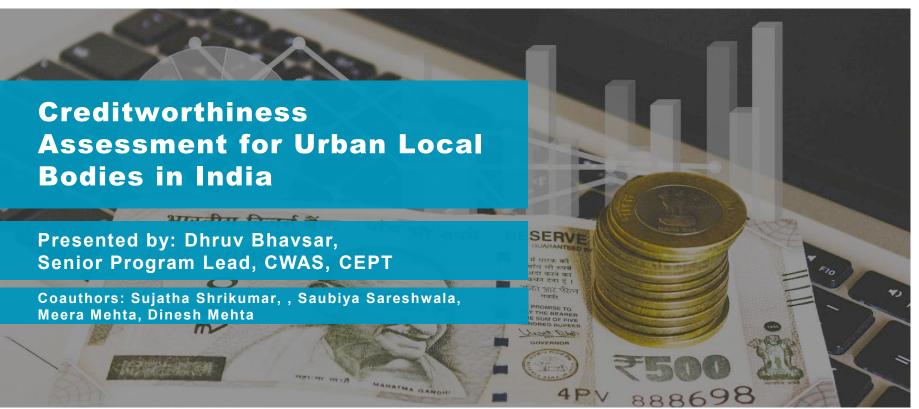
Water and Development Congress & Exhibition 2023

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inspiring change







Achieving SDG targets will also require additional financing

Urban WASH infrastructure has been generally financed through public funds however, there are budget constraints

Not enough to meet SDG financing gaps Own sources and transfers **Output Based Aid Philanthropic Funding Blended Finance** Fees, user Taxes charges **CSR Impact Bonds Grants from** State and Crowdfunding Social Impact **Finance** Central **Commissions** Investors **Transfers** and SFCs Repayable Finance Capital Market **Municipal Bonds** Borrowing

To attract such investments, service providers will need to be creditworthy and build confidence of the debt market investors and of the private sector



Indian cities have issued municipal bonds over the years...



- Between 1997-2010, urban local governments have issued 25 municipal bonds. Between 2011 and 2016, there were no bond issuance possibly due to crowding out by large public funding available to cities. From 2017, bond issuance was revied with the subsidy incentives by the Government of India. 9 bonds were issued during 2017 to 2023.
- All municipal bonds were done with credit rating from Indian CRAs. These are expensive and, cities would benefit from an understanding of their creditworthiness on a regular basis

Source: www.sebi.gov.in, www.mohua.gov.in, 2018, AMRUT 2.0 operational guidelines, MoHUA, 2021, Discussions with CFAs of Gujarat and Maharashtra, 2023

Creditworthiness assessment framework using publicly available data



Framework for cities

Cities can use creditworthiness selfassessment tool before approaching CRA for a formal credit rating

Framework uses both financial performance indicators and WASH operational performance indicators

It uses publicly available datasets which are annually updated an accessible on webbased portals

WASH and administrative Data –

Performance Assessment System (www.pas.org)

Balance sheets and Audited account statements from cityfinance.in and city websites







Annual self-assessment and improvement approach for cities

Review of credit rating frameworks by different CRAs (CRISIL, India Ratings, CARE Ratings) Kenya Creditworthiness Index

FINANCIAL		SERVICE LEVEL	
Income Ratios	Translate economic base into municipal revenues and capacity to levy, collect taxes and user charges.	WASH Service Levels	Assesses performance of city in WASH service delivery-coverage, treatment, and financia
Expense Ratios	City's ability to manage fixed expenses and understand overspending or underspending.		sustainability.
		Accounting Quality	Reflects the timeliness of providing audited information in public domain.
Operating Ratios	Adequacy of revenues to meet operational expenses support additional debt servicing.	and Transparency	
Debt Servicing Ratios	Adequacy of municipal cash flows to meet debt servicing requirements in a timely manner.	Human Resources and Adequacy of Staff	Staffing levels in relation to service delivery requirements
Leverage Ratio	Current leveraging of ULB, net worth and revenue		
	profile and estimating borrowing capacity	Complaint redressal	City's ability to redress complaints
Liquidity Ratio	Measure cash and other current assets to meet short-term business and financial obligations.	mechanisms	
Size of revenues	Size of income, expenditure and their growth rate over the years.		

Annual self-assessment and improvement approach for cities

Assessment and Selection of Indicators

Data Collection and Collation

Analysis, Scoring and Rating

PAS Rating Scale	Rating	Creditworthiness	Grade of Investment
		Highest level of	Investment
Above 90	PAS AAA	creditworthiness	Grade
		High level of	
70-90	PAS AA	creditworthiness	
		Adequate level of	
60-70	PAS A	creditworthiness	
		Moderate level of	
50-60	PAS BBB	creditworthiness	
40-50	PAS BB	High level of Risk	Below
30-40	PAS B	Higher level of Risk	Investment
20-30	PAS C	Highest level of Risk	Grade
Less than 20	PAS D	Not creditworthy	

Note: Rating is derived based on review of various CRAs

Iterative



Covers 30 Indian cities across ten states with varied population size

Tested across 30 Indian cities across ten states



Three sets of cities of varied population size

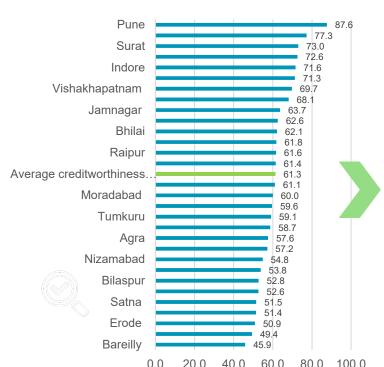
1 Million <	1-4 Million	> 4 Million
Bhilai	Agra	Ahmedabad
Bilaspur	Aurangabad	Chennai
Chas	Bareilly	Pune
Jalgaon	Dhanbad	Surat
Jamnagar	Indore	
Saharanpur	Madurai	
Satna	Moradabad	
Tumakuru	PCMC	
Nizamabad	Prayagraj (Allahabad)	
	Raipur	
	Rajkot	
	Ranchi	
	Vadodara	
	Vijaywada	
	Vishakhapatnam	
	Warangal	

Selection of cities is based on availability of data points in the public domain and to get across different population sizes

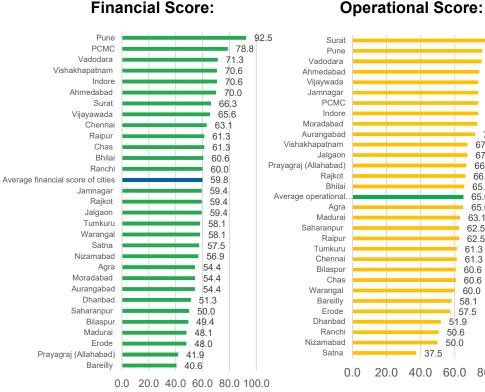


Key results of creditworthiness assessment

Overall Creditworthiness Score:



Financial Score:



Pune tops the overall creditworthiness assessment performance

Pune again tops the financial performance

Surat tops the operational performance











80.0 100.0

88.8

76.3

75.6

74.4

73.8

73.8

73.8

73.8

73.1

71.9

67.5

67.5

66.9

66.3

65.6

65.0

65.0

63.1

62.5

62.5

61.3

61.3

60.6

60.6

60.0

58.1

57.5

51.9

50.6

50.0

Key results of creditworthiness assessment: Rating results

26 Cities are creditworthy out of the universe of 30 cities..

7 cities: High Quality of Creditworthiness

12 cities: Moderate Quality of Creditworthiness

4 cities: High level of risk

PAS Creditworthiness Score	Rating	Cities	Creditworthiness quality
Above 85	PAS AAA	Pune	Highest quality of creditworthiness
71-85	PAS AA	PCMC, Surat, Vadodara, Indore Ahmedabad, Vishakhapatnam	High quality of creditworthiness
61-70	PAS A	Vijayawada, Jamnagar, Jalgaon, Chennai, Bhilai, Raipur	Adequate quality of creditworthiness
51-60	PAS BBB	Rajkot, Chas, Aurangabad, Moradabad, Tumakuru, Warangal, Agra, Ranchi, Bilaspur, Madurai, Satna, Dhanbad	Moderate quality of creditworthiness
41-50	PAS BB	Dhanbad, Erode, Prayagraj, Bareilly	High level of Risk
31-40	PAS B		Higher level of Risk
21-30	PAS C		Highest level of Risk
Less than 20	PAS D		Not creditworthy

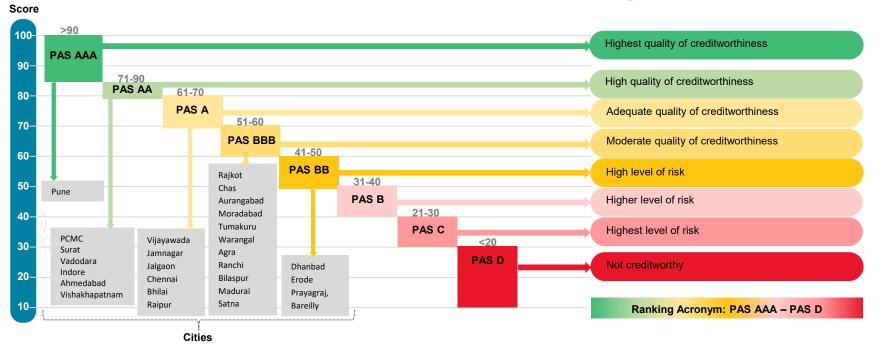


Key results of creditworthiness assessment: Rating results

26 out of 30 cities were assessed as creditworthy... Only 8 cities have issued municipal bonds 7 cities: High Quality of Creditworthiness

12 cities: Moderate Quality of Creditworthiness

4 cities: High level of risk







Thank you

CWAS CENTER FOR WATER AND SANITATION



CEPT UNIVERSITY

About us

The Center for Water and Sanitation at CEPT University carries out various activities – action research, training, advocacy to enable state and local governments to improve delivery of services.





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