

# Chapter 12

## Crowdfunding: Can It Support Urban Local Bodies in India?

**Jyoti Chandiramani**

*Symbiosis International University, India*

**Gargi Patil**

*Symbiosis International University, India*

### ABSTRACT

*The chapter studies and attempts to understand the idea of crowdfunding and the possibility of it being adopted and adapted within the urban Indian framework. It explores the potential of crowdfunding – the civic variety, which can supplement a small but meaningful percentage of financial resources required to provide urban services in Indian cities. The objective of using the crowdfunding platform is to create sustainable and livable cities. While the delivery of basic urban services is the responsibility of the urban local bodies, it is observed that the available financial resources at their disposal poses an impediment in service delivery. With the process of urbanization gaining momentum, India will require billions of dollars to build the much-needed urban infrastructure and provide basic urban services. It is envisaged that civic crowdfunding, which addresses the varied requirements of urban citizens, may be the appropriate solution to the problem.*

### INTRODUCTION

Crowdfunding, is an alternate method of raising capital, which has evolved and been found to be very popular in USA and UK having seen a meteoric rise in its global value from \$ 880 million in 2010, to \$ 34.4 billion of capital, by 2015-16 (Massolution Report, 2015). Crowdfunding gained momentum in USA post the subprime mortgage crises in 2008, resulting in the failure of a number of banks. The compelling situation thus shifted the focus of banks' away from lending to small business, resulting in a market gap and the genesis of an alternative channel of capital financing, referred to as 'crowdfunding', with an inherent potential to enhance market efficiency. While North America in 2015, accounted for 50% (\$17.25 billion) of the market, it was followed by Asia with 30.5% (\$10.5 billion) and Europe at 18.7% (\$6.48 billion) (Bhatia, 2016). Given the universality of online banking, cheaper smartphones

DOI: 10.4018/978-1-5225-3952-0.ch012

## **Crowdfunding**

and smarter technology, these factors have provided an enabling environment resulting in limitless possibilities and opportunities for crowdfunding.

In the Indian context, there is a view that crowdfunding has been a practice followed over the years for building temples and collecting funds for important festival celebrations. In the present digital age, crowdfunding is relatively new, is being explored and envisaged to be one of the biggest financial changes in history, having the potential to revolutionize the way money is exchanged (Prabhu, 2016).

The chapter is a study attempting to understand the idea of crowdfunding, particularly civic crowdfunding and its inherent features that have the potential for being adopted and adapted within the urban Indian framework. It is motivated by the growing urbanization process in India, wherein the urban population at 439.8 million in 2017 (Worldometers, 2017) is poised to increase to 590 million by 2030 (McKinsey Global Institute (MGI) Report, 2010). This will compel the constitutionally empowered Urban Local Bodies (ULBs) or city administrators to facilitate planned development, provide amenities and services to urban settlements. It requires raising revenues through taxations and user charges and earmarking expenditure, in order to build the urban infrastructure and services for Indian cities. Additionally, with the future making of cities guided by the United Nations (UN) - Sustainable Development Goals (SDG-11), the functions and responsibilities of the ULBs are widened to ensure livable, inclusive, safe, resilient and sustainable cities. This poses additional challenges for ULBs, which have been resource constrained as discussed by (Pethe, Nallathiga, Gandhi, & Tandel, 2014), (Bandyopadhyay, 2014) and (The World Bank Group, 2015). Given the existing situation, it is felt that crowdfunding platforms have the potential to provide opportunities for being explored and utilized at the city level to achieve the above-mentioned outcomes. The authors hence pose the question:

Given the critically low levels of financial resource available with the ULBs in India, coupled with the challenges to raise further resources, can crowdfunding platform be the appropriate platform, to provide meaningful financial resources, required for ensuring and enhancing quality of urban services to the citizens of a developing and emerging economy like India?

To address the above question, the schematic framework of the chapter begins with the introduction, followed by the background of crowdfunding, which discusses the concept, models and issues of crowdfunding. It is also supported by a sub-segment that throws light on the various cases of crowdfunding in India and its emerging potential to fund social or civic projects. The ensuing section throws light on the ULBs and the quality of urban services provided. It also puts forth the schedule XII of the Indian Constitution which defines the various functions of the ULBs and links it with the targets highlighted in the SDG (11), 'Sustainable Cities and Communities' discussing the financial provisions required for the delivery of the same. The succeeding part highlights the scope of civic crowdfunding and its potential to address the future concerns of urban development. This is further supported in the subsequent segment wherein the authors present three designed hypothetical case studies, with respect to select wards in Pune city, governed by Pune Municipal Corporation (PMC). The chapter ends by discussing the future research direction and the pertinent conclusions.

## **CROWDFUNDING: A BACKGROUND**

Crowdfunding is a method of seeking or soliciting funds (small amount) from multiple investors through a web-based platform or social networking site for a specific project, business venture or social cause (SEBI, 2017). While crowdfunding is an umbrella term that describes the use of small amounts of money,

obtained from a large number of individuals or organizations, to fund a project, a business or personal loan, and other needs essentially through an online web-based platform (Kirby & Worner, 2014), civic crowdfunding, on the other hand is the practice of raising monetary contributions for public interest projects from a large pool of donors through crowdfunding platforms. It provides an opportunity to citizens to contribute towards city development projects and also empower them to collectively participate and increase their well-being and solve societal issues. This practice has seen some success as it has helped to finance a wide range of civic initiatives, from social innovation to urban commons (World Urban Campaign, 2014).

There are several advantages associated with civic crowdfunding, which includes, giving the citizens an idea to have much more power to design the city they are living in and participate in the future of the city they aspire. They can realize or complete various local area projects by raising capital through crowdfunding platform. The project can also be tested democratically whether it is supported by citizens and this form of crowdfunding is considered to be much more efficient since it does not need to pass through the long governmental procedures (Hung-Yi1, n.d.).

Civic crowdfunding projects, campaigns and movements are project specific, wherein fundraisers clearly define how much funding is required and how it will be spent on (specific targets) as compared to traditional funding strategies. This brings with it transparency that are lacking in government agencies. It involves a diverse range of funders – small as well as large – hence promoting community participation. Most civic crowdfunding platforms, set limitations on the duration of campaigns – ranging between 30 to 90 days, thereby creating a sense of urgency and also addressing the problem of time lag, which is often associated with governmental bodies. The civic crowdfunding method thus allows funds to be collected more cheaply than through lengthy grant application processes or more traditional fund-raising methods (Keane & Griffiths, 2017).

There are numerous forms or models of crowdfunding (Reserve Bank of India, 2016) (Refer Table 1), some are charitable donations that provide intangible benefits but no financial returns; on the other hand, equity crowdfunding provides financial returns (Kirby & Worner, 2014).

The reward-based (RbC) type is the largest crowdfunding platform in terms of numbers growing at a Compound Annual Growth Rate (CAGR) of 79%, while the equity-based (EbC) category shows the highest growth rate in value terms at 114% CAGR globally. Donation-Based (DbC) and RbC generally attract fewer finances per project as compared to lending-based (LbC) and EbC (Crowdsourcing, LLC, 2012). In the Indian context, empirical evidence reveals both, the RbC and the civic crowdfunding or project based platform are picking up with more signs of such activities being widely observed (Vadgama, Khutwad, Damle, & Patil, 2015).

Crowdfunding experienced significant growth in 2014 attributing this to the rise of Asia as a major crowdfunding region, which grew by 320% in volume, raising \$3.4 billion, thereby placing the region slightly ahead of Europe which raised \$3.2 billion. North America continued to lead the world in crowdfunding volumes, growing by 145% and raising a total of \$9.46 billion (Jain, 2015) - Refer Table 2.

The crowdfunding platform has its share of complexities, which varies from country to country depending on the financial regulations prevalent (Kirby & Worner, 2014), and the fact that crowdfunding essentially takes place over an online portal. This may therefore be associated with risk of fraud, lack of transparency, money laundering, cyber-attacks, misuse of funds, poor management decisions, and other issues. Equity and peer-to-peer lending have been associated with 50% and 30% risk of defaulters or investment failure respectively (Prinsha K, 2016). For crowdfunding to be successful, a supportive ecosystems and factors like forward thinking regulations, effective technological solutions, strong social

## Crowdfunding

Table 1. Various models of crowdfunding

Sr. No.	Types of Crowdfunding	Sub-Types of Crowdfunding	Description
1	Community Crowdfunding	a) Donation Crowdfunding	Citizens donate small amounts to meet the larger funding aim of a specific charitable project while receiving no financial or material return in exchange
		b) Reward Crowdfunding	Individuals donate towards a specific project with the expectation of receiving a tangible (but not financial) reward or a product at a later stage
2	Financial Return Crowdfunding	a) Peer-to-Peer Consumer Lending	Individuals using an online platform to borrow from a number of individual lenders each lending a small amount
		b) Equity Crowdfunding	Sale of a stake in a business to a number of investors in return for investment, mostly used by early stage firms
3	Debt Based	a) Peer-to-Peer Business Lending	Debt based transactions between individual and existing businesses with are mostly SMEs with the many individuals contribution as one loan
		b) Debt Based Securities	Lenders receive a non-collateralized debt obligation typically paid back in an extended period of time, similar to purchasing a bond but with different obligations and rights
4	Civic Crowdfunding		It is a practice of raising monetary contributions for public interest projects from a large pool of donors through crowdfunding platforms

Source: (Kirby & Worner, 2014) and (Partridge, 2015).

Table 2. Growth structure of crowdfunding globally

Sr. No	Growth Rates by Region in 2014	Growth Rates By Models in 2014	Most Active Categories in 2014
1	North America: Volume grew by 145% to \$9.46 billion	Lending-based Crowdfunding grew 223% to \$11.08 billion	Business and Entrepreneurship at 41.3% / \$6.7bn
2	Asia: Volume grew by 320% to \$3.4 billion	Equity-based Crowdfunding grew 182% to \$1.1 billion	Social Causes at 18.9% / \$3.06bn
3	Europe: Volume grew by 141% to \$3.2 billion	Hybrid-based Crowdfunding grew 290% to \$487 million	Films & Performing Arts at 12.13% / \$1.97bn
4	South America: Volume grew by 167%	Royalty-based Crowdfunding grew 336% to \$273 million	Real Estate at 6.25% / \$1.01bn
5	Africa: Volume grew by 101%	Reward-based Crowdfunding grew 84%	Not Available
6	Oceania: Volume grew by 59%	Donation-based Crowdfunding grew 45%	Music and Recording Arts at 4.54% / \$736m

Source: (Jain, 2015).

media, market penetration, internet usage and cultures that adapt to this new type of investment mechanism are required (World Bank Document, 2013).

To promote, educate and establish crowdfunding in India, the National Crowdfunding Association (NCFA) was launched in January 2013, providing its members with opportunities to shape the industry, learn the details of the marketplace, and stay informed and ahead in an ever-evolving economy. The association opened membership to the general public including interested parties such as entrepreneurs,

investors, lawyers, technologists, financial advisors, regulators, students and media professionals whether donation based or equity based (Nagalakshmi & Cecilia, 2014).

In order to regulate and set up a framework for crowdfunding in India, the Securities and Exchange Board of India (SEBI) – the regulator of the securities market, rolled out a “Consultation Paper on Crowdfunding in India” in 2014. The paper received large responses and discussed the possibility to provide fresh avenues for startups and Small and Medium Enterprises (SMEs), set up by young entrepreneurs and technology professionals to raise early stage funding through internet based platforms, potentially more efficient and cost effective than through public issue or private placement offering. EbC and DbC are primarily based in the private placement route as defined under Section 42, Companies Act 2013. The RbC route is primarily modeled on SEBI’s Alternative Investment Fund (AIF) Regulations, 2012 (SEBI, 2017). The guidelines highlighted the following:

1. Companies can raise up to Rs.10 core in a year through entities under this route
2. Only ‘accredited investor’ would be allowed to participate in crowdfunding activities
3. The investors would include High Net Worth Individuals (HNIs) with a minimum net worth of Rs. 2 crores
4. It also includes companies with a minimum net worth of minimum Rs.20 crore, Eligible Retail Investors (ERIs) and Qualified Institutional Buyers (QIBs) as defined by SEBI (SEBI, 2017).

While in 2014, the NCFI in India lacked clarity with respect to its position on crowdfunding, it was only in March 2017, SEBI suggested additional disclosure norms to make investors aware of the risks associated with crowdfunding systems. The SEBI Chairman also pointed out that the present household savings in the capital market were very low and there existed a potential for the crowdfunding market to be tapped (The Hindu, 2017). It also pointed out that crowdfunding has the potential to raise funds at a lower cost of capital, without undergoing rigorous processes associated with the Banks in India, and while this may be risky, it is an option providing returns and can be used to diversify new investment avenues even for infrastructure facilities (SEBI, 2017). Vadgama, Khutwad, Damle and Patil (2015) in their paper, suggests that there exists substantial evidence to support the argument that crowdfunding platforms are experimenting with different formats suitable within the Indian framework. With respect to the value of crowdfunding in India in 2016, it ranged between Rs. 350-Rs. 450 crores in a span of 18 months (Menon, 2016). However, the data may not be accurate, as there are no specific data sources available giving the actual quantum of investments accrued from crowdfunding platforms. Further, given the prevailing socio-economic conditions of India which includes - constrained level of profitability, technology, education, socially evolved systems and infrastructure facilities in terms of computers, websites, and technological know-how, this may pose a challenge and thus India may not be able to replicate international crowdfunding models on a scale at which it has progressed in the developed nations.

Having discussed the genesis and growth of crowdfunding, the various models and the issues crowdfunding has had to face with respect to the regulators, the ensuing segment throws light on the relevant crowdfunding platforms and various initiatives thereby helping prepare a favorable case for this platform to be encouraged to address some major concerns of urban India.

**CASES OF CROWDFUNDING IN INDIA**

The ten large scale and popular crowdfunding platforms and many more such small initiatives in India seems few (Refer Table 3), as against 344 such platforms in US and 87 in UK - (Prinsha K, 2016). A Bloomberg survey, further reiterates the issue that crowdfunding has no reliable data sources available for India, yet local crowdfunding sites are proliferating and drawing attention from supporters, with the added advantage that India presently has the second-largest internet market globally having more than 342 million mobile users and online payment options. Thus making it easy to fund such initiatives (Nekaj, 2016).

A few known cases of crowdfunding in India have been highlighted in the present segment to give an idea of the vast scope of opportunities that prevail.

While India has seen successful crowdfunding initiative in the 1970s—wherein the Reliance Industries’ textile business was crowdfunded by communities across the state of Gujarat, in the present day context, India with its large market and human capital has become a popular destination for global business and investment opportunities (Nagalakshmi & Cecilia, 2014).

The crowdfunding platform Milaap has been able to garner resources from 120 countries across the world, contributing over Rs. 90 crores spread across more than 49,000 projects. Milaap began in 2010 as a microfinance platform (in the form of loans) for rural poor. By 2014, Milaap broadened its functional horizon addressing various personal and social causes (Bloomberg Technologies, 2017).

*Table 3. Popular crowdfunding platforms in India*

Sr. No.	Type	Website	Description
1	Fund for Unity	<a href="http://www.fundforunity.com">www.fundforunity.com</a>	Working on civic projects such as building a blood bank, providing nutrition, education and healthcare
2	Milaap	<a href="http://www.milaap.com">www.milaap.com</a>	They raise money for victims of accidents and natural disasters & have projects about education and environment
3	Catapoolt	<a href="http://crowdfundinsider.com">http://crowdfundinsider.com</a>	Popular among youth and start-ups for providing attractive funding ideas to private business
4	Ignite Intent	<a href="http://igniteintent.com">http://igniteintent.com</a>	Reward Based Platform which caters mostly to youth, entrepreneurs and start-ups for small scale business activities
5	Ketto	<a href="http://ketto.org">http://ketto.org</a>	Popular for projects about child welfare, education, health and women empowerment
6	Pick A Venture	<a href="http://signup.pikaventure.com">http://signup.pikaventure.com</a>	Provides funds for new business ideas
7	Start 51	<a href="http://www.start51.com">http://www.start51.com</a>	The bulk of the site caters to design, film, music and arts
8	Wishberry	<a href="https://www.wishberry.in">https://www.wishberry.in</a>	Deals with design, arts, photography, dance and film
9	Bit Giving	<a href="https://www.bitgiving.com/">https://www.bitgiving.com/</a>	Specifically caters for social causes targeting non-profits, societies and trusts
10	Fund Dreams India	<a href="http://www.funddreamsindia.com">www.funddreamsindia.com</a>	This platform supports by generating funds for victims of acid attacks

Source: (Prinsha K, 2016) and (Padmanabhan, 2016).

Aurad Shahajani a village in Latur district of Maharashtra state, India - experienced success with crowdfunding, wherein the villagers battling against water scarcity resorted to a crowdfunding platform 'Digital Rural Connect' (DRC), to overcome the challenge. A young resident from the village, who had migrated out, helped the villagers to connect with the outside world, with the objective of getting funds to address the water supply woes. The project was an outcome of public participation of resident and non-resident villagers, who joined hands and came up with a crowdfunding effort without availing of any funds from the government (Times of India, 2017).

Suryoday Parivar, an Indore-based NGO introduced the concept of crowdfunding to farmers in the Marathwada & Vidarbha region of Maharashtra. The project was started in Horti, a small village in the Osmanabad district of Maharashtra, with the objective to re-build an 8 kms long canal within 15 days, with a project cost of Rs. 6 lakhs. The collaborative effort saw 700 farmers contributing 50% of the total cost of the project (Varma, 2017). The remaining amount was collected from fueladream crowdfunding platform (Fuel a Dream, 2017).

In another case in the city of Indore located in Central India, crowdfunding has been used to provide lodging and schooling facilities for 31 children orphaned by farmers' suicide (Bloomberg Technologies, 2017).

An organization - vChalk, founded in 2014 by Daniela Gheorghe, has raised \$2400 to offer remedial English and Math classes for the children of street vendors and factory workers in Bangalore in Karnataka state of India (Bloomberg Technologies, 2017).

The state of Maharashtra, India, digitized their classrooms using Liquid-Crystal Display (LCD) projectors and laptops worth Rs. 78,000, in a Marathi-medium government school at Dhekusim, in Ambaner Taluka in Jalgoan District. The villagers came together to improve the conditions of the school and collected funds through crowdfunding of about Rs. 5.5 lakhs. This was also with an objective to encourage students to go to government school. The Maharashtra State Council of Education Research and Training (MSCERT) has another noteworthy crowdfunding case, wherein between July 2015 and December 2016, school teachers in the state managed to raise about Rs. 216 crore. The funds collected, have been utilized for revamping classrooms, building new toilets and digital initiatives, among others. According to the MSCERT data, Ahmednagar district has ensured the maximum public participation, having raised over Rs. 30 crore, followed by Pune (Rs. 19.82 crore), Solapur (Rs. 19.03 crore), Aurangabad (Rs. 15.59 crore) and Nashik (Rs. 14.80 crore) (Khan, 2017).

A team of students from the city of Mumbai and Pune, came up with an initiative 'One village one library' to address the absence of libraries in villages, in the state of Maharashtra. Based on their survey they believed that crowdfunding platforms would be the right means to help them address the issue and in May 2017, they identified select districts of Amravati, Pune, and Yavatmal for this initiative (Sawant, 2017).

Fund for Unity adopted by the Government of Gujarat, is a digital initiative and civic crowdfunding platform, which aims to utilize funds contributed by the people to supplement government investment in backward regions of Gujarat. The platform seeks individual public and private philanthropic funds for enhancing the social and physical infrastructure, and consequentially the HDI, in backward regions of Gujarat (Fund for Unity, 2017).

The process of creating a new capital city - Amaravati, for the newly created state of Andhra Pradesh, witnessed the State Government launch crowdfunding initiative 'My Brick, My Amaravati' in October 2015. The initiative allows an individual to buy a digital brick for Rs.10 and his/her name is engraved on it and is kept in a repository. In a span of eight months the project saw 2.25 lakh donors with a total

## **Crowdfunding**

of 54.89 lakh bricks collected. The total estimated investment requirements for the creation of the new city capital amounts to Rs. one lakh crore (Sridhar, 2015).

With the relevant cases discussed above, the subsequent segment of the chapter discusses urbanization in India, highlighting the functions of the ULBs, along with the recent inclusion of achieving the targets as laid down by the United Nations (UN) - SDGs to be adopted by cities in India. It describes the state of urban services and the financial constraints that pose tremendous challenges, for the efficient and timely urban service delivery provided by the ULBs. The study proceeds to explore if the project based or civic crowdfunding platform, can address the urban concerns.

## **URBAN LOCAL BODIES AND URBAN SERVICE DELIVERY IN INDIA**

Urbanization in India in 2015 increased to 33% from 31.2% as per the 2011 Census, revealing a much slower pace of urbanization compared to major emerging economies like Brazil (85.7%), Russia (74%), China (55.6%) and South Africa (61.6%). Also for the first time, in the 2011 Census, the absolute growth in numbers of urban population at 91 million, was greater than the rural population at 90 million, with 64.82% of the urban population concentrated in the 468 cities (Mohan, 2016), having a population of over one lakh and this number is likely to increase to 71% by 2031 (MOUD, 2015).

To cater to the increasing needs of a growing urban population, there is an urgent requirement to make provision for additional infrastructure and urban services like roads, transport, traffic support, street lighting, water supply, sewerage, storm water drains and solid waste management (HPEC Report and Recommendations, 2011). The responsibility of urban service delivery in India is under the purview of ULBs, and they are required to administer and govern the nearly 8000 urban centers (IIHS, nd).

India follows the local self-governance model in a manner of decentralized democracy, wherein layers of local governments, which are closest to the people, are required to address and provide for 18 functions as defined under the 12<sup>th</sup> Schedule of the Indian Constitution – post the 74<sup>th</sup> Constitution Amendment Act (CAA) (Refer Table 4). In addition, ULBs presently are also required to address the various targets and indicators as spelt out in the 11<sup>th</sup> SDG, adopted by UN, with the objective to make cities and human settlements inclusive, safe, and resilient. India along with 193 nations adopted the 17 SDGs, in September 2015. (United Nations, 2015).

The 74<sup>th</sup> CAA (1992) was revised, with the rationale to ensure decentralized power and responsibility through the provision of constitutional status, granting recognition to local government and putting the relationship between the States and the ULBs on a firmer footing. However, 25 years later, in 2016 it has been clearly observed that the real decentralization of power remains an unfinished agenda, with respect to the real devolution of funds, functions and functionaries as envisaged in the amendment. This is because only 26% of urban India is governed by ULBs (Tandel, Hiranandani, & Kapoor, 2016). While the Ministry of Urban Development (MOUD), directed the state governments to convert Census Towns to ULBs, which would facilitate planned development and efficient service (Press Information Bureau, 2016), this decision lies in the domain of the State government. Its implementation therefore depends on the second tier of governance to act in a timely manner to strengthen the administrative framework. Further, Tandel, Hiranandani, & Kapoor, (2016) point out that while the census towns are governed by panchayats but are recognized by the census of India as being urban, this mismatch results in misallocation of resources leading to unsafe development of densely populated clusters. This results in absence or poorly managed and delivered urban services to a large segment of urban population.



Table 4. List of 18 functions of the Urban Local Bodies under the 12<sup>th</sup> Schedule of the Indian Constitution and select targets of 11<sup>th</sup> Sustainable Development Goals

Sr. No.	List of Functions of the ULB	11 <sup>th</sup> SDG: Sustainable Cities and Communities
1	Urban planning including town planning	
2	Regulation of land-use and construction of buildings	11.3) Population and land use - sustainable human settlement planning which is participatory and integrated
3	Planning for economic and social development	11.8) Support positive economic, social and environmental links between urban, peri-urban and rural areas
4	Roads and bridges	
5	Water supply for domestic, industrial and commercial purposes	11.1) Basic Services
6	Public health, sanitation conservancy and solid waste management.	11.1) Basic Services
7	Provision of fire services	11.1) Basic Services
8	Urban forestry, protection of the environment and promotion of ecological aspects	11.6) Reducing air pollution - reduce the adverse per capita environmental impact of cities
9	Safeguarding the interests of weaker sections of society including the handicapped and mentally retarded	11.5) Protecting the poor and people in vulnerable situations
10	Slum improvement and up-gradation	11.1) Safe and affordable housing and basic services and upgrade slums
11	Urban poverty alleviation	11.9) Implementing integrated policies and plans towards inclusion
12	Provision of urban amenities and facilities such as parks, gardens and playgrounds	11.7) Access to safe, inclusive and accessible, green and public spaces / areas
13	Promotion of cultural, educational and aesthetic aspects	11.4) Strengthen efforts to protect and safeguard the world's cultural and natural heritage
14	Burials and burial grounds, cremations, cremation grounds and electric crematoriums	11.1) Basic Services
15	Cattle pounds; prevention of cruelty to animals	
16	Vital statistics including registration of births and deaths	
17	Public amenities including street lighting, parking lots, bus stops and public conveniences	11.2) Improving public transit – sustainable mobility
18	Regulation of slaughter-houses and tanneries	

Source: 12<sup>th</sup> Schedule of the Indian Constitution and United Nations (UN)-SDGs (UNDP, 2015).

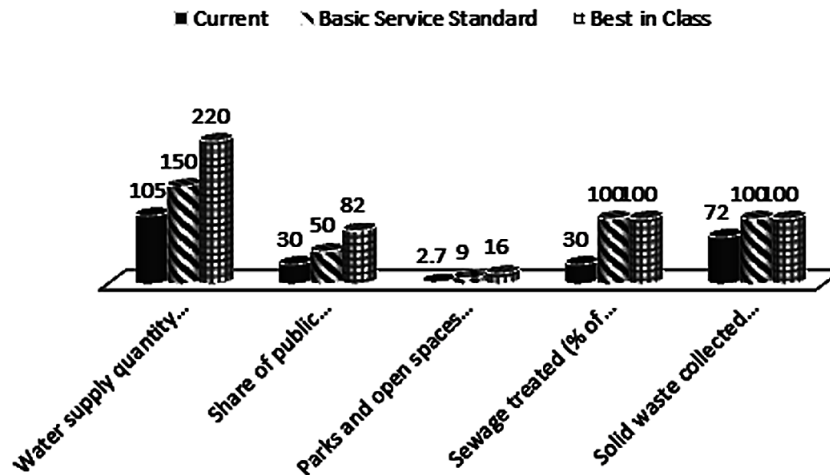
A study by McKinsey Global Institute (MGI) Report in 2010, reviewed the urban service delivery in India, and a snap shot has been highlighted in (Figure 1). The study revealed that according to the 2001 Census, India's urban services were woefully inadequate with respect to water supply, public transportation, parks and open spaces, sewage treatment and solid waste management, among others when compared with the best in class of the basic services standard that ULBs are required to provide.

To address the issues pertaining to India's urban infrastructure and other functions and to understand what are the issues and challenges, the MOUD further set up a High Powered Expert Committee (HPEC) in 2008, which presented its report in 2011 highlighting the following service delivery standards:

## Crowdfunding

Figure 1. Key indicators of quality of life for benchmarking of urban service delivery

Source: (McKinsey Global Institute (MGI) Report, 2010).



1. **Water Supply:** 100% piped water, 24x7 flow, and 135 lpcd consumption per capita
2. **Sewerage:** 100% collection, transportation and treatment 11% area for cities
3. **Solid Waste:** 100% collection, transportation and treatment
4. **Urban Roads:**
  - a. **Area Under Roads:** 11% area for cities and 7% for towns
  - b. **Road Density (km per sq. km.):** 12.25 km per sq. km. for cities and 7 km per sq. km. for towns
5. **Storm Water Drains:** Network covering 100% road length on both sides of the road
6. **Urban Transport:** Rail-based and road-based Mass Rapid Transit System for cities with population 1million and above, city bus service for smaller cities and towns
7. **Street Lighting:** IL luminance: 35 Lux for all cities and towns; 40 m spacing for major roads, 45 m for collector roads, and 50 m for access road spaces
8. **Traffic Support Infrastructure:** Details by city size in the Committee's Report

The Annual Survey of India's City-System (ASICS) Report of 2016, also highlighted that Indian cities score poorly, with an overall 4.4 on a scale of 10 compared with leading global cities like London and New York's with their respective scores being 9.3 and 9.8 and are known for their excellent infrastructure and sound urban policies.

Given this backdrop, there is a need to arm the ULBs to be able to provide the required urban infrastructure and services that will help the citizens to negotiate the city comfortably. However, what is observed is that India's ULBs are highly constrained with inadequate financial resources. With urban areas becoming increasingly important in policy making not only in terms of population share but also in terms of economic wealth, the finances of ULBs have been assuming great importance (Nallathiga, 2008).

According to the HPEC Report of 2011, around \$1.2 trillion capital investments is necessary to meet demands of Indian cities by 2030, to enable India to maintain and accelerate economic growth and provide basic urban services. The investment required for the eight major sectors of urban infrastructure which includes: roads, transport, traffic support, street lighting, water supply, sewerage, storm water drains and

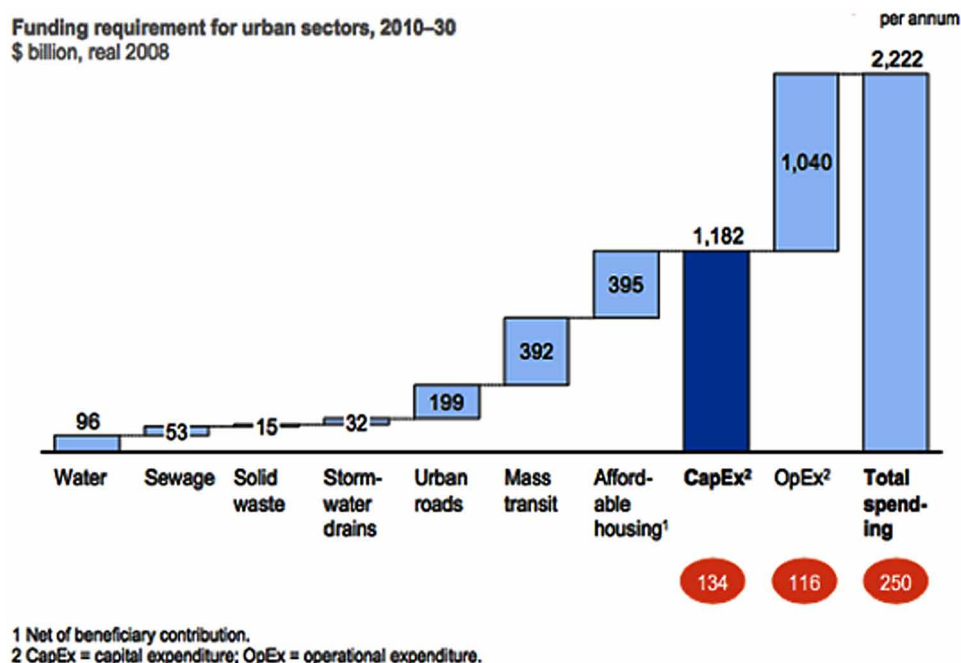
solid waste management has been estimated at \$506.3 billion (HPEC Report and Recommendations, 2011). Additionally, the MGI 2010 Report, estimates \$134 per capita per annum, as the capital expenditure requirement over the next 20 years from 2010 to 2030, to address the urban issues (Refer Figure 2).

The 2016, ASICS Report analyzed that Indian cities generate an average of just 37% of the expenditure that they are required to spend every year, making them heavily dependent on State Governments. With a stagnant revenue base which is further constrained by the established fees and tax rates, as well as by narrow tax bases, this poses serious resource challenges for the ULBs, resulting in poor urban services provided, and a low livability index. (Ellis & Roberts, 2016). While large cities such as Delhi, Hyderabad, Mumbai and Pune are able to generate more than 50% of the resources required, the rest of the cities generate only between 17% and 47%. This adversely affects their ability to invest in improving quality of life for citizens, with the per capita spending on an average being Rs. 2364 per annum across 21 cities and ranges from Rs. 418 in Patna to Rs. 8886 in Mumbai.

It is estimated that by 2030, Indian cities will contribute to about 70% to India's GDP from 63% in 2011 (HPEC Report and Recommendations, 2011). In order to ensure fiscal responsibility and adequate decentralization, a well-defined fiscal framework is needed, which can include crowdfunding as a source of revenue generation. Indian cities lack in both; a formal platforms of participation that give its people a sense of ownership over the city, and democratizing information which facilitates interested and informed participation by enabling its people to get a true image of what ails their city (ASICS, 2016).

Given the vast amount of financial resources required and its ensuing challenges, to fund India's urban infrastructure and urban service delivery, to ensure quality of life or a decent livability index, for its increasing population, as highlighted in the present segment, compels the authors to pose a question

Figure 2. Financial required for Indian cities for better service delivery  
Source: (McKinsey Global Institute (MGI) Report, 2010).



## **Crowdfunding**

- whether civic crowdfunding can complement ULBs to ensure enhanced urban service delivery to the urban population? The following segment of the chapter attempts to address this question.

### **CIVIC CROWDFUNDING AND URBAN DEVELOPMENT**

As an economy moves from lower middle income (with a GNI per capita between \$1,006 and \$3,955) to higher-middle income group (with a GNI per capita between \$3,956 and \$12,235) – according to World Bank Data (2016), it is observed that the cities or urban centers not only contribute to the growth but are also responsible for generation of pollution, waste, energy consumption and carbon emission, thereby creating and posing various environmental and ecological constraints. Thus, apart from providing urban services, the ULBs are also required to devise strategies and policies which will require them to build greener buildings, cities and address the ecological and environmental concerns towards creating sustainable cities (Cohen & Muñoz, 2016).

A recent, 2017 assessment of ULBs revealed that, 94 cities from 14 states in India, received credit ratings for issuing municipal bonds, to enable them to raise funds for their urban infrastructure requirements (at 2009-10 prices), wherein an investment of Rs. 39 trillion was estimated. It was observed that 55 of these cities got “investment grade” ratings, while 39 received credit ratings below the investment grade (BBB-), implying that the ULBs were required to undertake necessary interventions to improve their ratings for obtaining positive response to the municipal bonds to be issued. However, urban India goes beyond the 94 cities to nearly 8000 urban centers with much larger investment requirements (IIHS, nd). To add to the above, is the fact that in the last 20 years, a meager amount of Rs. 1,500 crore has been raised by 25 ULBs (Bhaskar, 2017). While on a global scale, for the global cities, the World Bank has estimated that to address the infrastructure gap in developing cities alone requires \$1 trillion per year, with Official Development Aid (ODA) to emerging economics being only \$135 billion; it is therefore imperative that all possible funding opportunities need to be explored for the future of urban development. It is therefore envisaged, that the civic crowdfunding variety will help fill up some of the resource gaps in the city finances (Partridge, 2015).

According to EMBARQ Network, more than 170 cities across the world have already signed up to use citizinvestor.com, which is a crowdfunding platform that raises money for public projects. The main areas of potential of crowdfunding for Indian cities according to Partridge (2015) include:

1. The potential to unlock access to finance barriers for young businesses and start-ups, thereby helping cities to grow jobs and increase competitiveness.
2. To help communities to collaborate and invest in their own spaces (local areas) and places, which is likely to improve the civic and ecological environment.
3. The ULBs can develop a specific crowdfunding platform at the city level or at the geographical level bringing together different funders and city stakeholders to create a dedicated platform tailored to the local urban context and try to match funding requirements.

The civic crowdfunding projects and platforms, seeks to crowd fund public services and/or functions of the ULBs. These projects are by far the most numerous but have attracted less attention than large-scale endeavors (Davies, 2014). Further most of the civic crowdfunding projects belong to a specific category of public goods called ‘urban commons’. Civic crowdfunding allows citizens and civil society

to rethink their neighborhood and potentially produce or renew urban commons. While such an exercise could provoke challenges and concerns in a democratic country like India, since these projects are driven by civil society and/or citizens instead of elected public authorities, but such initiatives provides opportunities, flexibility, better coordination, reducing the financial costs and thereby creating a new model of co-production, wherein the sub-national governments have a key role to play by facilitating citizens' initiatives (World Urban Campaign, 2014). Although civic crowdfunding is of recent origin, there are very few studies in this regard, that provides quantitative empirical evidences. It appears that civic crowdfunding projects have mostly tackled neighborhood issues and the emerging typical project tend to be "a small-scale garden or park project in a large city that produces a public good for an under-served community" (World Urban Campaign, 2014).

Civic crowdfunding allows citizens unprecedented access into infrastructure management through initial financing and decision-making. When civic projects compete for crowdfunding, success inherently relies on popularity, appeal and saleability. Conceivably, a municipality could be swept away by the crowdfunding wave, resulting in under-service for lower income areas without the means to pre-finance public improvements. Crowdfunding civic infrastructure thus assumes significant municipal cooperation and support, as the local government carries long-term operation and maintenance expenses and is liable for safety in the public realm (Harriman, 2017).

To support the argument in favor of civic crowdfunding, an instance has been highlighted, wherein the Mayor of London, in 2014 for the first time, resorted to the use of the Spacehive civic crowdfunding platform. Later the initiative was expanded to 57 such campaigns across London. The programme encouraged members of the public (or crowd) to propose local-area-improvement project ideas and enabled the Mayor and other members of the crowd to make financial donations towards these projects. The idea to fund local civic improvement projects, thus signals a changing tide for regeneration and planning engagement (Keane & Griffiths, 2017).

With this backdrop on civic crowdfunding, the authors further highlight three hypothetical case studies to explore the possibility of civic crowdfunding in city of Pune, Maharashtra State, India. The cases will act as references trying to explore different functions carried out by the ULBs – that can be addressed through the civic crowdfunding platforms.

## **CASES WITH SOLUTIONS**

### **Hypothetical Case 1: A Study of Open Spaces – Maintenance of a Public Garden**

The authors carried out a study of open spaces, which highlights:

- **Function-12:** Provision of urban amenities and facilities such as parks, gardens and playgrounds of the 12<sup>th</sup> Schedule and;
- **UN-SDG-11.7:** Access to safe, inclusive and accessible, green and public spaces / areas (Refer Table 4).

A study of the Joggers Park an open space, in an upmarket location in Pune (Kalyani Nagar – Refer to Map/ Figure 3).

**Crowdfunding**

Figure 3. Map of Kalyani Nagar Area in Pune City

Source: Maps of India.

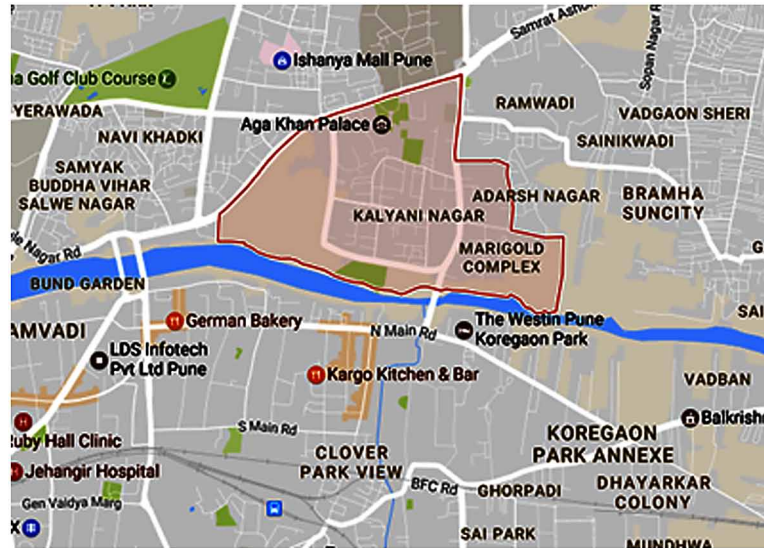
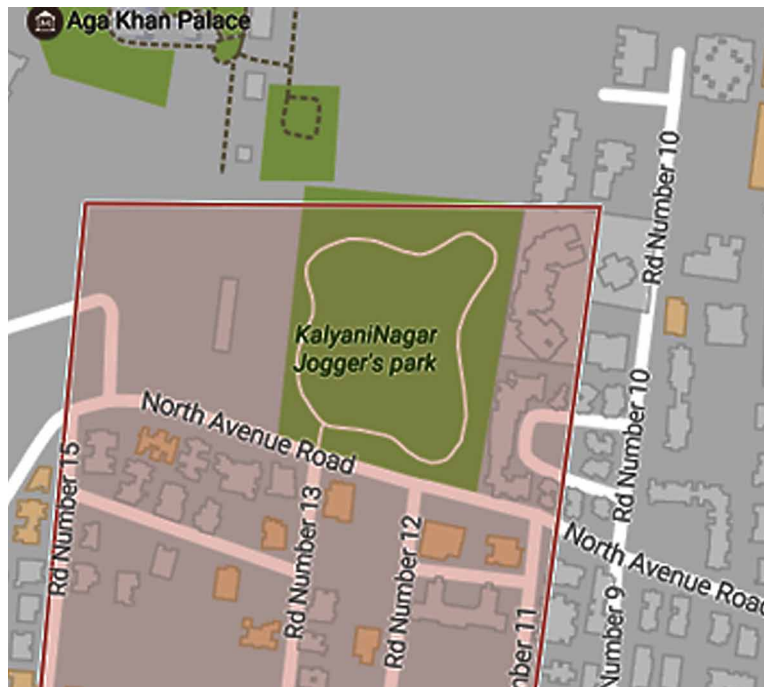


Figure 4. Map of Joggers Park in Kalyani Nagar Area, which was surveyed

Source: Maps of India.



- **Objective:** Assessment of the cleanliness of the toilets in the garden – keeping in mind recommendations for the Clean India Campaign – Swachh Bharat Abhiyan.
- **Findings:** A detailed discussion with the garden inspector revealed that while the Pune Municipal Corporation (PMC), which is the ULB, had constructed and provided community toilets separately for Ladies and Gents (not all gardens and open spaces in the city of Pune have such facilities) and while the Health Department of PMC had appointed two persons to clean the toilets, who are permanent employees and are paid in the range of Rs. 30,000-35,000 per month by the PMC, it was observed that the common toilets were not well maintained, while all other amenities provided in the public garden were above the satisfactory mark.

About Joggers Park:

- Located in an upmarket locality in Kalyani Nagar, Pune.
- An open space – public park of nearly 6 acres, with a 500 meters circular walking track, adequate benches for seating, play area for children, an open gymnasium – encouraging fitness for the citizens, adequate flora (approximately 300 small and 500 large plants / trees), community hall, yoga room, waste collection bins, water storage tank, drinking water facility, waste collection bins, good aesthetics and adequate manpower to maintain the garden and a ticket collector.
- Enjoys a daily footfall of nearly 850-900 on weekdays and 1000-1200 on weekends (Saturday and Sunday).
- **Entry Fees:** Re.1 per person or monthly pass of Rs.20, following the principles of not for profit motive (therefore low entry fee) and inclusion.
- The electricity bill of the garden is paid directly by the PMC to the state electricity department - Maharashtra State Electricity Board (MSEB).
- **Solution:** The authors therefore proposed civic crowdfunding, which could take the form of public subscription / donations as a solution to address this anomaly. A ballpark figure was calculated for manpower and cleaning material at Rs. 30,000 a month amounting to Rs.3.6 lakhs per annum. A detailed discussion with various stakeholders (citizens, ULB, Civil Society Organizations - CSOs and the private sector) revealed that such an amount could very successfully be raised through civic crowdfunding.

It was concluded that the civic crowdfunding platform includes civic participation in pool funding – a voluntary and participatory format, wherein stakeholder would get a sense of ownership and also ensures better service delivery by better planning, implementing and monitoring the cleanliness in the garden. It would create responsible communities, creating user groups and galvanizing local support for an idea. This type of an attitude needs to be nurtured and motivated and is very much the need of the hour in India. It is important to develop a class of responsible citizens who can take ownership of a small but important aspect of service delivery.

A similar yet differentiated success story can be seen in the form of Public Private Partnership (PPP) model adopted by the Ahmedabad Urban Development Authority (AUDA) which had tied up with AMUL (Anand Milk Federation Union Limited) – a dairy cooperative since 2001. In the city of Ahmedabad in Gujarat State of India, through the PPP model, AMUL maintains 126 out of 214 gardens,

## **Crowdfunding**

and in return AUDA allows AMUL to put up a retail shop in the AUDA gardens (Bagchi, 2014). Since maintaining these gardens cost the government a huge sum of money and a lot of effort is needed to deal with different contractors and addressing people complains – this was a good initiative on part of AMUL (Tiwari, 2009), relieving the ULB from one of their various functions. In the Pune case study, it was envisaged that civic crowdfunding could play a similar role as played by AMUL with respect to gardens in Ahmedabad City. The authors therefore foresee that the civic crowdfunding model can be replicated in the nearly 160 gardens and landscape in Pune city.

## **Hypothetical Case 2: Maintenance of Burial Places or Crematories**

The researchers carried out a study of Pune Tamil Samaj Crematory - a burial and crematorium site, adjoining the Mula Mutha River, in Koregaon Park area which highlights:

- **Function-14:** Maintenance of burials and burial grounds, cremations, cremation grounds and electric crematoriums of the 12<sup>th</sup> Schedule (Refer Table 4).
- **Objective:** To assess the amenities provided for people who invariably need to visit the burial or crematoriums under distressed condition to bid farewell to their near and dear ones.
- **Background:** It has been observed over the years by the researchers that an unfortunate situation takes citizens / people to a burial / crematorium site. Often the environment in such open spaces have not been maintained, the colour paint on the walls are flaking, there is no place to sit for senior citizens, the toilets are filthy and there maybe occasions when one is required to wait for a couple of hours till the turn comes for cremation or burial. It is at this point when the citizens may find difficulty in getting drinking / bottled water, or some tea/coffee or biscuits, which may be a necessary short-term stimulant required in the given situation.
- **Findings:** It was marked that the state of the toilets were far below the satisfactory level, the service of running tap water was unavailable 24x7, and tap and wash basin fittings required to be replaced or repaired.
- **Area of the Burial or Crematorium:** Approximately 1-acre land area.
- **Physical Infrastructure:** Separate toilet for females and males, sitting area (benches), waste disposal (dustbins), with 3 facilities of - burial, fire cremation and electrical cremation, parking area, drinking water, and a temple.
- The above facilities or services along with the wages for manpower employed to maintain the site are provided and maintained by PMC.
- The cost of wooden planks is to be borne by the user while the electric crematorium and burial facility was provided without a charge. Therefore, zero revenue was generated at the site.
- The crematory in charge is paid Rs. 7,000 to 8,000 per month (on contract basis), and toilet cleaner is paid Rs. 30,000 monthly (who is a permanent employee).
- **Solution:** The authors after conducting focused group discussions with various stakeholder, therefore proposed civic crowdfunding as a solution to address the upkeep and maintenance of the site by adopting the following courses: i) keeping a donation box – clearly indicating that the proceeds of the same would take care of the maintenance of the site. ii) Using a civic crowdfunding platform, with an objective to specifically maintain such a site to experience a favorable well maintained environment, which has the urban commons provided for citizens at distressed times.



### Hypothetical Case 3: Local Area Transport

A field study was undertaken in the Kalyani Nagar Prabhag / Ward no. (17) of Pune city that is governed by the PMC, which highlights:

- **Function-17:** To provide for public amenities including street lighting, parking lots, bus stops and public conveniences of the 12<sup>th</sup> Schedule and;
- **UN-SDG 11.2:** Improving public transit – sustainable mobility.
- **Objective:** To assess the existing public transport facility in the said area and its adequacy to cater to the needs of the local citizens providing last mile connectivity.
- **Findings:** The Kalyani Nagar area which is a part of Prabhag / Ward no.17, has adopted a mixed land use which has resulted in the local area including: residential and housing societies, offices, commercial areas, retail shops, restaurants, hawkers, schools, temples, a theater, garden, public toilets, banks, ATM's and others, whereby posing a large constrain to commuters as the roads are narrow, strained by traffic congestion and a plethora of private vehicles and public transport like cars, two-wheelers, buses, auto rickshaws, cyclists and tempos are being used, besides a lot of traffic which passes through this area as it connects two prominent areas - Nagar Road and Koregaon Park.

It was observed that on week days the area faces traffic congestion, making it difficult for the residents in the area to even negotiate the streets for their daily chores.

- **Solution:** After a thorough study conducted by the authors, it is proposed that through the civic crowdfunding model, to introduce a 4 km 'round trip' mini bus service in the area. This would entail acquiring two mini busses (seating capacity of 30 persons), along with hiring of three drivers and bus conductors each (an additional driver and bus conductor) to provide service for 365 days for 18-19 hours a day. This would facilitate easy mobility for the residence for their local shopping, other basic requirements and would also provide last mile connectivity to access the operational Bus Rapid Transit System (BRTS), which can connect the commuters to different parts of the city. Further, the bus service will be convenient once the proposed metro between Ramwadi and Vanaz, covering a distance of 14.9 kms, will be operational in due course of time.

The proposed funding requirement for the 'round trip' bus service project would bring together the participation of various stakeholders, including resident citizens, corporate and local government, to discuss, deliberate and design the pilot project and contributing towards creating a workable framework – involving ward level planning of urban transport, which if successful over a period of time can be replicated to other areas/ wards in the future.

### FUTURE RESEARCH DIRECTION

The successful crowdfunding cases discussed in the earlier section of the chapter are mostly private initiatives with limited role of the government. It is therefore suggested that future research should be directed towards the study of civic crowdfunding with ULBs as an important stakeholder. One of the

## **Crowdfunding**

limitations of the present study is the absence of extensive research carried out on this subject matter in India and therefore only few official sources and news articles can be the grounds of the present study undertaken. This may also be attributed to the fact that crowdfunding is of recent origin. Further, to ensure the success of the civic crowdfunding models, it is necessary to prepare well defined and detailed prototypes with comprehensive Standard Operating Procedures (SOP), which the authors feel will help exploit the potential civic crowdfunding, resulting in the cities being awarded with report cards for better delivery of services, thereby enhancing the ‘livability index’.

## **CONCLUSION**

With the process urbanization in India inching upwards, it is evident that the nearly 8000 urban centers are financially constrained, posing a major challenge for the ULBs to successfully build the urban infrastructure required along with timely and efficient delivery of urban services. The relevant cases discussed in the chapter bring forth the point that crowdfunding in India is an idea whose time has come. An argument in favor of crowdfunding – the civic variety emerges, since such platforms are known to provide opportunities to entrepreneurs, government, social change makers and various stakeholders in cities. This is also supported by the fact that cities are inherently characterized with the advantage of scale economies or agglomerations, with respect to income, education, technology and all that can be accrued, when compared to rural. It is envisaged that civic crowdfunding also brings with it a much desired transparency and involvement of stakeholder’s participation in governance and a sense of ownership of the city. It is thus concluded that, crowdfunding as well as civic crowdfunding, can positively support development initiatives of a city as is a practice followed in many countries. This can further provide pooled finance by stakeholders, improving the access to capital, helping manage supply and demand of urban services, which are largely driven by innovation and efficiency. Cooperation can thus be struck between the development sector and specific crowdfunding platforms for co-funding strategies that are aligned with the SDGs.

## **REFERENCES**

- ASICS. (2016). Annual Survey of India’s City-Systems 2016: Shaping India’s Urban Agenda. ASICS.
- Bagchi, D. S. (2014, June 24). *Public Garden Maintenance Through PPP - A case of Ahmedabad*. Retrieved from <https://dhanishahbagchi.wordpress.com>
- Bandyopadhyay, S. (2014, May). *Municipal Finance in India: Some Critical Issues*. Retrieved from International Center for Public Policy (Working Paper 14-21): <http://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1010&context=icepp>
- Bhaskar, U. (2017, May 15). *94 cities get rated as urban local bodies prepare for municipal bonds*. Retrieved May 21, 2017, from Livemint: <http://www.livemint.com/Politics/KjJbJic7eENNMAqTonjqcN/94-cities-get-Crisil-ratings-as-urban-local-bodies-prepare-f.html>
- Bhatia, S. (2016, December 16). *The Genesis and Rise of Crowdfunding*. Retrieved July 16, 2017, from LinkedIn: <https://www.linkedin.com/pulse/genesis-rise-crowdfunding-shobhit-bhatia-msc>

- Census of India. (2011). Primary Census Abstract for Slum. Author.
- Cohen, B., & Muñoz, P. (2016). *The Emergence of the Urban Entrepreneur*. Retrieved from [https://books.google.co.in/books?id=tBYsDAAAQBAJ&pg=PA161&lpg=PA161&dq=World+Bank+Urban+Crowd+Funding&source=bl&ots=cpOt-2N89y&sig=fB3Pr86ywtrRP6-6AJRle-5\\_x4U&hl=en&sa=X&ved=0ahUKEwiwl\\_nqqvnTAhWIPY8KHWozCaYQ6AEIRDAF#v=onepage&q=World%20Bank%20Urban%20Crowd%20Funding&f=false](https://books.google.co.in/books?id=tBYsDAAAQBAJ&pg=PA161&lpg=PA161&dq=World+Bank+Urban+Crowd+Funding&source=bl&ots=cpOt-2N89y&sig=fB3Pr86ywtrRP6-6AJRle-5_x4U&hl=en&sa=X&ved=0ahUKEwiwl_nqqvnTAhWIPY8KHWozCaYQ6AEIRDAF#v=onepage&q=World%20Bank%20Urban%20Crowd%20Funding&f=false)
- Crowdsourcing, LLC. (2012, May). *Crowd Funding Industry Report*. Research Report - Abridged Version. Author.
- Davies, R. (2014, September 1). *Civic crowdfunding as a marketplace for participation in urban development*. Stanford.
- Ellis, P., & Roberts, M. (2016). *Leveraging Urbanization in South Asia - Global Economic Prospects, 2016*. World Bank.
- Fuel a Dream. (2017). *Fuel a Dream - Suryoday Parivar Case-Study*. Retrieved July 15, 2017, from Lets Make a 8KM Canal for 700 Drought-Hit Farmers in 15 Days: <https://www.fueladream.com/home/campaign/216>
- Fund for Unity. (2017). *Fund for Unity Crowd Funding Platform*. Retrieved from <http://fundforunity.statueofunity.in/>
- Griffiths, H., Madden, P., & Howe, C. (2016). *Civic Crowdfunding - A guidebook for local authorities*. Retrieved September 6, 2017, from Catapult - Future Cities: [http://about.spacehive.com/wp-content/uploads/2017/03/Civic-Crowdfunding\\_A-Guide-for-Local-Authorities.pdf](http://about.spacehive.com/wp-content/uploads/2017/03/Civic-Crowdfunding_A-Guide-for-Local-Authorities.pdf)
- Gupta, D. (2009, November 18). *JNNURM: Community participation fund*. Retrieved July 18, 2017, from India Water Portal: <http://www.indiawaterportal.org/opportunities/jnnurm-community-participation-fund>
- Harriman. (2017, May 2). *Crowd Funding Municipal Projects; A Look at the Impact of CrowdFunded Infrastructure in Rotterdam*. Retrieved from <http://harriman.com/inspirations/crowdfunding-municipal-projects-look-impact-crowdfunded-infrastructure-rotterdam/>
- Hung-Yi, C. (n.d.). *Crowdfunding and its Interaction with Urban Development*. Nagoya University.
- IIHS. (n.d.). *Urban Transport in India - Challenges and Recommendations*. Retrieved from [www.iihs.co.in](http://www.iihs.co.in)
- Jain, J. K. (2015). *Crowd-Funding in Microfinance in India: Issues, Challenges and Opportunities*. UK Government's Department for International Development (DFID) and Small Industries Development Bank of India (SIDBI). DFID and SIDBI.
- JNNURM Document. (2013, November 22). *Jawaharlal Nehru National Urban Renewal Mission (JNNURM)*. Retrieved from [https://www.gktoday.in/jawaharlal-nehru-national-urban-renewal\\_06/](https://www.gktoday.in/jawaharlal-nehru-national-urban-renewal_06/)
- Keane, A. O., & Griffiths, H. (2017, March 20). *Civic Crowdfunding – A Guidebook for Local Authorities*. Retrieved July 23, 2017, from Spacelive - Catapult - Future Cities: <https://about.spacehive.com/civic-crowdfunding-a-guidebook-for-local-authorities/>

## **Crowdfunding**

- Khan, A. (2017, April 18). *Maharashtra schools raise Rs 216 crore via crowdfunding*. Retrieved from <http://indianexpress.com/article/india/maharashtra-schools-raise-rs-216-crore-via-crowd-funding-4617328/>
- Kirby, E., & Worner, S. (2014). *Crowd-funding: An Infant Industry Growing Fast*. Academic Press.
- McKinsey Global Institute (MGI) Report. (2010). *India's Urban Awakening: Building Inclusive Cities and Sustainable Economic Growth*. Author.
- Menon, S. (2016, September 9). *Crowd control: Sebi warning turns off crowdfunding tap for startups*. Retrieved July 17, 2017, from ET Rise by Economics Times: <http://economictimes.indiatimes.com/small-biz/money/crowd-control-sebi-warning-turns-off-crowdfunding-tap-for-startups/articleshow/54202702.cms>
- MHRD. (2017, September). *Constitutional Provision*. Retrieved September 12, 2017, from Ministry of Human Resource Development (MHRD) under Government of India (GOI): <http://mhrd.gov.in/article-243w>
- Ministry of Housing & Urban Affairs. (2016, May 17). *States asked to convert 3,784 urban areas into statutory Urban Local Bodies*. Retrieved from <http://pib.nic.in/newsite/PrintRelease.aspx?relid=145405>
- Mohan, M. (2016). Geospatial Information from Satellite Imagery for Geovisualisation of Smart Cities in India. *ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 41, B8, 979–985.
- MOUD. (2015, April). *The Future of Urban Development and Services: Urban Development Recommendations for Government of India*. Retrieved July 19, 2017, from World Economic Forum: [http://www3.weforum.org/docs/WEF\\_IU\\_FUDES\\_Urban\\_Development\\_Recommendations\\_Government\\_India\\_Report\\_2015.pdf](http://www3.weforum.org/docs/WEF_IU_FUDES_Urban_Development_Recommendations_Government_India_Report_2015.pdf)
- Nagalakshmi, S., & Cecilia, G. U. (2014). Crowd Funding – An Emerging Trend in India. *International Journal of Scientific Research*, 3(4), 71–73. doi:10.15373/22778179/APR2014/206
- Nallathiga, R. (2008). Trends and perspectives of urban public finance in select countries. *ICFAI Journal of Urban Policy*, 16-32.
- Nekaj, E. L. (2016, August 18). *India's Top 10 Crowdfunding Platforms*. Retrieved from Crowd Source Week: <http://crowdsourcingweek.com/blog/indias-top-ten-crowdfunding-platforms/>
- Padmanabhan, A. (2016, March 27). *Crowdfunding Platforms in India for Tech Start-Ups*. Retrieved July 15, 2017, from Indian Engineering Design Forum: <https://www.iedf.in/index.php/blog/item/crowdfunding-platforms-in-india-for-tech-start-ups>
- Partridge, A. (2015, July 1). *Crowdfunding City Futures? URBACT in Ireland*.
- Pethe, A., Nallathiga, R., Gandhi, S., & Tandel, V. (2014, February 15). *Re-thinking urban planning in India: Learning from the wedge between the de jure and de facto development in Mumbai*. Academic Press.
- Prabhu, D. (2016, October 28). *Is Crowdfunding Legal in India? SEBI Regulations & It's Implications*. Retrieved July 16, 2017, from LinkedIn: <https://www.linkedin.com/pulse/crowdfunding-legal-india-sebi-regulations-its-deepak-prabhu>

Press Information Bureau. (2016, May 17). *States asked to convert 3,784 urban areas into statutory Urban Local Bodies*. Retrieved from <http://pib.nic.in/newsite/PrintRelease.aspx?relid=145405>

Prinsha K. (2016). A Study on Crowd Funding and its Implications in India. *Indian Journal of Research - Paripex*, 5(1), 233-235.

RBI Executive Summary, . (2011). *Municipal Finance in India – An Assessment. Executive Summary on Performance of ULB's in India*. Retrieved from Reserve Bank of India: [http://www.rbi.org.in/scripts/bs\\_viewcontent.aspx?Id=1157](http://www.rbi.org.in/scripts/bs_viewcontent.aspx?Id=1157)

HPEC Report and Recommendations. (2011, September 29). *Urbanization in India - HPEC Report and Recommendations*. Isher Judge Ahluwalia.

Report, M. (2015, March 31). *Massolution Posts Research Findings: Crowdfunding Market Grows 167% in 2014, Crowdfunding Platforms Raise \$16.2 Billion*. Retrieved July 16, 2017, from Massolution - Crowd Powered Business: <https://www.crowdfundinsider.com/2015/03/65302-massolution-posts-research-findings-crowdfunding-market-grows-167-in-2014-crowdfunding-platforms-raise-16-2-billion/>

Reserve Bank of India. (2016, April). *Consultation Paper on Peer to Peer Lending*. Retrieved July 17, 2017, from Reserve Bank of India (RBI) - Database: [https://www.rbi.org.in/scripts/bs\\_viewcontent.aspx?Id=3164](https://www.rbi.org.in/scripts/bs_viewcontent.aspx?Id=3164)

Sahasranaman, A. (2014, June 6). *Financing Metropolitan Governments in Developing Countries*. Retrieved from IFMR Finance Foundation: <http://financingcities.ifmr.co.in/blog/category/municipal-finance/>

Sawant, A. (2017, May 2). *College students to crowdfund library project in rural Maharashtra*. Retrieved from <http://www.dnaindia.com/india/report-college-students-to-crowdfund-library-project-in-rural-maharashtra-2424422>

SEBI. (2017, March 11). *Consultation Paper on Crowdfunding in India*. Consultation Paper on Crowdfunding in India. SEBI.

Sridhar, G. (2015, April 14). *Crowd funding gaining pace for Amaravati project*. Retrieved from <http://www.thehindubusinessline.com/news/national/crowd-funding-gaining-pace-for-amaravati-project/article8476414.ece>

Srivastava, M., M, K. J., & Sagar, M. (2014). An Insight into Crowd Funding in India. *International Journal of Management and Social Science Research Review*, 1(6), 56–62.

Tandel, V., Hiranandani, K., & Kapoor, M. (2016, July 28). *What's In A Definition? A Study on Implications and Suitability of Urban Definitions in India through its Employment Guarantee Programme*. Retrieved May 18, 2017, from IDFC: [http://www.idfcinstitute.org/site/assets/files/9615/tandel\\_et\\_al\\_28th\\_july\\_whats\\_in\\_a\\_definition.pdf](http://www.idfcinstitute.org/site/assets/files/9615/tandel_et_al_28th_july_whats_in_a_definition.pdf)

Technologies, B. (2017, June 7). *Parched Indian Villages Uses Crowd Funding to Build Canal*. Retrieved July 14, 2017, from Bloomberg Technologies: <https://www.bloomberg.com/news/articles/2016-08-08/parched-india-village-uses-crowdfunding-to-build-canal>

## **Crowdfunding**

The Hindu. (2017, February 10). *SEBI to form panel to facilitate crowdfunding*. Retrieved July 16, 2017, from The Hindu: <http://www.thehindu.com/todays-paper/tp-business/SEBI-to-form-panel-to-facilitate-crowdfunding/article17280456.ece>

The World Bank Group. (2014). *UN World Urbanization Prospects (WUP), 2014 - Final Report*. Department of Economic and Social Affairs, Population Division.

The World Bank Group. (2015, September 24). *Leveraging Urbanization in India*. Retrieved September 13, 2017, from Leveraging Urbanization in India: <http://www.worldbank.org/en/country/india/brief/leveraging-urbanization-india>

Times of India. (2017, May 27). *Crowdfunding helps Latur youths get internet connectivity to home village*. Retrieved from <http://timesofindia.indiatimes.com/city/pune/crowdfunding-helps-latur-youths-get-internet-connectivity-to-home-village/articleshow/58866158.cms>

Tiwari, K. (2009, May 7). *Amul watering AMC, Auda parks*. Retrieved May 19, 2017, from Amul watering AMC, Auda parks: <http://www.dnaindia.com/india/report-amul-watering-amc-auda-parks-1253682>

UN Habitat. (2016). *Urbanization and Development: Emerging Futures*. World Cities Report 2016. Author.

UNDP. (2015). *United Nations - 17 Sustainable Development Goals (SDGs)*. Retrieved May 5, 2017, from Goal 11: Make cities inclusive, safe, resilient and sustainable: <http://www.un.org/sustainabledevelopment/cities/>

United Nations. (2015, September 25). *Sustainable Development Goals (SDGs)*. Retrieved November 8, 2016, from 17 Sustainable Development Goals (SDGs) to Transform Our World: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Vadgama, C., Khutwad, A., Damle, M., & Patil, S. (2015). Smart Funding Options for Developing Smart Cities: A Proposal for India. *Indian Journal of Science and Technology*, 8(34), 1–12. doi:10.17485/ijst/2015/v8i1/85418

Varma, V. (2017, June 7). *Can crowdfunding help build a canal? A village in parched Marathwada thinks so!* Retrieved July 14, 2017, from The Indian Express: <http://indianexpress.com/article/india/india-news-india/crowdfunding-in-india-marathwada-drought-canal-farmers-2838988/>

World Bank Data. (2016). *Gross national income per capita 2016, Atlas method and PPP*. Retrieved from <http://databank.worldbank.org/data/download/GNIPC.pdf>

World Bank Document. (2013). *Crowdfunding's Potential for the Developing World*. Washington, DC: World Bank.

World Urban Campaign. (2014). *Crowd Funding – A collective option for urban sustainable development*. Retrieved from <http://www.worldurbancampaign.org/civic-crowdfunding-collective-option-urban-sustainable-development>

Worldometers. (2017, July). *India Population (LIVE) 1,343,205*. Retrieved from <http://www.worldometers.info/world-population/india-population/>

## **KEY TERMS AND DEFINITIONS**

**Basic Urban Services:** Facilities provided by the government/urban local bodies to the citizens and are also referred to as public goods, comprising of water, sanitation, waste management, energy, mobility, public health, education, affordable housing, security of tenure, etc.

**Civic Crowdfunding:** The practice of raising monetary contributions for public interest projects from a large pool of donors through various crowdfunding platforms that may or may not give financial returns.

**Crowdfunding:** A means of raising funds/capital (small amount) from multiple investors through a web-based platform or social networking site for a specific project, business venture, or social cause.

**Sustainable Cities:** A city designed to use ecology, economy, and equity and has the ability to provide clean and healthy environment, economically self-reliant, self-renewing, and provide equal opportunities for all members of the society. It also considers the environmental impact, inhabited by people dedicated towards minimization of required inputs of energy, water, and food.

**Urban Local Bodies (ULBs):** Urban local bodies are the lowest level administrative units that govern cities or urban areas. In India these generally take the form of a municipal corporation or a municipality.