

A report on performance of Urban Local Bodies in Chattisgarh and UP for Garbage Free City Indicators

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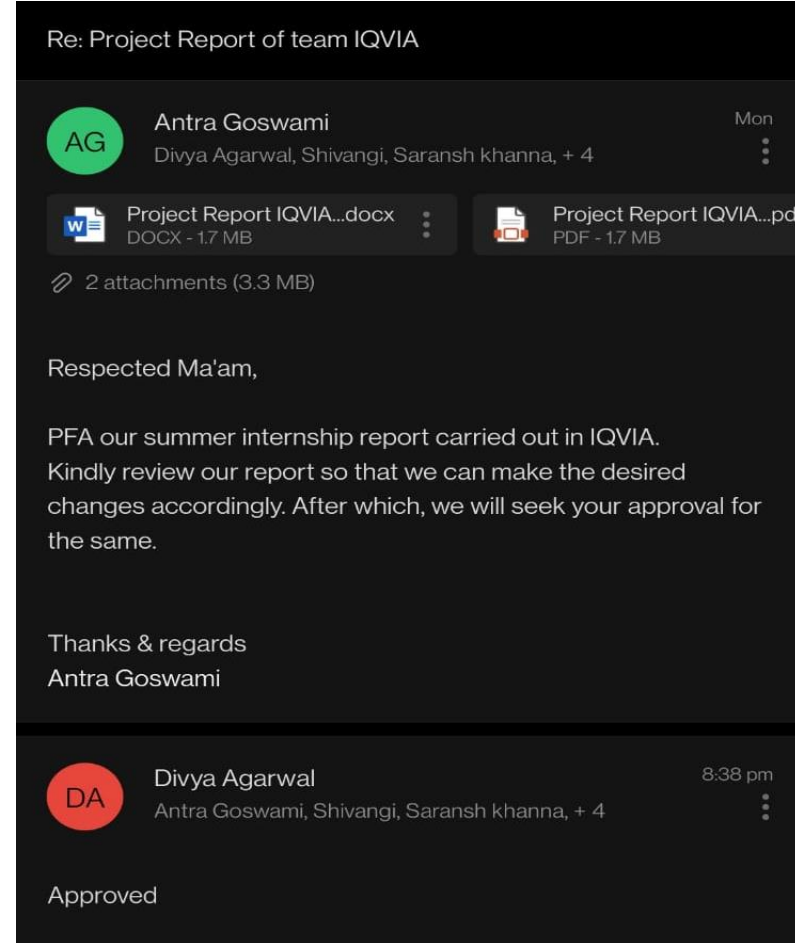
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INTRODUCTION

IQVIA - a leading provider of intelligent connections across all aspects of healthcare through

- Analytics
 - transformative technology
 - big data resources
 - extensive domain expertise.
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- **Swachh Bharat Mission 1.0** – launched on October 2, 2014.

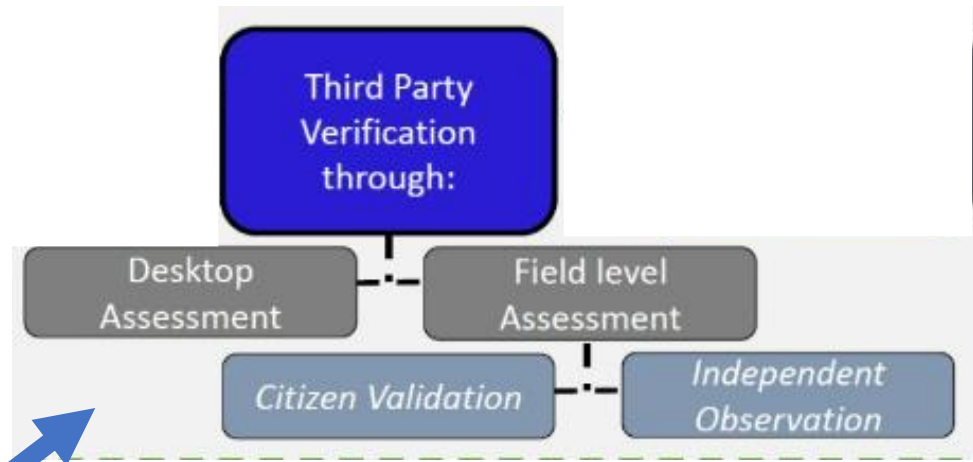
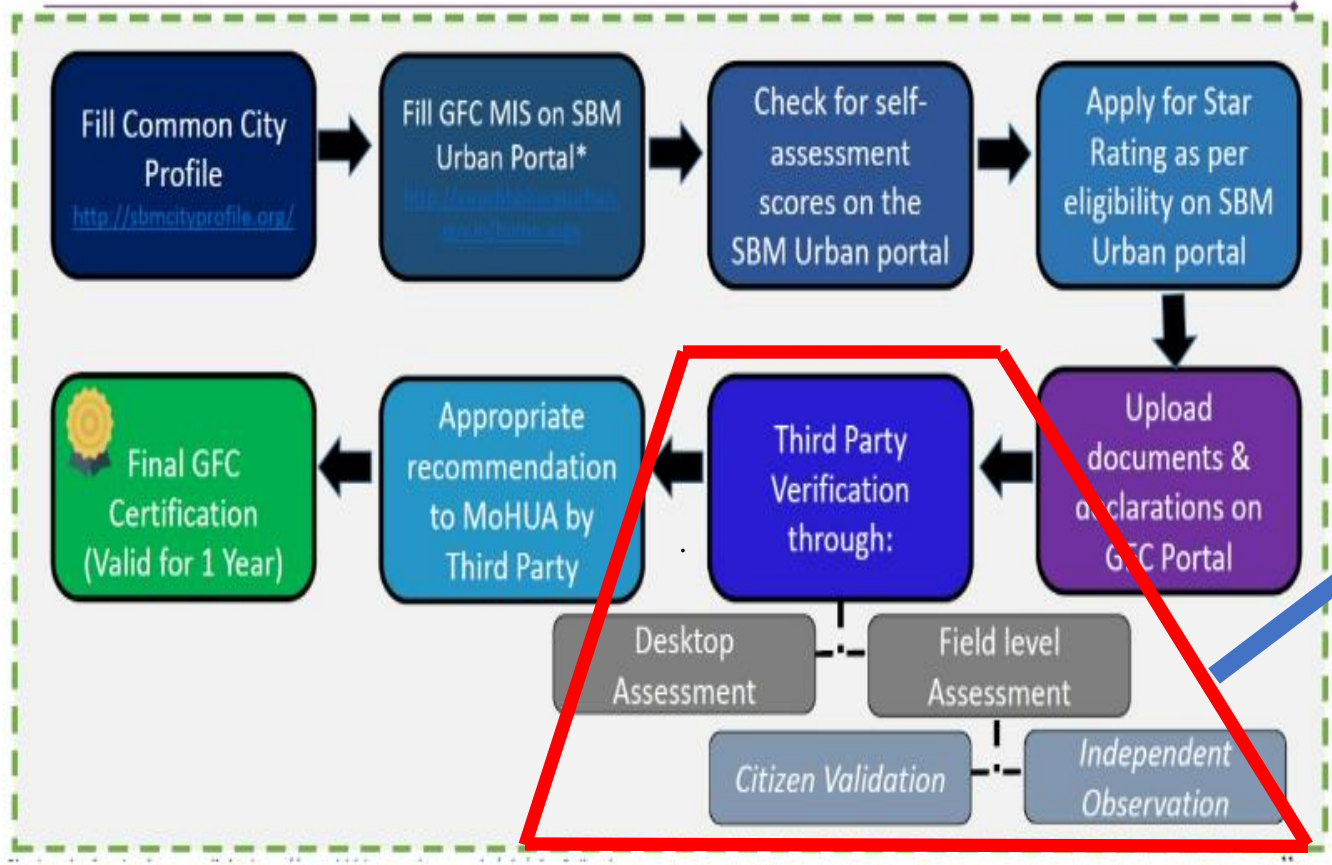
Emerging targets :

1. Garbage-free city (**GFC**)
2. Open defecation-free certificate (**ODF**), and
3. Citizen validation (**CV**).

INTRODUCTION

- **Swachh Bharat Mission 2.0** - introduced on October 2021,
Its main goal of producing "Garbage Free Cities" & to achieve at least 3-star rating
- GFC protocol launched by the Ministry of Housing and Urban Affairs (MOHUA)
 - 24 Key parameters to improve
- 1. On ground waste management scenario of the cities to become "Garbage Free Cities"
- 2. Scoring of ULBs for achieving star ratings

Introduction



ROLE OF IQVIA

Objectives

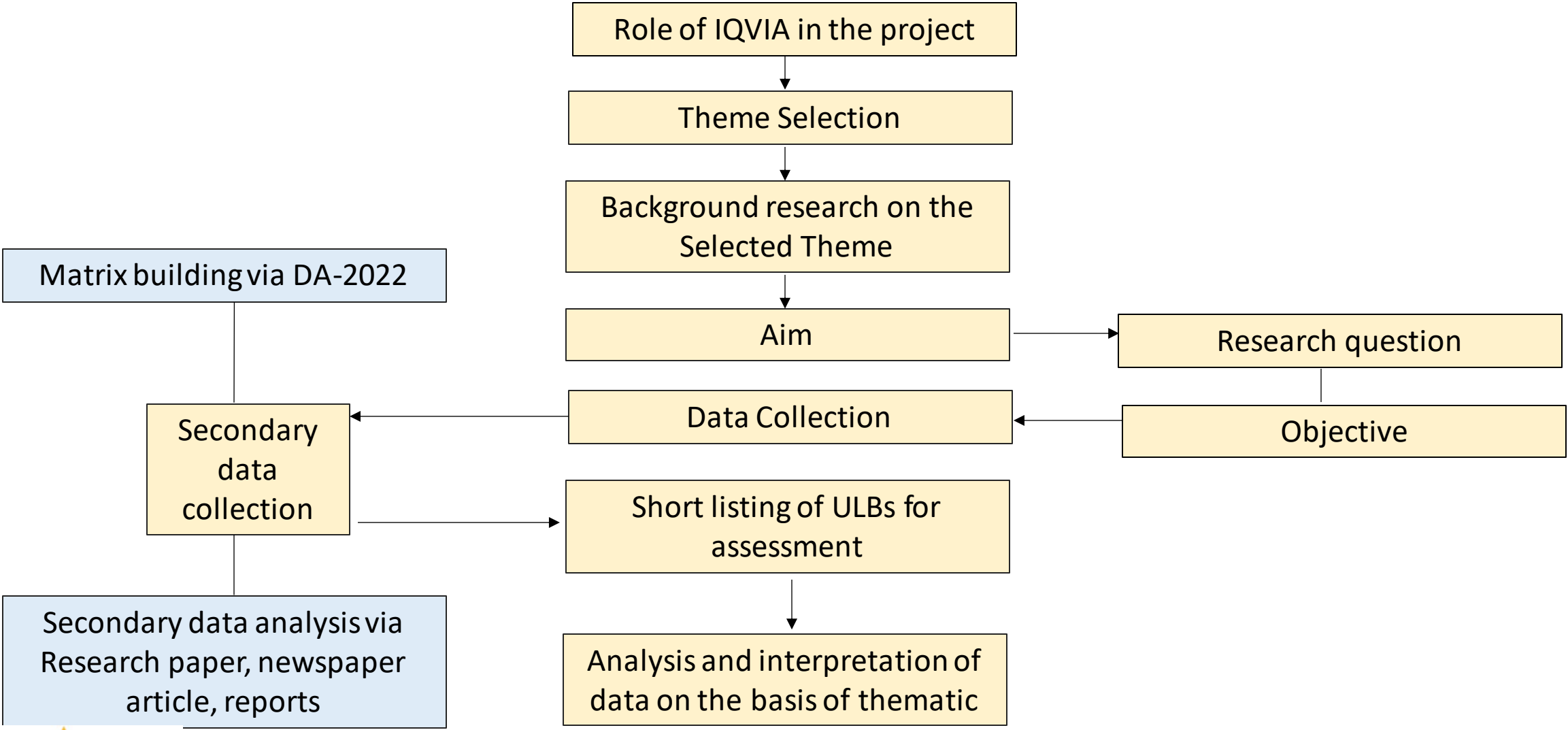
To evaluate the performance of the urban local bodies in Chhattisgarh and UP for the garbage free city indicators

To identify the challenge and formulate appropriate solution for the urban local bodies in Chhattisgarh and UP in accordance with the garbage free city initiative.

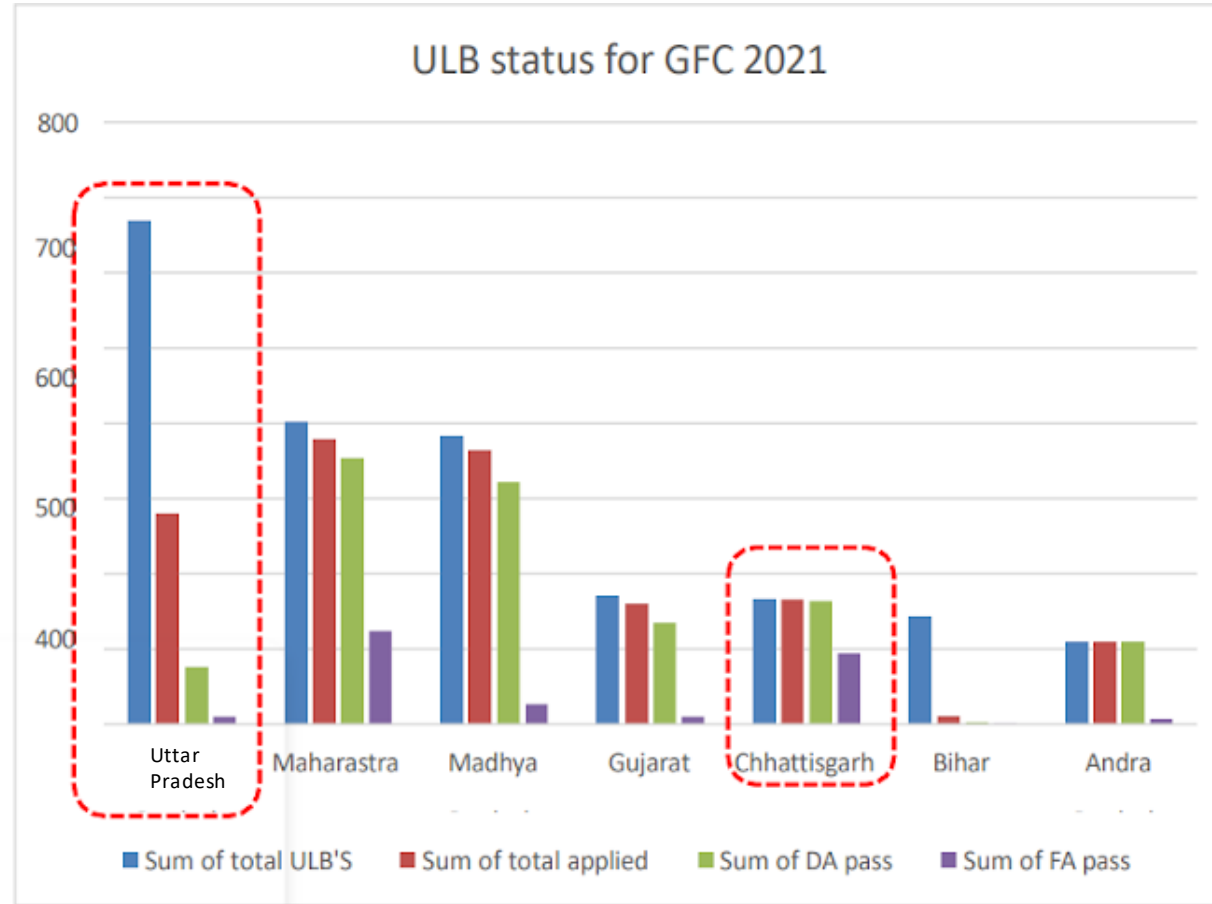
Methodology

- **Study type** – Cross sectional study
- **Study duration** - 2 Months (April 2022 – May 2022)
- **Organization** - IQVIA (under GFC star rating 2022)
- **Total number of ULBs covered** - $160 + 280 = 440$
- **Total ULBs evaluated** - 27

Methodology



Results



ULB status for GFC 2021

States	ULBs evaluated	Pass	Fail	Query
Uttar Pradesh	11	2	8	1
Madhya Pradesh	7	4	1	2
Maharashtra	4	2	1	1
Chhattisgarh	16	12	0	4
Tamil Nadu	4	1	3	0
Assam	3	0	3	0
Himachal	2	0	2	0
Andhra Pradesh	1	1	0	0
Jharkhand	1	1	0	0
Telangana	1	1	0	0
Uttarakhand	1	0	1	0
Haryana	1	0	1	0

ULB's status for GFC 2022

GFC protocol- 2021	
Mandatory Components	
Ward Level Parameters	Door-to-Door Collection
	Segregation at Ward Level
	Sweeping of Residential, Public & Commercial Areas
	Litter Bins
	Storage Bins
	Waste Processing- Wet Waste
	Waste Processing Capacity- Wet Waste

GFC protocol- 2022	
Important Components	
Ward Level Parameters	Door to Door Collection
	Source Segregation
	Sweeping + Litter Bins + Secondary Storage Bins
	Processing by Bulk Waste Generators
City-level Parameters	C&D Waste- Collection
	Waste Processing & Capacity- Wet Waste
	Waste Processing & Capacity- Dry Waste

GFC protocol- 2021	
Mandatory Components	
	Waste Processing- Dry Waste
	Waste Processing Capacity- Dry Waste
	Grievance Redressal
Essential Components	
Ward level Parameters	Bulk Waste Generators
	Penalty or Spot Fines
	Source Segregation at City level
City-level Parameters	User Charges
	Water Bodies Screening of drains/ Nallahs

GFC protocol- 2022	
Important Components	
	Dumpsite Remediation
	Plastic Ban
	Grievance Redressal
	User Charges
	IEC and Capacity Building
	Scientific Landfill
Ward Level Parameters	No visible solid waste in water bodies + Screening of Storm water drains/ Nallahs
	C&D waste- Segregation (nonbulk waste generators)
	Geo-mapping of waste processing facilities, C&D facilities, landfills, dumpsites, STPs/ FSTPs
	C&D waste- Processing & Recycling
	C&D Waste- Use of Materials

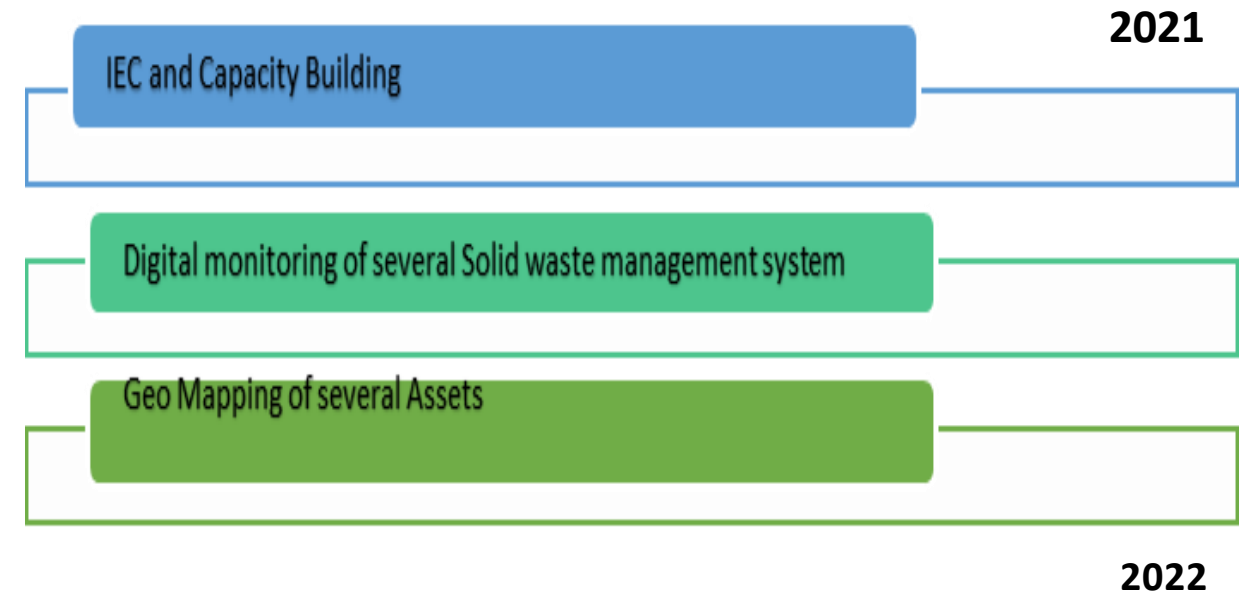
Desirable Components		
Ward level Parameters	Sustainability (Applicable only for 5 Star & 7 Star)	
City Level Parameters	On-site wet waste processing	
	C&D Waste-Storage, Segregation, Processing & Recycling	
	C&D Waste- Use of Materials	
	Dumpsite Remediation	
		Sale of waste by-products
		Processing of Sanitary and Domestic Hazardous waste
		Digital Monitoring of SWM Operations (incl. City facilities)

Categories and indicators linked with each component

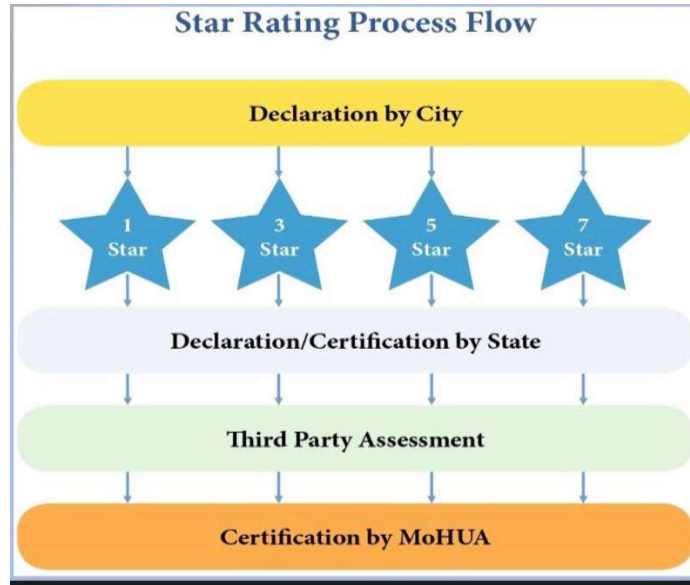
Category	Indicator	Impact measurement	Component for measuring the indicator
Efficiency in services	Investment in SWM	Introduction of new machinery, geo tagged dustbins and garbage vehicle	Waste Processing & Capacity- Wet Waste and dry Geo-mapping of waste processing facilities, C&D facilities, landfills, dumpsites, STPs/ FSTPs Digital Monitoring of SWM Operations (incl. City facilities)
	Effective waste management	Improvement in collection, segregation and treatment or any other process involved in SWM chain	<ul style="list-style-type: none"> Door to Door Collection Source Segregation Sweeping + Litter Bins + Secondary Storage Bins
	Maintenance of services	Training of staff, awareness programmes	IEC and Capacity Building
Employment and economy	Generation of employment	Involvement of any cluster-based facility or any NGO or SHG's engagement	IEC and Capacity Building
	Innovation	Introduction of any new technology or recycling of the waste product	<ul style="list-style-type: none"> C&D Waste-Processing & Recycling C&D Waste- Use of materials
Governance	Awareness	Awareness and knowledge session via various capacity building sessions and programmes	IEC and Capacity Building

	Grievance redressal	Improvement of the knowledge of the citizen towards the Entire GFC programme	<ul style="list-style-type: none"> Grievance Redressal User Charges
	Public participation	Improving the involvement and participation of people.	<ul style="list-style-type: none"> IEC and Capacity Building City Beautification
Quality of life	Waste management	No GVP points, availability of twin bins as per the CPHEEO criteria and proper cleaning of nallah and SWD	<ul style="list-style-type: none"> City Beautification Plastic Ban Sweeping + Litter Bins + Secondary Storage Bins No visible solid waste in water bodies + Screening of Storm water drains/ Nallahs
	City beautification	Presence of Green areas, banning the use of plastic and improvement of the surrounding in sustainable way.	<ul style="list-style-type: none"> City Beautification

DISCUSSION



DISCUSSION



- **299** ULBs had cleared the Field assessment post clearance of DA and FA , 2021.
- 9 ULBs achieved **5 Star Rating** for GFC Assessment 2021
- New Delhi(NDMC),Ambikapur, Patan,Indore, Surat, Navi Mumbai, Vijayawada,Mysore and Noida.
- **ISSUES WITH IMPLEMENTATION**
 - Technical and infrastructural
 - IEC and capacity building
 - Financial

Limitations of Study

- Assessment carried out mostly in urban regions across India
- Time frame causing inability to conduct significant data collection and analysis that would be needed to examine the effects of such a sizable undertaking.
- The majority of the study and analysis is based on observational changes for the current year, which include the modifications that have been made but cannot precisely assess the level of change.

Conclusion

The goal for the majority of the ULBs this year was to at least achieve 5 or 7 stars for GFC 2022.

Introduction of new components and lack of awareness has decreased their efficiency and scores.

Inability to produce desired updated evidences in desired time frame caused failing in DA 2022 refraining them from attaining star ratings.

Cleaner ULBs will have a lesser burden of WASH associated diseases like Typhoid, Cholera and other water borne deseases.



References

- Bhagat, R., 2018. Urbanisation in India: Trend, Pattern and policy Issues., s.l.: International Institute for Population Studies.
- Bhattacharya, S., Sharma, D. & Sharma, P., 2018. Swachh Bharat Mission: an integrative approach to attain public health in India. International Journal of Environment and Health, 9(2), pp. 197-212. CPCB, 2020. Annual Report on Solid Waste Management, s.l.: 2020. CPHEEO, 2016. CPHEEO, s.l.: s.n.
- Jha, G., 2013. Conceptualizing Capacity Building of Urban Local Self Government: Looking beyond Training. Urban India, s.l.: s.n.
- Joshi, R. & Ahmed, S., 2015. Status and challenges of municipal solid waste, s.l.: Cogent environmental science.
- Journal, T. C., 2019. Noida becomes garbage-free city, ranked India's cleanest medium city. [Online] Available at: <https://thecsrjournal.in/noida-garbage-free-cleanest-medium-city-india/> [Accessed 20 May 2022].
- MO HUA, G., 2019. The Critical Role of Community Based Organizations in Urban Sanitation and Waste Management, Ahmedabad: Urban Management Centre. Pandey, S. & Malik, J. K., 2015. Industrial and Urban Waste Management in India

INTRODUCTION

The Ministry of Housing and Urban Affairs (MOHUA) has launched the Protocol for Star Rating of Garbage Free cities. The star rating conditions have been designed in a way as to enable cities to gradually evolve into a model (7-star) city, with progressive improvements in their overall cleanliness. In India, urban local bodies (ULB) are required to perform the task of solid waste management (SWM).

Swachh Bharat Mission 1.0

On October 2, 2014, Prime Minister Narendra Modi introduced Swachh Bharat Mission 1.0 - Urban (SBM-U), a massive initiative to create a Clean India by 2019. SBM was mostly composed of SWM, household toilets, communal toilets, public restrooms, information, education, and communication, public awareness, capacity building, and administrative and office costs. In 2016, 73 cities were the subject of the initial survey. By 2021, 4320 cities had been examined. Three factors are taken into consideration when ranking cities: service level advancement, which is a self-declaration by the city, garbage-free city (GFC) and open defecation-free certificate (ODF), and citizen validation (CV).

Swachh Bharat Mission 2.0

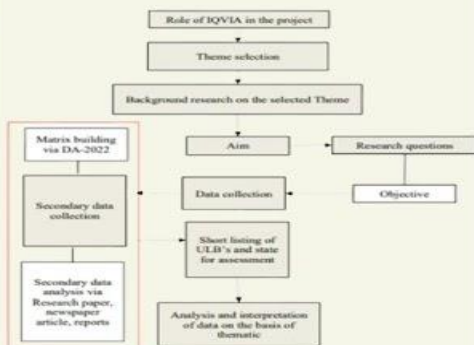
With the overarching goal of producing "Garbage Free Cities," SBM 2.0 was introduced on October 1, 2021 by the Hon. Prime Minister. As per the Star Rating procedure, the main goal is to make every ULB at least 3-star Garbage Free. The development of PTs/urinals, SWM (Material Recovery Facilities & Waste Processing Plants), C&D Waste Management - only for cities with populations of 5 lakhs and above, landfill remediation for all cities, and wastewater treatment would be the key focal areas.



OBJECTIVES

- 1.To evaluate the performance of the urban local bodies in Chhattisgarh and UP for the garbage free city indicators
- 2.To identify the challenge and formulate appropriate solution for the urban local bodies in Chhattisgarh and UP in accordance to the garbage free city initiative.

METHODOLOGY



STAR RATING PROTOCOL OF GARBAGE FREE CITIES 2022

1 and 3 Star		Scoring- Star Rating Protocol for Garbage Free Cities (Proposed)			
Component/ Condition	Ward/City Level	Level 1	Level 2	Level 3	Level 4
Important Indicators					
1 Door to Door Collection	Ward	150	200	250	300
2 Source Segregation	Ward	300	450	575	700
3 Sweeping + Litter Bins + Secondary Storage Bins	Ward	150	200	250	300
4 Processing by Bulk Waste Generators	Ward	50	100	150	200
5 C&D Waste- Collection	City	150	200	250	300
6 Waste Processing & Capacity-Wet Waste	City	350	500	550	600
7 Waste Processing & Capacity-Dry Waste	City	350	500	550	600
8 Dumpsite Remediation	City	100	250	300	400
9 Plastic Ban	City	100	200	300	300
10 Grievance Redressal	City	50	150	175	200
11 User Charges	City	150	200	250	300
12 IEC and Capacity Building	City	75	100	125	150
13 Scientific Landfill	City	75	150	200	250
14 No visible solid waste in water bodies + Screening of Storm water drains/ Nallahs	City	100	150	200	200
15 C&D waste- Segregation (non-bulk waste generators)	City	100	150	200	250
16 Geo-mapping of waste processing facilities, C&D facilities, landfills, dumpsites, STPs/ PSTPs	City	100	100	150	150
		2,400	3,600	4,475	5,200

Star Rating Process Flow

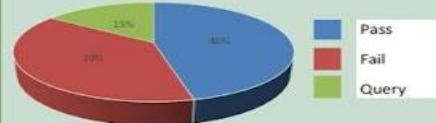


DATA ANALYSIS

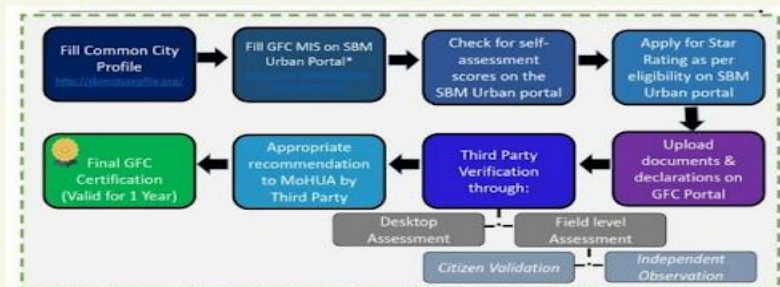
In Chhattisgarh, the majority of ULBs filed for 7 stars last year, but when the results were in, they barely met the goal. In contrast, in UP, ULBs applied for a variety of star types, but again, the outcomes were varied. Only 46% of them have successfully completed the DA, and 39% have failed it. Once more, it is clear that the number of ULBs in UP has been underperforming, in contrast to Chhattisgarh, where they are extremely effective



In Uttar Pradesh, 437 Nagar Panchayats, 198 Nagar Palika Parishads, and 17 Nagar Nigams are among the 652 ULBs in charge of managing solid waste. A total of 14468 TPD of solid waste is produced. A total of 13955 TPD of solid waste is collected (96.5 percent). There are 15 active MSW processing facilities with a 5395 TPD treatment capacity. The building of Solid Waste Management processing and disposal facilities has received land from 582 ULBs.



STAR RATING PROCESS FLOW OF ULBS

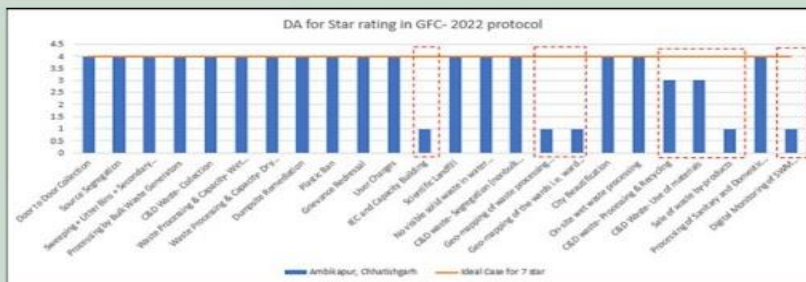


THIS YEAR (2022) THE PROTOCOL FOR STAR RATING OF GARBAGE FREE CITIES (GFC) HAS BEEN REVISED AGAIN AND THE BELOW MENTIONED NEW COMPONENTS HAVE BEEN INCLUDED TO ENCOURAGE CITIES TO CREATE AN ECOSYSTEM IN ORDER TO STRENGTHEN THE WASTE MANAGEMENT SYSTEM, THEY ARE AS FOLLOWS:

- IEC AND CAPACITY BUILDING
- GEO MAPPING OF CITY ASSETS
- SALE OF WASTE BY PRODUCT
- DIGITAL MONITORING OF SWM OPERATIONS

NEW DELHI (NDMC), AMBIKAPUR, PATAN, INDORE, SURAT, NAVI MUMBAI, VIJAYVADA, MYSORE AND NOIDA WERE THE 9 ULB'S OUT OF 299, WHO HAD CLEARED THE FIELD ASSESSMENT (FA) AND HAD MANAGED TO ACHIEVED FIVE-STAR RATING.

RESULT



Internship Experiences

- ❖ Monitoring and tracking Deliverables
- ❖ Conduction of trainings for new resources and field assessors
- ❖ Coordination among team members for timely achievement of output.
- ❖ Accomplish goals as a team player
- ❖ Effectively performing under deadlines
- ❖ Maintaining work life balance
- ❖ Supporting IT dashboarding and performed test runs for portal and on-field assessment tool/app.



Suggestions Given to Organization

- An improved portal for **Quality check of data**, mitigating Errors related to portal
- **Real Time monitoring** of on ground operations using precise **metrics**
- Develop a clear idea related to the protocol of the project during training.
- **Alterations in data validation checks** regularly could affect the consistency of data.
- To provide a clear channel of communication between QC's and FAs for better quality and effectiveness of evidences.



OUR JOURNEY

THANK YOU

