

## Access to Toilet, a Step towards Open defecation free India

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The objective of the study is to analyze the impact of Swachh Bharat Mission in improving the sanitization facility in Gujarat and thereby decreasing the spread of water-borne diseases in the region. This social revolution has stood out among all the other initiatives led by the government at the national level.

The paper presents the perceived details about rural and urban sanitation in Gujarat, a state in India with a population of 60.4 million. It needs to be recognized that sanitation is not only a local issue but shares a vast concern on the global level too.

***Mahatma Gandhi never compromised on cleanliness. He gave us freedom. We should give him a clean India. – Narendra Modi***

India is a developing country where open defecations have fiddled major roles in dragging its feet towards a dark future and unhygienic norm of living. 60% of the world's open defecation happens in India, not only local governments for both rural and urban areas need to be made accountable but equally the central government should be clench responsible. Adequate empowerment, resources, and a sanitation strategy are all we lack in the execution of the hygienic society. The sanitation strategy should be just, inclusive, and suitable. Toilets and sanitation systems are one of the most basic human functions where poor sanitation, water, and hygiene have serious repercussions on health and multipronged effect on the environment and economy of the nation.

Indian government first launched the Central Rural Sanitation Programme, in 1986. The programme had no specific target year and in ambiguous extents spoke about improving the quality of life. Apart from the toilets building government focused on several sanitation programmes which were launched in the next 28 years, like the Nirmal Bharat Abhiyan in rural India and Basic Services for Urban Poor in urban India.

Sanitation is a basic need, yet more than one-third of the population is defecating in open due to the lack of facilities according to a report 'Progress on Water and Sanitation' by WHO and UNICEF in 2014.

Hence, India's hope to be ODF remained as bruised as its millions of toilets that were built but never came in day to day use. Despite—of creating infrastructure and led interventions over the decades in the form of five-year plans, the traditional thinking and religious behavior of the countrymen did not yield results. While the absence of monitoring led to defacement of the figured Toilets. When the infrastructure focuses

have found to have certain limitations, the government shifted its focus to promote behavior and mentality by creating a positive image of Toilets through hitting sentiments of nationhood.

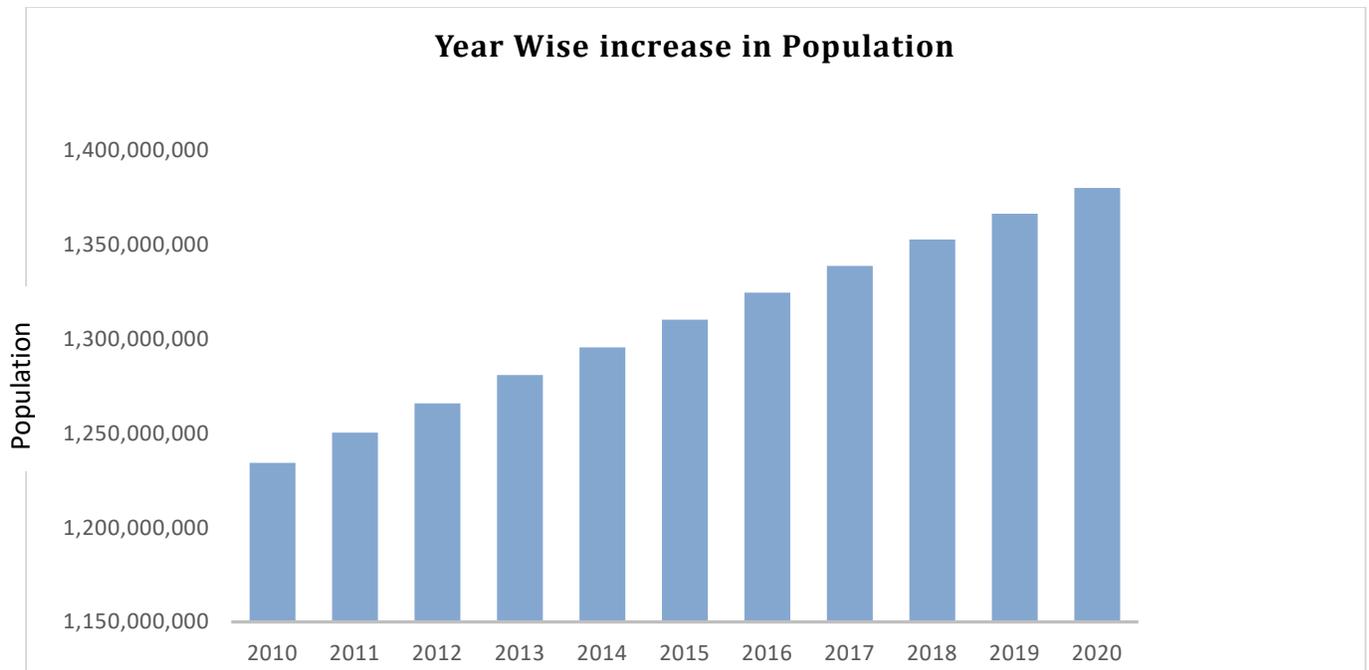
The initiative of the ambitious Swachh Bharat Mission (SBM) in October 2014 by Prime Minister Narendra Modi was a new thrust in the sanitation mission.

At the time when BJP became the ruling party in 2014 less than 50 percent of households in the nation had access to sanitation facilities and only 30 % of the liquid and solid waste and sewage generated in urban India was treated before being let into running water bodies. Every year, an assessed number of 0.4 million children died of diseases which were inherently because of sanitation facilities, and many suffered from stunted growth.

After some years of progress, household toilet coverage and water management have been found to take place so immediately that India would beat Modi's deadline by half-a-year. According to a report in August 2018 by the Ministry of Drinking Water and Sanitation (MDWS), the target of making India open defecation free will be reached much before the deadline set by Prime Minister Narendra Modi. The states are fast becoming open defecation free.

Overall, the drifts advocate substantial progress in access to domestic amenities across the country during 2011-14 and supplementary at much wilder speed during 2014-18.

- **Tap water:** Over the period, the ratio of households with tap water in their homes has increased by 26 % and 65% total coverage done during 2014-18 while 12 percentage points upsurge during 2011-14
- **Toilet:** The expanse of households with toilets has moved up by 14 % during the last four years with the accomplishment of an estimated 68% where an increase of 7 percentages is done during 2011-14
- **Waste Management:** While the Toilet building rate is increasing constantly waste management system is also moving high. The government is playing a crucial role and now 16 percentage estimated growth is observed totaling 70% during the last 5 years



**Figure 1: Year Wise Country Population**

Hereby we can conclude, there is A consistent growth in the population from 2010-20. Subsequent growth in the number of installations of tap water is observed during the years 2001-18. And Waste Management system is also improved with the increase in the number of toilets built. The government is working hard to achieve the goal of complete Sanitation in every part of India.

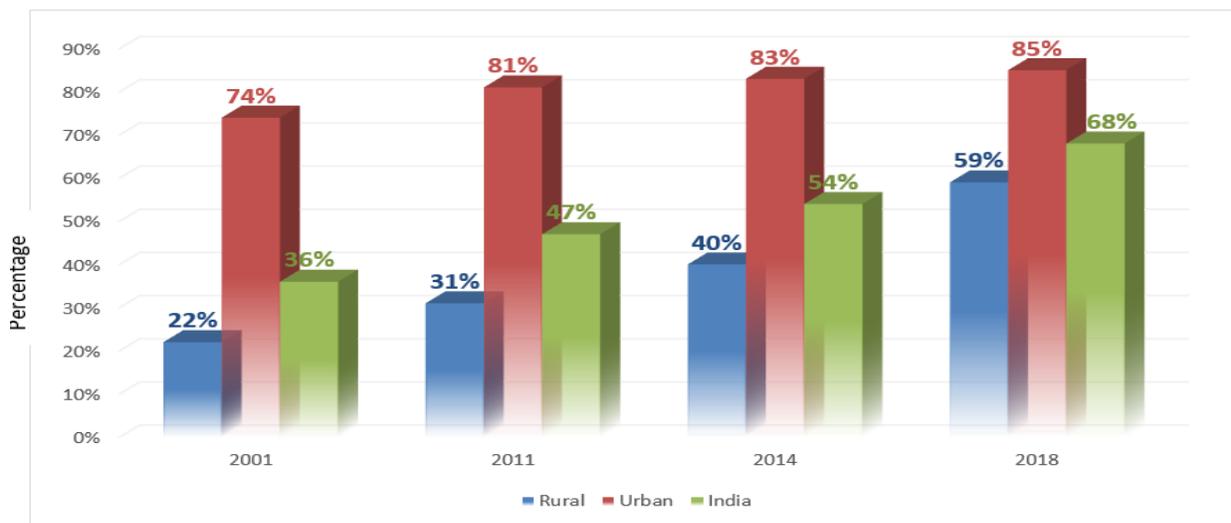


**Figure 2: year wise increase in count of Tap water, Waste Management and toilets**

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Construction of toilets has risen in the past few years. Only 7 crore households had toilets in 2001, 14.5 crore households in 2014, and now the numbers took a high peak of 20.2 crores in 2018, making several states open defecation free (ODF).

*Data source: Census (2001 & 2011) and ICE 3600Surveys (2014 & 2016); PRICE estimates (2018)*

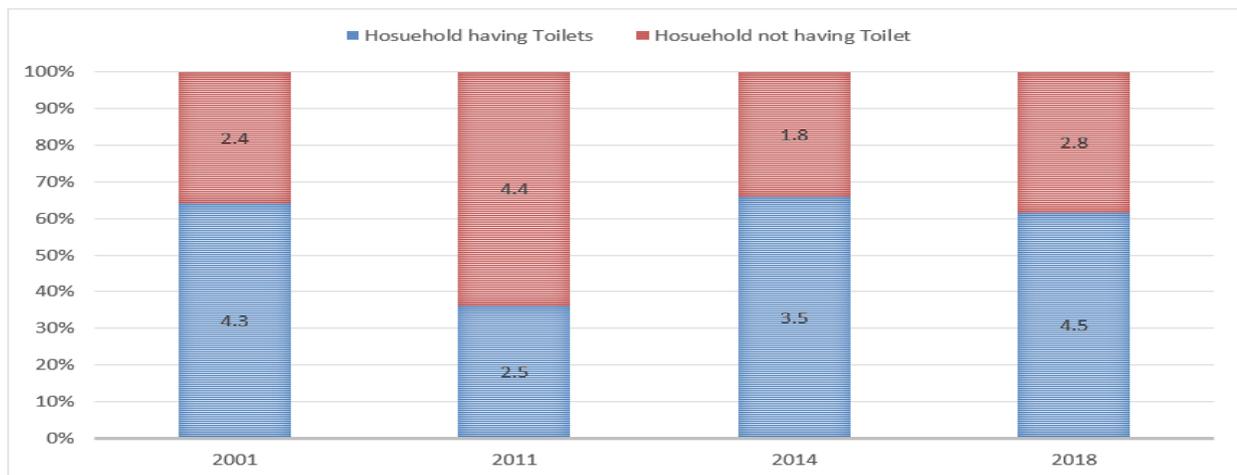


**Figure 3: Countries % wise increase in Toilet count in rural as well as urban area**

A noteworthy thing is found that the Construction of Toilets in Urban areas is stepping quite high compared to Rural regions.

### Progress on toilet coverage - All India

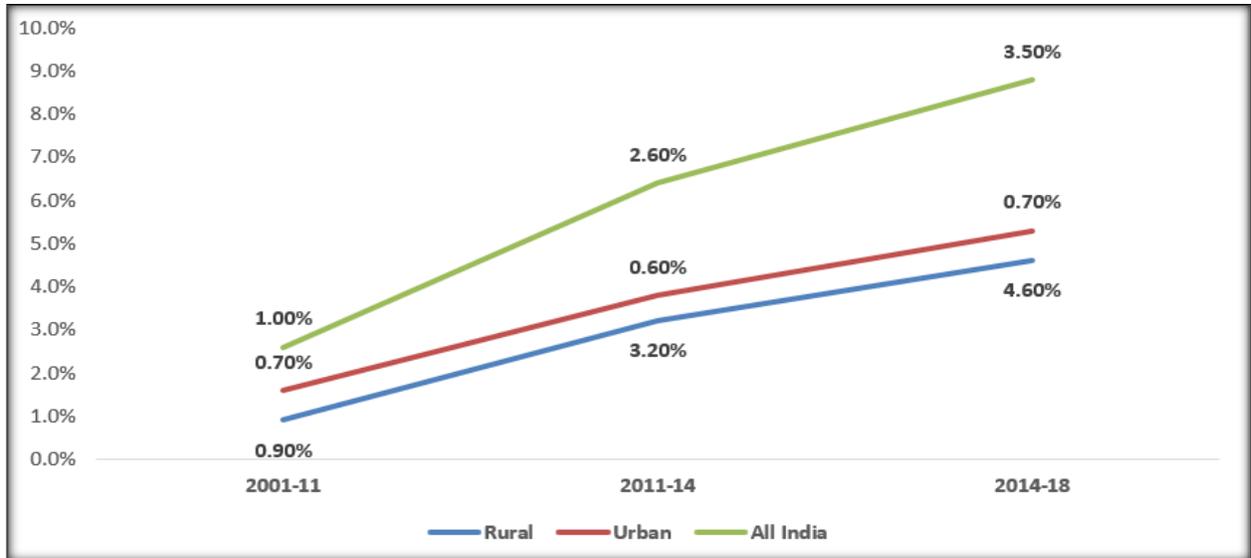
After the hard work and stiffed efforts by the government a surge increase is observed in the sanitation programs all over the country. Though, a long route to travel for achieving the success of a complete open defecation free nation.



**Figure 4: % increase in toilet counts in past years**

### Quick growth in rural Toilet creation

Toilet coverage has increased at an average rate of 3.5% during the last four years compared to 1% during the phase of 2001-11. In Rural India, progression has been much higher (4.6% from 0.9%). So, it can be observed that annual growth in the creation of toilets is more in rural regions.



**Figure 5: Average annual increase in households having toilets**

### Key Findings for the state of Gujarat

In a progressive state like Gujarat which has been exemplary of economic development, the realistic average sanitation exposure and deprived hygiene in the rural area are in a straight-line piecing together with malnutrition and morbidity. Despite leisurely progress in the sanitation sector, Gujarat has set an exemplar of achieving the ODF status.

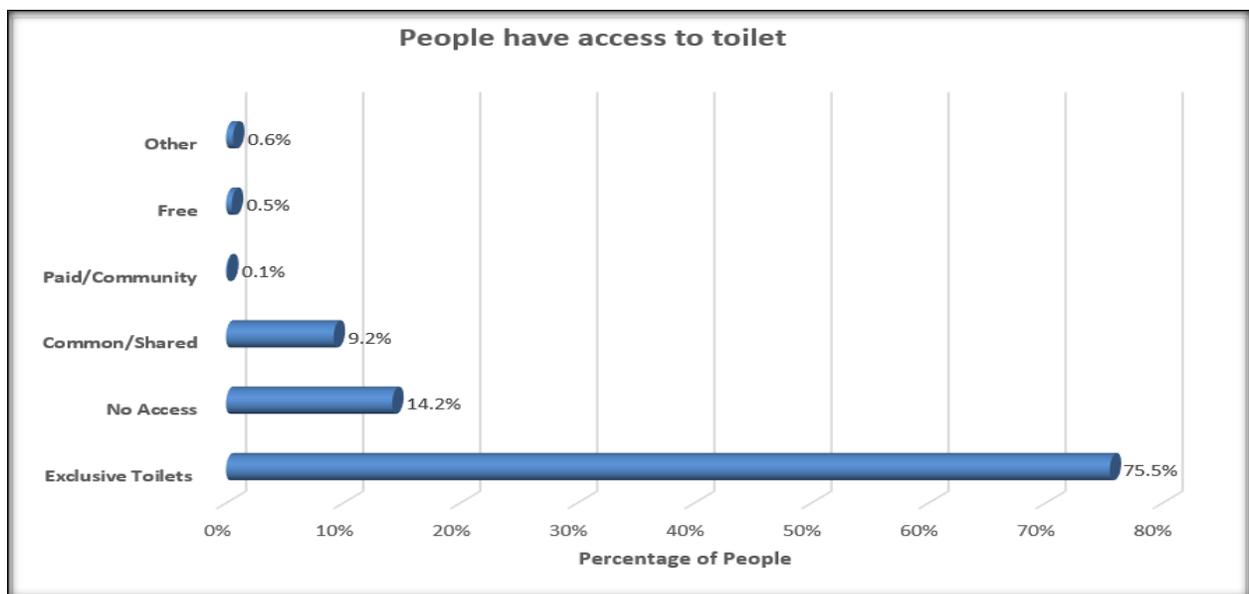
#### 1. Gujarat Household

##### a) Access and Usage

Access of households to toilets are the best significant parameter to judge the accomplishment of Swachh Bharat Mission (Gramin) as it is essential to eradicate open defecation and promote sanitation. Today, Gujarat has nearly 171 cities, 18 thousand (18,071) villages, and 31 districts that are liberal from the age-old practice of open defecation. Since 2010 more than 4 lakh (4,74,893) separate toilets and 17 thousand (17,071) public toilets have been made in Urban parts of Gujarat. Whereas 30 lakh (31,07,225) toilets have been already built in rural areas. With cleanliness exposure of 55.95 % in 2014, major efforts by the Gujarat rural areas have thumb the achievement of attaining 100% by 2018. There are many people and organization in Gujarat who have

been fronting a social revolution in the state against the orthodox thinking and hygienic living of life.

But this is mentioned by the government whereas the situation on the practical ground is different. According to the Baseline survey (BLS-2012) conducted in 2012-13, 33,21,047 HHs were without toilets. Out of which 23,86,495 HHs have been concealed as of March 2017, leaving 9,34,552 HHs without toilets. Though, the construction work is enforced in several regions but what about accessibility. In Gujarat, many people don't have access to toilets because of several reasons like scarcity of water, lack of proper liquid and solid management, and inadequate sewage treatment. Calculation of access to the toilet is carried out by calculating the use of toilets of different mediums

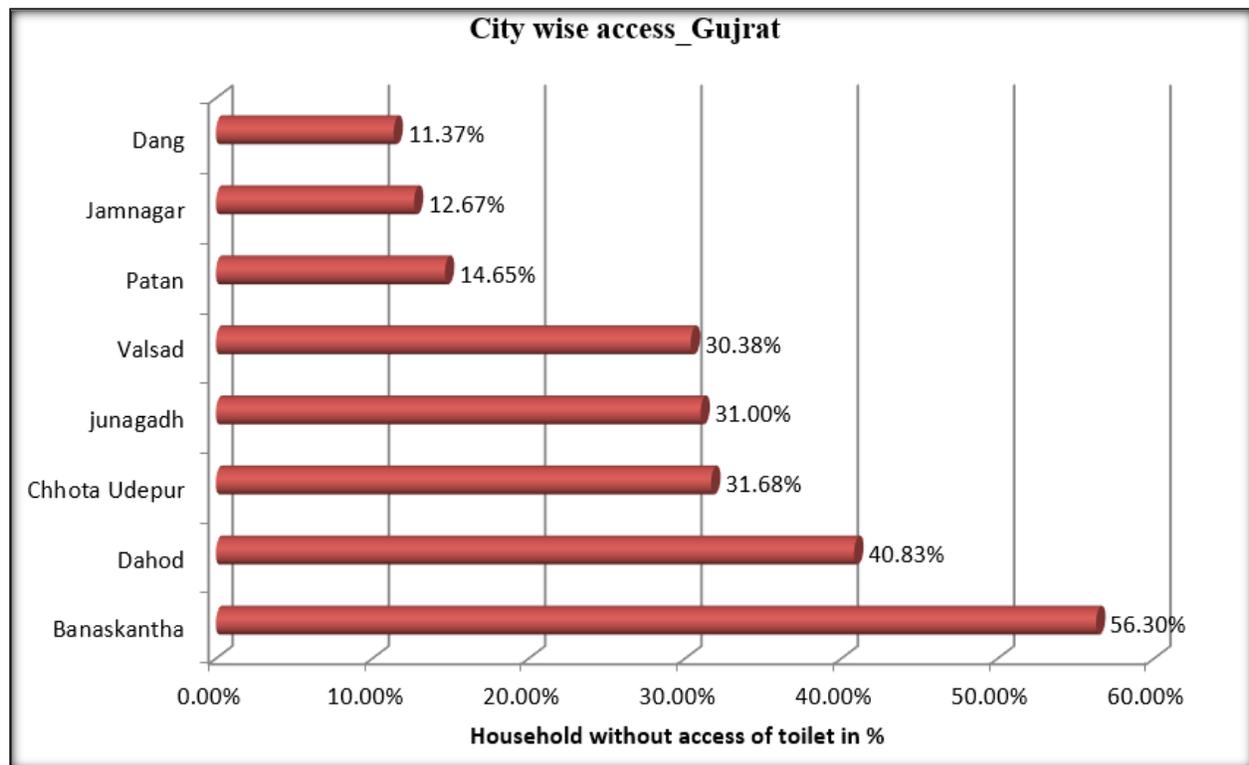


**Figure 6: percentage of people having access toilet**

**Table 1: District declared ODF (open Defecation free in Gujrat)**

S.NO	Districts declared as ODF	Status in 120 test-checked villages			
		Number of HHs	Number of HHs without toilet	Number of HHs without access to toilet	Percentage of HHs without access to toilet
1	Banaskantha	8,434	4,755	4,755	56.37
2	Chhotaudepur	7,798	2,534	2,471	31.68
3	Dahod	5,804	2,370	2,370	40.83
4	Dang	7,975	1,515	907	11.37
5	Patan	3,918	574	574	14.65

6	Valsad	5,292	1,746	1,608	30.38
7	Jamnagar	8,411	1,066	1,066	12.67
8	Junagadh	6,376	1,977	1,977	31
Total		54,008	16,537	15,728	29.12



**Figure 7: Household without access of toilets**

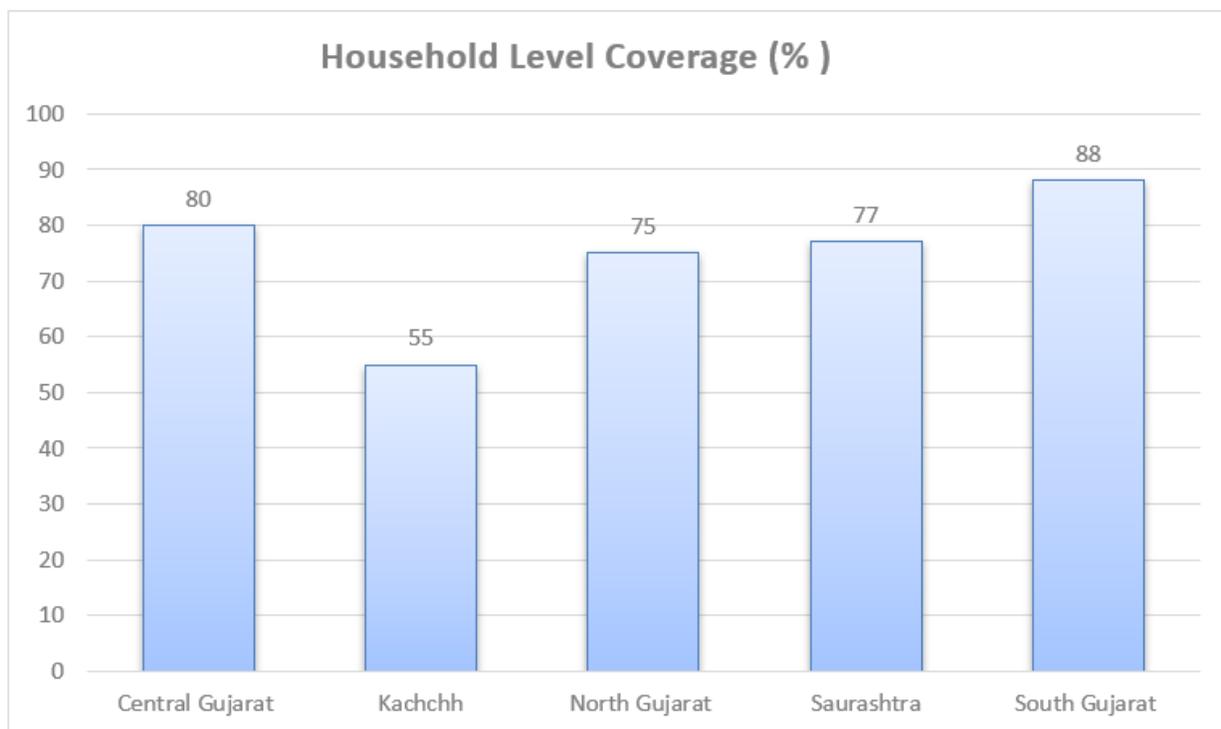
## 2. Waste Characterization

While increasing urbanization, industrialization, fast-growing rural areas, and changing lifestyles waste generation is increasing drastically. The state government is now considering strengthening the waste management infrastructures across Gujarat. Urban Sanitation and Cleanliness Policy, a new policy that was unveiled by Gujarat Chief Minister Vijay Rupani for the subsequent growth in waste treatment and coverage actions.

Gujarat presently generates more than 8,300 metric tonnes of solid waste daily. Under the new policy, all major urban civic bodies have been asked to ensure 100 percent waste segregation to ensure less generation of solid waste. The policy also allows civic

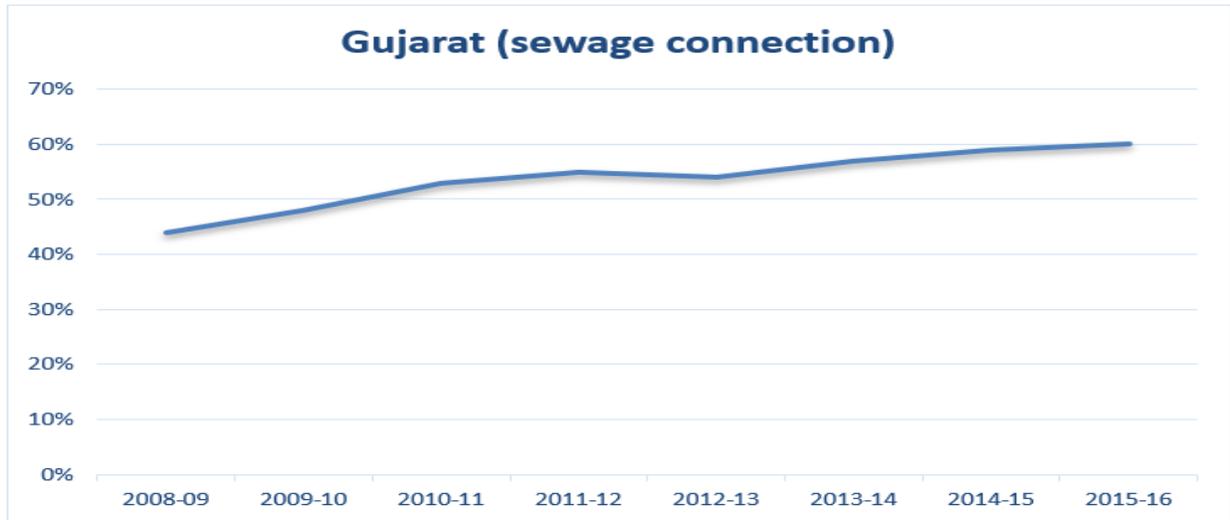
bodies to make their own laws, regulations and draw up rules with regard to penalties for violators. Under the new policy, Gujarat is looking to reduce dependency on landfills and send collected waste directly to waste treatment plants. Gujarat's performance in Swachh Survekshan (Urban) 2018 saw a dip as the state was ranked as India's 17th cleanest state from the earlier rank of 11. Apart from Ahmedabad, which improved its rank from 14 in 2016 and 2017 to 12 in 2018, none of Gujarat's major cities showed much improvement.

The Coverage of Waste generated in 2013 at the Household level is depicted below;



**Figure 8: Household coverage of waste generated in year 2013**

Under the SJMMSVY, GoG has embarked upon a state-wide mega project for constructing/augmenting underground drainage and establishing sewage treatment plants (STPs) in all 167 cities in the state. As a result, the coverage of waste-water network services in the state has increased from 44% in 2008-09 to 64% in 2015-16.

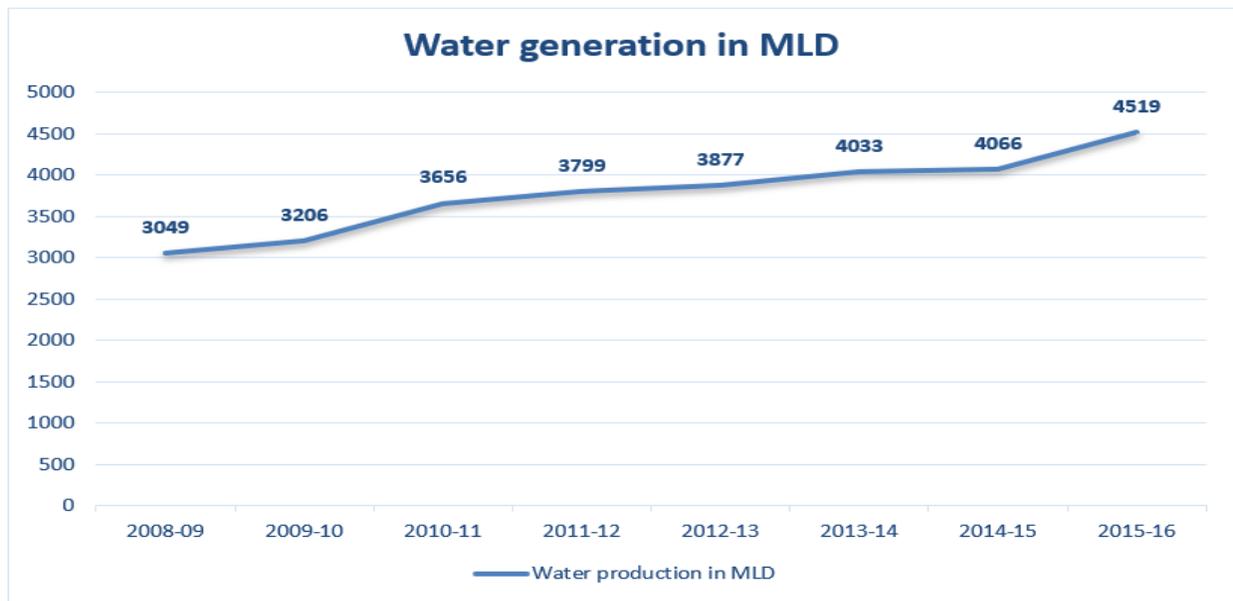


**Figure 9: Increase in Sewage connectivity %**

Currently, Approximately 75,800 equipment demand has been generated from 159 Nagarpalika and Municipal Corporations with 12 different types of equipment which necessitates overall requirement with approx. costS worth Rs 102 Cr. Equipment viz: P.E. Bins, Hand Cart, Tractor Trolley, Community Bin Container (4.5 Cu.M.), Container Mounted Mini Truck, Container Lifting Devices, Refuse Compactor, Front End Loader with Bac-Hoe (45 HP & above and 72 HP), Tractor 35 HP, Water Tanker has been demanded by the ULBs.

### **3. Water Generation**

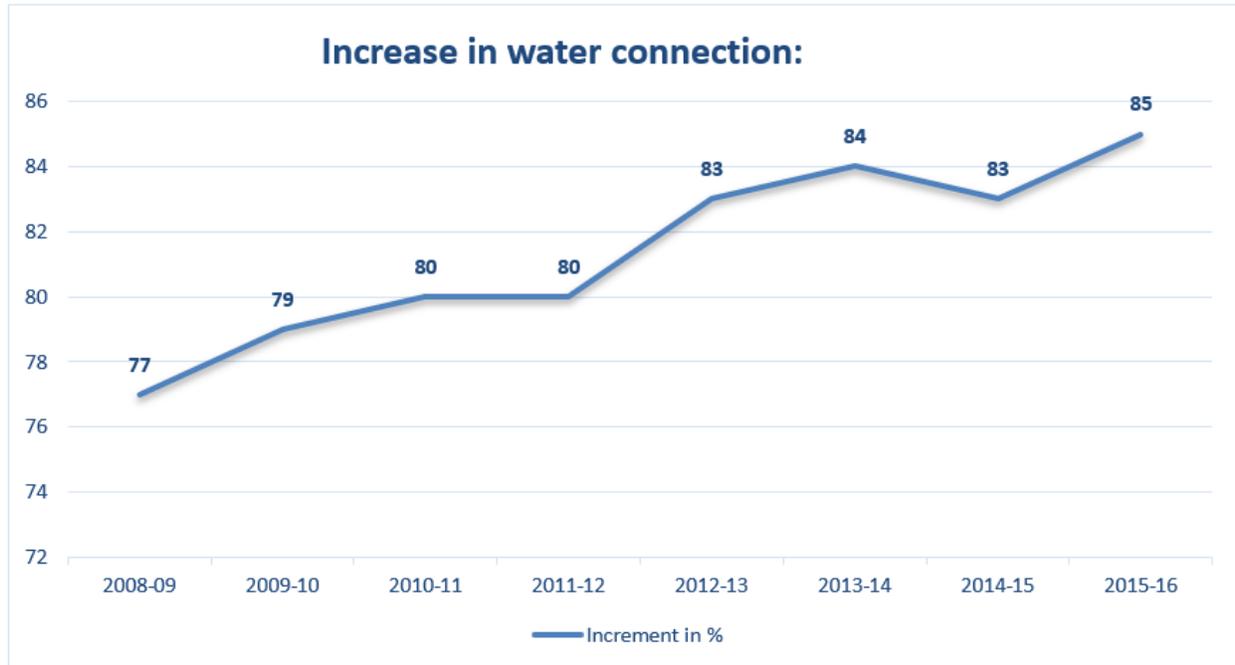
Gujarat has conventionally been a state with water clashes. Till about five years back, several cities, especially in the north and central Gujarat regions were primarily reliant on groundwater for domestic water sources and were faced with acute water shortages. Because of such failures to meet water requirements a deep steep is noted in Gujarat’s sanitation goals. Due to the non-availability of water people refrain from using toilets. With the laying of the Narmada canal network under the Sardar Sarovar Dam Project, the state has significantly augmented its water production from 3049 MLD in 2008-2009 to 4519 in 2015-2016



**Figure 10: Increase in water generation capacity year wise**

#### 4. Coverage of Water supplies

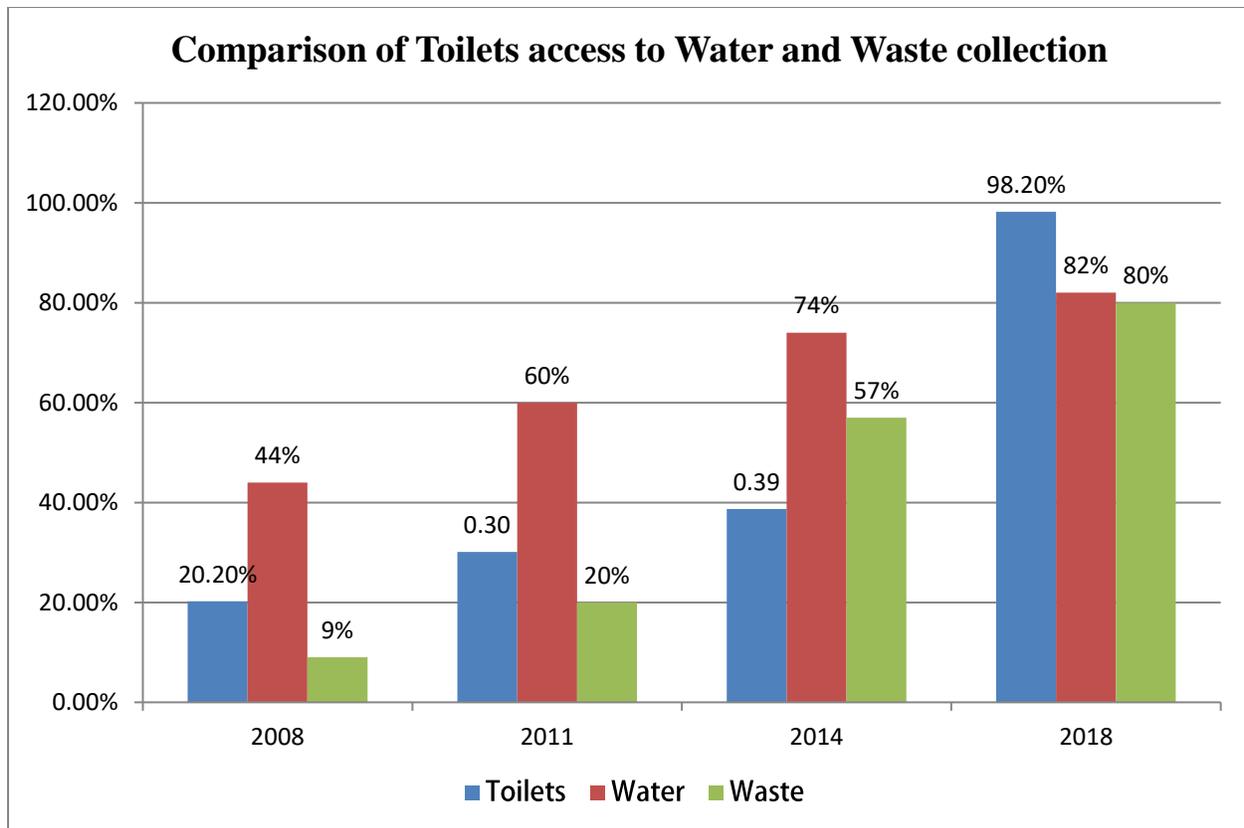
The Government of Gujarat has also introduced numerous projects under the Swarnim Jayanti Mukhya Mantri Saheri Vikas Yojana (SJMMSVY)/UIDSSMT for refining the water linkage across different cities of the state. Several initiatives are being embarked on by GMFB, GUDC and GWSSB and ULBs. With all these investments, the State has also prepared well in terms of spreading the network of water supply in cities and enhancing access to individual water connections for all cities. It has led to the enhancing access to individual water connections for all households. The coverage of water supply (defined as the percentage of households) with access to individual municipal water connection has increased from 77% in 2008-09 to 83.4% in 2015-16. The coverage of water supply in slums is ominously less as matched to the State average, however an upward trend is visible, indicating that cities in Gujarat are continuing to make concerted efforts to provide basic services in slums. In 2015-2016, 62.6% slum households had an individual water connection.



**Figure 11: Increase in water connection year wise**

### 5. Comparison of Toilets access to Water and Waste collection

79,946 villages have been verified open defecation free, and about 72% of these have water supply. Gujarat has just 2.28% of India’s water resources and 6.39% of country’s geographical area. This is again guarded by discrepancies in intra-state distribution. The State has an average yearly rainfall of 80 cm with a high constant of variance over time and space and as a result drought have been frequent. Out of 185 rivers, the State has only eight perennial rivers and all of them are in southern part. In his Budget 2017 speech, the finance minister stated that open defecation free villages would be given priority for piped water supply. Until now, 79,946 villages have been verified open defecation free, and about 72% of these have water supply. As more villages and districts become open defecation free, the gap between toilets and a lack of water supply will only increase.



**Figure 12: Comparison of availability of water, access to toilet and waste collection**

### 6. Storm Water Management:

Coverage of storm water drainage network	2008-2009	2015-16
	36%	70%

The average coverage of storm water drainage network in the state is low at 32%. However, 9 cities in the state have achieved storm water exposure of more than 50%. 5 out of these have achieved coverage of more than 75%. These include Porbandar, Vapi, Upleta, Vadwan, and Valabh Vidhya Nagar. In January 2015, Government of Gujarat announced the Mahatma Gandhi Swachhata Mission (MGSM). The MGSM visualizes attaining OD-free cities and villages in Gujarat and fulfilling the objectives of the SBM by associating all water and sanitation related programs in the state under one authority. The Government of Gujarat accentuates facilitating construction of separate toilets in all households to attain the objectives of the SBM. The Gujarat state government provided financial assistance to ULBs even before the launch of MGSM to stand-in building of

individual toilets in their cities under the NGSY. As a result, access to individual toilets in the state (specifically in slums) has pointedly improved. This is reflected in the coverage of toilets, which was reported to be 98% for 2018-2019.

***Though many contests remain such of Literacy rate and awareness, governments seeking to attain the sustainable development goal of universal access to safe sanitation can emulate the success of India's Swachh Bharat Mission.***

#### **Conclusion:**

After a comparative study of all the basic amenities required for the success of the sanitation program in Gujarat, we can conclude that toilets facilities were gradually increased in years and currently 20% of people are unable to use toilets because of scarcity of water. Also, improvement in sewage waste management is necessary to uphold the title of complete sanitation in Gujarat. Although it was a late start and a lot needs to be done, but better late than never.

***"Cleanliness and order are not matters of instinct; they are matters of education, and like most great things, you must cultivate a taste for them. – Benjamin Disraeli***

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