

URBAN SANITATION IN INDIA: THE REVIEW OF POLICY PERSPECTIVE

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Sanitation is the basis of healthy and civilized life and is one of the components of human development. Sanitation is closely associated with environment as in absence of proper sanitation facilities, occurrence of water-borne diseases increases which leads to poor health. Though, sanitation coverage has been improved over the period, however, a large segment of urban households do not have sanitary latrines and in absence of safe toilets, they are forced to defecate in open public places. In view of the improving urban sanitation, Ministry of Housing and Urban Poverty Alleviation, Government of India has launched National Policy of Urban Sanitation, flagship scheme of Integrated Low Cost Sanitation Programme, enforcement of Manual Scavenging Act, 2013. The employment of scavengers in the demeaning task of manually removing night soil and construction/continuation of dry latrines was banned by an Act of the Parliament in 1993. Government has also launched Swachha Bharat Mission for improving sanitary conditions in urban centers. The coverage of urban population by sewer line is very low as sewer line is inexistence mainly in larger cities. Thus, major part of urban India is dependent on conventional individual septic tanks. The coverage of urban population by sewage treatment plant is found significantly high in larger cities while majority of the urban population in medium and smaller towns is not covered by sewage treatment facility. Besides, ineffective functioning of sewage treatment plants due to various factors. There has been lack of infrastructure and poor delivery of sanitary services in slums in most of the cities and towns. Thus, the proposed study will bridge the academic gap and suggest the suitable mechanism for increasing the sanitation facilities to urban dwellers. The present paper attempts to review the policy perspective of urban sanitation in India.

INTRODUCTION

Urban development schemes, programmes, and projects target to infrastructure development, delivery of services, and strengthening

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of local governments. It further highlighted on implementation of reforms at state and ULB level. The scheme was implemented in 65 selected towns and cities across the states during the period of 2005 to 2012. At the Union Government level, there are some schemes and policies that focus specifically on water and sanitation in the urban setting. A major government programme that provides facilities for water supply and sanitation in urban areas is Jawaharlal Nehru National Urban Renewal Mission (JNNURM), which aims at improving and augmenting economic and social infrastructure facilities of the cities, extending basic services to the urban poor including security of tenure at affordable prices and strengthening municipal governments and their functioning in accordance with the provisions of the 74th Constitutional Amendment. Seven Services to the urban poor include access to water supply and sanitation which largely hinges on an effective local government. The cities under JNNURM are supposed to develop City Development Plans (CDPs) demonstrating their plans and commitments to JNNURM's objectives. Plans have been developed for all the cities in the Mission but these have not been done in a consultative manner involving all sections of society. This non-consultation has mainly been attributed to the inadequate capacity of urban local bodies which form the pivot in the Mission. This is adjunct to the 74th Constitutional Amendment Act which calls for devolution of funds, functions and functionaries to ULBs. Basic Services to the Urban Poor (BSUP) scheme under JNNURM has stressed on the development of basic services for the urban poor which includes water and sanitation. To maintain these basic services, one of the objectives of the scheme is to secure effective linkages between asset creation and asset management so that they become self-sustaining over time.

POLICY PERSPECTIVE

Water supply and sanitation were added to India's national agenda during its first five-year plan period. Yet until 1979, relatively negligible investment was made within the sector. Since 1980 – which also marked the start of the International Drinking Water Supply and Sanitation Decade – the government substantially increased its financial commitment to the sector, but mainly to rural sanitation.

Urban sanitation remained the poor as the bulk of investment was allocated towards and spent on large infrastructure projects for water. While water was already recognized as a 'public good', safe sanitation was not yet given the same status. It is only in 2007, that urban sanitation and water got significant emphasis, as part of a strong urban reform agenda. This agenda was reflected through the launch of the flagship Jawaharlal Nehru National Urban Mission and the Urban Infrastructure Development Scheme for Small & Medium Towns. A comprehensive policy framework for sanitation provision emerged in 2008, when the Ministry of Urban Development launched the National Urban Sanitation Policy to guide the provision of urban sanitation in the country. As the government itself notes, the national policy signified a watershed in India's urban development since it not only accorded national recognition separately to urban sanitation but also signaled to states and cities the urgency needed in planning and implementing measures for improving urban sanitation in a targeted manner. A National Urban Sanitation Task Force was constituted to draft the National Urban sanitation Policy, a set of clear, comprehensive guidelines for providing sanitation. This marked the first time that the provision of sanitation facilities to the urban poor and residents of informal settlements became a clear policy goal.

In 2008, the Ministry of Urban Development formalized a common minimum Service Level Benchmarking framework for monitoring and reporting on service level indicators for key service sectors. A benchmark of is included as one of the Sewerage performance indicators. Cities are being supported to improve their urban services including sanitation, using the benchmarking framework as an indicator of performance. Rajiv Awas Yojana revised in 2012, aiming to create a slum-free India during the Twelfth Plan period by providing basic civic and social services, and decent shelter, to every Indian. The scheme includes bringing all existing slums, notified and non-notified, within the formal system so that they can secure the same level of basic amenities as other city dwellers.

Sanitation in India is a State subject. State-level steering committees and urban departments play the role of guidance and

support to Urban Local Bodies which are responsible for final implementation of sanitation at the local level. ULBs are mandated to undertake planning, design, implementation, operation and maintenance of water supply and sanitation services in cities and towns. Currently, 29 states and union territories, out of a total of 35, are engaged in preparing State Sanitation Plans and 158 cities have taken the initiative to make City Sanitation Plans. At the central level, the nodal Ministry of Urban Development is tasked with supporting implementation of the National Urban Sanitation Policy on various fronts including designing and implementing national-level strategies on linkages between public health and sanitation, clarifying institutional roles, capacity-building and training support to states and ULBs, providing financial assistance for City Sanitation Plans through existing government schemes, monitoring and evaluating projects, and mainstreaming sanitation into relevant programs on urban infrastructure and housing across various central ministries. Besides the Ministry of Urban Development, institutional responsibility for the full water supply and sanitation chain at the ministerial level falls between a number of ministries, commissions, and boards. This complexity also contributes at times to the failure to implement programs in the sector. The issue of water and sanitation is either linked with housing for the poor or with employment generation, and has not been treated as a standalone issue. Moreover, gender has not been overtly mentioned, but just implied. This shows that the policymakers have not directed enough attention to the needs of women and girls relating to water supply and sanitation, especially in the urban slums. The National Slum Development Programme was one of the few schemes which had a provision for adequate water supply, sanitation, housing, solid waste management, primary and non-formal education in urban slums. It provided additional Central assistance to states to supplement the resources of the state government for provision of basic infrastructure and services in slum areas. Unfortunately, it was discontinued in 2009-10.

National Urban Sanitation Policy 2008 aims to transform urban India into community-led healthy and livable cities and towns that have universal sanitation coverage. It has an ambitious plan focusing on the urban poor and women whereby the vision for

Urban Sanitation in India is that “all Indian cities and towns become totally sanitized, healthy and livable and ensure and sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sanitation facilities for the urban poor and women” (Ministry of Urban Development, 2008). The main goals of the policy are awareness generation and behavioural change; open defecation-free cities, integrated citywide sanitation, sanitary and safe disposal, and proper operation and maintenance of all sanitary installations. Here too, the policy rests on the assumption that the states would draw up State Urban Sanitation Strategies and City Sanitation Plans. The urban poor are confronted with the issue of land tenure which creates uncertainty and insecurity regarding their place of residence. There is the constant threat of eviction and the areas lack basic services such as safe water and sanitation facilities where the burden of collecting water and maintaining household hygiene falls on women who suffer the most from inadequate and inappropriate services in slums. The sanitation policy dwells on these issues but does not suggest ways to deal with the multiplicity of agencies and stakeholders involved in the implementation of water and sanitation services.

Rajiv Awas Yojana (RAY) has a vision of a “slum free state”. It seeks to bring existing slums within the formal system while redressing the deeper issues of slum creation. The scheme talks of earmarking for basic services to the urban poor within the local body budgets. As one of its reformative measures, it also mentions provision of basic services to the urban poor which includes water supply and sanitation. The intention of the scheme belies the fact that no separate funds have been earmarked to achieve its vision. Integrated Housing Slum Development Programme (IHSDP), In addition to providing shelter through up gradating and construction of new houses, IHSDP also aims to provide community toilets, water supply, storm water drains, community baths, widening and paving of existing lanes, sewers and street lights. Slum improvement and rehabilitation are part of the scheme, which focus on inclusive urban planning. Yet there has been no specific mention of women directly in the scheme despite the funding mechanism being explicitly laid out. Service-level Benchmarking is another initiative of the

Ministry of Urban Development as part of the urban reform agenda for enhancing accountability for service delivery through various Centrally Sponsored Schemes like JNNURM. It is to be tried out on a pilot basis and envisages a shift in focus from infrastructure creation to delivery of service outcomes in order to introduce accountability in service delivery. Service-level benchmarking is surely a positive step but it remains to be seen to what extent the basic issues of access and availability of safe water and sanitation services are addressed. National Urban Habitat and Housing Policy (2007) "intends to promote sustainable development of habitat in the country with a view to ensuring equitable supply of land, shelter and services at affordable prices to all sections of society". It also plans to involve women at all levels of decision making to ensure participation in the formulation and implementation of housing policies and programmes. Further, it aims to address the special needs of women-headed households, single women, working women and women in difficult circumstances in relation to housing serviced by basic services, which would include water and sanitation. This is the only policy which tries to include women in its guidelines. Mid-Term Appraisal of the 11th Plan stresses ULB level reforms such as 100% cost recovery on Operation and Maintenance (O&M) for Water Supply, 100 percent cost recovery on Solid Waste Management and, internal earmarking of funds for services to the urban poor. The Appraisal brings to light the finding that nearly 80 percent of the funds under UIG and more than 90 percent of funds under Urban Infrastructure Development Scheme for Small & Medium Towns (UIDSSMT) have been committed to projects in water supply, sewerage, drainage and solid waste management which shows that most cities still have a significant backlog in the provision of basic urban services to their residents.

According to the Indian Constitution, water supply and sanitation are state subjects, and hence the responsibility of provision of urban water supply and sanitation services lies with the state government. After the 74th Amendment, the responsibility for provisioning of water and sanitation lies with urban local bodies. Irrespective of the fact that local and state governments have the mandate for provisioning of urban local bodies, the central government has been

a significant and influential player in urban water and sanitation. It has influenced the sector through three primary means: a) by being the largest funder, b) setting overall policy framework, and c) setting technical standards and norms. The first route, i.e., funding of urban programmes has been most significant (Wankhade, 2014). The Government of India has funded several centrally sponsored schemes/ projects—the largest one of these being JNNURM, Swachh Bharat Mission, and AMRUT. The investments made through schemes are influenced by guidelines set by the centre. The Ministry of Urban Development, Government of India has recently formulated the National Urban Sanitation Policy, issued an advisory note on UWSS and septage management, and established both bi-annual National Ratings Systems and Service Level Benchmarks. Provision of basic services such as water supply, sewerage, sanitation, solid waste disposal and street lighting has traditionally been the responsibility of the local governments. These services are being provided through state government departments, state level boards, corporations etc. Public Health Engineering Department, Public Works Department, Urban Development Department, Housing Boards, Department of Local Self Government, Water Supply and Sewerage Boards etc. are some of the departments of the state government which performs municipal functions (Singh, 2014).

Ministry of Urban Development, Government of India, launched Swachh Bharat Mission in October, 2014 with a view to eliminate open defecation and improving the sanitary conditions in urban areas. The Mission has been implemented in all statutory towns for the period of 2014 to 2019. Weak sanitation has significant health costs and untreated sewage from cities is the single biggest source of water resource pollution in India. This indicates both the scale of the challenge ahead of the Indian cities and the huge costs incurred from not addressing them. During 12th Five Year Plan, Atal Mission for Rejuvenation and Urban Transformation (AMRUT) has been launched by Ministry of Urban Development in order to create urban infrastructure and improving the civic services in selected 500 cities. Providing basic services (e.g. water supply, sewerage, urban transport) to households and build amenities in cities which will improve the quality of life for all, especially the poor and the

disadvantaged is a national priority. An estimate of the funds required over a 20 year period, at 2009-10 prices, was made by the High Powered Expert Committee (HPEC) during 2011. The Committee estimated that Rs. 39.2 lakh crore was required for creation of urban infrastructure, including Rs. 17.3 lakh crore for urban roads and Rs. 8 lakh crore for services, such as water supply, sewerage, solid waste management and storm water drains. Moreover, the requirement for Operation and Maintenance (O&M) was separately estimated to be Rs. 19.9 lakh crore. Therefore, the purpose of Atal Mission for Rejuvenation and Urban Transformation (AMRUT) is to (i) ensure that every household has access to a tap with assured supply of water and a sewerage connection; (ii) increase the amenity value of cities by developing greenery and well maintained open spaces (e.g. parks); and (iii) reduce pollution by switching to public transport or constructing facilities for non-motorized transport (e.g. walking and cycling). All these outcomes are valued by citizens, particularly women, and indicators and standards have been prescribed by the Ministry of Urban Development, Government of India in the form of Service Level Benchmarks (SLBs).

Awasthi, et. al. (2018) reported that sanitation is the basis of a healthy and civilized living. It has been one of the components of human development. Absence of sanitation facilities, lead to water boned diseases, poor dignity and low productivity. In view of the importance of sanitation, Government of India introduced National Urban Sanitation Policy. The Government advised to state governments for formulation of state urban sanitation policy and city sanitation plans for providing guidelines and strategies for improving urban sanitation and empowering manual scavengers. However, progress in this regard has not found satisfactory and therefore, Government of India launched Swachh Bharat Mission with the aim of achieving open defecation free cities. Gangwar (2019) is of the view that major initiatives which have helped in propelling the sanitation economy of India are the ambitious schemes launched by government in the form of Swachh Bharat Mission in 2014, Jal Shakti Abhiyan and Curbing Single Use Plastic in 2019. Since the launch of SBM, government has built more than 100 million toilets in rural areas, thereby enhancing percentage of individual household

with latrine coverage to 100 per cent. During the same time, about 60 lakh households and 5.5 lakh public and community toilets were constructed under SBM in urban areas. Biswas et. al. (2019) opined that Swachh Bharat Mission succeeded in construction of over 10 crore toilets by 2nd October, 2019. A major differentiating feature of SBM from all other earlier programmes has been its demand driven nature where the primary objective is to bring about behavior change leading to the generation of demand for construction of toilets as well as to increase the use of toilets. SBM focused on collective behavior change of the entire community. Sinha (2019) highlighted that solid waste management is a major problem in India, where urbanization, industrialization and economy growth have resulted increased municipal solid waste generation. Solid Waste Management Rules, 2016 delineate the responsibility of different stakeholders including the waste generator. Central Pollution Control Board has prepared the guidelines for legacy waste, sanitary waste and selection criteria for waste processing technologies. Agarwal (2015) highlighted that policies and schemes on urban sanitation would have a limited impact unless they are backed by adequate budgets and effective implementation. Strong political will on the part of state and municipal governments can make a substantive difference to urban sanitation. Chikarmane (2015) highlighted that the growing cities will have to evolve their mechanism to solve waste disposal in near future. The mounting cost of raw materials and for prevention of environmental degradation, waste recycling is important and should be promoted at all levels. Kaul (2015) opined that the launch of Swachh Bharat Abhiyan marked the beginning of the most ambitious programmes on sanitation in the country. However, access to water and sanitation and the quality of the services in our country is strongly influenced by identities of caste, class and gender. Pathak (2015) said that in order to achieve the target of total sanitation by year 2019, government needs additional support from all sections of society. Mishra (2018) reported that the Sustainable Development Goals place significant emphasis on sanitation, cleanliness and hygiene. There is significant evidence that better sanitation, hygiene and cleanliness help in effective control of various vector borne diseases, parasite infections and nutritional deficiencies. He

further said that there have been wide ranging benefits accruing from the Swachh Bharat Mission. The concepts of cleanliness and sanitation have come to embody the spirit of empowerment and quality of life. Pathak (2017) highlighted that the Ganga is facing the challenge of its existence due to discharge of increasing quantities of sewage, trade effluents and other pollutants on account of rapid urbanization and industrialization. Under Clean Ganga Mission, the activities such as sewage and effluent management including creation of new and rehabilitation of existing sewerage treatment plant, complete sanitation coverage, development of model cremation ghats, development of decision support systems in GIS platform for efficient planning and monitoring and creation of an IT-based monitoring system. Iyer (2017) is of the view that Swachh Bharat Mission is a globally unique programme, different in scope and scale from any other sanitation initiative in the world. The Mission focuses on behavior change through IEC, shifting the focus from outputs to outcomes and ODF. Mishra (2020) highlighted that on 2nd October, 2019, urban India became open defecation free. This historical achievement during a short span of time has been remarkable. The cities and states have responded enthusiastically towards the targets of Swachh Bharat Mission. However, urban India is now poised at a crucial juncture while the sanitation situation in the cities and towns has improved, there is still a lot that remains to be done. Thus, faecal sludge and septage management is the major challenge in order to sustain the spirit of sanitation. Sengupta and Das (2019) reported that India becomes open defecation free while it is an occasion to celebrate the achievement of creating millions of toilets in record time, it is also a time to plan for ensuring that the gains made or not lost and pollution remains challenge. Gatade (2015) opined that the implementation of clean India campaign involved tremendous human and financial resources. The Mission had huge financial investment and political commitment towards achieving ODF and increasing sanitation coverage.

Ministry of Urban Development, Government of India, launched Swachh Bharat Mission in October, 2014 with a view to eliminate open defecation and improving the sanitary conditions in urban areas. The Mission has been implemented in all statutory towns for

the period of 2014 to 2019. The estimated cost of implementation of SBM (Urban) based on unit and per capita costs for its various components was Rs. 62,009 crore. The Government of India share as per approved funding pattern amounts to Rs. 14,623 crore. In addition, a minimum additional amount equivalent to 25 percent of Government funding, amounting to Rs. 4,874 crore shall be contributed by the States as State/ULB share.

Presently fund is available under AMRUT, Swachh Bharat Mission, Namami Gange and 14th Finance Commission for sanitation in urban centres in India. However, septage and faecal sludge management is covered under AMRUT. Sewerage connection is also been ensured under AMRUT and Namami Gange (Table 1).

Table 1: Budgetary Allocation for Sanitation in India (Rs. In Crore)

Scheme	Budget	Duration	Thematic Areas
Swachh Bharat Mission	62009	2014-19	Solid Waste Management, Sanitation, IEC and Capacity Building
AMRUT	50000	2014-19	Sewerage and Septage Management, Water Supply, Storm Water Drainage, Urban Transport, Capacity Building, Reforms and Development of Green Space and Parks
13 th Finance Commission	87519	2010-15	Untide Grant for various sectors specially basic infrastructure services such as water supply, waste water, solid waste and storm water based on ULB preference
14 th Finance Commission	87143	2015-20	

Source: Ministry of Housing and Urban Affairs, Government of India

As per information available from Urban Statistics Handbook, 2019, Ministry of Housing and Urban Affairs, Government of India, 59.64 percent allocations under Swachh Bharat Mission could be utilized as on January, 2019. The utilization of funds was reported significantly high for construction of individual household, community and public toilets followed by solid waste management component. Less than half allocation amount was utilized for capacity building (Table 2)

Table 2: Release for Various Components Under Swachch Bharat Mission in India (Rs. Cores)

Year	IHHL	CT/PT	SWM	IEC	CB	Total
2014-15	367.61	85.03	287.50	95.59	23.75	859.48
2015-16	694.68	35.04	286.46	79.15	13.04	1108.16
2016-17	699.11	157.60	916.70	307.58	56.38	2137.38
2017-18	531.84	225.96	1302.59	345.17	136.16	2541.74
2018-19	427.44	93.74	1347.22	141.26	64.27	2073.95
Total	2720.48	597.39	4140.48	968.78	293.61	8720.74
Mission Allocation	4819.79		7365.82	1827.85	609.27	14622.73

Source: Urban Statistics Handbook, MoHUA, Government of India

There has been remarkable progress under Swachch Bharat Mission in India during the period of 2015-16 -2018-19 . The number of individual household toilet contraction increased from 35.32 lakh in 2015-16 to 62.70 lakh in 2018-19 while community and public toilets increased to 5.32 lakh in 2018-19 . About 86 percent wards were covered under door to door wastes collection with waste processing of 51.26 percent in 2018-19 (Table 3).

Table 3: Toilet Construction under SBM (Lakh)

Year	IHHL	CT/PT	No. of ODF Cities	% of wards under door to door waste collection	% of waste processing
2015-16	35.32	2.87	0	41.0	17.97
2016-17	50.50	2.41	649	51.0	23.14
2017-18	55.40	3.56	2512	74.0	28.57
2018-19 As on January,2019	62.70	5.32	4140	86.0	51.26

Source: Urban Statistics Handbook, MoHUA, Government of India

There is a direct relationship between water, sanitation and health. Consumption of unsafe drinking water, improper disposal of human excreta, improper environmental sanitation and lack of personal and food hygiene have been major causes of many diseases

in developing countries. India is no exception to this. Prevailing high infant mortality rate is also largely attributed to poor sanitation. The concept of sanitation was earlier limited to disposal of human excreta by cesspools, open ditches, pit latrines, bucket system etc. Today, it connotes a comprehensive concept, which includes liquid and solid waste disposal, food hygiene, and personal, domestic as well as environmental hygiene. Proper sanitation is important not only from the general health point of view but it has a vital role to play in our individual and social life too. Sanitation is access to, and use of, excreta and waste water facilities and services that ensure privacy and dignity, ensuring a clean and healthy living environment for all. Facilities and services should include the collection, transport, treatment and disposal of human excreta, domestic wastewater and solid waste, and associated hygiene promotion (UN Habitat and Water Aid). Sanitation is one of the basic determinants of quality of life and human development index. Good sanitary practices prevent contamination of water and soil and thereby prevent diseases. The concept of sanitation was, therefore, expanded to include personal hygiene, home sanitation, safe water, garbage disposal, excreta disposal and waste water disposal. Provision of basic services such as water supply, sewerage, sanitation, solid waste disposal and street lighting has traditionally been the responsibility of the local governments. These services are being provided through state government departments, state level boards, corporations etc. Public Health Engineering Department, Public Works Department, Urban Development Department, Housing Boards, Department of Local Self Government, Water Supply and Sewerage Boards etc. are some of the departments of the state government which performs municipal functions. With the passing of 74th Constitutional Amendment Act, Metropolitan Planning Committee and District Planning Committee have been formed to take up developmental activities in the concerned region in place of the parastatals. The ULB's have also been empowered to take up development functions. States have responded in diverse manner with regard to the status of parastatal agencies in the post decentralized period. Many state governments like Kerala and Karnataka have recommended the abolition of the parastatals while some have recommended for a change in their functional role like in Tamil Nadu, Uttar Pradesh, Maharashtra,

West Bengal and Andhra Pradesh. The parastatal agencies have also been merged with Urban Development Department. The 74th Constitutional Amendment Act has also transferred administrative and financial process and created an enabling environment for the local bodies to undertake planning and development responsibility.

Ministry of Urban Development, Government of India, launched Swachh Bharat Mission in October, 2014 with a view to eliminate open defecation and improving the sanitary conditions in urban areas. The Mission has been implemented in all statutory towns for the period of 2014 to 2019. According to Census 2011, India's urban population is 377 million or 31% of the total population. These numbers are expected to increase to 600 million by 2031. The Census 2011 also showed that in 4,041 statutory towns, close to eight million households do not have access to toilets and defecate in the open (7.90 million). Weak sanitation has significant health costs and untreated sewage from cities is the single biggest source of water resource pollution in India. This indicates both the scale of the challenge ahead of the Indian cities and the huge costs incurred from not addressing them. The estimated cost of implementation of SBM (Urban) based on unit and per capita costs for its various components is Rs. 62,009 Crore. The Government of India share as per approved funding pattern amounts to Rs. 14,623 Crore. In addition, a minimum additional amount equivalent to 25% of Government funding, amounting to Rs. 4,874 Crore shall be contributed by the States as State/ULB share. Maharashtra has the distinction of being the first state to have all the cities declared as open defecation free. However, during recertification process, 6 cities have slipped to Open Defecation state. The state has committed to becoming Open Defecation Free (ODF) in all its urban areas by October 2017. Pune Municipal Corporation has already become a role model with their innovative partnership with SwACHH for mainstreaming rag pickers into the waste management chain. Up to June 2017, 3.5 million individual household toilets and 1.8 lakh community toilets were constructed in India under SBM.

CONCLUSION

Cities, as engines of economic growth and social development,

require large quantities of natural resources to meet the inhabitants' economic and social needs. Good infrastructure and reliable service provision are keys to sustained urban development. To respond to the lack of sanitation infrastructure affecting especially the urban poor, many governments, development agencies and NGOs have launched programmes to provide the poor and vulnerable population with sanitation options. During 12th Five Year Plan, Atal Mission for Rejuvenation and Urban Transformation (AMRUT) has been launched by Ministry of Urban Development in order to create urban infrastructure and improving the civic services in selected 500 cities. Providing basic services (e.g. water supply, sewerage, urban transport) to households and build amenities in cities which will improve the quality of life for all, especially the poor and the disadvantaged is a national priority. The components of the AMRUT consist of capacity building, reform implementation, water supply, sewerage and septage including faecal sludge management, management, storm water drainage, urban transport and development of green spaces and parks. Ministry of Urban Development, Government of India, launched Swachh Bharat Mission in October, 2014 with a view to eliminate open defecation and improving the sanitary conditions in urban areas. There have been remarkable achievements under Swachh Bharat Mission in urban areas., however, challenges have emerged for sustainable sanitation equitable sanitation services.

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