An Institutional Mapping of Urban Local Bodies Through the Lens of Sanitation and Solid Waste Management Services

Comparative Summary – Six States

Maharashtra, Telangana, Karnataka, Tamil Nadu, Andhra Pradesh and Kerala

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Comparative Summary of Six States focusing on the extent of Urbanisation, State/ULB Finances & Sanitation/SWM Indicators

The status across the six states was summarised using various parameters such as urbanization levels, size of the economy, devolution of the 3 Fs (functions, funds and functionaries), state expenditure on water supply and sanitation as well as urban development, indicators of municipal finances, sanitation and SWM and forming a matrix. The matrix consists of 60 indicators across 10 important parameters and this gives a snapshot of the state of affairs of ULBs including the SWM and sanitation aspects (Table 2).

Tamil Nadu has highest urbanisation followed by Kerala, Maharashtra and Karnataka. All the southern states have higher urbanisation than the All-India average except Andhra Pradesh. The growth rate of urbanisation is also higher in the southern states. All of the southern states have devolved 17 functions while Maharashtra has devolved only 12 functions to the ULBs. While Kerala and Tamil Nadu has constituted 6th state finance commission, the state of Karnataka and Maharashtra had their 4th and 5th SFCs constituted. The per-capita own revenue of ULBs was highest in Maharashtra. The percentage share of own revenues in the total revenues of the ULB was highest in Telangana followed by Maharashtra and Andhra Pradesh. The own revenue share was less than the all-India average in the states of Tamil Nadu Kerala and Karnataka.

Out of the 60 parameters across 10 important indicators, 13 parameters (listed below) relating to sanitation were picked to form the **SWM and Sanitation Index** to facilitate the comparison among the 6 states (Table 1):

- 1. Urban households having access to some form of latrine facilities
- 2. Urban households with flush/pour-flush latrine connected to a pipe sewer system
- 3. Urban households with no drainage system
- 4. Percentage of Districts verified to be ODF
- 5. Percentage of urban households with individual household toilet
- 6. Percentage of installed sewage treatment capacity to the total sewage generated in urban areas
- 7. Percentage of Wards with 100% door to door waste collection
- 8. Percentage of wards with 100 % source segregation
- 9. Percentage of MSW treated against MSW generated
- 10. Percentage of waste processed

- 11. 2019 Swachh Survekshan State Ranking
- 12. 2019 Swachh Survekshan State Ranking in SWM (ULBs < 1 Lakh population and ULB > 1 lakh population)
- 13. 2019 Swachh Survekshan State Ranking in SWM (ULBs > 1 Lakh population)

Table 1: SWM and Sanitation Index and Ranking Among Six States

	Maharashtra	Telangana	Karnataka	Tamil	Andhra	Kerala
				Nadu	Pradesh	
Index	0.79	0.55	0.52	0.50	0.43	0.12
Value						
Rank	1	2	3	4	5	6

The state of Maharashtra stood first followed by the states of Telangana and Karnataka while the Kerala took the last position. Maharashtra ranked higher owing to the higher proportion of households who are connected to sewer systems, more districts being ODF and higher installed capacity of the sewer systems along with high ranking in Swachh Survekshan survey. Kerala performed better in SWM but poor in terms of sewer systems.

Table 2: Comparative summary of Six States on Urbanisation, State/ULB Finances & Sanitation/SWM Indicators

SI. No	Comparative Indicators / Parameters	Source	Karnataka	Tamil Nadu	Maharashtra	Telangana	Andhra Pradesh	Kerala	India		
	1. State Urbanization										
1.1	Percentage of Urban Population (Level of Urbanisation)	Census, 2011 (Handbook of Urban Statistics, 2019)	38.7	48.4	45.2	38.7	29.6	47.7	31.14		
1.2	Annual Exponential Growth Rate (AEGR) of Urbanisation from 2001 to 2011 (Rate of Urbanization)	Census, 2011 (Handbook of Urban Statistics, 2019)	2.74	2.39	2.12	NA	3.05	6.56	2.76		
1.3	State Share of Slum Population to Total Slum Population of India	Census, 2011 (Handbook of Urban Statistics, 2019)	5	8.9	18.1	NA	15.6	<1%	NA		
1.4	Number of Urban Local Bodies (ULBs)	State Election Commission Websites	273	728	387	73	120	93			
	2. State Economy										
2.1	2018-19 GSDP at Current Prices (<i>Crore Rs</i>) / (Rank)	Ministry of Statistics & Program Implementation	1544399 / (4th)	1630208 / (2nd)	2632792 / (1st)	861031 / (9th)	862957 / (8th)	781653 / (11th)	19220355		
2.2	2018-19 GSDP % Growth over previous year / (Rank)	Ministry of Statistics & Program Implementation	13.76 (5th)	11.27 (20th)	10.5 (24th)	14.33 (1st)	8.8 (28th)	11.41 (18th)	11.4		
2.3	2018-19 Per Capita NSDP at Current Prices (<i>in Rs</i>) / (Rank)	Ministry of Statistics & Program Implementation	212477 / (5th)	193964 / (10th)	191736 / (11th)	204488 / (6th)	151173 (14th)	204105 / (7th)	167578		
	3. Devolution of the 3Fs										
3.1	Number of Functions Devolved (12th Schedule)		17	17	12	17	17	17	NA		
3.2	No. of municipal elections conducted since 1994	State Election Commission / Newspaper Articles / National Institute of Public Finance and Policy (NIPFP) Report	4	4	5	2	4	6 (Including Dec 2020)	NA		

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SI. No	Comparative Indicators / Parameters	Source	Karnataka	Tamil Nadu	Maharashtra	Telangana	Andhra Pradesh	Kerala	India
3.3	Constitution of State Finance Commissions (SFC)	SFC Documents / NIPFP Report	4	6	5	1	4	6	NA
3.4	Number of months taken by SFC to submit their report	SFC Reports of respective states / NIPFP Report	30 Months (4th SFC)	24 Months (5th SFC)	80 Months (4th SFC)	Report is still pending (1st SFC constituted in 2015)	37 Months (3rd SFC)	27 Months (5th SFC)	NA
3.5	Accept/Reject SFC Recommendations regarding Devolution	ATR of respective states / NIPFP Report	Accepted with Modificatio ns (4th SFC)	Accepted with very minor modificati ons (5th SFC)	Rejected without Reasons (4th SFC)	NA	Accepted with very minor modificati ons (3rd SFC)	Rejected with Reasons (5th SFC)	NA
3.6	Number of months taken for placing the Action Taken Report (ATR) before the state legislature	SFC Reports and ATR of respective states / NIPFP Report	Under Process	3 Months (5th SFC)	7 Months (4th SFC)	NA	28 Months (3rd SFC).	23 Months (5th SFC)	NA
3.7	Average per Capita Devolution Recommended by SFCs (Rs)	NIPFP Report	6101 (2015- 16 to 19-20)	1428 (2015-16 to 19-20)	1088 (2010-11 to 14-15)	NA	250.19 (2010-11 to 14-15)	3004 (2015-16 to 19-20)	1136 (2015- 16 to 19-20)
3.8	Average Devolution Recommended by SFCs as a percentage of the state's GSDP (Rs)	NIPFP Report	3.09 (2015- 16 to 19-20)	0.76 (2015- 16 to 19- 20)	0.98 (2010-11 to 14-15)	NA	0.36 (2010-11 to 14-15)	1.50 (2015-16 to 19-20)	0.96 (2015- 16 to 19-20)
3.9	Constitution of DPC / Regular Meetings of DPC	Strengthening of Panchayats in India: Comparing Devolution across States (2012-13)	Yes / No	Yes / Yes	Yes / Yes	NA	Yes / Yes	Yes / No	NA
3.10	Constitution of MPC / Enacted specific MPC Act	Ministry of Urban Development	Yes / No	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / No	NA
3.11	Presence of Dedicated Municipal Cadre	Ministry of Urban Development	Yes	Yes	Yes	Yes	Yes	No	NA
3.12	Completed 5 years after implementation of municipal cadre	Ministry of Urban Development	Yes	Yes	Yes	Info not available	NA	NA	NA

SI. No	Comparative Indicators / Parameters	Source	Karnataka	Tamil Nadu	Maharashtra	Telangana	Andhra Pradesh	Kerala	India	
3.13	Presence of Parastatals & State Departments related to Water Supply, Sanitation and SWM Services	State Websites	KUWS&DB , KUIDFC, KCDC	Tamil Nadu Water and Drainage Board (TWAD)	Water Supply and Sanitation Department (WSSD)	PH&MED, TUIFDC	PH&MED , Swachha Andhra Corporati on (SAC), APUIFDC	Kerala Water Authority (KWA), KWMA (Kerala Waste Management Authority), Clean Kerala Company Limited	NA	
		4. State Expenditure - 1) Water S	upply & Sanit	ation & 2) U	rban Developm	ient				
4.1	Water Supply & Sanitation Services Expenditure to Developmental Expenditure (2018-19 Accounts)	https://www.rbi.org.in/Scripts/A nnualPublications.aspx?head=Sta te%20Finances%20:%20A%20Stu dy%20of%20Budgets	3.12	1.53	1.97	5.36	1.96	1.65	3.42	
4.2	Water Supply & Sanitation Services Expenditure to Total Expenditure (2018-19 Accounts)	https://www.rbi.org.in/Scripts/A nnualPublications.aspx?head=Sta te%20Finances%20:%20A%20Stu dy%20of%20Budgets	0.44	0.24	0.39	1.44	0.35	0.22	0.58	
4.3	Urban Development Expenditure to Developmental Expenditure (2018-19 Accounts)	https://www.rbi.org.in/Scripts/A nnualPublications.aspx?head=Sta te%20Finances%20:%20A%20Stu dy%20of%20Budgets	3.12	4.14	5.68	2.39	4.54	2.05	4.26	
4.4	Urban Development Expenditure to Total Expenditure (2018-19 Accounts)	https://www.rbi.org.in/Scripts/A nnualPublications.aspx?head=Sta te%20Finances%20:%20A%20Stu dy%20of%20Budgets	0.44	0.66	1.14	0.64	0.83	0.27	0.72	
	5. ULB / Municipal Finances									
5.1	Percentage share of Total Municipal Revenue in GSDP (2017-18)	State of Municipal Finances in India, ICRIER	1.133	1.044	1.942	0.599	0.483	0.516	1.004	
5.2	Per capita Total Municipal Revenue for all ULBs (2017-18)	State of Municipal Finances in India, ICRIER	5211.6	3971.7	8772.4	1466.1	2541.7	3822	4624.2	
5.3	Per capita Total Expenditure for all ULBs (2017-18)	State of Municipal Finances in India, ICRIER	3198.1	3455.1	7854.2	1454.1	2540.4	2583.9	3569.9	

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SI. No	Comparative Indicators / Parameters	Source	Karnataka	Tamil Nadu	Maharashtra	Telangana	Andhra Pradesh	Kerala	India
5.4	Per capita Own Revenue for all ULBs (2017-18)	State of Municipal Finances in India, ICRIER	1393.3	1184.4	5730.4	965	1595.3	885.7	1975
5.5	Percentage share of Municipal Own Revenue in Total Municipal Revenue for all ULBs (2017-18)	State of Municipal Finances in India, ICRIER	26.7	29.8	65.3	65.8	62.8	23.2	42.7
		6. Sai	nitation Indica	ators					
6.1	Percentage of Urban Households having no Latrine	2011 Census	15.1	24.9	28.7	NA	13.9	2.6	18.6
6.2	Percentage of Urban Households having pipe sewer system	2011 Census	53.3	27.4	37.8	NA	33.7	14.3	32.7
6.3	Percentage of Urban Households having to defecate in the open	2011 Census	10.7	16.2	7.7	NA	11.9	1.7	12.6
6.4	Urban households having access to some form of latrine facilities	NSSO 76th round data – 2018	95.7	93.9	98.6	98.4	97	100	96.2
6.5	Urban households with flush/pour-flush latrine connected to a pipe sewer system	NSSO 76th round data – 2018	61.3	30.3	64.2	53	9.7	1.1	39.1
6.7	Urban households with flush/pour-flush latrine connected to a septic tank	NSSO 76th round data – 2018	20.2	67.2	33.3	42.3	85.3	37.7	48.9
6.8	Urban households with flush/pour-flush latrine connected to a single/twin pit	NSSO 76th round data – 2019	15	0.5	1.9	4.3	2.8	56.4	8.7
6.9	Urban households connected to underground drainage system	NSSO 76th round data – 2018	60	41.5	71.5	79.6	59.9	43.5	53.5
6.10	Urban households with no drainage system	NSSO 76th round data – 2018	3.8	8.8	2.3	2.7	9	17.5	8
6.11	Percentage of Districts verified to be ODF	SDG6 Indicators, NITI Aayog - 2019	93.33	100	100	67	100	100	88.5
6.12	Percentage of urban households with individual household toilet	SDG6 Indicators, NITI Aayog - 2019	93.36	85.73	109	76	129	47.5	97.2
6.13	Percentage of installed sewage treatment capacity to the total sewage generated in urban areas	SDG11 Indicators, NITI Aayog - 2019	35	32	63	41	9	6	38

SI. No	Comparative Indicators / Parameters	Source	Karnataka	Tamil Nadu	Maharashtra	Telangana	Andhra Pradesh	Kerala	India		
	7. Solid Waste Management Indicators										
7.1	Total Waste Generated (TPD)	The Ministry of Housing and Urban Affairs (June 2018)	10000	15347	22570	7371	6384	624	1,45,133		
7.2	Percentage of Wards with 100% door to door waste collection	SDG11 Indicators, NITI Aayog - 2019	88.5	94	81.8	94	100	85.46	91		
7.3	Percentage of wards with 100 % source segregation	SDG12 Indicators, NITI Aayog - 2019	46.4	83	74.9	48	90.9	95.43	67.7		
7.4	Percentage of MSW treated against MSW generated	SDG12 Indicators, NITI Aayog - 2019	34.5	11.08	32	48	7.76	29.13	20.75		
7.5	Percentage of waste processed	SDG11 Indicators, NITI Aayog - 2019	41	60	55	78	48	32	56		
		8. Swach	h Survekshan	Survey							
8.1	2019 Swachh Survekshan State Ranking	Swach Survekshan Report	21	15	2	18	6	27			
8.2	2019 Swachh Survekshan State Ranking in SWM (ULBs < 1 Lakh population)	Swach Survekshan Report	8	16	2	10	4	20			
8.3	2019 Swachh Survekshan State Ranking in SWM (ULBs > 1 Lakh population)	Swach Survekshan Report	9	12	3	8	5	18			
		9. Implemen	ntation of SRN	AS Scheme							
9.1	The number of new manual scavengers identified as per 2013 & 2018 NSKFDC Surveys (As on 14/9/2020)	NSKFDC Website	3204	425	7378	NA	2061	600	66692		
9.2	Percentage of Manual Scavengers provided with One Time Cash Assistance / Amount in Lakh Rs (As on 14/9/2020)	NSKFDC Website	91 / 1156	93 / 158.8	85 / 2504.4	NA	85 / 703.2	86 / 207.2	86 / 22958.4		
9.3	Percentage of Manual Scavengers provided with Capital Subsidy / Amount in Lakh Rs (As on 14/9/2020)	NSKFDC Website	5.9 / 148.63	17.6 / 18.71	0/0	NA	0/0	0/0	1.64 / 779.6		

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SI. No	Comparative Indicators / Parameters	Source	Karnataka	Tamil Nadu	Maharashtra	Telangana	Andhra Pradesh	Kerala	India
9.4	Percentage of Manual Scavengers provided with Skill Development Training during FY 2018-19	NSKDFC Annual Report	2.1	76	7.7	NA	16.3	52.3	14.78
9.5	Number of sewer deaths between 1993 to 2019	NCSK Annual Report	71	203	19	4	18	3	774
	1	10. Implementation of Swachh Bhara	t Mission (Url	oan) - Indivi	dual Household	l Toilets			
10.1	Estimated number of Urban Households (As on Oct 1st 2018)	NSSO 76th round data – 2018	6695200	10184800	10831700	4569100	4824500	4196400	92723900
10.2	Number of Urban Households not having Individual toilets (As on Oct 1st 2018)	NSSO 76th round data – 2018	836900	2434167	2707925	1041755	1153056	247588	20770154
10.3	Number of Urban Households not having access to any form of toilet (As on Oct 1st 2018)	NSSO 76th round data – 2018	287894	621273	151644	73106	144735	0	3523508
10.4	Individual toilets (IHHL) constructed under SBM-U between May 2019 to Jan 2020	Swachh Bharat Mission-Urban Website	24880	13321	17586	2134	712	0	293053
10.5	Percentage of IHHL constructed to Urban Households not having individual toilets (Between May 2019 to Jan 2020)		2.97	0.55	0.65	0.20	0.06	0.00	1.41
10.6	Percentage of IHHL constructed to Urban Households not having access to any form of toilet (Between May 2019 to Jan 2020)		8.64	2.14	11.60	2.92	0.49	NA	8.32

















The comparative summary has been prepared by Madhusudhan B.V. Rao and Sridhar R Prasad with inputs from Swathi Krishnamurthy, Vivek P Nair and Sowmya J who were part of the study team. Additional inputs were given by Thyagarajan R, Shiboni Sundar, Susmitha M V and Summaiya Khan.