SMART CITY IN INDORE
A Case Study

CFA
Centre for Financial Accountability
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Foreword

Smart City – A Tragedy?

“If someone goes to see rural habitats in India, it would not be difficult to observe that of the tall buildings, most of them are old and in a bad shape. One would hardly find newer buildings in rural areas. This shows us the fact that 40-50 years ago people were prosperous enough to build these large and strong structures, whereas their descendants are now content in calling these ruins their homes. The economic situation of the current generation isn’t robust enough to afford them the luxury of repairing their ancestors’ older buildings.”

- Dr. J.C. Kumarappa

In the context of above-mentioned example, the proposal being set by the Central Government of transforming an area in the most populous city of Madhya Pradesh, Indore, into Smart City may surprise, trouble or make one think about the similarities between Smart City and the villages in ruins. Prima facie, any similarities cannot be seen emerging. But when we look closely at the initial hits of the projects under smart city in Indore, we will discover that these have been on the oldest residential areas of the city such as Biabani, Loharpatti, Malganj, Maharganj and Ganesh Ganj. The second wave hit Rajmohalla, Bombay Bazaar, Kadaav Ghat extending up to the residential areas around Sarvate bus stand. The third hit was from Jairampur colony to Cloth Market – Gorakund. All of these localities helped in creating Indore’s distinct identity. Now, they have been demolished. The areas such as Jairampur are home to Sindhi refugees who had fled during partition, and Cloth Market, which for the last 150 years has been the identity of Indore, have now been defaced. In the changing economic circumstances,
most of the houses which were part of these residential areas and were living examples of the city’s splendor have been demolished, and these now only remain as ghostly ruins of themselves.

According to the policy documents of the Smart Cities Mission (SCM), preserving the heritage of the proposed cities is one of the major goals of the project. However, what happened in Indore is contrary to that. The fate of Cloth Market tells us of how cruel we are towards our heritage. In any other city or country, 150-year-old heritage buildings in the oldest residential areas would have undergone reconstruction and conservation but here they have all been destroyed entirely such that their original form cannot be brought back. The residential areas which fell under the range of smart city projects have been punished for their poverty, helplessness and powerlessness. At the same time, the city lost its traditional form and frame. Therefore, it is important to understand the implications of Smart City projects. The citizens, whose homes, shops and offices have been destroyed, have received no compensation. The Supreme Court also failed to deliver justice and people were left empty handed. Their whole world has come crashing down. However, nothing can stop (modern) development now, least of all sympathy. The bulldozer of development looks to destroy everything that comes in its way, all the things that have been connecting human lives for centuries.

The Smart Cities Mission advocates for all those characteristics of modern development such as widening the roads, construction of drainage lines, laying down cables, setting up of new poles and other such activities which will make a city Smart. However, the mission doesn’t explain what will happen to the ones who are left homeless. How will the family which used to live in (however run-down) three
storied house now fit themselves in a one room house? Yet the price of development will have to be paid. But by whom?

Reading the vision document of this mission which is worth hundreds of crores, it seems like heaven is being brought down on earth. But is this the reality? In reality, in the guise of this untrue heaven, thousands of citizens are being forced to live in hell. In these projects, we will find that the existing residential area will be made remarkable and livable and will be re-developed. There will be green development, and development across the entire city. But when the original residents who have been living here for decades are being displaced, for whom is this city being developed and made Smart? The answers are quite obvious. Even if the original residents managed to continue living here, the taxes levied in future will be crippling. The democratic rights of those living in these big colonies will also be suppressed. The local elected bodies, such as Municipal Corporation in the near future will be meaningless.

Whether we believe it or not, smart city in Indore is coming up in front of us as a tragedy. The attitude of city dwellers towards their cities and its heritage gives a push to these projects. On the ground, although with delays, they do get physically completed but these hurt the larger efforts on the path of the idea of making a better city, a better citizen and a better human.

Chinmay Mishra
Indore, 10th January 2020
Introduction

This case study of Smart City projects in Indore (Madhya Pradesh) includes an overview of the idea and the development work behind these projects. It begins with information about the city of Indore and a background of how Smart City Mission (SCM) was conceptualised and then executed through Area Based Development projects and Pan City projects. It briefly talks about the selection of 100 cities in five phases under Smart City Challenge, creation of Special Purpose Vehicles (SPVs) and implementation of Public Private Partnership (PPP) model for project execution in all Smart Cities across India including in Indore. The four development modes under Smart Cities Mission are also elaborated upon along with the two specific modes which can be observed in Indore. The completed, ongoing and proposed projects are briefly looked at, with a collation of information available in the public domain.

This study looks at the channels through which a mega project like Smart City is financed – namely central and state government funding, funds from convergence schemes, private financing, etc. and the sources of revenue which are being envisaged for profitable returns on these projects – introduction of new charges and increase in taxes, etc. An important consideration in the study is the impact this will have on local communities, the surrounding environment and the natural resources that the population across the city has been dependent on and will be in the future. In the case of Indore in particular, the widespread demolition of private property in the name of Smart City development is a major violation, among others.

The study also provides details and analysis of the legal petition filed by Centre for Environment Protection Research
& Development against the Union of India citing the unconstitutional nature of Smart City Indore. It can be seen that the benefits of Smart City Mission will only go to a small percentage of citizens of Indore while the impacts of it will be borne by the larger majority of the population. Issues such as lack of private funding, absence of transparency in the processes and an unfounded statement on the success of Smart City Missions in Indore and other cities is questionable and warrants further study.

The work on this report has been supported by several individuals. We would especially like to express our gratitude towards Shri Anand Mohan Mathur (Senior Advocate and former Advocate General, Government of Madhya Pradesh) for the kind interaction and help in writing this report. Without listing names several individuals and organisations extended support during this study we would like to thank them all. To sum up, it has been quite a learning curve working on this report on smart cities mission in Indore. It has given us insights to look at the mission in other cities across the country. We would continue to document and analyse smart cities in Indore and other cities in the near future.
Overview of Indore City

Indore was founded as a trade market by local landowners from the Narmada River valley route.

Figure 1 – General map of Indore

The landowners erected the Indreshwar Temple in 1741, which houses the deity lord Indra, after whom the city of Indore is named. Indore holds significant historical importance. During the British Raj, Indore was a princely state ruled by the Maratha Holkar dynasty until it became part of the Union of India. From 1950 to 1956 Indore was the capital of Madhya Bharat along with Gwalior until the state merged into Madhya Pradesh.¹

Indore is considered a tier 2 city in India and has a population of more than 2 million people, making it the most populous city in Madhya Pradesh and the 14th most populous city in India. Indore is a major collection and distribution center for goods in western Madhya Pradesh such as medicines, paints

¹ http://www.indore.nic.in/
and printing, and is also a commercial and industrial center. Indore’s major industries include manufacturing of textiles, chemicals, furniture, readymade garments, grain milling, and metalworking. Additionally, it is also an education hub which boasts of an IIT and IIM, and also of medical institutes. There are also the neighbouring industrial areas of Dewas and Pithampur around Indore.

The city is well connected to all parts of India. Given that it is a city in central India it is geographically well located. It has a rail junction and road connections that allow easy access to all parts of India.

**Smart City Indore**

The Smart Cities Mission, a Government of India program for urban development, is projected as a high-profile initiative which will transform the urban landscape in India. In the first phase of the Smart Cities Mission, as many as 100 cities of the country are targeted to be Smart. Similarly, 500 cities have been targeted to be developed under AMRUT. The mission was launched on 25 June, 2015 by Prime Minister Narendra Modi. The provision of budget for the Smart City project by the Central Government is Rs 48,000 crore and Rs 50,000 crore for AMRUT.

For the first phase under the Smart City program, 20 cities were selected through the ‘Smart City Challenge Competition’ in January 2016. In the later phases, 79 cities were further selected to be part of the mission, one city slot remained empty. To make these cities smart approximately Rs. 96,000 crores were to be spent by the government in the next 5 years. Out of this, Rs. 48,000 would come from the

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2 https://www.britannica.com/place/Indore
3 www.smartcities.gov.in
central kitty and as per the conditions of the program a similar amount is to be borne by the state governments.

In the selected cities the central government would invest Rs. 100 crore and the 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 SPV, which would be a limited company, to keep it uncoupled from the larger municipal governance and democratic processes. The SPV would be formed based on a tripartite agreement between the central government, state government and the municipal body. For monitoring, a national council is being formed which would be part of the US-based Smart Cities Council⁴.

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 city where infrastructure already exists with the help of smart internet-based applications. The Smart Cities Mission strategy⁵ 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 city in consultation with citizens. Depending on the existing level of infrastructure services in the identified area and the vision of the residents,

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⁴ https://smartcitiescouncil.com/
⁵ http://www.smartcities.gov.in/content/innerpage/strategy.php
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 affect 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.

*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 city is 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”\(^6\).

(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 Programs/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”\(^7\).

For the selection of smart cities under ‘smart city challenge round 1’, 20 cities across the country were selected for the smart cities mission, under the fast track round. Another 13 cities were selected; under round 2, 27 cities were selected, under round 3, 30 cities were selected and under round 4, 9 cities were selected for the mission. This brought the total number to 99 and the last city to be selected for the mission at 100 was Shillong.

\(^6\) http://www.smartcities.gov.in/content/innerpage/strategy.php
\(^7\) http://www.smartcities.gov.in/content/innerpage/convergence-sp.php
Indore was chosen by the Ministry of Housing and Urban Affairs (MoHUA) to be a smart city in the 1st round of the city challenge. Indore is one of seven cities in Madhya Pradesh chosen to be a smart city. The proposed smart city plan of Indore consists of area-based development (ABD) and pan city development. Area based development will focus on a specific area of the city for infrastructure development while pan city is meant to focus on smart technology that will integrate systems within the city and provide data to create a more efficient system. Through pan city development, Indore hopes to integrate traffic metering, solid waste management, and intelligent transportation systems (ITS). Through a collection of surveys from residents of Indore and municipal data analysis, the Indore Municipal Corporation (IMC) determined which areas to focus on and which areas would provide the most benefit to Indore if they were to be redeveloped. According to SCM the proposed smart city plan for Indore is reflective of the citizen’s desires for their smart city and the analytical findings of areas that need the most improvement. Public interactions and hearings were organised, but according to the residents of Indore, conferences happened at big hotels where the accessibility to most citizens was limited. Most people attending these meetings were prominent doctors, chartered accountants and members of certain big business groups with interests in the SCM.

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8 SCP Indore http://smartcities.gov.in/upload/uploadfiles/files/Indore_SCP.pdf
Indore’s Area Based Development (ABD), known as “Rajwada Rejuvenation” will cover 742 acres in the downtown/ Central Business District (CBD) area of the city out of 70,000 acres of total municipal land. The project aims to retrofit the existing area along with redeveloping certain parts of the land.

- ABD will include projects in:
  - Transport and walkability
  - Redevelopment of public land
  - Water supply, wastewater management & sanitation
  - Solid waste management
  - Power supply & efficiency
  - Underground electrification & shifting/laying of other utilities
  - IT connectivity & IT enabled government services

Redevelopment of public land will take place over 164 acres and impact 1.2 lakh people. Out of those 1.2 lakh people being affected by the redevelopment, 28,625 of them will be slum dwellers who live in 27 slums. About 600 slums exist within the borders of Indore city. The redevelopment of
slums will work in convergence with the Pradhan Mantri Awas Yojana Scheme (PMAY) for housing for all urban residents. According to the mission, redevelopment of public land aims to create compact high-density mixed-use areas, walkable communities, shared public open spaces, shared parking, green buildings, rainwater harvesting systems, and rooftop solar plants that provide up to 25% of energy demands.

The Indore smart city claims to revive Rajwada and transform it into a vibrant CBD while also preserving its cultural and historical heritage. The objective behind this decision is unclear. Based on conversations with citizens for the purpose of this study, smart city projects under the appearance of development could end up doing more damage than preservation. In the name of revival, there is destruction of the city’s heritage in areas such as Biyabani and Kapda Bazaar.

Figure 3 - Indore Area Based Development Map

9 https://www.smartcityindore.org/smart-city-indore/
Indore’s pan city development will be focused on the following:

- Backbone communication network, central command & control center for multi-purpose use with dashboard for real time data analysis and information dissemination.
- Intelligent Transportation System (ITS)
- Intelligent solid waste management (ISWM)
- The components of the pan city proposal aim to implement:
  - Multi-purpose communication network
  - Automated traffic control system that includes pedestrian activated signals at crosswalks
  - Bicycle actuated signals
  - Lane monitoring and control signs
  - Dynamic messaging boards with mobile interface that provides route information to citizens
  - Real time vehicle tracking and fleet management system
  - Passenger information dissemination
  - Video surveillance
  - Sensors & cameras for data collection on parking lot capacity and availability.
  - Sourcing and compilation of management information on primary & secondary waste collection
  - GIS based asset management through geo-fencing of waste bins, vehicles, personnel, waste transportation route mapping and GPS based vehicle tracking management system (VTMS)
  - Supervision and monitoring of weigh bridge and waste processing facilities including equipments for smart waste-to-energy plants such as smart conveyor belt and pooling device.
Discussions with local residents suggest that even after three years of work being initiated, projects have not been completed. Roads have not been constructed on time, while the houses along some of these roads were demolished three years ago. Also, people who have been displaced or whose properties have been damaged have not been adequately compensated.

Figure 4 - Indore Pan City Development Map

The decisions made regarding what areas will be targeted through ABD and pan city development were made using inputs of three different groups. The first group were citizens of Indore, who when surveyed said that transportation, walkability, and waste management were areas of key importance. The citizens surveyed also noted that 42% of all participants wanted better use of Information Communication Technology (ICT) solutions in city planning.

The second group consulted were the elected representatives that believed that ICT should be used to improve the aforementioned sectors, solutions should show

10 https://www.smartcityindore.org/smart-city-indore/
visible improvements in the short term, solutions should not be wasteful and maximise utilisation of government resources while ensuring world class public services and inclusion, and the redevelopment of sectors should have additional social impact of improved working conditions.

The third group that determined the final projects were the urban planners and sector experts. Planners and sector experts were from MoUD, UADD, DFID, development authorities, MoUD empanelled experts, and institutions and private professionals. They believed that smart city developments should benefit the maximum number of people, present a successful model for other cities in Madhya Pradesh, improve critical sectors that can transform the economy, and show results economically, effectively, and quickly. The experts also agreed that ICT interventions in all sectors are required to develop a smart city, ITS can directly influence the livability of a city with maximum outreach to citizens, and a focus on improved operations and maintenance of municipal solid waste (MSW) through the use of ICT. Critiques of this process suggest that the groups involved in consultations were exclusive of common citizens’ views and interests.

Citizens’ groups are of the view that this would only benefit limited groups of people in the city.

The Smart City Proposal for Indore also notes the successes and shortcomings of Indore. The city has inadequate public transport and pedestrian infrastructure. Less than half of the city’s 355 km of existing plan roads are covered by public transport, only 27% have footpaths, and 8% are pedestrianised. Along with inadequate public transport, Indore has become highly congested due to increases in private vehicle ownership.
Indore also has a sewage treatment deficit. Currently, Indore generates approximately 1100 metric tons (MT) of Municipal Solid Waste (MSW) per day. Collection, transportation efficiency in Indore and waste management infrastructure needs improvement.

There are PPP projects underway to begin work on these aspects, but ABD will have a keen focus on both transport and waste treatment. See Annexure for information on the projects under ADB and pan city, along with the target/goal of the project, the likely date of completion, and cost of each project.
Status of Projects under Smart City Indore

Completed Projects -- According to the Smart City Indore website, 40 projects have been completed as of October 2019. These projects incurred a total project cost of Rs. 116.65 crores. Completed projects include work on GPS based vehicle tracking solutions, construction of garbage transfer stations, app for data compilation on waste collection, construction of public toilets, bioremediation of waste, networking, construction and restoration work of heritage buildings, allotment of advertisement space, supply of biomethanation and electrification and CCTV work.\(^\text{11}\)

Ongoing Projects -- There are 48 ongoing projects currently under different levels of progress under Smart City Indore. The total cost of ongoing projects is Rs. 2320.42 crores. These include civil works like construction and demolition of garbage transfer centres, supplying and commissioning of transfer station equipment, construction of central median and erection of electric poles, testing and commissioning of underground cabling system, improvement of roads, construction of bridges, infrastructure and building development works of schools, riverfront development works, widening of bridges, implementation of waste to energy plant, restoration and redevelopment of heritage buildings, construction of houses and development of infrastructure in slum areas, and implementation of LED street lighting.\(^\text{12}\)

Proposed Projects -- There are a total of 66 proposed projects with a total estimated cost of Rs. 34.96 crores. These include riverfront development, smart pole installation, slum beautification, heritage shopping complex, heritage walk, underground cabling work, development of integrated smart

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\(^{11}\) https://www.smartcityindore.org/completed-project/

\(^{12}\) https://www.smartcityindore.org/ongoing-projects/
road network, improvement of water supply and sewerage systems in ABD area and implementation of LED street lighting at PPP basis.\textsuperscript{13}

Details of these projects with names of executing agencies, cost and project deadlines are available on the Smart City Indore website.

13 https://www.smartcityindore.org/proposed-projects/
Setting up of Indore Smart City Development Limited (ISCDL)

The certificate of incorporation of Indore Smart City Development Limited states the date of incorporation as 11th of March 2016 under the Companies Act (2013). The objects to be pursued under the company would be to ‘plan, design, develop, implement, manage, maintain, operate, and monitor the Smart City Development projects for the city of Indore in accordance with the Smart City Mission of the Government of India and State Government.’

The objectives along with key function and responsibilities, exercise of delegated powers, list of First Directors among others are specified in the MOA document of the company.\textsuperscript{14}

However, it has been argued that the functioning of the SPV would lead to weakening of the powers of Urban Local Bodies (ULBs) such as IMC, along with several roles and responsibilities now being handed over to the smart city company. In Indore, local people state that since the beginning of the smart city project implementation new plan has not been prepared and the new roads which have been constructed are according to the Master Plan of 2001.

The board of directors of the ISCDL include the District Collector, Municipal Commissioner as well as the nominee directors of the central government and the independent director/s. The list is given in annexure along with the office or department or company that they are representing.

The following figure gives the organogram depicting the role of various stakeholders in the implementation of smart city projects.

\textsuperscript{14} https://www.smartcityindore.org/moa-and-aoa/
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The official guidelines state that for city level monitoring a Smart City Advisory Forum will be established for all smart cities to ‘enable collaboration among various stakeholders and will include the District Collector, the Member of Parliament (MP), the Member of Legislative Assembly (MLA), the City Mayor, CEO of SPV, local youths, technical experts, and at least one member from the area who is a:

- President / secretary representing registered Residents Welfare Association,
- Member of registered Tax Payers Association / Rate Payers Association,
- President / Secretary of slum level federation, and
- Members of a Non-Governmental Organization (NGO) or Mahila Mandali / Chamber of Commerce / Youth Associations

It also mentions that the CEO of the SPV will be the convener of such a forum. So far, no steps towards setting up of Smart City Advisory Forum for Indore have been reported in the public domain. Out of all 100 cities, only Pune, Srinagar, Thiruvananthapuram and Aligarh have set up Forums, according to information available on their respective Smart City websites.

Attention must be paid to the fact that in setting up of the SPV, IMC and Indore Development Authority (IDA) have had no roles to play as yet. The 73rd and 74th Amendments to the Constitution of India have been violated in this process. The two acts deal with granting of more autonomy in the functioning of Panchayats and Municipalities and the increase in decentralisation of governance.

15 Smart Cities Mission, City Level Monitoring
http://smartcities.gov.in/content/innerpage/city-level.php
SPVs and the Future of Urban Governance Question

The mission mandates the implementation of the projects at the municipal level through SPVs incorporated under Companies Act 2013 as a limited company. The SCM Guidelines state that city-level SPV has state/UT and ULB with 50:50 equity shareholding, also allowing the private companies as well as other financial institutions to buy equity stake considering that – “the shareholding pattern of 50:50 of the state/UT and the ULB is maintained, and the State/UT and the ULB together have majority shareholding and control of the SPV.”

The Mission Guidelines also explicitly layout the road map for delegation of powers to the SPV. It states that the creation of an SPV is to ensure operational independence and autonomy in decision-making and mission implementation. It recommends delegating the rights and obligations of the municipal council with respect to the smart city project to the SPV, delegating the decision-making powers available to the ULB under the municipal act/ Government rules to the Chief Executive Officer of the SPV, delegating the approval or decision-making powers available to the Urban Development Department/Local Self Government department/Municipal Administration department to the Board of Directors of the SPV, delegating the matters that require the approval of the State Government to the State Level High Powered Steering Committee (HPSC) for Smart Cities. This is in addition to the majority of urban development schemes and funds allocated to them converging into Smart Cities Mission.

17 Ibid
Contrary to the provisions of the 74th Constitution Amendment Act, 1992 which empowers the local governments and municipal bodies to create a decentralised governance structure, the formation and delegation of decision-making powers to the SPV, a limited company, under the central government mission appears to undermine the powers of the municipal bodies and the local democratic processes. The mission, rather than being a game changer and bringing in new ideas, continues with the broad trajectory of policy trends in last couple of decades of attracting private companies and privatisation of public services through PPPs in sectors like water supply, sanitation, transportation, solid waste management, etc. Not learning from the failures of PPPs in delivering these services efficiently and effectively, the mission now looks to wholesale privatisation of city governance structures, decision-making powers and project operations by creating the city-level SPVs.

The mission also leaves several questions unanswered with regard to the SPVs such as transparency, participation and accountability of SPVs to the democratic constitutional structures and processes as well as to the local citizens at large. The mission lacks complaint redressal and citizen’s engagement mechanisms on various city-level aspects which the SPVs now seem to control. The mission does not provide a clear future road map about the SPVs once the smart city projects are completed will the SPV continue to control the operations, revenue and service delivery by these projects and for how long? It also does not give clear answers to the scenario where private corporations/financial institutions/investors bring in finances for city level projects and hence earn a seat on the SPV board of directors, would that mean that these private entities could have a controlling voice over the decision-making and operations of the SPV? What would
control of private entities mean regarding the implementation of development projects and delivery of public welfare services in urban areas especially for the poor, marginalised, migrants and the homeless, considering the private investors unending appetite for increasing profits?

**Financing Smart City Indore**

Finances for the Smart City Mission in Indore will come from five major sources at present, those being direct funding from the Government of India (GoI), funding from the state government, Government of Madhya Pradesh (GoMP) that the city is located in, funding from convergent federal and state schemes, Private Public Partnerships (PPP), and debt funding. GoI and the state will provide equal funding to each city, GoI plans to allocate Rs. 500 crores per city in the smart mission over a period of five years. The state government is expected to match that Rs. 500 crores per smart city in their state. Hence, Rs. 1000 crores will be allocated to each city from GoI and state government combined. Funding from other convergent schemes is estimated to provide around Rs. 500 – 800 crores per city depending on which schemes converge within that city. Some convergence schemes are Swachh Bharat, AMRUT, PMAY (Pradhan Mantri Aawas Yojana) and others. The remainder of funds will come from PPPs and debt funding.

PPPs are meant to take the financial burden and operational risk away from the public sector and place it onto the private sector by allowing private corporations to provide public services within the city such as water, metering, housing, and traffic management. Because the state and municipalities would have a difficult time handling the upfront costs that are required from such public works, the private sector would take on the majority of those costs and thus be incentivised.

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18 SCP Indore http://smartcities.gov.in/upload/uploadfiles/files/IndoreSCP.pdf
to provide a service and can recoup their initial investment while also providing stable profit over many years. Through PPPs, the SCM claims that implementation will occur faster than if the public sector was left to handle everything.

The remainder of the required funding will come from debt funding from national banks, multilateral and bilateral funding organizations. Currently the Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB), World Bank (WB), the International Monetary Fund (IMF), KfW Development Bank, and others, have all shown interest in providing debt funding to smart city projects all over India.

Currently Indore expects estimated funding from the following sources:

- Government of India: Rs. 488 crores
- Government of Madhya Pradesh: Rs. 488 crores
- Convergence: Rs. 600.4 crores
  - AMRUT: Rs. 152.5 crores for water supply and sewerage
  - PMAY: Rs 55.1 crores for in-situ redevelopment of slums for 5514 slum households at the rate of Rs. 1 lakh per household
  - IDPS: Rs. 136.4 crores for underground electric lines, smart grid and smart energy meters
  - Swachh Bharat Mission: Rs. 1.6 crores for solid waste management
  - Digital India: Rs. 145.2 crores for public Wi-Fi, ICT in urban services delivery, and optical fibre network through National Optic Fibre Network (NOFN)
  - Skill India: Rs. 45 crores for economy & employment
➢ Grid-Connected Roof-top Small Solar Power Plants Programme (GCRSSPP): Rs. 64.62 crores for roof-top solar power plants

• Real-Estate Sale from Redeveloped Land: estimated revenue of Rs. 5,718 crores in first 10 years

• Premium on Additional Floor to Area Ratio (FAR) from Transit Oriented Development (TOD) and Redevelopment of Private Land
  ➢ Increase of premium to Rs. 675/sqft
  ➢ Expected revenue of Rs. 4,852.2 crores from this source in first 15 years

• Loan from Domestic/Bilateral/Multilateral Agencies
  ➢ Long term debt funding required: Rs. 2004.5 crore
    ▪ SPV will repay loans from its internal accruals and through revenue sources from real-estate and premium on FAR.
  ➢ Cost of debt funding will be at 8.5% over a ten-year loan period

However, so far, no PPP has been observed to be implemented in the Smart City works under progress. Amount of funds released by the GoMP so far is also unclear. Private financing in smart city mission projects has not been reported yet.

**Operation and Maintenance (O&M) Costs**

O&M costs consist of recurring costs for maintaining and operating the created infrastructure from the Smart City Mission. O&M costs are estimated for a 15-year period from the initial start of the Smart City development. It is estimated that over the course of 15 years, the O&M cost will be Rs. 1572.5 crores for ABD and Rs. 388.5 crores for Pan City. The SPV for Indore has a plan in place for the recovery of O&M.
The costs will be recovered through the use of:

- Enhanced property tax in ABD area
- Additional smart city cess (tax on tax/surcharge) on ABD households
- Water charges on ABD households
- Sewerage cess on ABD households
- MSW charges on ABD households
- Parking charges levied on ABD households and properties
- Cumulative tax: 5% on property tax and 2% on education tax

Local residents state that the cost of garbage collection is gradually rising. This year, it has been proposed that the charges for collecting solid waste will go up from Rs. 70 per month per household to Rs. 200 per month per household.
Critical Analysis of Smart City Mission

The SCM has received a fair amount of criticism since it was first announced back in 2015. The project has been criticized for its disregard for the reality of Indian cities, its ambitious goals for short five-year time frame, and for being a very elitist proposition. The biggest criticisms have come from organisations such as Housing and Land Rights Network, Centre for Policy Research, and various news outlets in India. Along with criticisms for the entire pan-India movement of smart cities, there has been a legal petition filed against GoMP for what the petitioner believes to be “a hyper-selective development project” that violates the constitution of India.

The Mission has been facing questions for its desired outcomes. It envisions world class cities that can uplift people out of poverty and make Indian cities inclusive to everyone that resides within them. But the smart cities also have an economic desire of growth, the government believes that smart cities can lure in private investment and industry into India thus creating more jobs and uplifting people out of poverty.

As the Centre for Policy Research (CPR) notes, ABD on average accounts for only 7% of the area of the 99 cities they analyzed and that ABD accounted for 80% of all SCM funding. That leaves only 20% of SCM funding for the other over 90% of area in the city. Another finding from CPR notes that ABD is occurring in areas of the city that are already considered well developed. The mission is heavily focused on improving the financial and economic amenities.
of the city, with many projects labelled for commercial, industrial, and investment purposes.

Along with a focus on economic infrastructure development, transit-oriented development (TOD) was publicised heavily for being a key feature of future Indian cities. But TOD projects are less focused on developing actual transport infrastructure such as bus routes, buses, and metro transit. In reality, TOD projects in the SCM are heavily focused on implementing ICT technology to collect data and regulate the flow of traffic and buses. On average, only 13% of smart city proposal budgets are focused on non-motorised transport, even though urban congestion and air pollution have become increasingly pressing issues for urban India.\(^\text{20}\)

Water infrastructure and sewerage management account for a large portion of all smart city projects and are almost fully ABD projects. The problem arises with the small percentage of land that ABD projects actually impact. Given that on average only 7% of land is developed through ABD, concerns over who actually benefits from the infrastructure are brought to light.

Housing under the mission converges with PMAY, a separate housing plan that aims to provide adequate urban housing for all. Housing is the third largest sector under SCM and the housing budget is almost evenly divided between real estate development and low income housing. Slum redevelopment accounts for 20% of the entire housing budget but also presents social issues for informal settlers.\(^\text{21}\) The Housing and Land Rights Network noted forced slum evictions as a potential problem in smart city development. Providing proof

\(^{20}\) ibid

\(^{21}\) ibid
of residence through the informal sector is very difficult and many slum dwellers will not qualify for the benefits of slum rehabilitation because of those difficulties. Slum redevelopments can lead to forced evictions and an increase in homelessness, similar to the problems that arose in Delhi’s real-estate development boom in the 1990s.²²

Admittedly, the SCM has plans for varying aspects of the city. In all the Smart City proposals, there are projects designated for: water, sewerage, waste, housing, transit, information technology systems (ITS), and social infrastructure. Just by looking at the projects it would appear that the SCM looks to create urban infrastructure at a fast pace but the logistics of the projects makes it hard to believe that the SCM will deliver the utopian cities that it promises. Aside from the aforementioned problems in the housing, water, and transit sectors, there also exists the issue of finance. The significant question is how exactly the government will manage to make the SCM a self-financed project as claimed. Several state governments are operating on a deficit and implementing large scale projects will only create greater debt. The role of the private sector is also brought into question, just how much benefit can the private sector provide to the public? Through PPP, the private sector will take on a majority of the burden of the debt and then operate the infrastructure with the hope of profiting through user charges and other land monetisation schemes. Increased privatisation will make public welfare services less accessible to those that need them the most.

One theme that has been apparent through all smart city projects is the lack of readiness on the ground to implement the projects that have been planned. Delays in

²² Smart Cities Report HLRN India  
implementation seem common and projects can get stuck in the tendering process before they are even started. Tendering has been a major issue for the implementation of projects through private sector. Tendering process involves a project to be analysed by separate agencies at different levels such as the city SPV, the State Planning Board and the State Government. Through this process a private company is chosen to implement a project but there have been questionable delays with several projects getting stuck in the tendering process.

Under the SCM, the state government and the GoI will provide equal equity to all the planned smart cities. Each city is to get Rs. 500 crores over 5 years from both the state government and GoI amounting to Rs. 1000 crores. Considering the fiscal deficit that the state governments are currently in, the role of debtors becomes more important to the success of the mission. But who will pay for the debt? It is argued that other state departments will see budget cuts to account for the financing that SCM requires. Potential sources of revenue include increased property taxes and surcharges on public services in each smart city.

Another large concern with the SCM is that it is not addressing the most pressing needs of cities and is not attempting to solve issues through local knowledge, history and traditions. A western technocratic model is being implemented in the hopes that some parts of the city will benefit. But that leaves more than 90% of the city in the same or even worse predicament than before the SCM was implemented. The costs of smart city projects are high and will require years of operation and maintenance costs to keep systems operating. Instead of finding low cost solutions and utilising the resilient nature of Indian cities, the SCM aims to implement western ideals into cities that operate through
their own unique systems. The SCM does not address the fundamental issues that Indian cities face such as inequitable distribution and access to public services, but rather attempts to create quick fix solutions that make Indian cities appear similar to the cities in the developed countries.

Critical Analysis of Smart City Indore

Smart City Indore faces similar issues that are plaguing the SCM across the country. Delays in the tendering process, small percentage of municipal area being developed, and an expectation to attract private finances are the pitfalls that Smart City Indore faces in order to truly develop the city in an equitable manner. Indore’s Smart City development appears to go past the timeline for SCM in 2019 and will continue into 2022, giving the municipality more time to implement the projects.

Currently as per Indore’s Smart City SPV, Indore Smart City Development Limited, 40 projects worth Rs. 116.65 crore have been completed and 48 projects are currently under implementation worth Rs. 2320.42 crore. Of the completed
projects, 21 deal with waste management and 9 deal with smart solutions. Interest shown by Indore Municipal Corporation can be behind the timely execution of the projects completed, particularly those concerning waste management. The other completed projects deal with solar power, traffic management systems, preserving heritage sites, and advertisements in public spaces for revenue. It is unclear when the information was published on the SPV’s website but is the latest information that is available. Of the projects under implementation, a waste to energy project worth Rs. 475.96 crores is the most expensive project under way. The project is being implemented through a PPP model and is scheduled to be completed by the end of August 2019. The implementing agency for the project is Essel Infra Pvt Ltd. The current status of the power project is not known.

Out of the total cost of Rs. 2320.42 crores for projects ongoing, Rs. 897 crores of that cost comes from water supply and sewerage management projects. The second largest investment area for ongoing projects is in housing, with Rs 269.64 crores going to the housing for all sub plan in convergence with PMAY. Although there is heavy investment into water management and sewerage there are also five projects that are focused on riverfront development. Riverfront development can present issues as the infrastructure can encroach on the floodbank leading to problems with rainwater harvesting, groundwater replenishment, and flooding during the rainy seasons. These projects are running at a slower pace than expected in plans.

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Local sources say that under the mission, rights of homeowners have not been kept under consideration. Compensation has not been given to those whose property has been demolished or damaged. A few of them have been allotted flats under EWS (Economically Weaker Section) but the majority of them have had to build their houses anew. For this process, the government has offered no support to those affected. Recently, Indore saw more displacement from Jairampur to Cloth Market in the festival season. Rows of houses and shops in the areas have been partially demolished to make way for widening of roads in the name of Smart City development. Fear of authority and state action against protests in Indore has kept people passive in the face of these injustices, in areas like the Sindhi colony Jairampur. The idea that the commercial value of properties will increase has kept most people hopeful on economic gains through this exercise. Demolitions are being seen as a temporary inconvenience on the road to smart development. There has also been displacement of urban poor because of housing projects where they have been forced to move elsewhere or have been shifted to the periphery of the city, away from their workplaces thus resulting in loss of livelihood. This has resulted in reverse migration of working class from Indore to villages.

Smart City Indore is also subject of a legal challenge when the Centre for Environment Protection Research & Development filed a petition against the Union of India over legality of SCM. The petitioner claimed that Smart City Indore was violative of the Fundamental Rights Act under articles 14, 19, 21, 21A, 38, 39b, 41 and 45 of the Indian Constitution (see annexure for more details). The case has been in the High Court for the last two years, with the State Government not offering sufficient responses.
Looking at roadblocks in funding Smart City Indore, hardly any private companies seem to be funding projects under SCM since it has been observed that ordinary citizens are not able to pay high charges for the planned project revenues. Considering the sort of projects that have been underway, question arises whether such steps being taken in only 2% of the area of the city will lead to sustainable development as imagined under SCM. The people of Indore do not seem to be widely aware and involved in the development projects that are being undertaken as part of SCM. Local sources say that the essence of Indore as a city is being damaged in this process.

**Analysis of Legal Petition against Union of India**

The petitioner, Centre for Environment Protection Research & Development, has filed a case in the Madhya Pradesh High Court's Indore bench against the Union of India over what they believe to be unconstitutional nature of Smart City Indore. The hearing is ongoing so the final judgment of the petition is yet to be determined. However, the petitioner presents potential issues in the planning of Smart City Indore. The small percentage of land allocated for ABD, the state’s current debt, and ongoing budget cuts all present issues for Smart City Indore. See Annexure for complete list of referenced constitutional articles, petitioner’s claims against Smart City Indore and MoUD and GOI’s response to petitioner.

The respondent, the Union of India and the Ministry of Urban Development rebuked all of the petitioner’s claims though without much convincing supporting evidence as to why the claims should be rebuked. To rebuke the petitioner’s claims that the project violated certain articles of the Indian Constitution, the respondent simply denied that the SCM
violates the articles without providing reasons. Using terms such as “impossible, nonsensical, and misguided” the respondent managed to deny every claim by the respondent. But the denials that the respondent made were also found to be contradictory to the published project proposal and financing plans. A key example is the notion that the SCM is self-financing, which means costs would not impact residents because the funding would come from the SPVs, the state government, and federal government. But in the financial plans of the project proposals, land monetisation, user charges, increased cesses, and increased taxes are all forms of financing that are mentioned to fund the mission. The contradictions were pointed out by the petitioner but again were rebuked by the respondent without any reason. Instead the respondent claimed that the petitioner’s arguments and information were formed using unreliable resources and the sources of the petitioner’s financial claims were not listed. Instead of protecting their own argument, the respondents chose to attack the petitioner’s methods to counter the claims made against them.

The key feature of the legal correspondence outlined is the contradictory nature of the respondent’s claims. Claims of self-finance, projects in accordance with the Constitution of India, and plug and play development can all be rebuked by analysing the documents that Smart City Indore itself released for public. An outsider’s perspective of the legal correspondence between the petitioner and the respondent favours the petitioner, as there were more points and more references to concrete evidence and sources than that of the respondent.
Conclusion

Smart City Indore is one of the hundred planned Indian smart cities. The promises of an urban utopia that are heralded by the government and municipalities appear to be well meaning upon brief inspection. However, a deeper analysis raises several critical questions such as would building smart cities solve the problems that urban India faces today - like water scarcity, sanitation, transportation, increasing wealth inequality, inequitable distribution and access to public services, focus on constructing capital intensive privatised infrastructure projects and enormous pressures from constant rural to urban migration - which are all putting stress on cities that are not equipped to deal with these issues. SCM aims to improve cities to make them better equipped to handle the pressures of the 21st century using technological interventions, yet the redevelopment projects in SCM are not focused on improving the whole of the city but rather small parts of it. Only a small percentage of urban residents will directly benefit from the proposed projects and the poor and marginalised communities along with the slum residents would be bypassed by the current redevelopment plans. It is difficult to be ascertain whether smart cities will solve the current issues that Indian cities face.

Along with the questionable implementation of smart cities, a larger question is raised concerning the funding of smart cities. As per the Ministry of Urban Development, 67% of all the funds necessary will come from the state and federal government. But most Indian states are currently facing financial crunch which raises the question of how these states will be able to fund 33% of every smart city within their borders. Perhaps increased taxes and budget cuts in other important social sectors would have to occur to provide enough state funding. Loans from banks and international
Agencies are a likely source of finance, but the conditionalities and future implications of such financial arrangements are not clear. Another 33% is expected to come through PPPs, allowing the private sector to take a lead role in implementing smart cities projects. But the private sector would be tasked with providing their own investment into the projects and operation and maintenance of the infrastructure after it is built. Recent examples of private companies investing and operating infrastructure projects like IL&FS, have severely dented the confidence and created a financial crisis to a certain extent. In addition, the private sector needs to find a way to make the ventures profitable which would require implementing user charges, increased cesses, land monetisation schemes, and tax breaks from the state. Through user charges and cesses, the public goods become less accessible to a majority of urban residents, thus potentially making problems worse in the city.
View of a house partially demolished for widening in Indore
**ANNEXURES**

A) Smart Cities Mission – The list of selected cities –

**Round 1 –**
City Challenge – Date Selected – 2/02/2016

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>City</th>
<th>Sr.No.</th>
<th>City</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bhubaneswar</td>
<td>11.</td>
<td>Indore</td>
</tr>
<tr>
<td>2.</td>
<td>Pune</td>
<td>12.</td>
<td>NDMC</td>
</tr>
<tr>
<td>5.</td>
<td>Kochi</td>
<td>15.</td>
<td>Belagavi</td>
</tr>
<tr>
<td>6.</td>
<td>Ahmedabad</td>
<td>16.</td>
<td>Udaipur</td>
</tr>
<tr>
<td>7.</td>
<td>Jabalpur</td>
<td>17.</td>
<td>Guwahati</td>
</tr>
<tr>
<td>8.</td>
<td>Visakhapatnam</td>
<td>18.</td>
<td>Chennai</td>
</tr>
<tr>
<td>10.</td>
<td>Davanagere</td>
<td>20.</td>
<td>Bhopal</td>
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**Round Fast Track –**
City Challenge – Date Selected – 24/05/2016

<table>
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<th>City</th>
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<tbody>
<tr>
<td>1.</td>
<td>Lucknow</td>
<td>8.</td>
<td>Panaji</td>
</tr>
<tr>
<td>2.</td>
<td>Warangal</td>
<td>9.</td>
<td>Port Blair</td>
</tr>
<tr>
<td>3.</td>
<td>Dharamshala</td>
<td>10.</td>
<td>Imphal</td>
</tr>
<tr>
<td>4.</td>
<td>Chandigarh</td>
<td>11.</td>
<td>Ranchi</td>
</tr>
<tr>
<td>5.</td>
<td>Raipur</td>
<td>12.</td>
<td>Agartala</td>
</tr>
<tr>
<td>7.</td>
<td>Bhagalpur</td>
<td></td>
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</table>

**Round 2 –**
City Challenge – Date Selected - 20/09/2016

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<tbody>
<tr>
<td>1.</td>
<td>Amritsar</td>
<td>15.</td>
<td>Tumakuru</td>
</tr>
<tr>
<td>3.</td>
<td>Ujjain</td>
<td>17.</td>
<td>Thanjavur</td>
</tr>
<tr>
<td>4.</td>
<td>Tirupati</td>
<td>18.</td>
<td>Namchi</td>
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### Round 3 –
City Challenge – Date Selected – 23/06/2017

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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Thiruvanthapuram</td>
<td>16.</td>
<td>Dehradun</td>
</tr>
<tr>
<td>2.</td>
<td>Naya Raipur</td>
<td>17.</td>
<td>Tiruppur</td>
</tr>
<tr>
<td>3.</td>
<td>Rajkot</td>
<td>18.</td>
<td>Pimpri Chinchwad</td>
</tr>
<tr>
<td>5.</td>
<td>Patna</td>
<td>20.</td>
<td>Pasighat</td>
</tr>
<tr>
<td>7.</td>
<td>Muzaffarpur</td>
<td>22.</td>
<td>Dahod</td>
</tr>
<tr>
<td>8.</td>
<td>Puducherry</td>
<td>23.</td>
<td>Tirunelveli</td>
</tr>
<tr>
<td>10.</td>
<td>Srinagar</td>
<td>25.</td>
<td>Tiruchirapalli</td>
</tr>
<tr>
<td>12.</td>
<td>Karnal</td>
<td>27.</td>
<td>Aizal</td>
</tr>
<tr>
<td>15.</td>
<td>Shimla</td>
<td>30.</td>
<td>Gangtok</td>
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### Round 4 –
City Challenge – Date Selected – 19/01/2018

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<tbody>
<tr>
<td>1.</td>
<td>Silvassa</td>
<td>6.</td>
<td>Itanagar</td>
</tr>
<tr>
<td>2.</td>
<td>Erode</td>
<td>7.</td>
<td>Moradabad</td>
</tr>
<tr>
<td>3.</td>
<td>Diu</td>
<td>8.</td>
<td>Saharanpur</td>
</tr>
<tr>
<td>5.</td>
<td>Bareilly</td>
<td></td>
<td></td>
</tr>
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</table>
### B) Stakeholders and Board Committee of Indore Smart City Development Limited

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Designation in ISCDL</th>
<th>Representing Post / Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shri LOKESH KUMAR JATAV (IAS)</td>
<td>Chairman</td>
<td>District Collector, Indore</td>
</tr>
<tr>
<td>Shri ASHEESH SINGH (IAS)</td>
<td>Executive Director</td>
<td>Commissioner, Indore Municipal Corporation</td>
</tr>
<tr>
<td>Shri ASHWINI KUMAR</td>
<td>Nominee Director</td>
<td>Representative of Central Government</td>
</tr>
<tr>
<td>Shri SWATANTRA KUMAR SINGH (IAS)</td>
<td>Nominee Director</td>
<td>Representatives of State Government Undertaking</td>
</tr>
<tr>
<td>Shri RAHUL JAIN (IAS)</td>
<td>Nominee Director</td>
<td>Representatives of State Government Undertaking</td>
</tr>
<tr>
<td>Shri VIVEK SHROTRIYA</td>
<td>Nominee Director</td>
<td>Chief Executive Officer, Indore Development Authority</td>
</tr>
<tr>
<td>Shri SHIV KANT MUDGAL</td>
<td>Nominee Director</td>
<td>Joint Director, Directorate of Town &amp; Country Planning, GoMP, Indore</td>
</tr>
<tr>
<td>Shri SANJAY MOHASE</td>
<td>Nominee Director</td>
<td>Chief Engineer, Madhya Pradesh Pashchim Kshetriya Vidyut Vitaran Company Limited</td>
</tr>
<tr>
<td>Shri DEEPAK RATNAWAT</td>
<td>Nominee Director</td>
<td>Chief Engineer, Public Health and Engineering Department</td>
</tr>
<tr>
<td>Shri SHANKAR YADAV</td>
<td>Nominee Director</td>
<td>Nominee of Mayor of Indore Municipal Corporation</td>
</tr>
</tbody>
</table>

25 https://www.smartcityindore.org/stakeholders-board-committee/
Prof. Shri RISHIKESHA THIRUVENKATA KRISHNAN

Independent Director

Ar. Smt. DEEPTI VYAS

Independent Director

Smt. ADITI GARG (IAS)

CEO (KMP)

Smt. RACHNA GAUR

CFO (KMP)

Shri ANURAG KUMAR SAXENA

Company Secretary (KMP)
C) ABD Projects - Total Cost: Rs. 4468.76 crores

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target</th>
<th>Likely Date of Completion</th>
<th>Total Cost (Rs in Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation of built heritage, heritage street development including facade treatment</td>
<td>3km of heritage streets and facade treatment</td>
<td>2017-18</td>
<td>46</td>
</tr>
<tr>
<td>Development of incubation center, skill development center &amp; community use of schools for learning &amp; skill development</td>
<td>6 incubation centers and skill development centers each</td>
<td>2017-18</td>
<td>45</td>
</tr>
<tr>
<td>Improvement of roads, vehicular intersections &amp; pedestrian crossings through geometric design as per SDGs</td>
<td>100% including No-Vehicle Zone 47 Vehicular Junctions to be Geometrically Designed</td>
<td>2019-20</td>
<td>507.43</td>
</tr>
<tr>
<td>Creation of no-vehicle/pedestrian zone on traditional market streets with provision of smart parking at walkable distances</td>
<td>15.98% of ABD and 5 Kms of Streets 7200 ECS enabled with Smart Parking Features</td>
<td>2017-18</td>
<td>507.43</td>
</tr>
<tr>
<td>Provision of ICT enabled air quality monitoring facilities</td>
<td>10 sensors like Breezometer</td>
<td>2017-18</td>
<td>2020-21</td>
</tr>
<tr>
<td>Development of compact, high-density, mixed-use, mixed-income (45% affordable housing units)</td>
<td>38.84% 375 DUs per Ha 1500 employees</td>
<td>2020-21</td>
<td>2020-21</td>
</tr>
<tr>
<td>Feature</td>
<td>Details</td>
<td>Year</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Improved green cover &amp; innovative use of public open spaces</td>
<td>10.32%</td>
<td>2018-19</td>
<td></td>
</tr>
<tr>
<td>Energy efficiency in redevelopment buildings &amp; facilities</td>
<td>85.30% of Redevelopment Built-up Area</td>
<td>2020-21</td>
<td></td>
</tr>
<tr>
<td>Installation of solar power plants on 65% of the terrace on redevelopment buildings</td>
<td>26.69% (10MW) to be added to Grid</td>
<td>2020-21</td>
<td></td>
</tr>
<tr>
<td>Rainwater harvesting &amp; re-use in redevelopment buildings</td>
<td>100% in Redevelopment Area</td>
<td>2020-21</td>
<td></td>
</tr>
<tr>
<td>24/7 water supply systems (dual piping network, ESRs for potable &amp; non-potable water storage) &amp; re-use of recycled waste water from DEWATS</td>
<td>24/7 Water Supply 85% of the Waste Water generated reducing Costly Potable Water demand to 40%</td>
<td>2019-20</td>
<td></td>
</tr>
<tr>
<td>100% smart metering with SCADA sensors enabled smart consumer &amp; zonal meters</td>
<td>100% Metering</td>
<td>2018-19</td>
<td></td>
</tr>
<tr>
<td>DEWATS system integrated with water supply system</td>
<td>3 Plants with 6 MLD Capacity each 1.5 Kms</td>
<td>2018-19</td>
<td></td>
</tr>
<tr>
<td>River-front development &amp; Encroachment</td>
<td></td>
<td>2018-19</td>
<td></td>
</tr>
</tbody>
</table>
underground storm water drainage network to manage stormwater removal and Lining of Rivers with sufficient flow 100%

<table>
<thead>
<tr>
<th>100% Coverage of access to toilets for slums in redevelopment areas</th>
<th>100% Through Slum Rehabilitation and provision of individual Toilets</th>
<th>2017-18</th>
</tr>
</thead>
</table>

100% door-door collection & segregation of waste, storage dust-bins & transportation of organic waste to decentralized biodigesters 100% Collection and Segregation 2017-18

<table>
<thead>
<tr>
<th>Decentralized treatment of organic waste</th>
<th>3 Facilities (Bio-Digesters) of 10 MTD Each 1.5 Kms</th>
<th>2017-18</th>
</tr>
</thead>
</table>

Smart power grid for 24/7 uninterrupted power supply & improved efficiency in distribution network by restricting T&D Losses to bare minimum 24/7 with minimum periodic maintenance shut-downs 2020-21

<table>
<thead>
<tr>
<th>Replacement of existing meters with smart energy meters (for consumer &amp; distribution zone &amp; sub-stations)</th>
<th>100% connections 95%</th>
<th>2020-21</th>
</tr>
</thead>
</table>

Approachable utility ducts on major roads & minor utility duct on minor roads & 100% shifting of all utilities underground 2017-18
pathways for shifting/laying of all utilities (especially power & telecom line) | 227.26

<table>
<thead>
<tr>
<th>Setting up of public Wi-Fi Hotspots</th>
<th>6 with a range of 250m Radius</th>
<th>2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area command &amp; control center building including software’s &amp; hardware’s for all smart solutions for ABD, &amp; 6 public facilitation centers</td>
<td>1 center for ABD</td>
<td>2020-21</td>
</tr>
<tr>
<td>Provision of free Wi-Fi hotspots, smart classrooms &amp; facilities in all high-schools in ABD</td>
<td>16 High Schools</td>
<td>2017-18</td>
</tr>
<tr>
<td>Improvement in access to health Facilities</td>
<td>2</td>
<td>2017-18</td>
</tr>
<tr>
<td>Sensor enabled energy efficient street-lighting system streets, pedestrian paths &amp; public open-spaces</td>
<td>100%</td>
<td>2019-20</td>
</tr>
<tr>
<td>Installation of multi-use CCTV cameras for security surveillance &amp; traffic monitoring</td>
<td>100% Roads and Public Open Spaces</td>
<td>2018-19</td>
</tr>
<tr>
<td>Provision of Fire Hydrant System</td>
<td>At least 1 in each of the 100 Meter radius</td>
<td>2019-20</td>
</tr>
</tbody>
</table>
D) Pan City Projects - Total Cost: Rs. 388 crores

<table>
<thead>
<tr>
<th>Activity</th>
<th>Target</th>
<th>Likely Date of Completion</th>
<th>Total Cost (Rs. in Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-purpose backbone communication network: Laying of multi-purpose OFC communication network with a bandwidth of 10 Gigabit and 25 Kms Range for ITS, ISWM and other future pan city applications</td>
<td>355 Kms of major road network. The last mile connectivity to remote terminal units (sensors, cameras etc.) will be ensured through copper cabling or wireless communication as per the need and usage.</td>
<td>2017-18</td>
<td>93</td>
</tr>
<tr>
<td>Central Command &amp; Control Center: Commissioning of software’s and hardware’s for all ITS, ISWM and other future pan city applications.</td>
<td>1 Equipped Common Central Command and Control Center</td>
<td>2017-18 to 2020-21 partial implementation with targets for each other activity</td>
<td>19</td>
</tr>
<tr>
<td>City Dash Board: Collection, collation, analysis and dissemination of information for all ITS, ISWM and other future pan city applications.</td>
<td>Common city dashboard for ICT enabled public services</td>
<td>2017-18</td>
<td>6</td>
</tr>
<tr>
<td>Traffic Management: Automated Traffic Control System (ATCS), pedestrian activated signals at crosswalks,</td>
<td>355 Kms of Major Road Network, 210 Vehicular and</td>
<td>2020-21</td>
<td>2</td>
</tr>
</tbody>
</table>
bicycle actuated signals. Lane monitoring and control signs. Dynamic messaging boards and web/mobile applications with route information. Automated enforcement systems.

<table>
<thead>
<tr>
<th>Description</th>
<th>Coverage</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit Management: Real-time vehicle tracking (RVT/CAD/AVL) and Fleet Management System; passenger information dissemination (On-Board, At-Stops, At-Stations); video surveillance (in vehicles, stops &amp; terminus etc.)</td>
<td>530 Buses, 530 Bus Stops, 6 Depots and Terminals</td>
<td>2017-18</td>
</tr>
<tr>
<td>Electronic Payment: Sensors and hardware for management and collection of Transit Fares (Metro, Standard Bus, IPTs including Taxi &amp; Auto Rickshaw, Parking and Tolls); Electronic Smart cards and integrated with a payment gateway</td>
<td>All modes of public transit and toll collection will be covered</td>
<td>2018-19</td>
</tr>
<tr>
<td>Parking Management (On-Street, Off Street and Multi level): Sensors &amp; cameras for data collection on parking lot capacity &amp; availability. At-facility dynamic messaging signboard supported by web/mobile apps.</td>
<td>20 Multi-level Parking Buildings and 25 Surface Parking Facilities at various work centers and transit nodes</td>
<td>2020-21</td>
</tr>
<tr>
<td>Applications for Citizens and Safai Mitra for data crowd</td>
<td>One application each for Safai</td>
<td>2016-17</td>
</tr>
</tbody>
</table>
sourcing and compilation of management information on primary & secondary waste collection

| GIS based Asset Management through Geo-fencing of waste bins, vehicles, personnel, Waste Transportation Route mapping and GPS based Vehicle Tracking Management System (VTMS) | All existing Vehicles, dust bins including those proposed under SWM DPR | 2017-18 | 2.5
| GIS based Asset Management through Geo-fencing of waste bins, vehicles, personnel, Waste Transportation Route mapping and GPS based Vehicle Tracking Management System (VTMS) | All waste management assets and personnel will be linked to Central Command and Control center | 2017-18 | 5.5

Mitra and Citizens

| GIS based Asset Management through Geo-fencing of waste bins, vehicles, personnel, Waste Transportation Route mapping and GPS based Vehicle Tracking Management System (VTMS) | All existing Vehicles, dust bins including those proposed under SWM DPR | 2017-18 | 2.5
| GIS based Asset Management through Geo-fencing of waste bins, vehicles, personnel, Waste Transportation Route mapping and GPS based Vehicle Tracking Management System (VTMS) | All waste management assets and personnel will be linked to Central Command and Control center | 2017-18 | 5.5
E) Petitioner’s Referenced Constitutional Articles

Below are the articles to which the petitioner is referring to:

14. The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

19. (1) All citizens shall have the right—
(a) to freedom of speech and expression;
(b) to assemble peaceably and without arms;
(c) to form associations or unions;
(d) to move freely throughout the territory of India;
(e) to reside and settle in any part of the territory of India; 1 [and] 2
g) to practise any profession, or to carry on any occupation, trade or business.

3 [(2) Nothing in sub-clause (a) of clause (1) shall affect the operation of any existing law, or prevent the State from making any law, in so far as such law imposes reasonable restrictions on the exercise of the right conferred by the said sub-clause in the interests of 4 [the sovereignty and integrity of India,] the security of the State, friendly relations with foreign States, public order, decency or morality, or in relation to contempt of court, defamation or incitement to an offence.]

(3) Nothing in sub-clause (b) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, in the interests of 4 [the sovereignty and integrity of India or] public order, reasonable restrictions on the exercise of the right conferred by the said sub-clause.

26 Indian Constitution
(4) Nothing in sub-clause (c) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, in the interests of 4 [the sovereignty and integrity of India or] public order or morality, reasonable restrictions on the exercise of the right conferred by the said sub-clause.

(5) Nothing in 1 [sub-clauses (d) and (e)] of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, reasonable restrictions on the exercise of any of the rights conferred by the said sub-clauses either in the interests of the general public or for the protection of the interests of any Scheduled Tribe.

(6) Nothing in sub-clause (g) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, in the interests of the general public, reasonable restrictions on the exercise of the right conferred by the said sub-clause, and, in particular, 2 [nothing in the said sub-clause shall affect the operation of any existing law in so far as it relates to, or prevent the State from making any law relating to,—
(i) the professional or technical qualifications necessary for practising any profession or carrying on any occupation, trade or business, or
(ii) the carrying on by the State, or by a corporation owned or controlled by the State, of any trade, business, industry or service, whether to the exclusion, complete or partial, of citizens or otherwise].

21. No person shall be deprived of his life or personal liberty except according to procedures established by law.
38. 1 [(1)] The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life.

39. The State shall, in particular, direct its policy towards securing—
   (b) that the ownership and control of the material resources of the community are so distributed as best to subserve the common good;

41. The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want.

45. The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years.

46. The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and the Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.

F) Petitioner’s Claims against Smart City Indore
The Petitioner has claimed the following reasons for why Smart City Indore violates the above articles:
• Violation of article 14 because taxes will be collected from all residents of Indore while only 2.18% of the total municipal land area will benefit.\(^{27}\)

• Violation of article 19a because Smart City Indore will only implement Information Communication Technology (ICT) for 2.18% of total land area. Thus, the project deprives over 95% of municipal land area of right of speech and expression.\(^{28}\)

• Violation of 21 because Smart City Indore deprives people of basic rights such as electricity, decent life, and human dignity.\(^{29}\)

• Violation of article 38 because Smart City Indore deprives economic empowerment to socially weaker groups such as slum residents, since only \(\frac{27}{646}\) slums will be included in the redevelopment scheme.\(^{30}\)

• Violation of article 39b because Smart City Indore does not provide common good for the whole city, only 2.18% of land area will benefit therefore is not a common good.\(^{31}\)

• Violation of article 41 because Smart City Indore has not made provisions for basic rights for slum residents.\(^{32}\)

• Violation of article 45 because Smart City Indore has no economic capacity to serve children in slum areas.\(^{33}\)

In the petitioner’s concluding remarks for their initial petition filing that Smart City Indore is an unproductive expenditure, and by ruling of the Supreme Court of India, public money...
cannot be spent unless there is mutual benefit for all. Smart City Indore will violate all of the aforementioned articles unless the plans include all 125 sq km of Indore. Along with the petitioner’s claims concerning the violation of the constitution, the petitioner also presents reasons as to why Indore is ill equipped to implement the idea of a smart city. The reasons are as follows:

- Smart City Indore will decrease education budget by 18%. 34
- At the time of the petition submission, government budget on health reduced by 23%. 35
- Only 47% of Indore’s population has water connection and only 62% have sewerage connection, so improving those areas of the city deserve greater attention. 36
- Cost of redevelopment will be three times the cost of building private homes - feasibility of this ABD model is questionable and high cost appears to be influenced by corrupt practices. 37
- Only 27/646 slums will be redeveloped through Smart City Indore. 38
- Government of Madhya Pradesh (GoMP) has debt of Rs. 1,14,383 crores. 39
- GoMP has proposed to close 90% of government schools, already in fiscal constraints how will they fund smart cities? 40
- GoMP has already reduced education budgets. 41

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34 Page 7, Legal Proceedings Paperbook: Centre for Environment Protection Research & Development VS Union of India
35 Page 8, ibid
36 Page 9, ibid
37 Page 12, ibid
38 Page 522, ibid
39 Page 524, ibid
40 ibid
41 ibid
• GoMP has no state guidelines for smart cities, therefore discriminatory practices can occur in the selection process.  
42
• State government has not released details on approximate loan repayment amount, has been stated that increase in taxes will be required.  
43
• Indore Municipal Council (IMC) cannot handle the costs of electricity charges for the lifting of water from the Narmada River for water supply, therefore IMC is ill equipped to handle cost of smart city.  
44
• There is no evidence of a signature of any officer or minister authorizing issuance of the Smart City Scheme.  
45
• Smart City Scheme violates Article 77* (has been rebuked and thrown out as reason during legal proceedings)  
46

G) Ministry of Urban Development, Government of India Response to Petitioner
• Petition is based on the concept of Smart City Indore and not on the actual project implementation thus is a premature petition that should be thrown out.  
47
• The petition only uses news articles to support its argument and therefore should be thrown out due to unreliable sources.  
48
• ABD land not chosen through special interest as petition claims, ABD area was chosen through public surveys and data analysis.  
49
• Petition argues against Smart City Indore while not acknowledging the Pan-India aspect of the Smart

42 Page 527, ibid
43 Page 538, ibid
44 Page 539, ibid
45 Page 567, ibid
46 Page 568, ibid
47 Page 89, Legal Proceedings Paperbook: Centre for Environment Protection Research & Development VS Union of India
48 Page 87 ibid
49 Page 106, ibid
Cities Mission. Smart City Indore only following guidelines given by GoI therefore petition should be thrown out.\textsuperscript{50}

- Under Article 226 of the Indian Constitution, the policy of GoI is not amenable to writ jurisdiction so petition is invalid.\textsuperscript{51}
- Petitioner incorrectly understands implementation of Smart City Indore, ABD in the current area is under “plug and play” model which is a phase process of development. Eventually all over Indore will be redeveloped through this model.\textsuperscript{52}
- No new taxes will be levied on the residents of Indore, Smart City Indore is a wholly self-financing development project.\textsuperscript{53}
- Petitioner has not provided sources of financial information they claim is part of Smart City Indore.\textsuperscript{54}
- No discrimination in selection process occurred, selection was done using guidelines presented by the GoI and the Ministry of Urban Development.\textsuperscript{55}
- Ministry of Urban Development acted after federal cabinet approval and not autonomously.\textsuperscript{56}
- Guidelines for the SCM were released publically therefore no articles of the Constitution were violated.\textsuperscript{57}
- All necessary provisions and information were given in mission guidelines.\textsuperscript{58}
- There is no discrimination of any kind which violate article 14 of the Constitution of India.\textsuperscript{59}

\begin{itemize}
\item \textsuperscript{50} Page 88, ibid
\item \textsuperscript{51} Page 89, ibid
\item \textsuperscript{52} Page 95, ibid
\item \textsuperscript{53} Page 97, ibid
\item \textsuperscript{54} Page 505, ibid
\item \textsuperscript{55} Page 562-63. Ibid
\item \textsuperscript{56} Page 577, ibid
\item \textsuperscript{57} ibid
\item \textsuperscript{58} Page 577, Legal Proceedings Paperbook: Centre for Environment Protection Research & Development VS Union of India
\item \textsuperscript{59} Page 514, ibid
\end{itemize}
• There is no demolition of any school or education centre in entire retrofitting area thus article 21a of the Constitution of India is not violated.\textsuperscript{60}

• The Smart City Scheme will not violate the freedom of speech and expression of any citizen and therefore does not violate article 19 of the Constitution of India.\textsuperscript{61}

• There is no violation of article 21 - protection of life and personal liability.\textsuperscript{62}

• There is no violation of articles 41 and 45, the Smart City Scheme will ensure a better quality of life even to the deprived classes of citizens.\textsuperscript{63}
Centre for Financial Accountability (CFA) engages and supports efforts to advance transparency and accountability in financial institutions. We use research, campaigns and trainings to help movements, organisations, activists, students and youth to engage in this fight, and we partake in campaigns that can shift policies and change public discourse on banking and economy.

We monitor the investments of national and international financial institutions, engages 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.