused given that Smart Cities took 18 months to turn operational and therefore, the revised estimates and actual expenditure for financing Smart Cities' by the Centre were kept low for FY 2019-20, and claims were made that from FY 2020-21, the Budget allocated increased to Rs 6450 crore as most cities began operations. However, the actual expenditure has taken a major hit falling down to Rs 3,195.48 crore in FY 2020-21, likely on account of Covid-19. What is clear is that funds committed as per the guidelines were not being met even prior to Covid-19; utilisation of the actual funds released was lagging due to the 18 months'

⁴² http://164.100.47.193/lssccommittee/Housing%20and%20Urban%20Affairs/17_Urban_Development_2.pdf

time taken to begin operations and, finally, the situation has only worsened during the pandemic as can be seen from the low actual expenditure during FY2020-21.

Also, it is important to question whether the Budget Estimate of Rs 6450 crore would sufficiently cover the requirement for funds. **The Centre committed a total of Rs 48,000 crore as per the guidelines, but after adding the Budget Estimates for all the years until FY 2022-23, even though the initial duration of the mission was estimated to last till FY 2019-2020, the amount is equal to Rs 41,544 crores – this does not meet the earlier earmarked amount of Rs 48,000 crore.**

Further, the actual expenditure until FY 2021-22 is equal to Rs 25,130.72 crores -- a considerable deviation from the initial corpus planned. (Emphasis added)

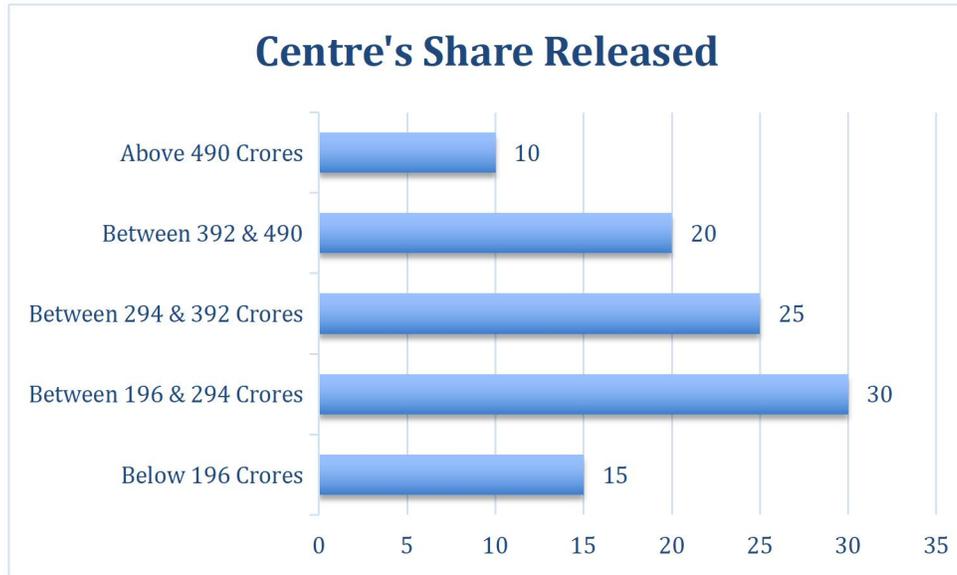
According to the Smart Cities Mission guidelines⁴³, the Central Government's funds will be released upon meeting certain requirements:

- Timely submission of the City Score Card every quarter to the MoUD⁴⁴.
- Satisfactory physical and financial progress as shown in the Utilization Certificate and the annual City Score Card and Achievement of milestones given in the roadmap contained in SCP.
- Fully functioning SPV as set out in the Guidelines and the Articles of Association. A Board Resolution should certify that all these conditions have been met, including a certificate that all the conditions relating to establishment, structure, functions and operations of the SPV.

⁴³ <https://smartcities.gov.in/financing#:~:text=Financing%20of%20Smart%20Cities,-The%20Smart%20City&text=48%2C000%20crores%20over%20five%20years,available%20for%20Smart%20Cities%20development.>

⁴⁴ <http://164.100.161.224/upload/uploadfiles/files/Score%20Card.pdf>; this is the template designed by the authorities for the scorecard. <https://eol.smartcities.gov.in/dashboard> - this is the only website we could find with scores for cities but this included only 62 cities and some are not smart cities

7.4 Status of Centre's funds released



Graph 4 - Number of Cities & Amount of Centre Government's Funds Released

The available data shows that 15 cities have received less than Rs. 196 crores after the completion of five years of the Smart Cities Mission. Out of which, the least amount, Rs. 55 crores, has been released by the Centre to Shillong followed by Kavaratti, which has received Rs. 65 crores till now. 45% of the cities have received less than Rs. 294 crores.

The top 11 cities who have received upward of Rs 488 crore:

Cities	Centre's Funds Released	Percentage of Projects Completed	Percentage of Funds Utilised for Projects Completed	Centre's Funds Utilisation Rate	State's Funds Utilisation Rate
Amaravati	488	NA	NA	100.00	59.02
Bhopal	490	69.39	38.74	100.00	99.40
Bhubaneswar	490	73.08	43.45	80.00	75.26
Chennai	490	80.43	62.24	78.78	71.50
Coimbatore	490	76.71	28.28	79.59	78.00
Indore	490	81.45	45.49	100.00	88.76
Kakinada	490	61.86	52.51	97.35	48.98
Ranchi	490	18.52	12.85	91.22	68.16
Surat	490	85.37	64.12	100.00	43.00
Udaipur	490	76.52	42.52	87.35	87.62
Visakhapatnam	490	70.97	32.74	86.33	87.86

Table 4 - 11 Cities with highest Centre Funds Released & Their Indicators

*Amaravati percentage of projects completed not mentioned on the SCM website.

These are the only cities who have received the amount earmarked for each city under the Smart City Guidelines. While most of these cities have managed to have a high utilisation rate of Centre's funds, many are lacking in the utilisation of state's funds (Surat, Kakinada and Amaravati). The percentage of projects completed is not particularly efficient. For example, Ranchi has 18.52% of projects completed. Excluding Chennai, Indore and Surat, the rest of the cities have a project completion rate less than 80%. Cities such as Varanasi, Agra and Tumakuru have maintained project completion rates more than or equal to 80%.

while the funds utilisation has been maintained above 60%. Cities such as Pune and Namchi have high centre and state funds utilisation rates (both being close to 100%).⁴⁵

Bottom 10 cities with the lowest Centre's Funds Utilisation Rate

Cities	Percentage of		Percentage of		Centre's Funds Utilization Rate	State's Funds Utilization Rate
	Centre's Funds Released	Projects Completed	Projects Completed	Funds Utilized for Projects		
Aizawl	128	24.59	15.11	42.19	94.95	
Atal Nagar	122	4.65	14.88	96.72	38.14	
Bilaspur	127	41.43	10.54	52.76	44.80	
Diu	110	24.59	21.70	30.00	0.00	
Itanagar	151	40.00	48.19	59.60	100.00	
Kavaratti	60	36.36	3.13	50.00	0.00	
Puducherr	103	16.95	7.27	76.70	6.67	
Shillong	55	4.35	0.00	74.55	25.45	
Silvassa	104	6.98	11.13	53.85	0.63	
Srinagar	127	58.59	71.86	94.49	0.00	

Table 5 - Bottom 10 Cities with lowest Centre Funds Released & Their Indicators

The disparity in performance is vast, and cities that received the least funds from the Centre were also the poorest performers. Except for Srinagar, no city in the bottom 10 has a project completion rate above 50%. And leaving out Srinagar and Itanagar, the funds utilisation for projects completed is less than 22% for all the cities.

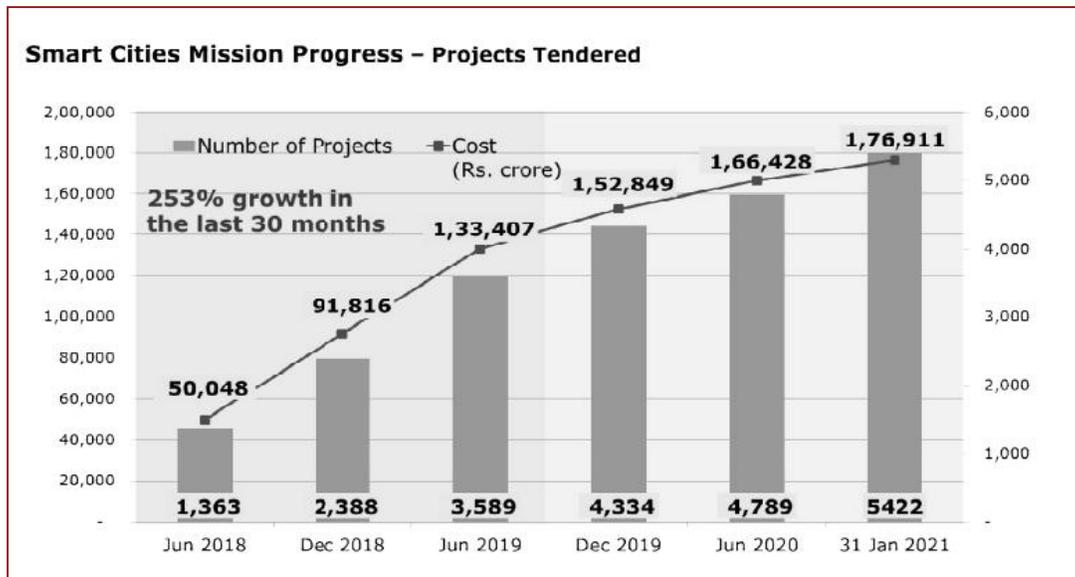
While Aizawl and Itanagar, have a high state's funds utilisation rate (surprisingly, better than their respective Centre fund utilisation rate), the rest of the cities have a state fund utilisation rate less than 45%, out of which five cities have utilised less than 1% of state funds. Finally, while the lowest Centre fund utilisation rate for the Top 11 cities is not less than 70%, with five cities next to 100% utilisation, in the bottom 10 cities, six cities have utilised less than 70% of the funds.

7.5 Project Completion and Fund Utilisation Rate

The graphs below have been taken from the Second Report of the Standing Committee on Urban Development (2019-20) on Demands for Grants (2020-21) of the Ministry of Housing and Urban Affairs. The two graphs, if analysed separately, show a remarkably and

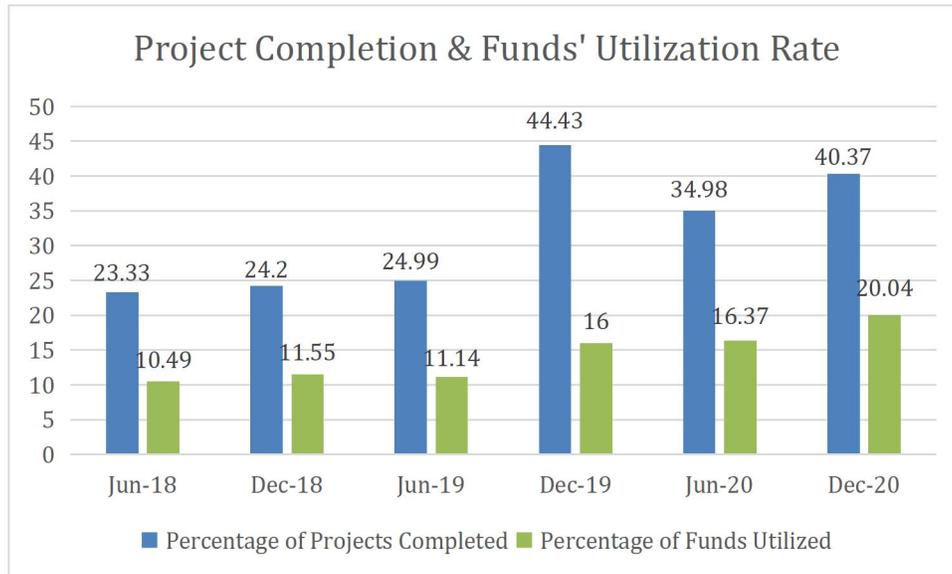
⁴⁵ Please refer to our city-wise graph on Centre's funds released (ANNEXURE 3)

consistently increasing share of projects tendered and completed (576% growth!). But if both graphs are analysed in unison, the progress may not seem as impressive.



Graph 5.1 & 5.2 - Smart City - Projects Tendered & Projects Completed

Source: 17th Lok Sabha Standing Committee

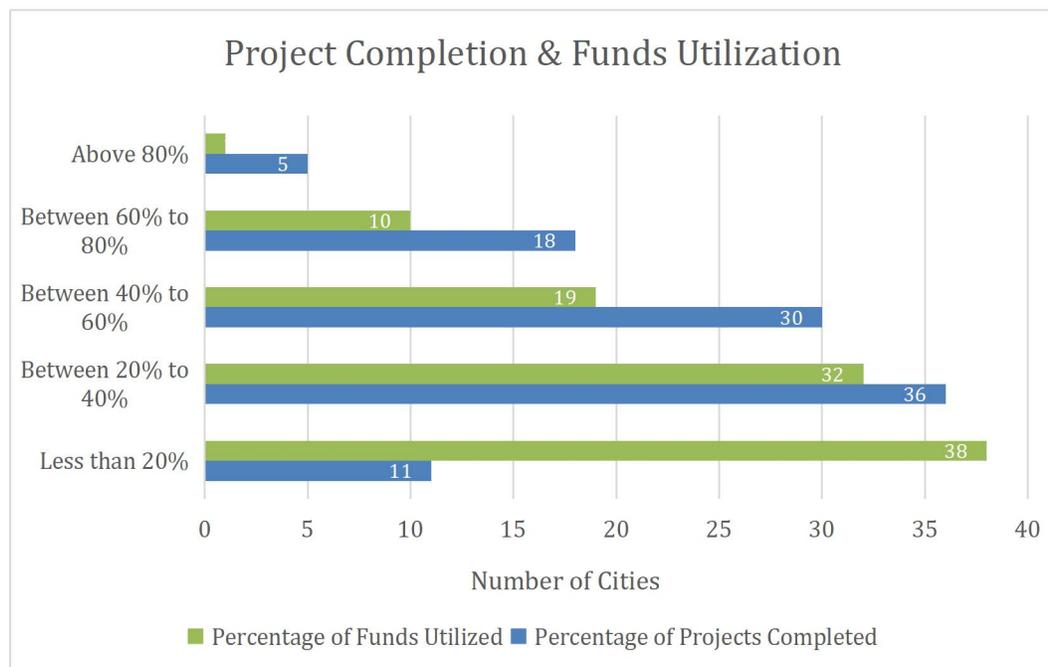


Graph 6 - Percentage of Projects Completed & Funds Utilized
(Combining Graph 5.1 & 5.2)

Graphs 5.1 and 5.2 also show the number of projects tendered/ issued and number of projects completed, and total expenditure at six months' interval (from June 2018 to Jan 2021). So for each date, we have taken the respective project completion and fund utilisation (from Graph 5.2) and respective project issued and cost (from graph 5.1) and calculated the percentage of projects completed for each of the dates. These calculations are shown in Graph 6. The project completion rate reached 40.37% in Jan 2021, after seeing a consistent increase over the period of two years. The percentage of funds utilised has continued to lag behind the percentage of projects completed, maintained at 20.04% in Jan 2021.

While the absolute number of projects completed has increased as shown, which is highlighted as a 576% percentage increase, the same is not true when we compare the percentage of projects completed. This is because the number of projects has been simultaneously increasing over the same period, recording a 253% increase.

Also, given that the graphs are based on aggregate values, the graphs do not tell us whether the increase in the project completion rate has been a general phenomenon spread across all the cities, or whether only few cities are contributing to this increase. This also raises questions on the type of projects that are being completed and why fund utilisation lags behind the project completion rate.



Graph 7 - Number of Cities in Percentage of Projects Completed & Funds Utilized

*Amaravati percentage of projects completed not mentioned on the website.

The recent smart cities mission website data shows that the number of cities with more than 80% of projects completed are just five. More than 75 cities, 3/4th of them chosen under the mission, have less than 60% of their projects completed, even though the mission itself was initially expected to span only five years (2015-2020).⁴⁶ The mission has now been extended to 2023.

The percentage of funds utilised is much slower. 70% of the cities have less than 40% funds utilized, 38% percent of cities have used less than 20% of the funds.

There have been astute attempts to manufacture a high project completion rate by completing small/less-valued projects, which take lesser time. In the Fifth Report of the Standing Committee on Urban Development (2020-21) on Demands for Grants (2021-22) of the Ministry of Housing and Urban Affairs⁴⁷, this has been explicitly mentioned as frequent dropping of projects in favor of "...implementation of projects in targeted sectors like water, sanitation etc. that take lesser time. Municipal Corporations in India have traditionally been

⁴⁶ Interested readers may view the city-wise project completion & fund utilization rate (ANNEXURE 4)

⁴⁷ http://164.100.47.193/lssccommittee/Housing%20and%20Urban%20Affairs/17_Urban_Development_5.pdf

doing projects of roads, housing, water supply, sewerage, cleanliness etc.” (Emphasis added)

It is well known that smaller projects require much less fund utilisation -- it is highly possible that this is the reason why funds utilisation for projects completed lags behind the percentage of projects completed.

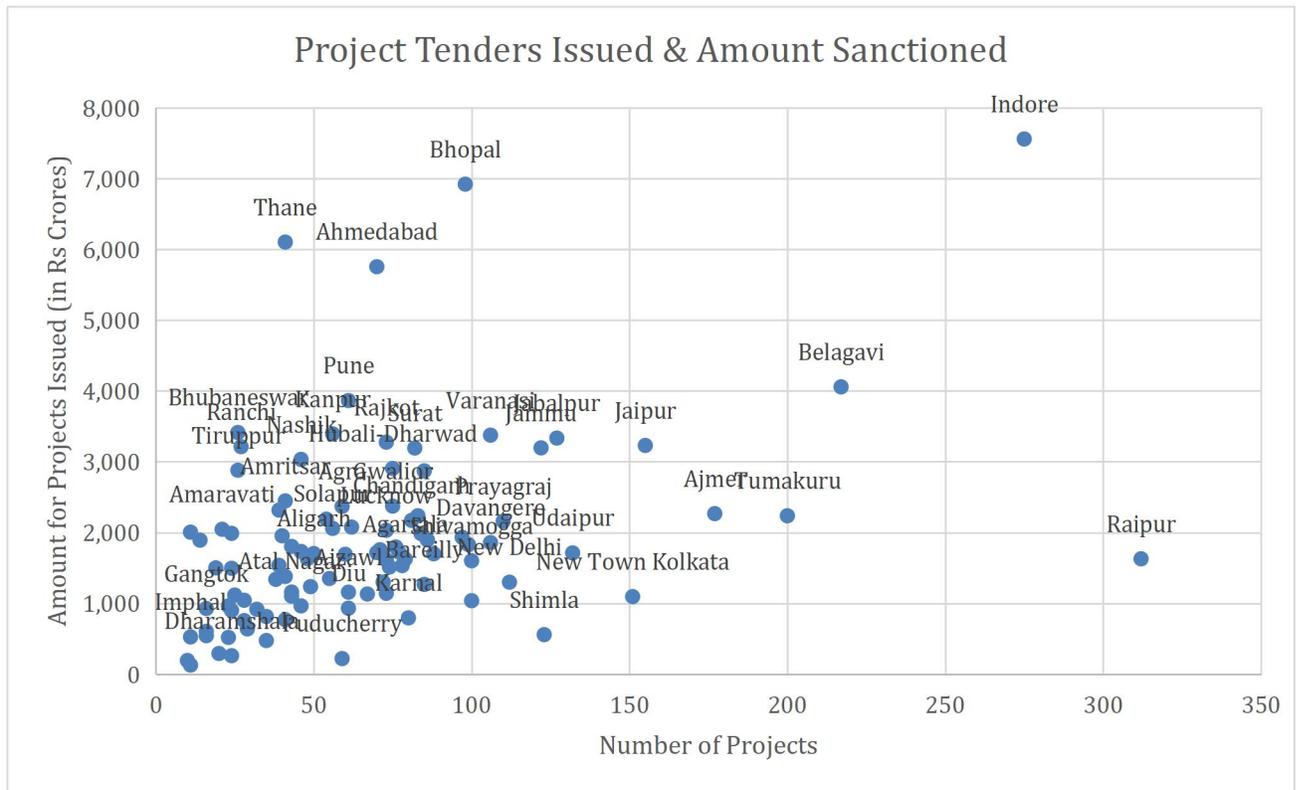
For instance, after randomly checking the projects completed for few cities, for which data is available on the smart city website, the following observation emerges:

For Gujarat's Ahmedabad, street light LED conversion phase one with 68,500 fittings, permanent decorative lighting installation at Kankaria Lake premises, traffic signal project, redevelopment for CG Road have been completed – these are very small projects. Other projects like Command and Control Centre and Intelligent Transit Management System or automatic fare collection system are just in their Phase 1.

In Udaipur, Rajasthan, abatement of sewerage in Ayad River costing Rs 159 crore has begun, but only laying of pipes is completed. Other smaller projects such as renovation of bridge near Brahmpole, Udaipur, and multilevel parking at Chandpole Phase - II has been completed.

In Karnal, Nashik, Silvassa, Thoothukudi, Thane and Visakhapatnam, the project completion list is full of projects with a very small DPR cost of less than Rs 50 crore.⁴⁸

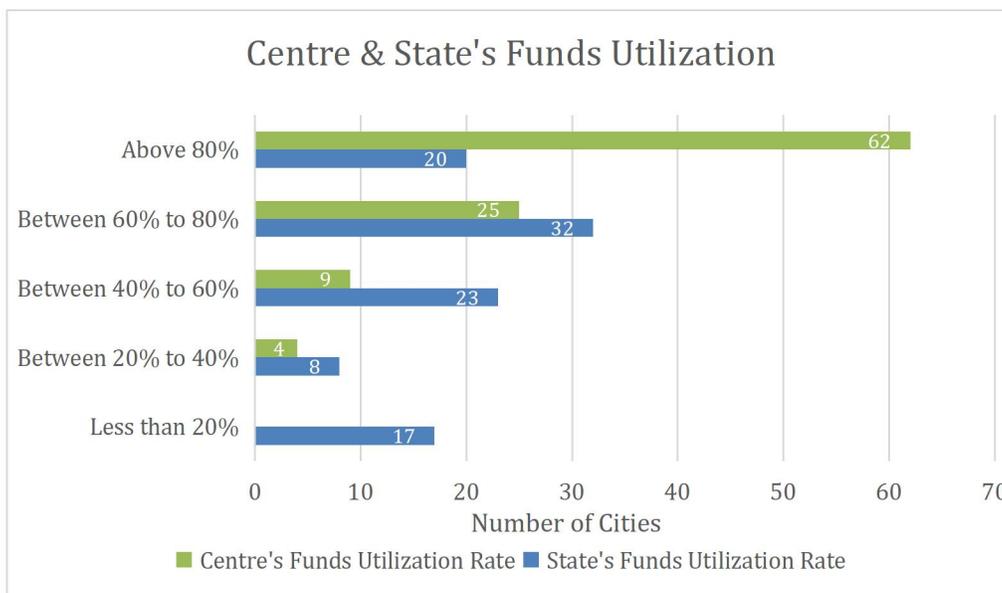
⁴⁸ <https://smartcities.gov.in/node/151>: <https://smartcities.gov.in/node/151>: <https://smartcities.gov.in/node/133>: <https://smartcities.gov.in/node/119>: <https://smartcities.gov.in/node/178>: <https://smartcities.gov.in/node/167>: <https://smartcities.gov.in/node/162>: <https://smartcities.gov.in/node/169>: <https://smartcities.gov.in/node/121>: <https://smartcities.gov.in/node/107>



Graph 8 - Number of projects issued/tendered (x-axis) & Amount for Projects Issued (y-axis)

The following scatterplot shows the number of projects issued in all the cities (x-axis) and the amount issued for the same (y-axis). For instance, it can be seen that Raipur has 312 projects for a total amount of Rs 1629 crore, average cost per project coming to Rs 5.22 crore. Indore has the highest amount sanctioned for 275 projects, amounting to Rs 7558 crore, with an average cost per project equal to Rs 27.48 crore. While a direct causation is not being implied, the graph shows cities, which have issued lower-value projects. For instance, Shimla has 123 projects issued and yet, only Rs 558 crore as amount for projects issued, compared to Pune, which has only 61 projects, but Rs 3864 crore sanctioned for projects issued. This suggests that in Shimla, on average, Rs 4.58 crore has been issued for each project, while Pune has issued Rs 63.348 crore, on average, for each of its projects. While, a direct claim cannot be made regarding the choice of projects to fasten the project completion rate, it is still possible from the scatterplot above.

7.6 Centre and state's Fund Utilization Rate



Graph 9 - Number of Cities in Percentage of Centre & State's Funds Utilised

It is also evident, from the graph above, that utilisation of the Centre funds is much higher than state funds. 48% of the cities have less than 60% of the state's funds utilisation rate, in contrast, more than 60% of the cities have above 80% of the Centre's funds utilisation rate. Only 20 cities have utilised 80% of state funds for the mission and 32 have utilised 60-80% of the funds, the rest have lesser utilisation rates.⁴⁹

One would wonder at the cause underlying this stark difference – and get even more intrigued when one learns that while data on Centre's funds provides for three steps -- funds released by the Centre, funds transferred to the SPV and funds utilised; data on states' funds only shows funds released by the state and funds utilised. This omission of data on state funds transferred to SPV would have been helpful in knowing whether the funds had not reached the concerned SPV or whether issues stemmed from a lag in project work. Lagging utilisation of state's funds could also be likely due to a lag between when the funds are needed for payment and when they are being released by the state.

⁴⁹ Interested readers may view the city-wise centre and state funds' utilisation rate (ANNEXURE 5)

As per SCM website data, the Centre has released Rs 28,523 crore whereas the states have released Rs 23,358 crore as their matching share. The Lok Sabha Standing Committee Report⁵⁰ also mentions that states have lagged behind the Centre in release of funds. (This is also evident from the city-wise Centre and state's funds released graph (Annexure 3), which shows that except for Thane, Silvassa and Bhopal, the state's funds released is less than the Centre's funds released for all the rest of the cities. Cities such as Namchi, Dharamshala, Agartala, Gangtok, Kohima, Imphal, Phasighat amongst others have a very poor record of release of funds by the state, when compared to the Centre.

This raises the question of whether 50:50 ratio of contribution of Centre and State/ULB is feasible, especially for cities with a poor financial status. The JNNURM scheme had decided on 50:50 ratio for cities with population larger than 1 million; for cities in the northeast and other smaller cities, it was 90:10 and 80:20 respectively. This suggests that the SCM has overly burdened states with small cities. Furthermore, some states have many cities selected under the SCM. Tamil Nadu, for instance, has 11 cities on the smart cities list; Uttar Pradesh has 10, Maharashtra has eight, while Karnataka and Madhya Pradesh have seven each. This only increases the financial burden of these states and ULBs, especially given that some of these cities are rather small.

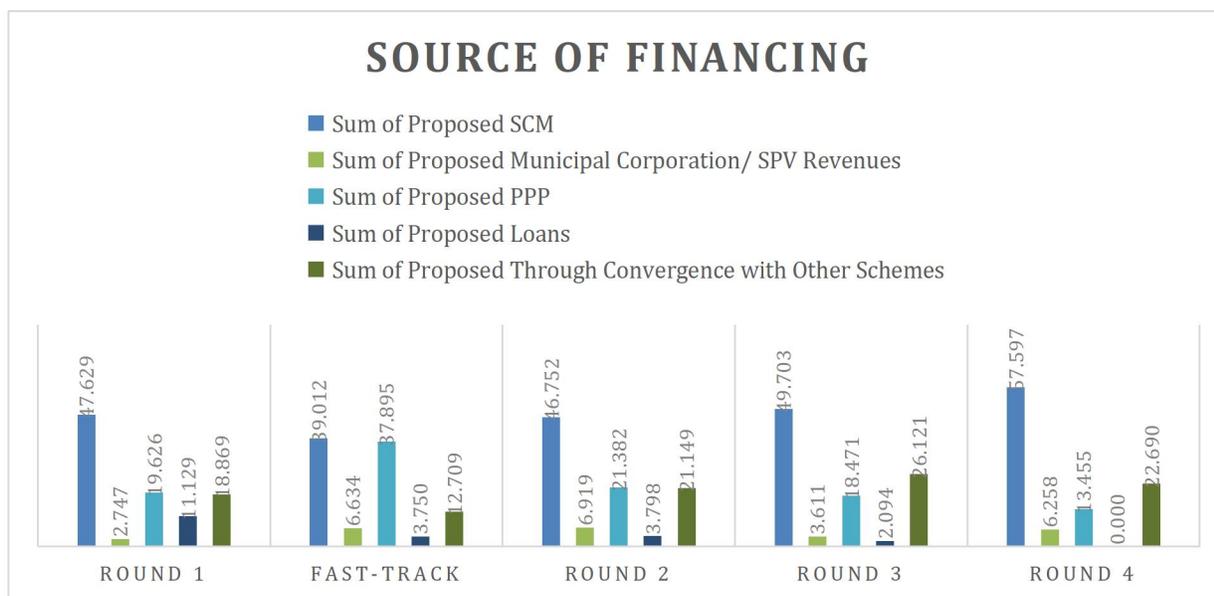
7.7 Public Private Partnerships (PPPs)

In January 2022, a virtual roadshow to showcase PPP opportunities under the Smart Cities Mission was organised by the Ministry of Housing and Urban Affairs (MoHUA) and Invest India, the National Investment Promotion and Facilitation agency⁵¹. During the show, it was announced that the mission had successfully completed 228 PPP projects worth Rs. 22,000 crore across 60+ cities. It was also highlighted to investors that more than 160 PPP early-stage projects worth Rs 15,000 crore could benefit from private sector participation, both in terms of investment and development.

⁵⁰ http://164.100.47.193/lssccommittee/Housing%20and%20Urban%20Affairs/17_Urban_Development_5.pdf

⁵¹ <https://pib.gov.in/PressReleasePage.aspx?PRID=1791622>

According to the India Investment Grid website⁵², there are a total 180 opportunities amounting to USD 10.824 Billion, which are being implemented under PPP mode.



Graph 10 - Average Round-wise Proposed Share of Funding for Smart Cities

The SCM encouraged PPPs for project development in the smart cities. A cumulative total of Rs 43,887.43 crore was proposed to be derived from PPP arrangements as per the proposals of all the smart cities. It is immediately observable that while the proposed PPP in the smart city proposals increased between Round 1, Fast-track Round and Round 2, there has been a reduction in the subsequent rounds. Similarly, the proposed loans have shrunk as well. From the graph given above, it can be seen on average the percentage of proposed PPP funds reduces after Round 2.

The government comes out with awards for smart cities in various categories. The award for PPP initiatives was presented in 2018, 2019, 2021 and 2022⁵³. The winners were –

⁵² <https://indiainvestmentgrid.gov.in/>

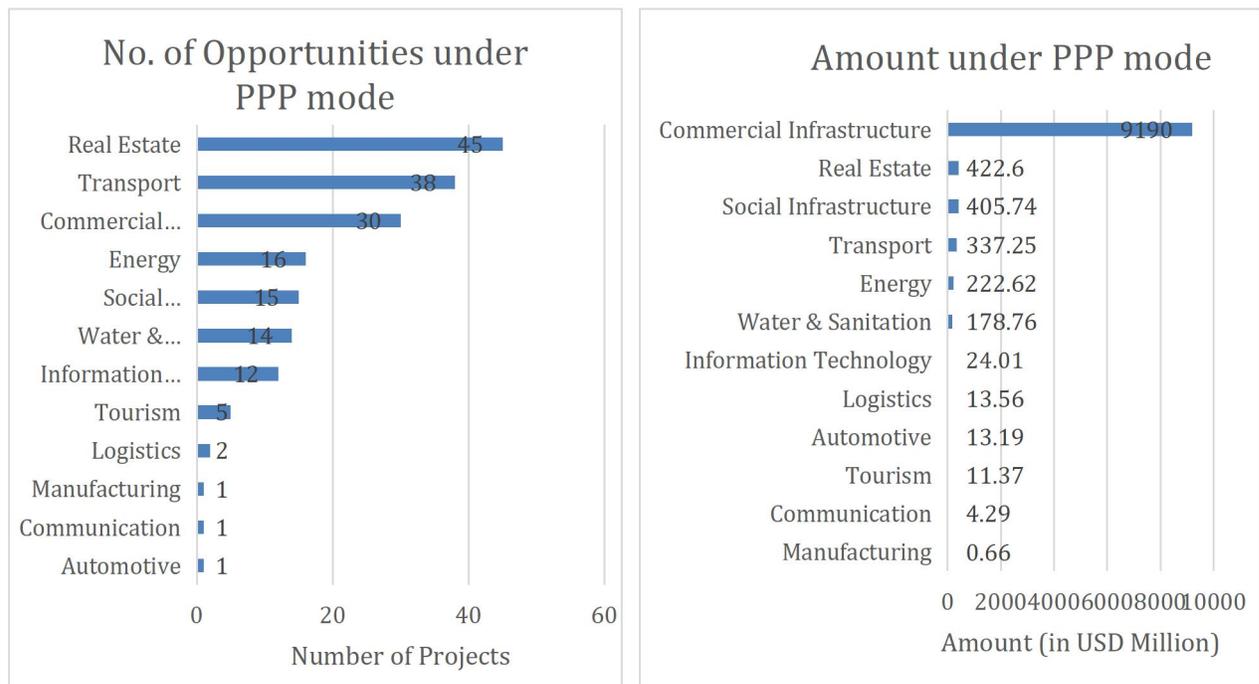
⁵³ <https://www.smartcitiesindia.com/smart-cities-india-awards.aspx#:~:text=Smart%20Cities%20India%202022%20Awards%20is%20a%20unique%20platform%20designed,of%20the%203%2Dday%20expo.>

Winner of PPP Initiative Award	City	Round
2018	NDMC	Round 1
2019	NDMC	Round 1
2021	Agra	Round 2
2022	Indore	Round 1

Table 6 - Year-wise Smart Award winner for category PPP Initiatives

It is important to note that NDMC and Indore were both selected in Round 1, the round which proposed the highest share of PPP as a source of funding Smart City projects, Agra was selected in Round 2.

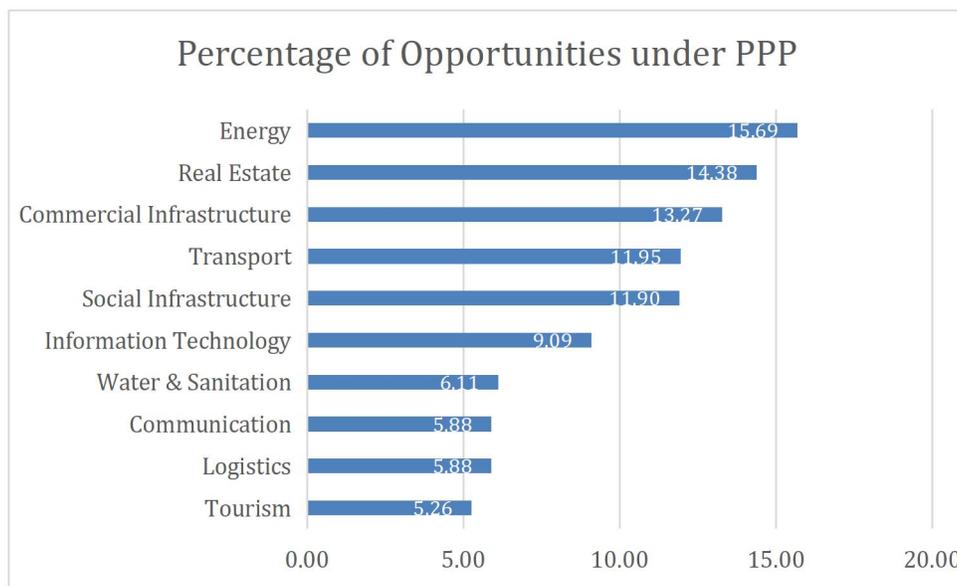
After analysing the projects listed on the India Investment Grid, which are under the smart city mission, the following observations were noted:



Graph 11 - Opportunities, under PPP mode, in various Sectors

It can be seen that the major PPP projects under the smart city mission are appropriated by Commercial Infrastructure, which includes sub-sectors such as common infrastructure for

industrial parks, tourism infrastructure and terminal markets. It is interesting to note that out of USD 9190 million (Rs 73,152 Crores), **USD 7920 million (Rs 66,043 Crores) is accounted for by a single project, INTERNATIONAL AGRICULTURE MARKETING INFRASTRUCTURE DEVELOPMENT project (Project ID: 601527)⁵⁴, which will have a presence across the nation. Therefore, this single project has contributed majorly to the claims of high PPP in smart city projects (as per the India Investment Grid website).** Excluding this project, commercial infrastructure still continues to have the highest PPP allotted, under the smart city mission (= USD 1270 million (Rs 7,109 Crores)), followed by Real Estate (USD 422.6 million (Rs 3,359 Crores)), Social Infrastructure (USD 405.74 million (Rs 3,223.8 Crores)) and Transportation (USD 337.25 million (Rs 2,682 Crores)). The highest number of projects were issued in real estate (45), followed by transportation (38), commercial infrastructure (30) and so on. The attractiveness of PPP in sectors such as Logistics (USD 13.19 Million (Rs 110.64 Crores)), Communications (USD 4.29 Million (Rs 34.14 Crores)) and Manufacturing (USD 0.66 Million (Rs 5.25 Crores)) is meagre.⁵⁵



Graph 12 - Percentage of Opportunities, in number, across Sectors

The graph above shows the sector-wise percentage of opportunities, out of all the projects under the SCM, which have PPP arrangements. We have omitted the Automotive and

⁵⁴ <https://indiainvestmentgrid.gov.in/opportunities/project/601527> - The investors in this project are – ADB (USD 2.64 Billion), Central Government, JBIC, JICA, Ministry of Defense, WB, State Governments, Department of Financial Services, Department of Investment & Public Asset Management

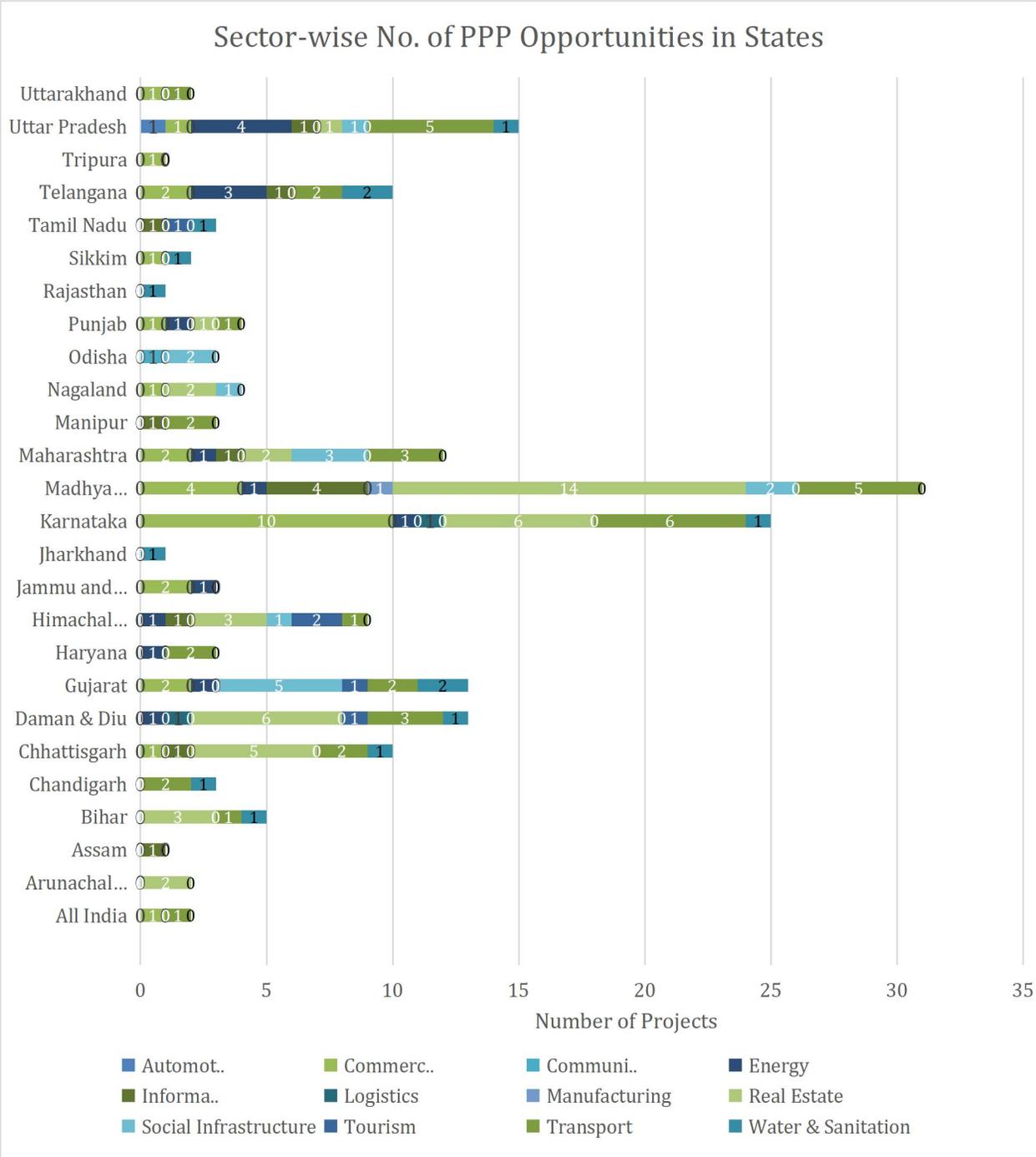
⁵⁵ for quick estimation we have used the exchange rate 1 USD = 79.6 Rupees



Manufacturing sector since they have only two and three, respectively, projects being implemented, in total.

Out of the total projects under the SCM, only a small number of projects are being implemented in PPP mode. Energy, Commercial Infrastructure, Real Estate, Transport and Social Infrastructure have between 10%-20% of their total projects under PPP.

A state-wise breakup has been given below:



Graph 13 - State-wise Share of Opportunities, in number, in various Sectors

The graph above shows the sector-wise number of PPP projects in states. It is immediately observable that the highest number of projects is in Madhya Pradesh (31), followed by Karnataka (25), Uttar Pradesh (15), Gujarat (13,) Daman & Diu (13) and Maharashtra (11).

MP has seven smart cities; Karnataka too has seven, Gujarat (6), Uttar Pradesh (10), Daman & Diu only one! Maharashtra has eight. What is evident is that in all these states with the highest number of PPP opportunities, the investments are majorly in sectors such as Real Estate, Commercial Infrastructure, Social Infrastructure and Transport.

Madhya Pradesh, Karnataka, Daman & Diu and Gujarat have major contributions in the number of opportunities, with PPP, coming from these very sectors.

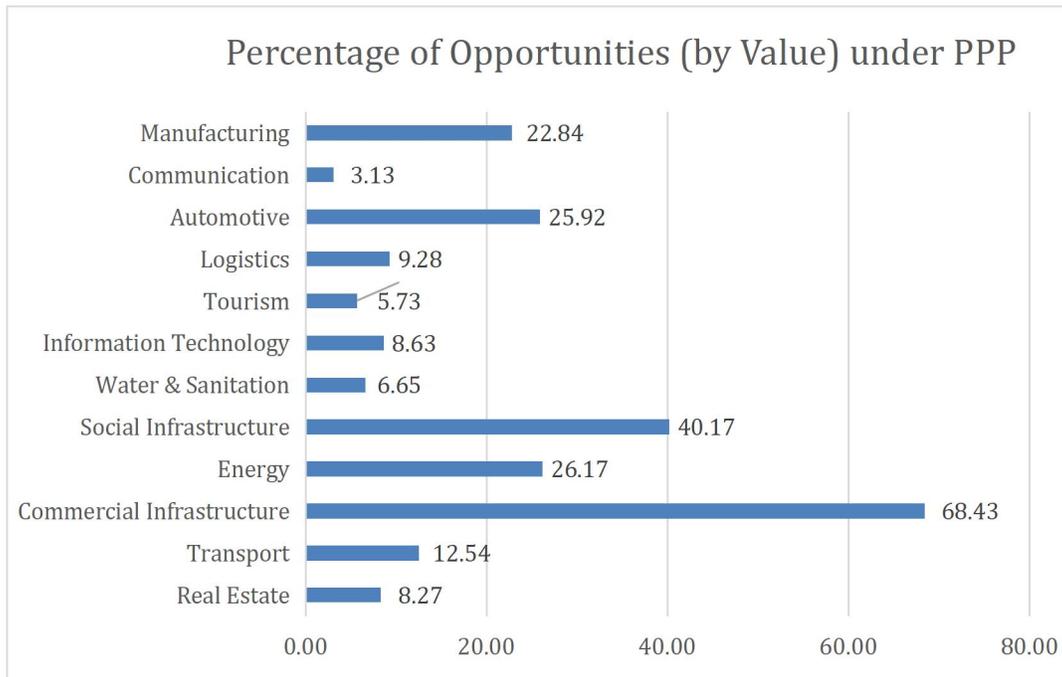
Uttar Pradesh and Telangana have recorded a high proportion of PPP in energy projects.

States which have smart cities but no mention under the India Investment Grid are Kerala, Delhi, Lakshadweep, Meghalaya, Mizoram, and Puducherry. Their respective cities have been mentioned in the table given below.

State	City
Kerala	Kochi
Kerala	Thiruvananthapuram
Lakshadweep	Kavaratti
Puducherry	Puducherry
Meghalaya	Shillong
Mizoram	Aizawal
Delhi	New Delhi

Table 7 - Cities & States With no mention in the India Investment Grid Website

While the above graph shows the contribution of these sectors to the share of opportunities (in numbers) being implemented with private partnership, it would also be informative to know the share of PPP by their total value.

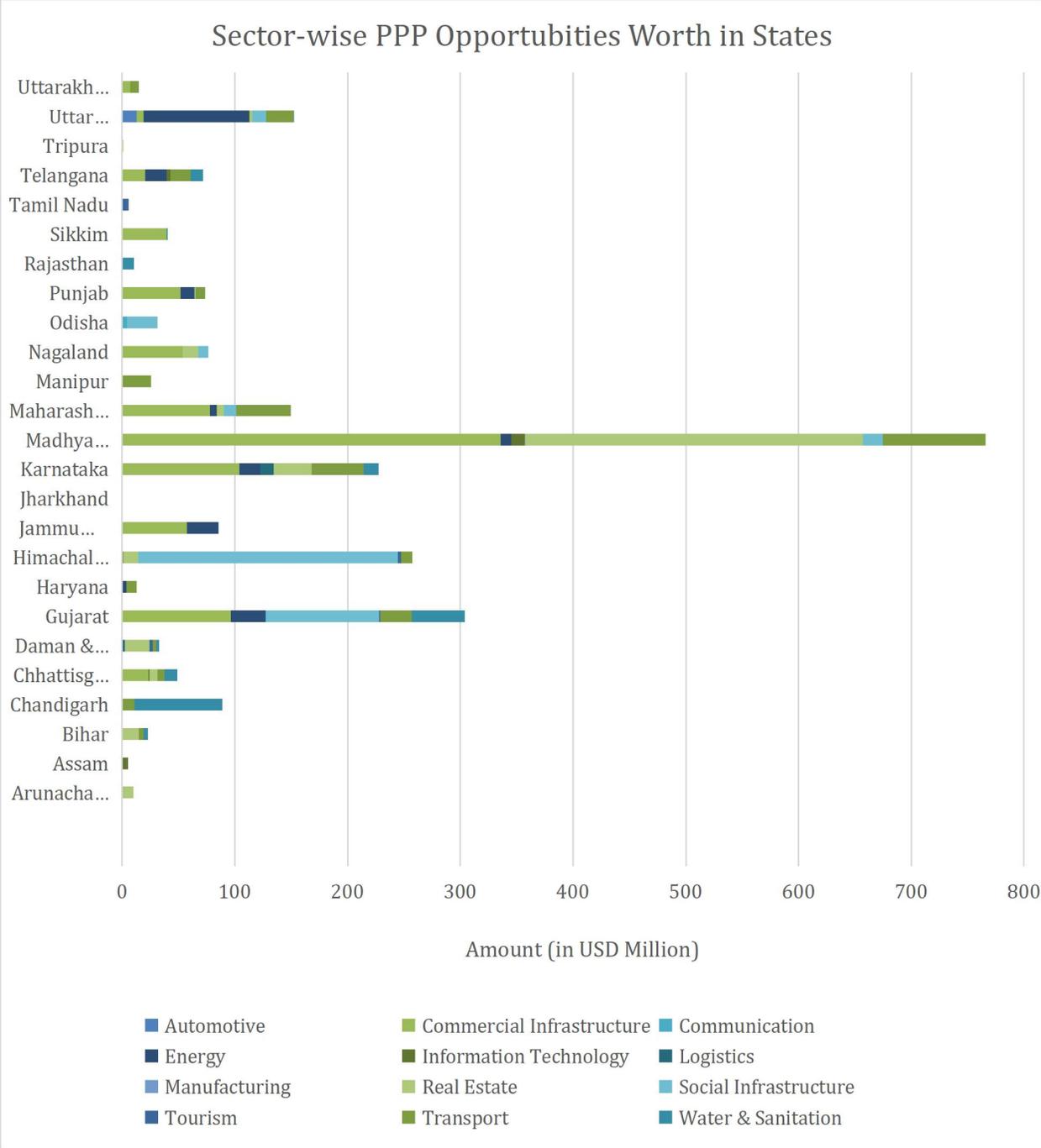


Graph 14 - Percentage of Opportunities, by value, in various Sectors

From the India Investment Grid, we see that the percentage of the total value of opportunities under the SCM with PPP arrangements is majorly in the Commercial Infrastructure sector (almost 70% of the total projects by value are under PPP), followed by Social infrastructure (40.17%), and Energy (26.17%). It seems that projects under these sectors attract more private participation as compared to projects in other sectors.

Interestingly, while less than 14% of the number of projects in Commercial and Social Infrastructure are under PPP, 68.43% of projects by value are under PPP in the Commercial Infrastructure sector and 40.17% in Social Infrastructure. This suggests that the high-valued projects in these sectors have been accorded under the PPP mode.

The state-wise breakup has been shown in the graph below:



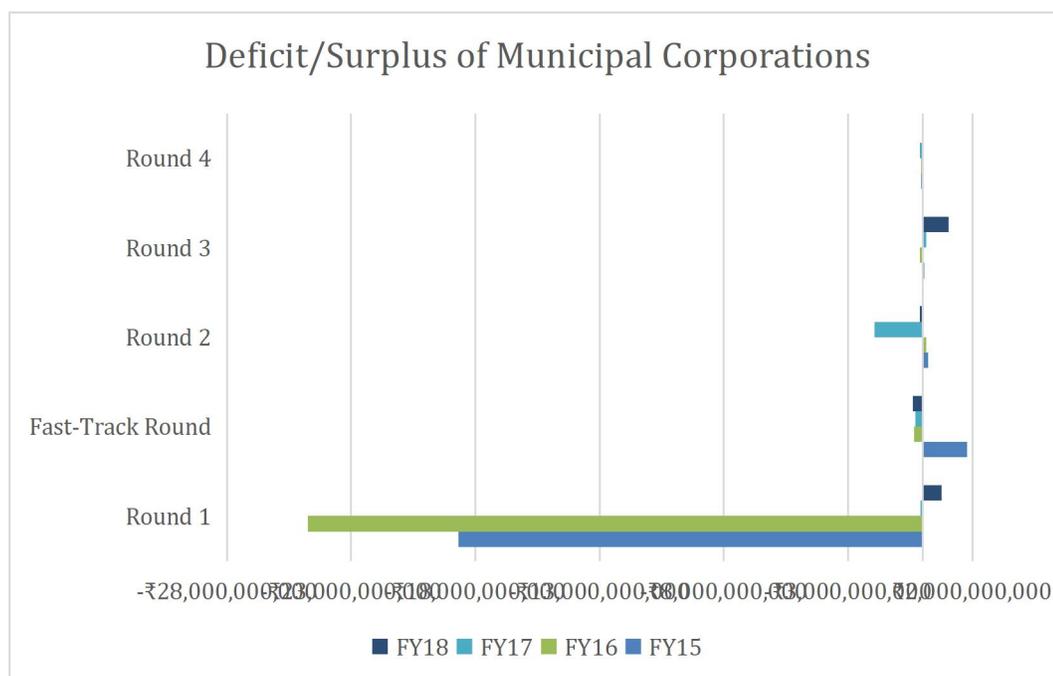
Madhya Pradesh, which has the largest share of PPP by value, has seen major share attributed to the Commercial Infrastructure and Real Estate sector. A lion's share of the total Real Estate projects under the SCM have been in Madhya Pradesh. Madhya Pradesh leads in number of opportunities and also the capital outlay for these projects, amounting to USD

765.83 million (Rs 6095.7 Crores), with a large portion coming from the Commercial Sector, Real Estate and Transport. Madhya Pradesh has the bulk of the Real Estate projects.

Daman & Diu (Diu) had 13 PPP opportunities, which is one of the highest. The total capital outlay of these projects is very small USD 33 million (Rs 262.68 Crores) as compared to Gujarat, which also had 13 PPP opportunities, but has a total outlay of USD 303.94 million (Rs 2,411.8 Crores). Gujarat has a higher capital outlay than Karnataka and Uttar Pradesh, both states which have a higher number of projects being implemented. Notably, major contributions to Gujarat have come from the Commercial and Social Infrastructure sectors - - which contain more high-valued projects (as shown above).

7.8 Municipal Revenues as Source of Funding

The cumulative total cost of project layout, as given in the Smart city proposals, containing project proposals for 5151 projects is equivalent Rs 2,05,018 crore. As per the financing guidelines, the Central government would contribute Rs 48,000 crore, which will be matched by the State & ULBs. Proposed PPPs amount to 21% of the total smart city proposal cost. This means that the smart cities would have to finance more than a quarter of the capital expenditure through other means.



Graph 16 - Aggregate Deficit/Surplus of Cities in Rounds



While it is known that public institutions are not oriented towards profit maximization, the financials of the cities for the years 2015 to 2018, across the rounds, paints a dire image. In particular, smart cities' municipal corporations in the Round 1 incurred heavy deficits in the financial years 2015 and 2016. In 2018, only cities of Round 1 and Round 3 have a surplus recorded. Given this scenario, it would not be expected of a municipal corporation to fund the smart city mission capital expenditure using its own receipts. For instance, Dharamshala has proposed a total smart city cost of Rs 1,407 Crores. In February 2021, it was reported that DMC had an income of just about Rs. 5 crores and a budget of Rs 149 Crores⁵⁶. The SCP cost is 281 times that of its income. This suggests that the proposal cost is huge compared to the financial feasibility of the cities. A SCP which is equal to the annual average income of a smart city would still be a high expenditure for the city, given its expenditure on providing services to its city inhabitants. The same is true for many other cities.

⁵⁶ (<https://www.tribuneindia.com/news/himachal/income-rs-5-cr-dharamsala-mc-passes-rs149-cr-budget-217891>)

Credit Rating Symbol	Description / Safety of investment	Name of the smart city municipal body	Number of cities
AAA	Highest Safety		
AA+		Pune, Ahmedabad, Faridabad, Pimpri-Chinchwad, New Delhi	5
AA	High Safety	Vishakhapatnam, Surat,	2
AA-		Thane, Nashik,	2
A+		Indore, Kalyan-Dombivali, Vadodara,	3
A	Adequate Safety	Chennai, Warangal, Mangaluru, Rajkot, W	4
A-		Jaipur, Jabalpur, Bhopal, Lucknow, New Town Kolkata, Madurai	6
BBB+		Bhubaneswar, Coimbatore, Udaipur, Ludhiana, Raipur, Kota, Kanpur, Ajmer, Tiruchirappalli, Ujjain, Gwalior	11
BBB	Moderate Safety	Kochi, Davangere, Kakinada, Chandigarh, Panaji, Tirupati, Nagpur, Jalandhar, Hubli Dharwad, Thiruanantapuram, Patna, Karimnagar, Shimla, Bilsapur, Tirunelveli,	15
BBB-		Belagavi, Ranchi, Tanjavur, Pasighat, Toothikodi, Moradabad, Tumakuru, Tirupur, Sagar, Amaravati, Deharadun	11
BB+		Solapur, Bhagalpur, Amritsar, Raurkela, Karnal, Erode, Bareilly, Saharanpur, Aligarh, Dharamshala	10
BB	Inadequate safety	Vellore, Salem, Mujhafarpur, Puducherry, Bengaluru, Jhansi, Aizwal, Gangatok, Satana	9
BB-		Agartala, Shrinagar, Jammu, Bihar Sharif, Agra, Guwahati	6
B+		Aurangabad, Allahabad, Shilong, Varanasi	4
B	High Risk	Kohima	1
B-		Imphal	1
C	Substantial Risk		
D	Default		
	No Information	Port Blair, Namachi, Shivamogga, Naya Raipur, Gandhinagar, Dahod, Silvassa, Diu, Karavati, Itanagar	10
	Total		100

Table 7 - Investment Credit Rating of Smart Cities⁵⁷

According to the information gathered from the proposals submitted by the smart cities, only 40 cities had committed fully or partially municipal revenues to meet the SCM expenditure. This suggests that the use of loans would be taken up but the investment credit rating of these ULBs may not be attractive enough for investors. From the table⁵⁸ shown above, 31 cities have an investment rating below BBB-. No information was found for 10

⁵⁷ Refer to our previous report on Smart City & Municipal Financing - <https://www.cenfa.org/wp-content/uploads/2020/09/SCM-Financial-ULB.pdf>

⁵⁸ Refer to our previous report on Smart City & Municipal Financing - <https://www.cenfa.org/wp-content/uploads/2020/09/SCM-Financial-ULB.pdf>



cities. This is consistent with the proposals claiming to finance a very small percentage of the Smart city proposal cost with loans (please refer to the Graph 2.1 - 2.5 given above). While Round 1 proposed the highest contributions arising from loans amounting to 11%, the rest of the rounds have proposed a share of loans amounting to less than 4%. Round 4 has proposed 0 funds coming from loans.

It is also important to note that in Round 1, all the cities except Solapur (which has BB+) have an investment rating above BB+ (highlighted in green).

Also, all the cities, except for Moradabad (which has BBB-), have an investment rating below BBB- (highlighted in red) or their rating is not found.

There exists a disparity between municipal corporations which maintain good financials, have a high investment credit rating and others who are unable to maintain good financial health and high credit rating.

The smart city comes out with scores for cities on various parameters under the Ease of Living Index and Municipal Corporation Performance Index⁵⁹. Please note that the city scores were available for 51 cities. The average score was 51.11. Only 23 cities have a score above the average. Given the poor financial position of municipal corporations, funds will have to be arranged from other sources -- mainly by increasing receipts arising from higher user charges for using public amenities, raised floor area premiums, property taxes and asset/rights monetization.

Smart City Council has reported⁶⁰ that Pune Municipal Corporation (PMC) and Greater Hyderabad Municipal Corporation (GHMC) have successfully raised Rs 400 crore. PMC will use its funds for a 24x7 water supply project, whereas GHMC will use the funds for a strategic road development project. In December 2018, the Greater Visakhapatnam Municipal Corporation (GVMC) successfully raised Rs 800 million for part-financing the development of a sewerage system and supply of treated water to various industries in Visakhapatnam. It is also worth mentioning the recently issued municipal bonds by Ahmedabad Municipal Corporation (AMC). The Rs 1 billion bond was oversubscribed 10 times within minutes, creating history in the overall municipal bonds market in India.

⁵⁹ <https://eol.smartcities.gov.in/dashboard>, please find the city scores in the Annexures 6

⁶⁰ <https://www.smartcitiescouncil.com/article/financing-smart-cities-india>

These cities have very high investment credit ratings. The same concerns were also raised by Prakash Gaur, CEO, Andhra Pradesh Urban Infrastructure Asset Management (APUIAML), who explained, "The ratings span 20 levels from AAA to D, with BBB-being investment-grade rating; cities rated below BBB-have to get better ratings to attract investors."

The potential of these sources is highly dependent on the municipal corporation's financial status such as their investment credit ratings to attract loans/issue debt instruments, and their current deficit, which is a prominent case for public sector undertakings (which are not driven by a profit motive), which might require balancing with the help of receipts from the expected increase in various municipal taxes and user charges, and therefore, not be entirely allocated to meet SCM expenditure.

The issue of increasing municipal taxes is also political in nature. In economic theory, local taxes are most close to the public, and therefore, face resistance, and there is the worry of losing popularity amongst the people for the local government. Also, property tax and professional tax are the only major taxes in the hands of the municipal bodies. **Since the introduction of GST, any potential for local indirect consumption taxes has been diminished -- it would require a new amendment to introduce such taxes. In various states, there is not complete autonomy in the hands of the municipal corporation in tax rate setting or revision of taxes -- they have to consult their respective state bodies to decide the appropriate tax rate.**⁶¹

The 74th constitution amendment created the State Finance Commission (SFCs), but progress in implementation is tardy. Many SFCs have not been formed, or face restrictions in terms of fiscal devolution between state and municipal corporations.

7.9 City Level Advisory Forums

The mission envisaged under the Mission Monitoring guidelines that at the city level:

"A Smart City Advisory Forum will be established at the city level for all 100 Smart Cities to advise and enable collaboration among various stakeholders and will include the District Collector, MP, MLA, Mayor, CEO of SPV, local youths, technical experts, and at least one member from the area who is a

- i. President / secretary representing registered Residents Welfare Association,

⁶¹ This section has found contributions coming from Ravikant Joshi. Please find the link to his workshop in association with Centre for Financial Accountability here - <https://www.cenfa.org/events/smart-city-workshop-smart-cities-and-municipal-finances/>

- ii. Member of registered Tax Payers Association / Rate Payers Association,
- iii. President / Secretary of slum level federation, and
- iv. Members of a Non-Governmental Organization (NGO) or Mahila Mandali / Chamber of Commerce / Youth Associations.

The CEO of the SPV will be the convener of the Smart City Advisory Forum".⁶²

The Advisory Forum suggested under the mission guidelines is to create a structure for citizen engagement and a coming together of various stakeholders. Though the roles and the functions of the advisory forum have not been clearly outlined. The mandate of the forum as the name suggests is to advise and give suggestions. The final decision will remain with the SPV to take into consideration the suggestions given. The members of the forum are most likely nominated on the forum; the basis for such nomination is not clear how they would be elected? The frequency of meetings of the forum and the recording of the proceedings is also not clear as well as the corrective measures if any that can be taken in case the suggestions are not being followed by the SPV.

This structure and the process is parallel to the democratically elected members of the general assembly of the municipal corporation. These members are directly voted by the ward population and are accountable to the voters for the delivery of public services and implementation of public projects in their wards. They also represent the ward population in the discussions in the municipal corporation. This democratic process will be sidelined since the project implementation and financing is controlled by the SPV. The democratic processes are further diluted with no mechanism for grievance redressal or right to remedy measures for the impacted residents. Hence, one would also question the efficacy of the City Level Advisory Forum (CLAF), which were stipulated to be formed in each smart city, to review projects, and advise and enable collaboration among various stakeholders.

It is not clearly stated if all 100 cities have formed CLAFs, which are fully operational. The Fifth Report of the Standing Committee on Urban Development (2020-21) on Demands for Grants (2021-22) of the Ministry of Housing and Urban Affairs claims that all 100 CLAFs have been formed. A random search regarding the Citizen Advisory Forum on the websites of city level smart city SPVs did not result in any substantial information about the formation, the members, the minutes of proceedings and decisions by the forum in these cities, although

⁶² <https://smartcities.gov.in/themes/habikon/files/SmartCityGuidelines.pdf>

Google search engines provides news of the formation and meetings of these CLAFs in some cities⁶³.

7.10 Top and Bottom Cities under various performance parameters

Given in the annexures (Annexure 2 to 5) are the various parameters on which we have city-wise data. We thought it would be nice to highlight the performance of the top and bottom cities as per these parameters.

a) *Centre & State Funds Released* -

Annexure 3 refers to the city-wise Centre and state funds released. A quick glance will convince readers that in most cases the release of state funds lags behind Centre funds (as was mentioned above).

Bhopal, Surat, Chennai, Kakinada, Indore, Udaipur and Coimbatore have the highest funds released for both Centre and state funds. Bhubaneswar secures one of the top places in terms of funds from the Centre, but the same is not true in case of state funds.

In terms of the amount released by the centre, Shillong, Kavaratti, Puducherry and Silvassa are at the bottom of the list. While for the case of funds released by state, Kavaratti, Gangtok, Namchi and Imphal received the least amount of funds.

Itanagar and Kavaratti are in the Bottom 10 in terms of both amount of Centre and state funds.

⁶³ <https://indiaeducationdiary.in/jammu-smart-city-mission-mayor-chander-mohan-chairs-city-level-advisory-forum-meet-lauds-jscl-for-timely-completion-of-projects-mp-jugal-kishore-assures-all-possible-help-to-jscl/>:
<https://www.freepressjournal.in/corporate-gallery/smart-city-level-advisory-forums-9th-meeting-held-in-silvassa>:
<https://www.thehindu.com/news/cities/Madurai/advisory-meetings-will-be-held-to-rectify-flaws-in-smart-city-projects-mp/article36520933.ece>: <https://www.thehindu.com/news/cities/Coimbatore/16-projects-completed-under-smart-city-mission-in-erode/article36234081.ece>: <https://www.thenorthlines.com/jammu-smart-city-mission-39-projects-costing-rs-671-33-cr-completed-45-under-execution/>

Top 10 Cities	Amount of Centre's Funds Released (in Rs. Crores)	Top 10 Cities	Amount of State's Funds Released (in Rs Crores)
Bhopal	490	Bhopal	500
Bhubaneswar	490	Surat	493
Chennai	490	Ranchi	490
Coimbatore	490	Amaravati	488
Indore	490	Kakinada	488
Kakinada	490	Indore	445
Ranchi	490	Udaipur	420
Surat	490	Visakhapatnam	420
Udaipur	490	Chennai	400
Visakhapatnam	490	Coimbatore	400

Bottom 10 Cities	Amount of Centre's Funds Released (Rs. Cr)	Bottom 10 Cities	Amount of State's Funds Released (Rs Cr)
Itanagar	151	Agartala	50
Aizawl	128	Gtr Warangal	50
Bilaspur	127	Dharamshala	48
Srinagar	127	Itanagar	36
Atal Nagar	122	Pasighat	27
Diu	110	Kohima	22
Silvassa	104	Imphal	20
Puducherry	103	Namchi	20
Kavaratti	60	Gangtok	5
Shillong	55	Kavaratti	2

Table 8 - TOP & BOTTOM 10 - Centre & State's Funds Released

b) *Percentage of Projects Completed & Funds Utilised -*

Varanasi, Surat, Agra, Chennai, Tumakuru are in the Top 10 cities in terms of both project completion and funds utilisation. Muzaffarpur, Bhagalpur, Shillong and Amaravati are in the Bottom 10 on both the parameters.

Interestingly, although Indore, New Delhi, Ahmedabad, Coimbatore and Udaipur have a high percentage of projects completed, they are not in the Top 10 in terms of funds utilisation. Indore is in the Top 10 on funds released by Centre and state. Indore has utilised 100% of Centre's funds but is not in the Top 10 of state's funds utilisation. Therefore, Indore's low funds utilisation rate for projects completed is due to its lagging state fund utilisation.

Similarly, Coimbatore and Udaipur are in the Top 10 for Centre and state funds released but have missed out top spots for utilisation of these funds.

What is noteworthy is that Srinagar, Kohima, Prayagraj, Tirunelveli and Salem are in the Top 10 of funds utilization but not in the top 10 slots of percentage of projects completed.

Srinagar is in the Bottom 10 for Centre's funds released and Kohima has very low state's funds released. Since they have not received a big share of the funds, this is contributing to their inflated utilisation rate; their project completion is modest.

Cities	Project Name	Sector	Amount
Kohima	Integrated Command and Control Center for Kohima Smart City	IT Connectivity and Digitalisation	131.16 Rs. Cr.
Tirunelveli	UGSS for uncovered area Phase II and Phase III	Sewerage and Septage	733.66 Rs. Cr.
Srinagar	Road Redevelopment work Ph - 1	Area Development	66.03 Rs. Cr.
Srinagar	24x7 Water supply	Water Supply	263.5 Rs. Cr.
Srinagar	River Bank Development	Environment Including Pollution	358 Rs. Cr.

* Information for Prayagraj & Salem not given

Source: Smart City Website

The above table shows the projects⁶⁴ completed by 3 cities -- Kohima, Tirunelveli and Srinagar. As can be seen, these projects required huge expenditure and therefore, are also reasons why the fund utilisation of these cities is very high compared to the percentage of projects completed.

Top 10 Cities	Percentage of Projects Completed	Top 10 Cities	Percentage of Funds Utilized for Projects Completed
Varanasi	85.85	Varanasi	86.96
Surat	85.37	Srinagar	71.86
Agra	83.05	Kohima	70.53
Indore	81.45	Agra	69.69
Chennai	80.43	Tumakuru	69.56
Tumakuru	80	Prayagraj	67.78
New Delhi	79.46	Tirunelveli	66.82
Ahmedabad	77.14	Salem	64.4
Coimbatore	76.71	Surat	64.12
Udaipur	76.52	Chennai	62.24

⁶⁴ <https://smartcities.gov.in/node/180>; <https://smartcities.gov.in/node/126>; <https://smartcities.gov.in/node/113>

Top 10 Cities	Centre's Funds Utilization Rate	Top 10 Cities	State's Funds Utilization Rate
Agra	100	Gangtok	100
Ahmedabad	100	Itanagar	100
Amaravati	100	Namchi	100
Aurangabad	100	New Town Kolkata	100
Bareilly	100	Bhopal	99
Bhopal	100	Madurai	99
Chandigarh	100	Pune	98
Dharamshala	100	Aizawl	95
Faridabad	100	Belagavi	95
Gangtok	100	Aligarh	95

Table 9 - TOP & BOTTOM 10 - Percentage of Projects Completed & Funds Utilised

Bottom 10 Cities	Percentage of Projects Completed	Bottom 10 Cities	Percentage of Funds Utilized for Projects Completed
Ranchi	18.52	Madurai	4.65
Muzaffarpur	17.86	Muzaffarpur	4.41
Rourkela	17.07	Bengaluru	3.49
Puducherry	16.95	Kavaratti	3.13
Faridabad	14.63	Thane	2.03
Bhagalpur	8.33	Panaji	1.97
Silvassa	6.98	Kalyan-Dombivali	0.33
Atal Nagar	4.65	Bhagalpur	0.2
Shillong	4.35	Shillong	0
Amaravati	NA	Amaravati	NA

Bottom 10 Cities	Centre's Funds Utilization Rate	Bottom 10 Cities	State's Funds Utilization Rate
Bilaspur	52.76	Patna	2
Kavaratti	50	Silvassa	1
Pasighat	47.71	Agartala	0
Moradabad	46.43	Bhagalpur	0
Guwahati	44.9	Diu	0
Aizawl	42.19	Imphal	0
BiharSharif	30.61	Kavaratti	0
Muzaffarpur	30.61	Pasighat	0
Saharanpur	30.61	Port Blair	0
Diu	30	Srinagar	0

Table 9 - TOP & BOTTOM 10 - Centre & State's Funds Utilisation Rate

It is evident that for Top and Bottom cities, the Centre's funds utilisation has always been more efficient than the state's funds utilisation. 17 cities have 100% utilisation rate of Centre's funds while only three cities have 100% utilisation of state's funds, Gangtok, Namchi and Pune have 100% funds utilisation for both Centre and state funds.

The utilisation rate is dependent on the amount released. For instance, state's funds released to Namchi amount to only Rs 20 crore and for Gangtok, state has released only Rs 5 crore.

Pune has done well to utilise Rs 392 crore (released by Centre) and Rs 368 crore (released by state). Even so, Pune has completed only 57.37 percent of its projects. No information on its projects is available.

Many cities have 0 percent utilisation of funds released by state -- Srinagar, Port Blair, Pasighat, Imphal, Diu and Bhagalpur.

Among the bottom 10 cities on Centre's funds utilisation are Diu, Saharanpur, and Muzzaffarpur.

Concluding Remarks

The smart cities mission suffered fault lines in its initial planning stages. Considering that cities took up to 18 months to set up their respective SPVs to begin operations, five years was a rather short timeline to implement the mission. That time period was especially short given that most city governments are financially strapped, have limited managerial capacities and lack expertise and equipment to implement such capital-intensive projects.

The union and state governments should play a bigger role in financing various projects at the city level. With a weak investment credit rating and weak operational finances, municipal corporations will find it increasingly hard to attract financiers. Cities with weak finances, especially relative to their proposed Total Smart City Cost, would require more support and guidance. Under JNNURM, for instance, the Union government had committed to a share of up to 80% for northeastern cities and 90% funding for other small cities.

The project completion and funds utilisation rate have not seen the same trend for all cities - in some cities, the project completion rate is higher than funds utilised, while for other cities, the funds utilisation rate has been ahead of the percentage of projects completed. This calls for the need to have more ground studies in these cities to monitor what kind of projects are being implemented and completed. Such a study would help address the reasons behind the issuance of certain projects.

For instance, a quick comparison of the work orders issued for Ranchi and Bareilly (please refer to Annexure 7) shows Ranchi has projects which have a DPR cost much higher than projects in Bareilly. The question then arises: Were more costly projects issued in Ranchi because there was a need for them? Or given that Ranchi is the capital of a state, high-cost projects are in demand there? Do the managerial and financial capacities of these cities encourage such projects?

The state funds utilisation has lagged behind the Centre's funds utilisation. More transparency is needed to ascertain if funds have reached the SPV on time or were not utilised due to a lag. Or if projects are taking longer to complete. The data available shows that state funds release progress also requires timely supervision.



While the implementation of the mission was to be facilitated by the formation of Special Purpose Vehicles (SPVs), which would plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development project; it is unclear what role the SPVs would play once the mission is completed. Will the SPVs continue to operate to maintain and look after the assets created under the mission, or will they be transferred to the ULBs, state or Centre?

There is no clear roadmap regarding the long term relationship between the SPV and the municipal corporations on various aspects, especially the political and democratic governance system in the context of the 74th Constitutional Amendment Act.

A highlight project has been the Integrated Command and Control Centers which will be developed for a nation-wide view of ICT infrastructure, for effective monitoring and management and to ensure the availability of all Critical Government Services. It is important to decide on a process to maintain data privacy and security of these data centres.

The other important question that needs to be addressed is will the development of smart cities and its projects contribute/facilitate the inclusion of marginalised communities such as informal workers by benefiting their lives. It is unclear whether the projects make room for improvement in the lives of domestic workers and street vendors.

The use of online mediums and social media platforms for consultation with local people for voting on projects needed in area-based development led to the exclusion of various marginalized communities due to non-accessibility to the internet -- in Bhopal, lack of local participation happened since voting was done via social media platforms, and the poor had no access to the internet. In Tumakuru, upon interviewing members of urban deprived communities including Pourakarmikas, Underground Drainage System workers, street-vendors and leaders and activists of organizations working across various low-income settlements, it was found that they were not included in any survey or outreach programme during the development of the Smart City Proposal. Exclusion of such communities is also prominent in the implemented projects and expenditure. In Indore, the demolition of the

oldest residential areas of the city adversely impacted urban communities. All of these localities also helped in creating Indore's distinct identity.⁶⁵

The citizen advisory forum was supposed to provide an interface between the mission and citizen demands. However available information indicates that this mechanism has not been fully functional. There also needs to be clarity in terms of governance mechanisms. Will these advisory forums eventually replace existing democratic mechanisms?

The smart cities mission intends to transform the urban landscape in different ways and not just in project implementation and fund utilisation. It will have long term implications on how urbanisation, urban infrastructure development, public service delivery, urban governance and financing is viewed in the country. However, even after seven years of the launch of the mission there are several questions and concerns that remain to be addressed.

⁶⁵ Please refer to CFA's city-specific reports - https://www.cenfa.org/wp-content/uploads/2021/05/Bhopal-Smart-City-Case-Study-Final_compressed.pdf <https://www.cenfa.org/as-bhopal-is-recast-as-a-smart-city-its-poor-have-a-question-where-the-room-for-us/> <https://www.cenfa.org/tumakuru-smart-city-project-part-1/> <https://www.cenfa.org/wp-content/uploads/2020/04/Indore-Smart-City-Case-Study.pdf> <https://www.cenfa.org/how-inclusive-are-smart-cities/>

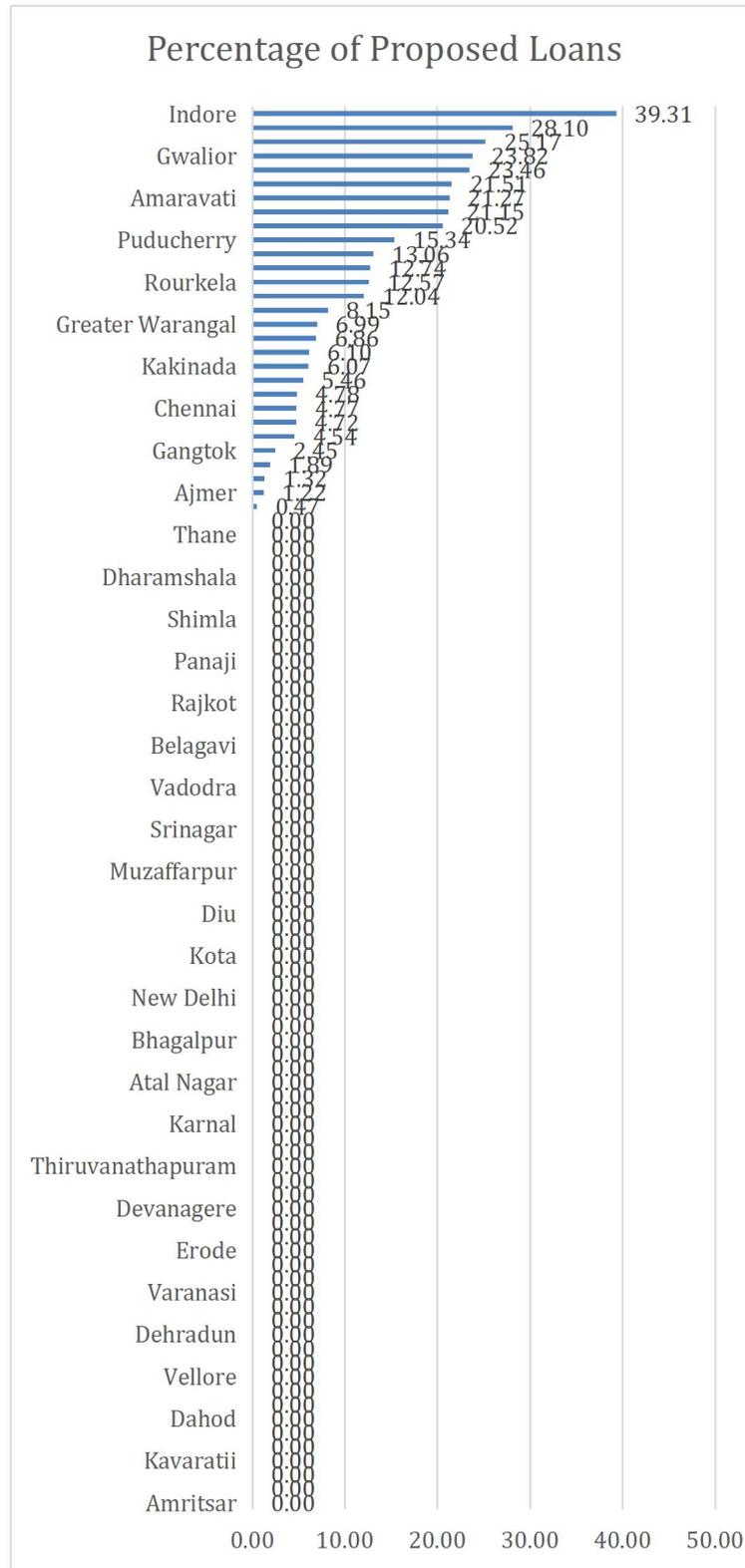
Annexures

ANNEXURE 1 - ROUND-WISE LIST OF CITIES

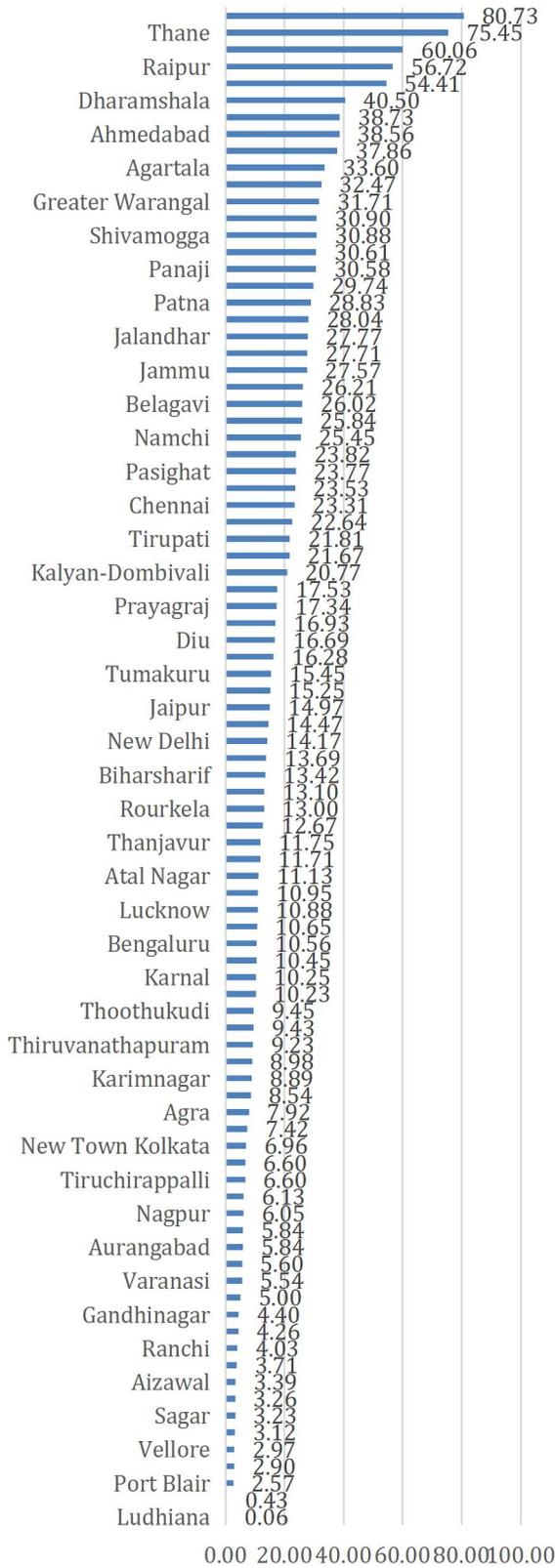
Round 1	Fast-Track	Round 2	Round 3	Round 4
New Delhi	Chandigarh	Gwalior	Patna	Silvassa
Ahmedabad	Greater Warangal	Ajmer	Sagar	Itanagar
Bhubaneswar	Dharamshala	Shivamogga	Rajkot	Moradabad
Solapur	Agartala	Tumakuru	Satna	Kavaratii
Devanagere	Raipur	Agra	Gandhinagar	Shillong
Coimbatore	Imphal	Vadodara	Gangtok	Biharsharif
Pune	Panaji	Kanpur	Tirunelveli	Erode
Indore	Ranchi	Jalandhar	Karimnagar	Saharanpur
Kochi	Lucknow	Nagpur	Atal Nagar	Bareilly
Belagavi	Bhagalpur	Varanasi	Srinagar	Diu
Kakinada	Faridabad	Thane	Karnal	
Bhopal	New Town Kolkata	Amritsar	Amaravati	
Ludhiana	Port Blair	Salem	Dehradun	
Surat		Kota	Dahod	
Chennai		Tirupati	Pimpri-Chinchwad	
Visakhapatnam		Madurai	Bengaluru	
Jabalpur		Kohima	Bilaspur	
Jaipur		Namchi	Jammu	
Udaipur		Aurangabad	Aligarh	
Guwahati		Thanjavur	Pasighat	
		Rourkela	Muzaffarpur	

		Vellore	Puducherry	
		Mangaluru	Prayagraj	
		Nashik	Thoothukudi	
		Ujjain	Shimla	
		Hubballi-Dharwad	Jhansi	
		Kalyan-Dombivali	Tiruchirappalli	
			Thiruvananthapuram	
			Aizawl	
			Tiruppur	

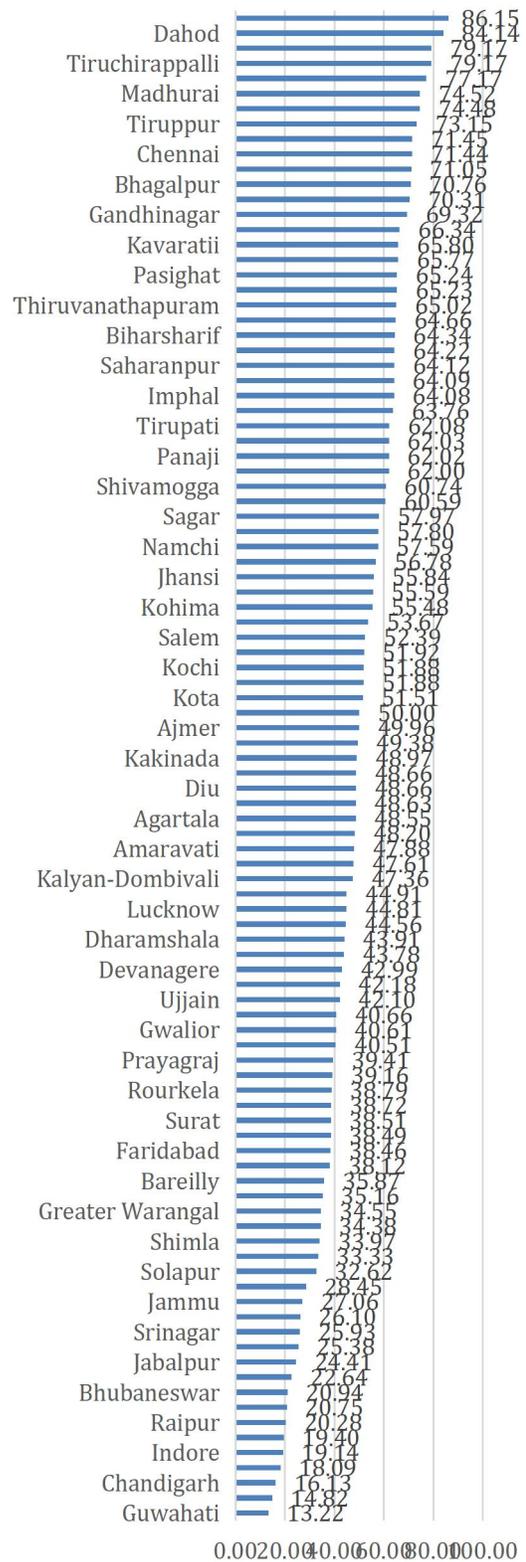
ANNEXURE 2 - PROPOSED SOURCES OF FUNDING



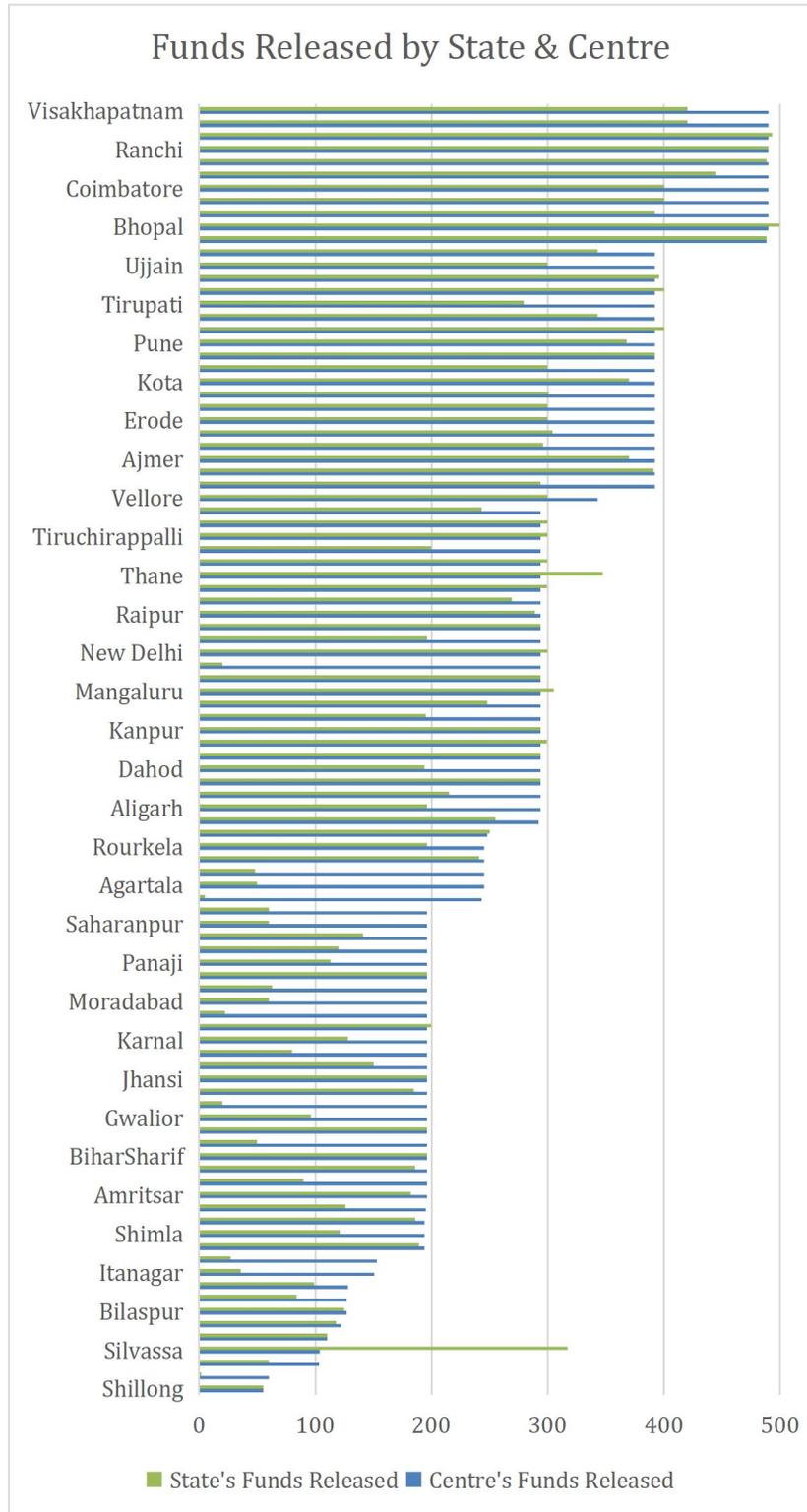
Percentage of Proposed PPP



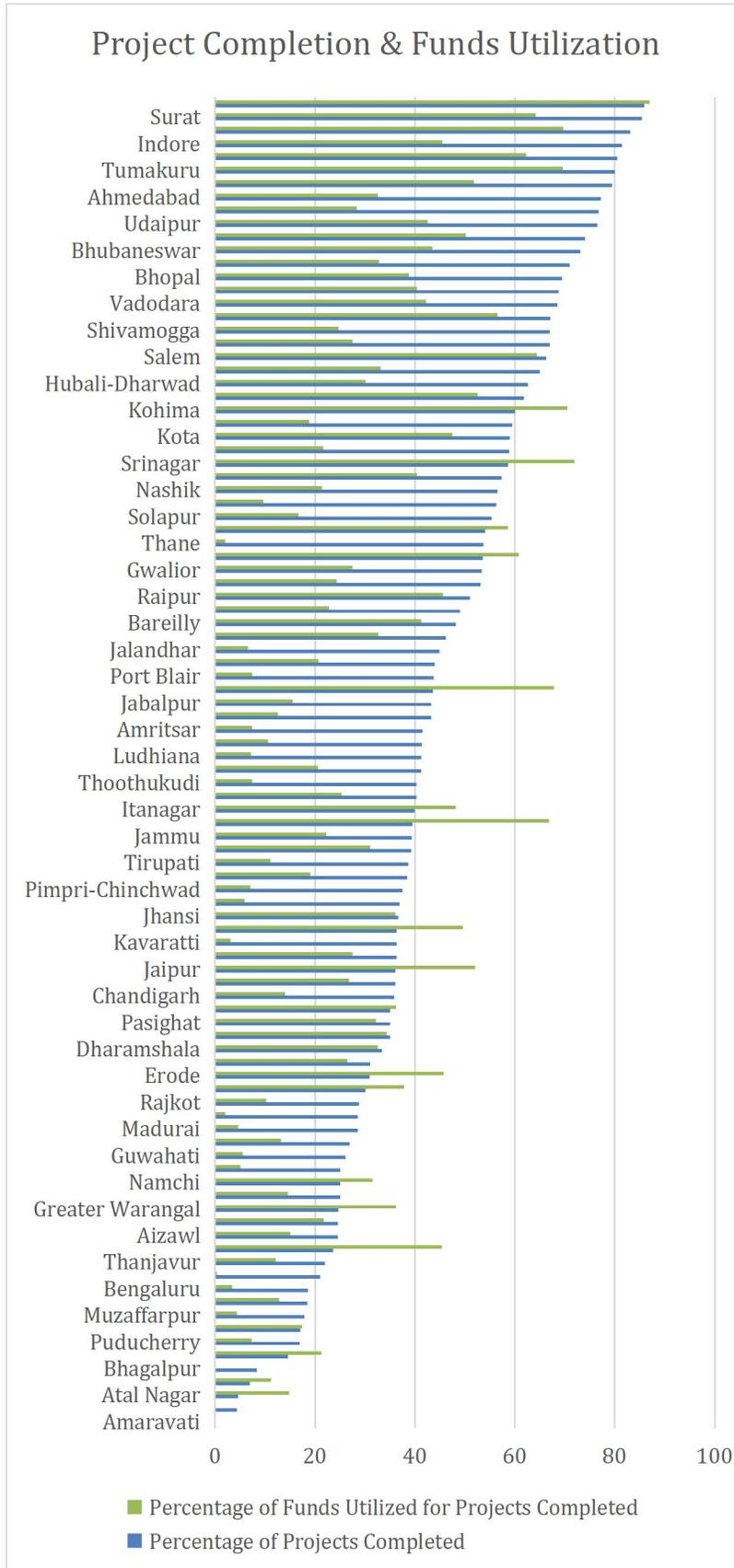
Percentage of Proposed SCM



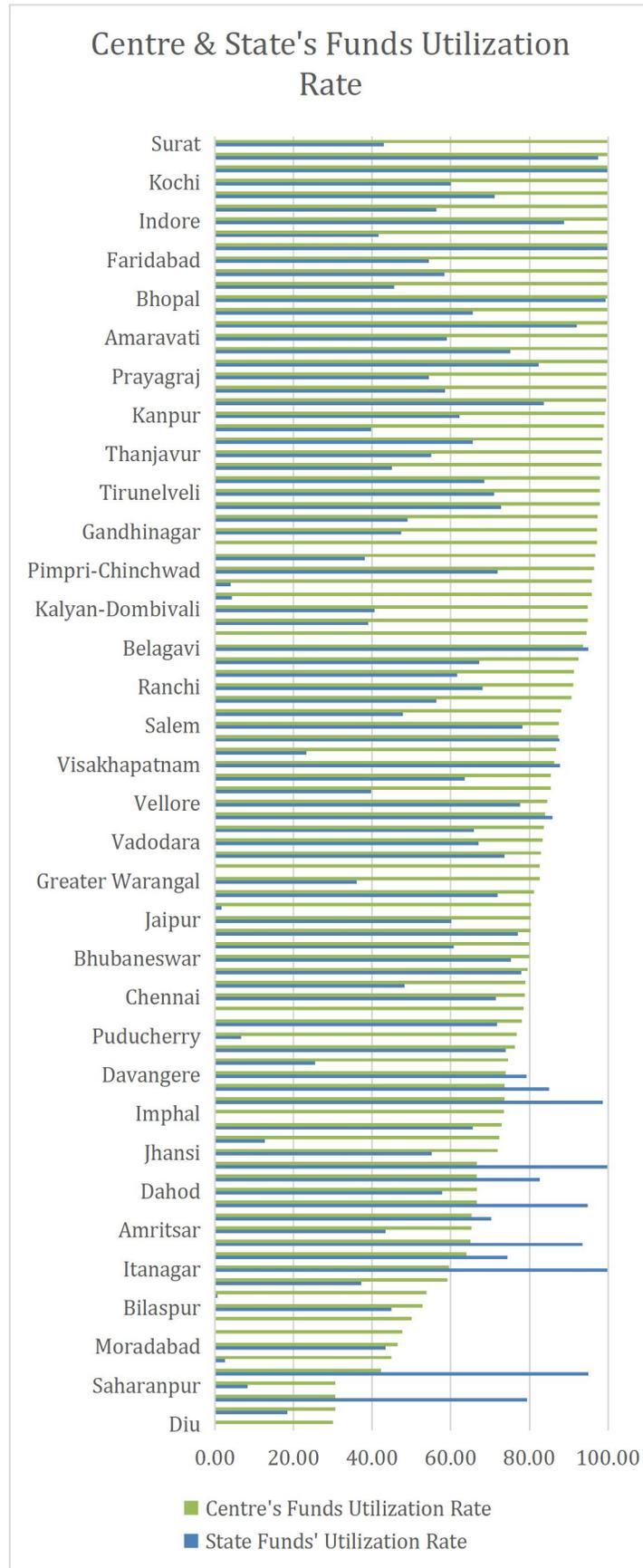
ANNEXURE 3 - CENTRE & STATE FUNDS RELEASED



ANNEXURE 4 - PROJECT COMPLETION RATE



ANNEXURE 5 - CENTRE & STATE FUNDS UTILIZATION RATE



ANNEXURE 6 - MUNICIPAL CORPORATION FINANCIALS SCORES

City Title	Score
Indore	69.69
Surat	67.81
Chennai	66
Coimbatore	64.18
Hubali-Dharwad	64.09
Raipur	63.52
Bhopal	62.45
Vadodara	61.87
Ahmedabad	61.28
Visakhapatnam	59.87
Agra	58.94
Pune	58.62
Lucknow	58.59
Pimpri-Chinchwad	57.41
Kanpur	56.16
Ranchi	56.08
Varanasi	55.96
Bareilly	55.92
Rajkot	55.24
Nashik	54.65
Patna	54.64
Prayagraj	52.2
Gwalior	51.5

Madurai	50.98
Thane	50.62
Ludhiana	50.11
Jaipur	49.69
Chandigarh	48.68
Kalyan Dombivalli	48.47
Faridabad	48.07
Bengaluru	47.61
Amritsar	47.42
Nagpur	46.27
Rourkela	44.98
Amaravati	44.86
Jabalpur	42.96
Jammu	41.62
Solapur	41.23
Jalandhar	41.07
Tirunelveli	40.44
Kota	37.47
Kohima	37.02
Gangtok	35.43
Srinagar	33.45
Port Blair	33.13
Aurangabad	32.15
Itanagar	27.34
Guwahati	25.57

Imphal	22.25
Shillong	21.6
Pasighat	21.15

ANNEXURE 7 - PROJECT LIST OF RANCHI & BAREILLY

State	City	Project Name	Sector	Project Being Taken Up By	Dpr Cost (in Rs Crores)
Jharkhand	Ranchi	Water Management - Storm Water Drainage	Storm Water Drainage	SPV	43.24
Jharkhand	Ranchi	Water supply project for bringing 12 MLD water from Hatia to ABD site	Water Supply	SPV	10.09
Jharkhand	Ranchi	Transport & Circulation (Roads) with Pedestrian facility duct for utilities including gas line, power line, Optical fibre, provision for sewerage & drainage	Urban Transport	SPV	203.05
Jharkhand	Ranchi	Jharkhand Urban Planning and Management Institute (JUPMI)	Social Sectors Health and Education	Others	119.34
Jharkhand	Ranchi	Birsa Smriti Park (phase-1)	Environment Including Pollution	City	56.85
Jharkhand	Ranchi	Rejuvenation & Conservation of Harmu River	Environment Including Pollution	Others	87.43

Jharkhand	Ranchi	Urban Haat in Kanke	Economic Development	City	19.12
Jharkhand	Ranchi	220/33 kV GIS SS and Transmission Lines, Cables and Shifting 132kV OH-line to UG-cable	Energy	SPV	290.38
Jharkhand	Ranchi	Power Distribution Infrastructure for RSC (ABD Site)	Energy	SPV	168.38
Jharkhand	Ranchi	Convention Centre	Social Sectors Health and Education	Others	406.07
Jharkhand	Ranchi	Smart Road 1 Airport to Birsa Chowk via Hinoo Chowk	Area Development	Others	89.73
Jharkhand	Ranchi	Street Lighting for RSC (ABD Site)	Energy	SPV	17.21
Jharkhand	Ranchi	Construction power arrangement	Energy	SPV	5.31
Jharkhand	Ranchi	Public Bicycle Sharing (Proposed in annuity model)	Non Motorised Transport and Walkability	SPV	21.82
Jharkhand	Ranchi	Beautification & Conservation of Bada Talab	Area Development	City	14.89
Jharkhand	Ranchi	Over head line Shifting of 33kV & 11kV and 33/11 kV HMTP Substation Shifting	Energy	SPV	17.7
Jharkhand	Ranchi	Urban Civic Tower	Social Sectors Health and Education	Others	183.77
Jharkhand	Ranchi	Smart Road No. 2 Raj Bhawan to Birsa Chowk Via Kishore Ganj	Area Development	Others	464.9

Jharkhand	Ranchi	Rabindra Bhavan	Social Sectors Health and Education	Others	167.03
Uttar Pradesh	Bareilly	Facade lighting at 3 government buildings	Area Development	SPV	1.8
Uttar Pradesh	Bareilly	E-kiosk in BMC Zonal offices	IT Connectivity and Digitalization	SPV	2
Uttar Pradesh	Bareilly	Rejuvenation of SCH pond with water sport activity	Area Development	SPV	22.4
Uttar Pradesh	Bareilly	Renovation of AKSHAR VIHAR lake area	Sewerage and Septage	SPV	4
Uttar Pradesh	Bareilly	Major Road Ph III	IT Connectivity and Digitalization	City	60.96
Uttar Pradesh	Bareilly	Smart health centre at 5 locations	Social Sectors Health and Education	SPV	4.69
Uttar Pradesh	Bareilly	Light and sound show at district jail	Social Sectors Health and Education	SPV	7.18
Uttar Pradesh	Bareilly	Construction of Smart Public Toilets	Social Sectors Health and Education	SPV	10
Uttar Pradesh	Bareilly	Indoor sports facility in Bareilly Stadium	Economic Development	SPV	20
Uttar Pradesh	Bareilly	Construction of rifle club	Non Motorised Transport and Walkability	SPV	6.34

Uttar Pradesh	Bareilly	Upgradation of Gandhi Udyan	Area Development	SPV	4.8
Uttar Pradesh	Bareilly	She Launges	Social Sectors Health and Education	SPV	1.2
Uttar Pradesh	Bareilly	Subhas nagar ROB	Economic Development	SPV	40
Uttar Pradesh	Bareilly	Waste Transfer Station and MRF civil	Solid Waste Management	SPV	6.96
Uttar Pradesh	Bareilly	Development of urban haat with handicraft centre	Economic Development	SPV	157.67
Uttar Pradesh	Bareilly	Construction of workshop for SWM vehicles	Solid Waste Management	SPV	1.47
Uttar Pradesh	Bareilly	Internal Roads	Area Development	SPV	30
Uttar Pradesh	Bareilly	EPC of 5.62 KM Major Roads in ABD Are	Urban Transport	SPV	64
Uttar Pradesh	Bareilly	Construction of RCC drain from kargaina police chowki to existing culvert at chainage 1600 Bareilly	Sewerage and Septage	SPV	40
Uttar Pradesh	Bareilly	Design, Supply and Construction of Skywalk of 2.5 KM on PPP Mode	Non Motorised Transport and Walkability	SPV	80
Uttar Pradesh	Bareilly	Supply, Installation, Testing commissioning of puzzle type Multilevel car parking with 1 year DLP at Bareilly	Urban Transport	SPV	9

Uttar Pradesh	Bareilly	2 lane elevated corridor from kotwali police station to koharapeer junction via kutub khana road	Urban Transport	SPV	136
Uttar Pradesh	Bareilly	Renovation of Ghantaghar Clock Tower with development of Moti park and parking area	Area Development	SPV	1.08
Uttar Pradesh	Bareilly	Nagar Nigam library	IT Connectivity and Digitalization	SPV	0.73
Uttar Pradesh	Bareilly	Construction of GIC Incubation and 400 seater Auditorium Building in Bareilly with 1 year defect and liability period	Economic Development	SPV	37.3
Uttar Pradesh	Bareilly	External Development of Nagar Nigam Building	Area Development	SPV	3.3
Uttar Pradesh	Bareilly	Automation of Tubewell Operation Through PLC & SCADA in Bareilly city	Water Supply	SPV	23.77
Uttar Pradesh	Bareilly	Engineering Procurement and Construction of 8.10 Km of Major Road Development in ABD Area on EPC Mode with 1 year Defect Liability and 3 year of Operation and Maintenance	Urban Transport	SPV	68.15
Uttar Pradesh	Bareilly	Underground of LT and HT electrical cable in ABD area phase I	Area Development	SPV	53.9
Uttar Pradesh	Bareilly	Under ground cabling of LT and HT phase I (Road 4&5)	Area Development	SPV	9.26

Uttar Pradesh	Bareilly	Under ground cabling of LT and HT phase I (Road 7)	Area Development	SPV	4.28
Uttar Pradesh	Bareilly	Under ground cabling of LT and HT phase I (Road 15)	Area Development	SPV	7.53
Uttar Pradesh	Bareilly	Women Helpdesk	Area Development	SPV	0.74
Uttar Pradesh	Bareilly	Construction of RCC drain from Rajiv Colony to railway line at Bareilly	Sewerage and Septage	SPV	6.78
Uttar Pradesh	Bareilly	Construction of Commercial complex at Tanga Stand	Economic Development	SPV	3.35
Uttar Pradesh	Bareilly	Park beautification work at various locations	Area Development	SPV	18.37
Uttar Pradesh	Bareilly	Construction and Operation of Walk Through Mirror maze at Gandhi Udhyan	Area Development	SPV	3.22
Uttar Pradesh	Bareilly	Underground of HT & LT Electrical supply Cables in ABD area for Road 10,11,12,14 & 21	Area Development	SPV	18.37
Uttar Pradesh	Bareilly	Design Installation and Operation of Multimedia Laser Fountain at Akshar Vihar	Area Development	SPV	7.94

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We monitor the investments of national and international financial institutions, engage on policies that impact the banking sector and economy of the country, demystify the world of finance through workshops and short-term courses and help citizens make banks and government more transparent and accountable, for they use public money.

