

CHAPTER VI

Performance in the discharge of devolved functions

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One of the prime objectives of the 74th CAA was to empower the ULBs, to enable them perform functions relating to citizen-centric services, by devolving the functions enshrined in the 12th Schedule, through State Acts. In West Bengal, provisions were made in the State Acts to enable them to deliver the basic services. This Chapter deals with the performance of ULBs in discharging the functions relating to service delivery, in regard to water supply, including collection of water charges, solid waste management and sanitation and public health.

In water supply, dependency of the ULBs on parastatals, for supply of water, failure to provide 100 *per cent* water connection to households and non-collection of water charges to meet the revenue expenses by most of the ULBs, were observed. In solid waste management, non-preparation of waste management plans, failure to collect, process and dispose segregated waste, non-implementation of bye-laws and non-collection of conservancy charges, were observed. In regard to functions relating to sanitation, lack of an organised underground sewerage and drainage system and drainage system not being connected to households, limited or no role of ULBs except *Kolkata* MC in the O&M of Sewage Treatment Plants (STPs) were noticed in audit. In performing functions relating to urban health, non-functioning of the Urban Primary Health Centres (UPHCs) as per norms and vacancies in various posts, including Medical Officers, in UPHCs, were noticed. These deficiencies affected the discharge of the devolved functions by ULBs.

6.1 Water Supply

6.1.1 Efficacy in supply of water by the ULBs

Although adequate provisions were made in the Municipal laws, by empowering ULBs to discharge functions, relating to supply of water, Audit noted that not all the selected ULBs had achieved self-reliance in discharging this function, as on 31 March 2021, as discussed in succeeding paragraphs.

6.1.1.1 Source of supply of water

Section 29 of the KMC Act, Section 63 of the WBM Act and Section 97 of the WBMC Act, describe water supply as an obligatory function for Municipalities, *Kolkata* MC and other Municipal Corporations in West Bengal. These Sections also require the ULBs to make adequate provisions relating to construction and maintenance of water-works and providing, by itself or by agency, means for supply of water for public and private purposes.

Section 234 of the KMC Act, Section 226 of the WBM Act and Section 176 of the WBMC Act, provide that it is the duty of the ULB to supply wholesome water to its inhabitants. Supply of wholesome water to the public, by erecting hydrants, stand-posts or through other conveniences to public, has also been covered in Section 237 of the KMC Act, Section 179 of the WBMC Act and Section 233 of the WBM Act.

Section 236 of the KMC Act and Section 178 of the WBMC Act, provide for supply of wholesome water to huts and slums.

Audit observed that:

(i) Out of the 27 test-checked ULBs, only ten had their own water plants/treatment plants, for supply of wholesome water to their inhabitants. However, out of these ten ULBs, two ULBs (*Asansol MC* and *Uttarpara-Kotrung*) were also dependent on other sources, viz. parastatals, other departments and organisations, for supply of potable water.

(ii) Audit further noted that the remaining 17 test-checked ULBs were dependent on water plants, under the control of parastatals/departments, for the supply of water. Details of the sources of supply of water, in the test-checked ULBs, are given in **Table 6.1**.

Table 6.1: Source of Supply of Water in the 27 test-checked ULBs

Name of the Source	Water Plant / Facility owned by ULB	Water Treatment Plant/Facility operated by Parastatals / Departments			Tube-wells	Ground Water
		PHED	KMDA	Any other Development Authority/ Organisation		
No. and Name of the ULB	10 ULBs:	10 ULBs:	7 ULBs:	1 ULB:	20 ULBs:	4 ULBs:
	1. Asansol MC	1. Asansol MC	1. Bansberia*	1. Asansol MC by Steel Authority of India Limited (SAIL)	1. Asansol MC	1. Barasat,
	2. Contai	2. Bongaon	2. Barasat*		2. Bansberia	2. Barrackpore
	3. Coochbehar	3. Gobardanga	3. Barrackpore*		3. Barasat	3. Coochbehar
	4. Kalna	4. Habra	4. Konnagar*		4. Barrackpore	4. Uttarpara-Kotrung
	5. Katwa	5. Jhalda	5. Panihati		5. Contai	
	6. Kolkata MC,	6. Kharagpur,	6. Pujali		6. Coochbehar	
	7. Midnapore	7. Mal	7. Uttarpara-Kotrung*		7. Gobardanga	
	8. Ramjibonpur	8. Raiganj			8. Habra	
	9. Suri	9. Siliguri MC			9. Jhalda	
	10. Uttarpara-Kotrung	10. Tufanganj			10. Katwa	
					11. Kharagpur	
					12. Kolkata MC	
					13. Konnagar	
					14. Mal	
					15. Midnapore	
					16. Panihati	
					17. Pujali	
					18. Siliguri MC	
					19. Suri	
					20. Tufanganj	

(Source: information furnished by the ULBs)

* *Trans-municipal water supply project with other ULBs, implemented by the KMDA*

The Kaliyaganj Municipality did not furnish information.

Seventeen ULBs, which were dependent on parastatals/departments, for the supply of water, had not taken over the water plants from the parastatals/departments. Six ULBs stated reasons for the same, as given in **Table 6.2**.

Table 6.2: Reasons due to which six ULBs could not take over water plants from parastatals/department

Sl. No.	Name of the ULB	Parastatal/ Department	Reasons for not taking hand-over
1.	Gobardanga	PHED	Infrastructure not available in the ULB
2.	Habra	PHED	ULB does not have the infrastructure for O&M
3.	Mal	PHED	Financial constraints of the ULB
4.	Panihati	KMDA	Insufficient infrastructure and funds crisis in the ULB
5.	Pujali	KMDA	Constraint of funds for maintaining and operating the project, with repair and up-gradation, as well as manpower constraints
6.	Tufanganj	PHED	Paucity of funds and technical expertise for maintenance

(Source: information furnished by the ULBs)

(iii) Out of the 27 test-checked ULBs, Audit noticed that five ULBs viz., *Bongaon*, *Jhalda*, *Jiaganj-Azimganj*, *Mal* and *Raiganj* municipalities had no role in supply of water to its citizens. In *Bongaon* and *Jhalda* municipalities, water was supplied by PHED from its own water plant; house connections do not exist in these ULBs. In *Jiaganj-Azimganj* Municipality the only source of water is shallow hand tube-wells, the ULB has no role in drilling of tube-wells or granting permission for the same. *Mal* and *Raiganj* municipalities were also dependent on PHED for water supply.

(iv) Further, twenty ULBs were dependent on tube-wells and four ULBs on ground water sources, in addition to their own water plant/water plants of parastatals/department, which was indicative of the insufficiency of water supply from water plants (**Table 6.1**).

Barrackpore, *Barasat*, *Pujali* and *Siliguri* MC admitted (July to December 2021) the fact of insufficient water supply in their areas.

ULBs which did not have own water plants, were dependent on parastatals/departments for supply of water. Due to insufficient supply of water, the *Barrackpore* Municipality stated that it had to rely on ground water sources, while the *Pujali* Municipality informed that local people of the municipal area were dependent on deep tube-wells, hand pumps *etc.* *Siliguri* MC stated that it had decided to install tube-wells, to deal with the scarcity of water.

In 13 ULBs, new water supply projects were planned/undertaken under the AMRUT scheme, State fund or from other grants funds⁵⁸. Four ULBs (*Contai, Coochbehar, Gobardanga and Pujali*), stated that there was no water supply project in the pipeline, while eight ULBs (*Barasat, Jhalda, Kalna, Katwa, Konnagar, Ramjibonpur, Siliguri MC and Suri*) did not furnish the requested information.

6.1.1.2 Storage and distribution of water

Section 243 of the KMC Act and Section 187 of the WBMC Act, empower the KMC and other Corporations, to construct, operate, maintain, manage or purchase or take on lease waterworks or right to store or take and convey water, either within or outside the Corporation area. Sections 251 and 252 of the KMC Act provide for laying of mains and service mains, respectively; similar provisions in regard to other Corporations, are contained in Sections 195 and 196 of the WBMC Act.

In terms of Section 228 of the WBM Act, municipalities, either singly, or jointly with any other ULB or local authority, within or without a municipal area, may undertake construction of water-works and operate, manage or maintain any water-works, subject to approval of the State Government.

Audit noted that -

- (i) Storage of water, in reservoirs, was being done by parastatals, in 12 of the test-checked ULBs, as furnished in **Table 6.3**.

Table 6.3: Storage of water by parastatals

Sl. No.	Parastatal/Department	Name of the ULB
1.	KMDA	Bansberia
2.		Barasat
3.		Panihati
4.		Pujali
5.	MED	Coochbehar
6.	PHED	Gobardanga
7.		Habra
8.		Jhalda
9.		Kharagpur
10.		Mal
11.		Siliguri MC
12.		Tufanganj

(Source: information furnished by the ULBs)

- (ii) In two ULBs (*Asansol MC and Barrackpore*), both the ULBs and the parastatals, were managing storage of water. Nine ULBs (*Contai, Kalna,*

⁵⁸ **AMRUT grants:** *Bansberia, Barrackpore, Panihati and Uttarpara-Kotrung municipalities through KMDA; Asansol MC, Bongaon, Habra and Midnapore municipalities through MED. Special BRGF grants:* *Kharagpur Municipality through MED. State Funds:* *Jiaganj-Azimganj, Mal and Tufanganj municipalities through MED. UIDSSMT and State Funds:* *Raiganj Municipality, through MED. Kolkata MC, through various government grants and own source revenue.*

Katwa, Kolkata MC, Konnagar, Midnapore, Ramjibonpur, Suri and Uttarpara-Kotrung) were managing reservoirs themselves. In three ULBs (*Katwa, Ramjibonpur and Uttarpara-Kotrung*), the reservoirs had been constructed by parastatals (PHED, KMDA and ADDA) but had, later on, been handed over to the ULBs. The *Bongaon, Raiganj and Jiaganj-Azimganj* municipalities had no role in the storage of water. *Kaliyaganj* Municipality did not furnish reply.

- (iii) In eleven ULBs, the construction, operation and maintenance of pipelines, for distribution of water, was being carried out by parastatals (details in **Table 6.4**). In four ULBs, viz. *Asansol MC, Bansberia, Habra and Kharagpur*, the work was being executed both-by the ULBs, as well as the parastatals, while nine ULBs had been managing the said work themselves.

Table 6.4: Details of distribution of water by parastatals in 11 ULBs

Sl. No.	Parastatal/Department	Name of the ULB
1.	KMDA	Panihati
2.		Pujali
3.	MED	Coochbehar
4.		Kalna
5.	PHED	Bongaon
6.		Gobardanga
7.		Jhalda
8.		Mal
9.		Raiganj
10.		Siliguri MC
11.		Tufanganj

(Source: information furnished by the ULBs)

Barasat Municipality had informally taken over the operation and maintenance of pipeline from KMDA. *Kaliyaganj* Municipality did not furnish reply and *Jiaganj-Azimganj* Municipality had no role in water supply.

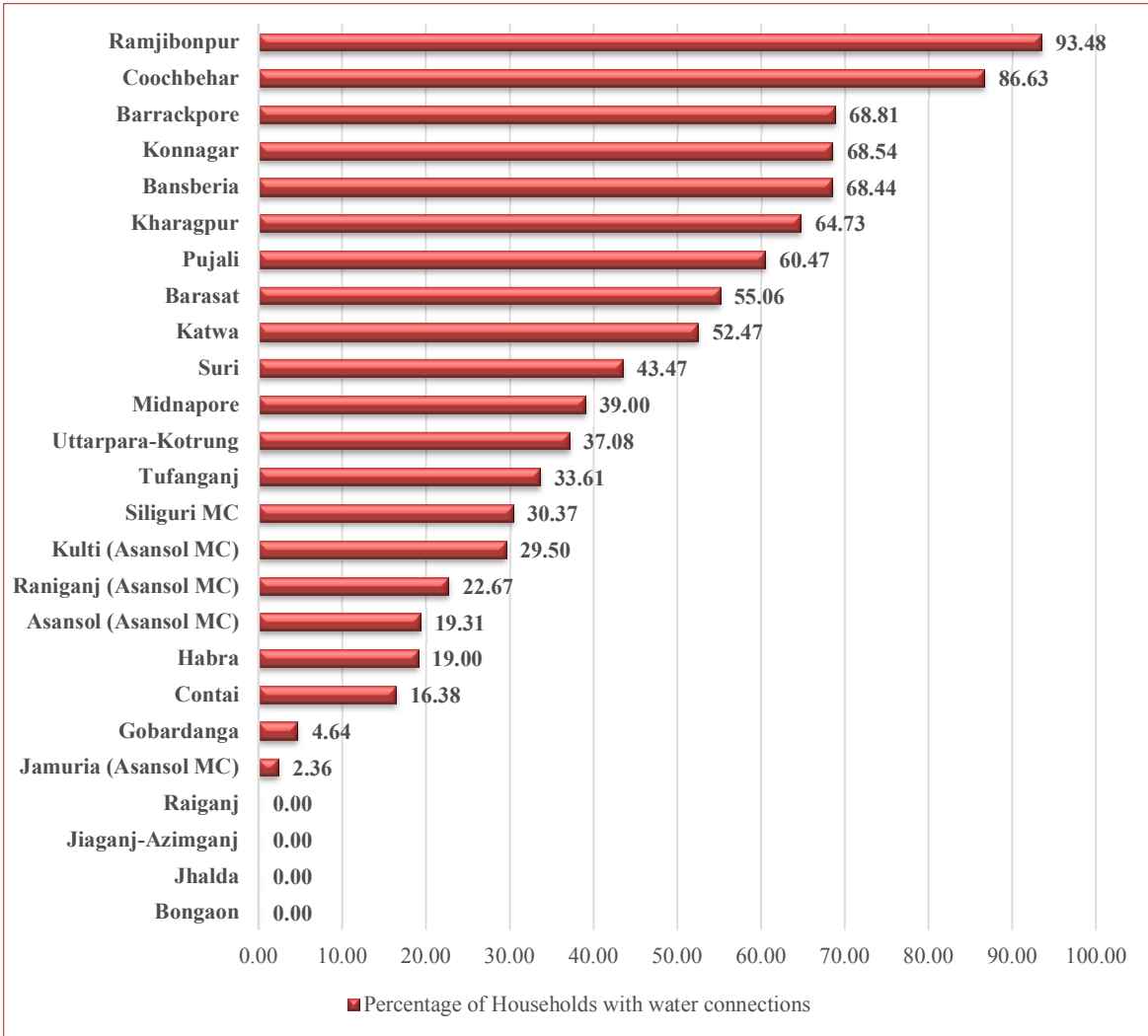
6.1.1.3 Water connections

Section 254 of the KMC Act, Section 198 of the WBMC Act and Section 231 of the WBM Act, vest power on the ULBs, to allow connections to premises, from mains or supply mains.

ULBs, are required to ensure water connections to households, for discharging their obligatory function relating to supply of wholesome water. The Handbook of Service Level Benchmarking was published (2006) by the Ministry of Urban Development (MoUD), Government of India, for achieving the goal of improved service delivery to citizens.

Twenty-five ULBs furnished information regarding the number of households, where water connections had been provided, as on 31 March 2021. Details regarding the percentage of households with water connections, are given in **Chart 6.1**.

Chart 6.1: Percentage of Households with water connections, in selected ULBs, as on 31 March 2021



(Source: data furnished by ULBs. The *Jamuria*, *Kulti* and *Raniganj* municipal areas have been merged with the *Asansol* Municipal Corporation. However, data in regard to these municipalities was furnished to Audit separately and, hence, they have been shown separately in Chart 6.1.)

Five ULBs, viz., *Kaliyaganj*, *Kalna*, *Kolkata MC*, *Mal* and *Panihati*, did not furnish data in this regard. It is evident from **Chart 6.1** that, none of the test-checked ULBs had provided water connections to all the households, therefore, it could not be ensured that every household had access to clean water.

6.1.1.4 Quantity, continuity and quality of water supply

The Handbook of Service Level Benchmarking indicators fixed the quantity and continuity of water supply, at 135 litres *per capita per day* (lpcd) and 24 hours, respectively. The handbook also fixed ensuring quality of water supplied at 100 *per cent*. The status of quantity and continuity of water supply, in the test-checked ULBs, are depicted in **Charts 6.2 and 6.3**.

Chart 6.2: Quantity of water supplied

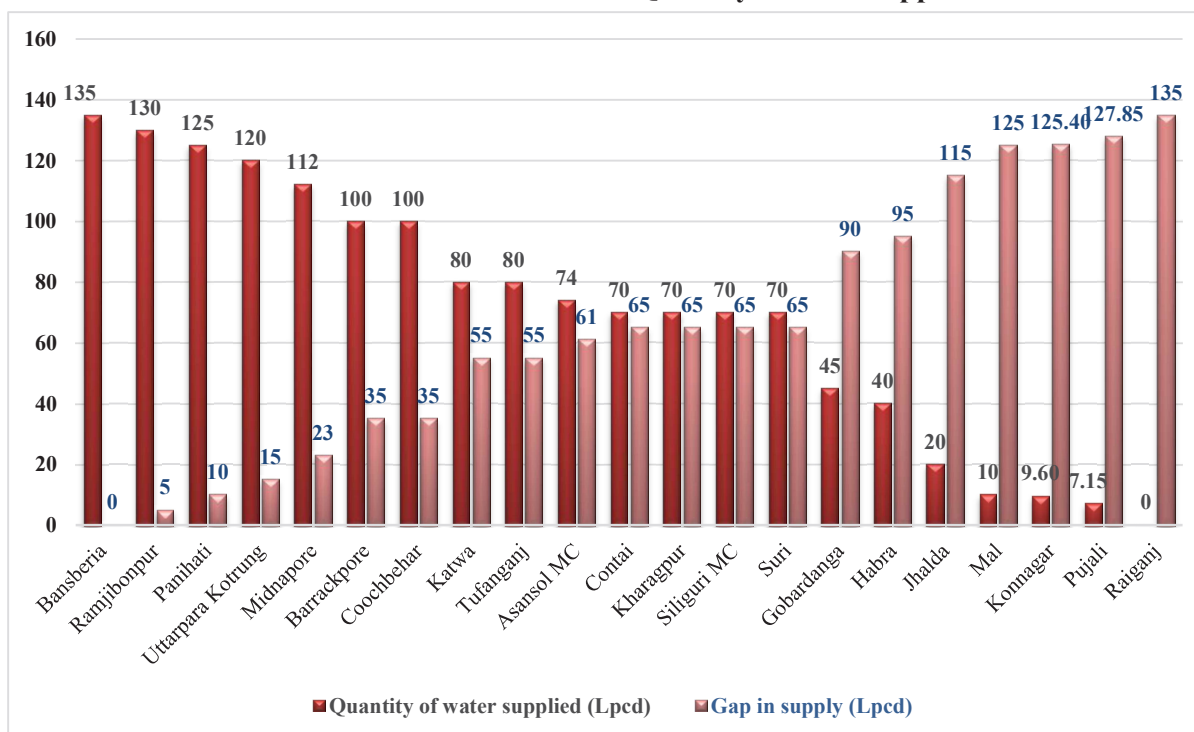
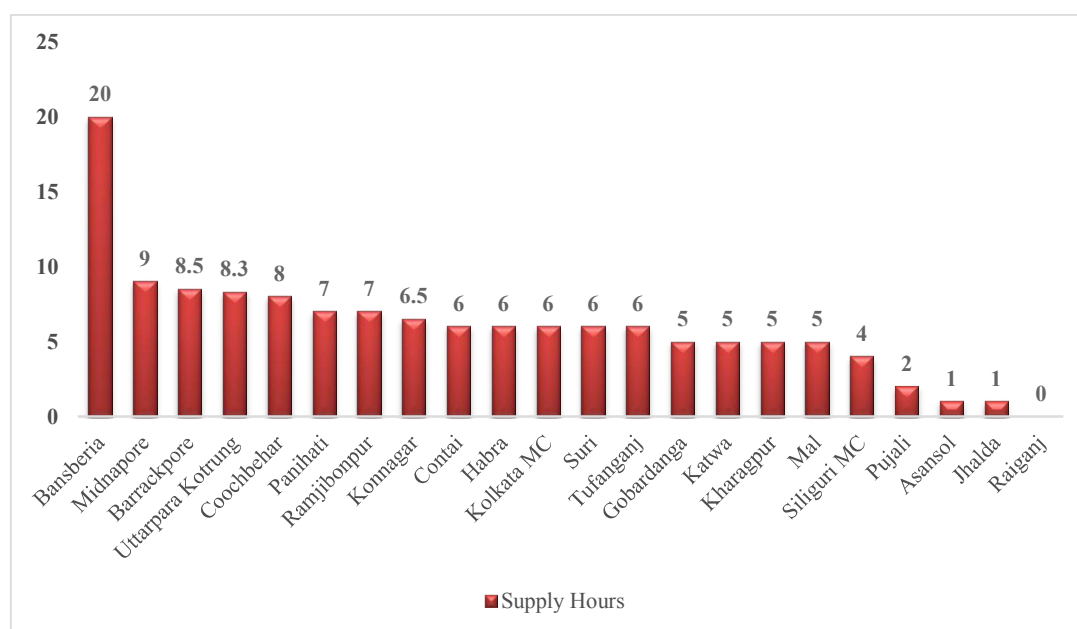


Chart 6.3: Continuity of water supply (in hours)



It is evident that only one ULB (*Bansberia*) had achieved the benchmark of supplying 135 lpcd water. With regard to continuity of the supply of water, none of the ULBs had achieved the benchmark.

Audit also found that only ten ULBs (*Asansol MC, Barasat, Contai, Coochbehar, Katwa, Kharagpur, Kolkata MC, Midnapore, Ramjibonpur* and *Suri*) had tested the quality of water supplied. Two of these ULBs viz. *Barasat* and *Suri* had

conducted such tests, as and when needed. 12 ULBs had not conducted quality tests of the water supplied. Four ULBs (*Kaliyaganj, Kalna, Konnagar* and *Siliguri MC*) did not furnish the desired information. *Jiaganj-Azimganj* had no role in water supply and did not conduct any tests.

6.1.1.5 Metering of water connections

Section 262 of the KMC Act, Section 206 of the WBMC Act and Section 226 of the WBM Act, state that ULBs may provide water meters and attach the same in the supply mains, in the premises connected with the service mains. The expenses of providing and attaching meters are to be borne by the ULBs. Section 265 of the KMC Act and Section 209 of the WBMC Act, provide for payment, as per the reading of the water meter. The Handbook of Service Level Benchmarking fixed the target of extent of metering of water connections at 100 *per cent*.

Audit observed that only five ULBs, viz. *Asansol MC, Coochbehar, Contai, Kharagpur* and *Pujali*, had provided water-meters. *Contai* and *Pujali* had provided water-meters to households but were not taking reading of these meters.

The *Kharagpur* and *Coochbehar* municipalities had provided only a few meters and had not generated bills for consumers, while *Asansol MC* had provided meters for bulk water connections, apartments and commercial properties only.

Fifteen ULBs⁵⁹ did not provide water-meters. Six ULBs (*Bansberia, Barrackpore, Gobardanga, Kaliyaganj, Kalna, Ramjibonpur*) did not furnish the desired information. *Jiaganj-Azimganj* Municipality had no house connections and, hence, water meters had not been installed.

6.1.1.6 Collection of fees for supply of water

Section 234 of the KMC Act, Section 176 of the WBMC Act and Section 226 of the WBM Act, empower ULBs to collect fees for supply of water, at rates determined by regulations. The Handbook of Service Level Benchmarking also pegged the cost recovery in water supply services at 100 *per cent*.

Audit observed that only three ULBs, viz., *Kharagpur, Ramjibonpur* and *Siliguri MC*, had collected fees for supply of water, from domestic consumers and seven ULBs (*Asansol MC, Katwa, Kharagpur, Kolkata MC, Konnagar, Ramjibonpur* and *Siliguri MC*), had collected the same from non-domestic consumers.

Twenty ULBs⁶⁰ had not collected water charges from domestic consumers and sixteen ULBs⁶¹ had not collected the same from non-domestic consumers.

Three ULBs (*Gobardanga, Kaliyaganj, Kalna*) did not furnish the requested information. *Jiaganj-Azimganj* Municipality had no house connections and, hence, fees for supply of water had not been collected.

⁵⁹ *Barasat, Bongaon, Habra, Jhalda, Katwa, Kolkata MC, Konnagar, Mal, Midnapore, Panihati, Raiganj, Siliguri MC, Suri, Tufanganj and Uttarpara-Kotrung.*

⁶⁰ *Asansol MC, Bansberia, Barasat, Barrackpore, Bongaon, Contai, Coochbehar, Habra, Jhalda, Katwa, Kolkata MC, Konnagar, Mal, Midnapore, Panihati, Pujali, Raiganj, Suri, Tufanganj and Uttarpara-Kotrung.*

⁶¹ *Bansberia, Barasat, Barrackpore, Bongaon, Contai, Coochbehar, Habra, Jhalda, Mal, Midnapore, Panihati, Pujali, Raiganj, Suri, Tufanganj and Uttarpara-Kotrung.*

The ULBs were empowered by the State Acts for the devolved function relating to supply of water to citizens. However, Audit observed the following issues affecting the efficacy of delivery of water supply services:

- i. The ULBs were still largely dependent on parastatals like KMDA and PHED for treatment and supply of water for their citizens. As a result, they could not achieve the Service Level Benchmarks with respect to *per capita* supply of water, continuity of water supply.
- ii. The ULBs were unable to take over the projects from the parastatals due to fund constraint and lack of required infrastructure and expertise.
- iii. ULBs failed to provide connections to all households although this is mandated in the Act.
- iv. The ULBs did not take initiative to levy and collect fees for supply of water from domestic and non-domestic consumers to meet the revenue expenses relating to supply of water.

In the Exit Conference (October 2022), the Department stated that it had been trying to assess the insufficiency, in regard to the function relating to supply of water and bridge the gaps through AMRUT projects.

Recommendation:

- 21. Government may provide adequate funds and functionaries to ULBs, to enable them to construct and maintain water supply projects and also to take possession of water supply projects from parastatals/other departments.**
- 22. Government may introduce regular monitoring, for achieving the Service Level Benchmarks, to ensure supply of quality water to citizens.**
- 23. ULBs may levy and collect fees for supply of water from both domestic and non-domestic consumers, as per extant rules. Metering of water may also be taken up, to charge fees based on consumption and increase the own sources of revenue.**

6.2 Solid Waste Management

The Acts governing ULBs had detailed provisions regarding management of solid waste by the ULBs. However, the detailed provisions, for Municipal Corporations governed by the WBMC Act, 2006, were added under Section 300, by the WBMC (Second Amendment) Act, 2018, published in December 2018.

The ULBs are also required to comply with Solid Waste Management Rules, 2016, by the Ministry of Environment, Forest and Climate Change (MoEF), Government of India, which came into force from 8 April 2016⁶².

These rules apply to ULBs, census towns, notified areas, notified industrial townships, areas under the control of the Indian Railways, airports, ports and harbours, defence establishments, State and Central government organisations *etc.* and to every domestic, institutional, commercial and any other non-

⁶² In exercise of the powers conferred by the Environment (Protection) Act, 1986 and in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000.

residential solid waste generator situated in the areas (except to generators of Bio-Medical waste, e-waste, industrial waste, hazardous waste *etc*).

These rules delineate the duties and responsibilities of local bodies, as also of the department dealing with Urban Development in the State Government, District Magistrates, State and Central Pollution Control Boards and other authorities.

Compliance of the ULBs, with these rules and their efficacy in performing the functions conferred on them, by the municipal laws of the State, are discussed in the succeeding paragraphs.

6.2.1 Efficacy of ULBs in the delivery of solid waste management related services

6.2.1.1 Preparation of plan for solid waste management

As per Rule 11 of SWM Rules, the State Government was required to prepare a State Policy and Solid Waste Management Strategy for the State, within one year from the notification of the said rules. Further, as per Rule 15(a) of the rules, *ibid*, ULBs were required to prepare a SWM plan, within six months from the date of notification of the State Policy and Strategy on Solid Waste Management and submit a copy of the same to the UD&MAD.

The UD&MAD published the State Policy and Strategy on Solid Waste Management in January 2018. In compliance with provisions contained in SWM Rules, ULBs were required to prepare their SWM plans within six months, *i.e.* by July 2018.

Audit noticed that the *Kolkata* MC had published (September 2019) a Master Plan for SWM and the *Kharagpur* Municipality had prepared (November 2017) a Detailed Project Report (DPR) for SWM, under the Swachh Bharat Mission. Apart from these, seven ULBs⁶³ had prepared plans/DPRs for SWM functions, either solely or as a part of other projects, at different points of time, but none of the plans were in accordance with the provisions of the SWM Rules. The remaining 18 ULBs had not prepared plans for SWM.

Audit noted that the State Urban Development Agency (SUDA) had engaged agencies for preparation of micro-plans, as per SWM Rules, 2016, in all the 124 ULBs (except *Kolkata* MC), by inviting Expression of Interest (EoI) in May 2019, and issued work orders, to selected agencies, between September and December 2019. However, the micro-plans/DPRs, prepared by the agencies, were not distributed among the ULBs, to implement the SWM functions, as per plans.

Further, SUDA stated (September 2022) that the final DPRs of all the ULBs (except *Kolkata* MC, for which DPR had not been prepared by the micro planning agency), had been approved by the State Level Task Force (SLTF) of UD&MAD, but were yet to be placed before the State High Power Committee (SHPC), for its approval. The DPRs would be circulated to the respective ULBs only after the approval of SHPC.

It is evident that the ULBs did not receive the micro plans/DPRs prepared by the agencies (as on September 2022) which had resulted in delay in implementation

⁶³ *Asansol MC, Bansberia, Habra, Konnagar, Panihati, Siliguri MC and Uttarpara-Kotrung.*

of the SWM function, in conformity with the SWM Rules. Further, due to delay in the engagement of agencies, the planning process had been delayed by three years (as of September 2022).

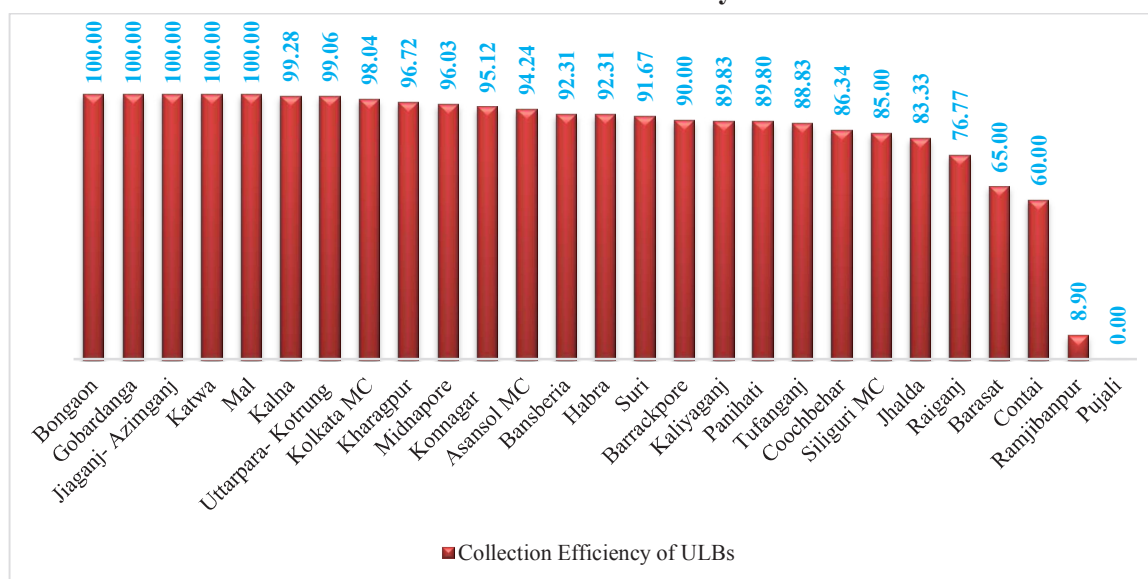
6.2.1.2 Collection and segregation of waste

Section 29 of the KMC Act, Section 63 of the WBM Act and Section 97 of the WBMC Act, describe the collection, removal and disposal of solid waste, as an obligatory function for municipalities, KMC and other Municipal Corporations in West Bengal. Sections 322 and 329 of the KMC Act, Section 260 of the WBM Act and Section 300 of the WBMC Act, also reiterate the responsibility of the ULBs in the management of solid waste.

(i) The Handbook of Service Level Benchmarks, published by MoUD, fixed the collection efficiency *i.e.* percentage of waste collection *vis-à-vis* generation, at 100 *per cent*.

Audit noted that the total daily waste, generated by the 27 test-checked ULBs, was 7,080.97 Tonnes per day (TPD), out of which 6,695.09 TPD was being collected daily by the ULBs. Thus, the overall collection efficiency was 94.55 *per cent* (**Chart 6.5**). The individual collection efficiencies of the 27 test-checked ULBs are given in **Chart 6.4**.

Chart 6.4: Collection efficiency of 27 test-checked ULBs



In case of the *Pujali* Municipality, the collection efficiency was 'nil', since the Municipality had no role in the collection, segregation and disposal of solid waste. In the case of *Ramjibonpur* Municipality, the collection efficiency was 8.90 *per cent* only.

(ii) Rule 15 (b) of the SWM Rule mandates ULBs to arrange for door-to-door collection of segregated solid waste from all households, including slums and informal settlements, commercial, institutional and other non-residential premises.

Out of the 27 test-checked ULBs, 22 had introduced door-to-door collection and 12 had implemented segregation of Municipal Solid Waste (MSW) at source.

The status of door-to-door collection and segregation of MSW at source, is depicted in **Table 6.5**.

Table 6.5: Status of implementation of door-to-door collection and segregation at source

	Door to Door Collection		Segregation at Source	
	Implemented	Not implemented	Implemented	Not implemented
Number and names of the ULBs	22 ULBs: Bansberia, Barasat, Barrackpore, Bongaon, Contai, Coochbehar, Gobardanga, Habra, Jiaganj-Azimganj, Kaliyaganj, Kalna, Kharagpur, Kolkata MC, Konnagar, Mal, Midnapore, Panihati, Raiganj Suri, Siliguri MC, Tufanganj and Uttarpara-Kotrung	4 ULBs: Asansol MC, Katwa, Pujali and Ramjibonpur	12 ULBs: Barasat, Barrackpore, Jiaganj-Azimganj, Kalna, Katwa, Kharagpur, Kolkata MC, Konnagar, Ramjibonpur, Siliguri MC, Suri and Uttarpara-Kotrung	14 ULBs: Asansol MC, Bansberia, Bongaon, Contai, Coochbehar, Gobardanga, Habra, Kaliyaganj, Mal, Midnapore, Panihati, Pujali, Raiganj and Tufanganj

(Source: data furnished by the ULBs)

The Asansol MC and Ramjibonpur Municipalities were collecting Municipal Solid Waste from vats/community bins only. The Jhalda Municipality did not furnish reply.

(iii) For segregation at source, separate storage of waste is necessary. Rule 4(a) of the SWM Rules states that it is the responsibility of the waste generators to segregate and store the waste generated by them, in three separate streams, namely, bio-degradable, non-biodegradable and domestic hazardous wastes, in suitable bins and to handover the segregated waste to authorised waste pickers or waste collectors, as per directions or notifications issued by the local authorities, from time to time.

Audit, however, observed that, out of the 27 test-checked ULBs, only 20⁶⁴ had supplied bins to households. Further, out of 20 ULBs, 14⁶⁵ had issued only two types of bins, instead of three, to households, to encourage segregation at source. Only Siliguri MC has supplied three types of bins, although they were supplied at different points of time. Out of the 20 ULBs, three (Barrackpore, Coochbehar and Raiganj) did not specify the type of bins supplied and two did not furnish information.

Five ULBs (Asansol MC, Bansberia, Gobardanga, Midnapore and Pujali) had not issued bins to households and two ULBs viz. Habra and Jhalda did not furnish the requested information.

Audit also observed that SUDA had centrally procured two types of bins and supplied them to the ULBs.

⁶⁴ Barasat, Barrackpore, Bongaon, Contai, Coochbehar, Jiaganj-Azimganj, Kaliyaganj, Kalna, Katwa, Kharagpur, Kolkata MC, Konnagar, Mal, Panihati, Raiganj, Ramjibonpur, Siliguri MC, Suri, Tufanganj and Uttarpara-Kotrung.

⁶⁵ Barasat, Bongaon, Contai, Jiaganj-Azimganj, Kaliyaganj, Kalna, Katwa, Kharagpur, Mal, Panihati, Ramjibonpur, Suri, Tufanganj and Uttarpara-Kotrung.

Due to non-supply of three different types of bins, the objective of segregation at source could not be achieved in a proper manner.

6.2.1.3 Carriage of solid waste

Section 324 of the KMC Act, Section 265 of the WBM Act and Section 300E of the WBMC Act, provide for arrangement of vehicles or other suitable means, for removal of solid waste.

(i) Audit noted that all the 27 test-checked ULBs had primary and secondary waste collection vehicles⁶⁶ for transportation of MSW. In case of 22 ULBs⁶⁷, secondary waste collection vehicles had been provided by SUDA. Out of these 22 ULBs, 10 ULBs⁶⁸ were solely dependent on SUDA (and KMDA, in case of *Bansberia* Municipality), for secondary waste collection vehicles. In case of two ULBs (*Kharagpur* and *Kolkata* MC), secondary waste collection vehicles had been purchased from the funds provided by SUDA. However, the *Gobardanga*, *Jhalda* and *Panihati* municipalities did not furnish any reply in this regard.

The *Pujali* Municipality had no role in solid waste management, yet SUDA had supplied it six secondary waste collection vehicles (tipper/dump truck). The ULB had purchased one secondary waste collection vehicle (movable compactor), from the funds provided by SUDA. Since the ULB was unable to use the vehicles, these six vehicles were lying idle, while the movable compactor was transferred to the *Maheshtala* Municipality.

(ii) In 12 ULBs⁶⁹, the primary waste collection vehicles were not compartmentalized, which resulted in mixing of waste and defeated the objective of source segregation, segregated collection and carriage of solid waste. In six ULBs viz. *Contai*, *Kalna*, *Katwa*, *Konnagar*, *Mal* and *Uttarpara-Kotrung*, the primary waste collection vehicles were compartmentalized. No information was available in regard to eight ULBs. In the *Pujali* Municipality, the primary waste collection vehicles had not been put to use.

6.2.1.4 Sanitary land filling, dumping and processing of solid waste

Section 325 of the KMC Act, Section 267 of the WBM Act and Section 300G of the WBMC Act, provide for disposal of solid waste at places within or outside municipal areas.

⁶⁶ 'Primary collection' refers to collection of waste stored at source i.e. from individual households and shops, offices and any other non-residential premises (door-to-door collection) to carry to another point determined by ULB/transfer stations or dump site or waste processing site. The vehicles used in primary collection, such as containerized push carts, tricycles or small mechanised vehicles, are called primary collection vehicles. 'Secondary collection' refers to picking up of waste from community bins, waste storage depots, or transfer stations and transporting it to waste processing sites or to the final disposal sites. The vehicle used in secondary collection, such as trucks and compactors, are called secondary collection vehicles.

⁶⁷ *Asansol* MC, *Bansberia*, *Barasat*, *Barrackpore*, *Bongaon*, *Contai*, *Coochbehar*, *Habra*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Katwa*, *Konnagar*, *Mal*, *Midnapore*, *Pujali*, *Raiganj*, *Ramjibonpur*, *Siliguri* MC, *Suri*, *Tufanganj* and *Uttarpara-Kotrung*.

⁶⁸ *Asansol* MC, *Barasat*, *Bongaon*, *Contai*, *Jiaganj-Azimganj*, *Konnagar*, *Midnapore*, *Pujali*, *Raiganj* and *Ramjibonpur*.

⁶⁹ *Bansberia*, *Barasat*, *Barrackpore*, *Bongaon*, *Coochbehar*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kolkata* MC, *Raiganj*, *Siliguri* MC, *Suri* and *Tufanganj*.

Section 327 of the KMC Act, Section 268 of the WBM Act and Section 300H of the WBMC Act, empower ULBs to construct, acquire, operate, maintain, develop and manage any work, within or outside the municipal area, for the purpose of receiving, storing, treating, processing and disposing solid waste or converting such solid waste into compost or other matter and run it on a commercial basis.

Section 328 of the KMC Act, Section 268 of the WBM Act and Section 300H of the WBMC Act, also empower ULBs to utilise solid waste, for filling up any well, tank or low land, on a commercial basis, within or outside the municipal area.

Rule 15 (w) of the SWM Rules, also mandates the ULBs to undertake, on their own or through any other agency, construction, operation and maintenance of sanitary landfills⁷⁰ and associated infrastructure, for disposal of residual waste. Rule 15 (zh) *ibid* directs the ULBs to stop land filling or dumping of mixed waste, while Rule 15 (zi) *ibid* directs allowing only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processed reject and residue from waste processing facilities, to go to sanitary landfills, to achieve the desired objective of zero waste going to landfills.

As per Rule 22 *ibid*, the timeline for identification, procurement and setting up of solid waste processing facilities and sanitary landfill facilities, was fixed at two years. For ULBs having population below one lakh, the timeline was fixed at three years.

Further, the criteria for sanitary landfill sites have been delineated in Schedule-I of the SWM Rules, which, *inter alia*, state that the site shall be 100 meters away from rivers, 200 meters away from ponds, 200 meters away from highways *etc.* The landfill sites are required to be fenced, to prevent entry of unauthorised persons and stray animals.

Audit observed that:

- (i) Out of 27 test-checked ULBs, only five ULBs had solid waste processing units, as on 31 March 2021, as per details given in **Table 6.6**.

Table 6.6: Details of solid waste processing in ULBs

Sl. No.	ULB	Details of solid waste the processing facility
1.	Kolkata MC	The ULB has one centralised compost plant of 500 TPD, at <i>Dhapa</i> in PPP model. The project was commissioned in 1999. A 2-TPD plastic waste management plant as a pilot project at <i>Dhapa</i> , to convert plastic waste into benches, chairs <i>etc.</i> started in July 2021.
2.	Siliguri MC	The ULB has one compost plant, in the Public Private Partnership (PPP) model. The project was commissioned in 2019, with a capacity of 21 Tonnes per month.

⁷⁰ 'Sanitary land filling' means the final and safe disposal of residual solid waste and inert wastes, on land, in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion. 'Dump sites' refer to land utilised by a local body for disposal of solid waste, without following the principles of sanitary land filling.

Sl. No.	ULB	Details of solid waste the processing facility
3.	Konnagar	The ULB has a 42 TPD Capacity Composting Plant, constructed with aid from JICA, under the Kolkata Solid Waste Management Improvement Project (KSWMIP), a trans-municipal solid waste management project, with six ULBs, including Uttarpara-Kotrung. The project was constructed by KMDA and handed over to these ULBs. The project started operations from 2019. The project has two parts - a Compost Plant and a Transfer Station. The residual 10.95 TPD waste (mixed waste/inert waste) is sent to the Regional Waste Management Centre (RWMC), at Baidyabati, for sanitary landfill.
4.	Uttarpara-Kotrung	This ULB is also a part of KSWMIP consisting of a Compost Plant and a Transfer Station. The residual waste (mixed waste) is sent to the RWMC, at Baidyabati, for sanitary landfill.

(Source: data furnished by the ULBs)

There is a compost plant processing unit in the *Mal* Municipality, which is non-operational.

(ii) Only three ULBs, viz., *Kalna*, *Konnagar* and *Uttarpara-Kotrung*, have their own sanitary landfill facilities. The sanitary landfill of the *Kalna* Municipality is not yet operational. The common landfill site of *Konnagar* and *Uttarpara-Kotrung* is located at the Regional Waste Management Centre (RWMC) under the *Baidyabati* Municipality. In case of *Konnagar* municipality, partially mixed waste, is dumped in the landfill sites.

(iii) Six ULBs (*Contai*, *Jhalda*, *Katwa*, *Mal*, *Ramjibonpur* and *Suri*) do not have their own dumping sites for MSW. These six ULBs were dumping MSW on unauthorised lands, including on the side of railway tracks (*Mal*), vested land (*Suri*) etc. The *Asansol* MC has five dumping sites, out of which two are not in possession of the ULB and are on Panchayat lands (*Jamuria*, *Kulti*). The dumping site at *Kulti* is an abandoned mining place.

The present dumping site at the *Habra* Municipality has been exhausted and the cluster project with *Ashokenagar-Kalyangarh* Municipality is not operational. As a result, the ULB presently dumps mixed waste on the land of the Social Welfare Department, Government of West Bengal, at Ward No. 24. *Pujali* Municipality has a dumping site at Ward No. 2, beside the *Hooghly* River, which, in turn, is an infringement of SWM Rules. The Municipality had to stop dumping there, due to objections raised by local people. The ULB had sent a proposal for purchase of land, to UD&MAD, in May 2021, to which response was awaited (as of August 2021).

Seventeen ULBs⁷¹ have own their dumping sites, where mixed solid waste is disposed.

(iv) The dumping sites of five selected ULBs (*Barasat*, *Bongaon*, *Coochbehar*, *Jiaganj-Azimganj* and *Tufanganj*) were not fenced. In case of 12 ULBs, the location of the dumping sites infringed the SWM Rules, due to non-observance of one or more than criteria, such as not being 100 m away from river or 200 m away from habitations or 200 m away from water supply etc.

⁷¹ *Bansberia*, *Barasat*, *Barrackpore*, *Bongaon*, *Coochbehar*, *Gobnardanga*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Kharagpur*, *Kolkata MC*, *Midnapore*, *Panihati*, *Pujali*, *Raiganj*, *Siliguri MC* and *Tufanganj*.

(v) In case of three ULBs, viz., *Kalna*, *Katwa* and *Ramjibonpur*, Bio-Medical waste was found to have been disposed, in the dumpsites, by private clinics and nursing homes.

(vi) During joint physical verification with officers/officials of the ULBs, heaps of waste at the dumping sites, burning of waste and dumping by the riverside, were noticed. Photographs taken during the joint physical verification are given below.



Exhibit 6.1: Burning of solid waste (prohibited as per SWM Rules, 2016), in an open dumping site of the *Coochbehar* Municipality.



Exhibit 6.2: Open municipal dumping ground in Ward No. 06, on the banks of *Raidak* River of the *Tufanganj* Municipality



Exhibit 6.3: Heaps of garbage at the *Ramchandrapur* dumping Ground, in the *Panihati* Municipality



Exhibit 6.4: Heaps of garbage at the *Muktapukur* dumping ground, in the *Barrackpore* Municipality

6.2.1.5 Framing of Bye-laws and collection of user fees

Section 95B of the WBM Act and Section 105 of the WBMC Act, empower ULBs to collect Special Conservancy Charges, from the waste generators, for providing municipal services in connection with the removal of solid waste. Section 210B of the KMC Act, however, provides for levy of Special Conservancy Charges on commercial and industrial establishments only. All these Sections also empower ULBs to determine the rates of such charges and make regulations specifying the occasions on which such charges may be imposed, the rates and mode of collection *etc.*

Section 332 of the KMC Act and Section 300B of the WBMC Act, empower ULBs to impose administrative charges or special cleansing service charges, for

sweeping, cleansing of the premises and for collecting and final disposal of the rubbish and offensive matters, on the owner or the occupier of any premises, at such rates as may be determined by the CIC/MIC, from time to time. Any unpaid sum under this Section, is recoverable from the person concerned, as an arrear tax, under these Acts. Similar provisions for non-residential premises exist in Sections 333 of the KMC Act, Section 266 of the WBM Act and Section 300B of the WBMC Act.

Section 338 of the KMC Act, Section 272 of the WBM Act and Section 300K of the WBMC Act, provide for imposition of fines, for depositing or throwing solid waste, in contravention of these Acts.

In terms of Rule 15 (e) of the SWM Rules, ULBs were required to frame bye-laws, incorporating the provisions of these rules, within one year from the date of notification of these rules and also to ensure their timely implementation. The bye-laws were required to prescribe criteria for levying of spot fines for persons, who were littering or had failed to comply with the provisions of these rules, and delegate powers, to officers or local bodies, to levy spot fines, as per the bye-laws framed. Rule 15 (f) *ibid*, allows ULBs to impose and collect user fee from the waste generators.

Audit observed that only four ULBs, viz., the *Asansol MC*, *Kolkata MC*, *Siliguri MC* and *Uttarpara-Kotrung Municipality*, had prepared regulations/bye-laws for solid waste management activity. The bye-laws prepared by the *Kolkata MC* was approved and published (August 2020) by the State Government, while the bye-laws prepared by *Asansol MC* and *Uttarpara-Kotrung* had been sent (January 2021) to SUDA, for approval. Detailed information, about the bye-laws prepared by the *Siliguri MC*, was not available. 22 ULBs⁷² had not framed bye-laws in regard to the SWM function.

Audit observed that four ULBs, viz. the *Kolkata MC*, *Siliguri MC*, *Barrackpore* and *Konnagar*, were collecting user fees from waste generators. The *Asansol MC* and *Uttarpara-Kotrung* had not collected user fees, although they had prepared bye-laws for the purpose. 20 ULBs⁷³ did not frame bye-laws and collect user charges.

Jhalda Municipality did not furnish the requested information.

6.2.1.6 Integration of waste pickers and Self-Help Groups in solid waste management

Rules 15(c) and (d) of the SWM Rules provide for integration of the organisations of waste pickers or informal waste collectors and Self-Help Groups (SHGs), to facilitate their participation in solid waste management, including in door-to-door collection.

Audit noted that only eight ULBs (*Barasat*, *Barrackpore*, *Bongaon*, *Konnagar*, *Pujali*, *Siliguri MC*, *Suri* and *Uttarpara-Kotrung*) had formed SHGs and three

⁷² *Bansberia*, *Barasat*, *Barrackpore*, *Bongaon*, *Contai*, *Coochbehar*, *Gobardanga*, *Habra*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Katwa*, *Kharagpur*, *Konnagar*, *Mal*, *Midnapore*, *Panihati*, *Pujali*, *Raiganj*, *Ramjibonpur*, *Suri* and *Tufanganj*.

⁷³ *Bansberia*, *Barasat*, *Bongaon*, *Contai*, *Coochbehar*, *Gobardanga*, *Habra*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Katwa*, *Kharagpur*, *Mal*, *Midnapore*, *Panihati*, *Pujali*, *Raiganj*, *Ramjibonpur*, *Suri* and *Tufanganj*.

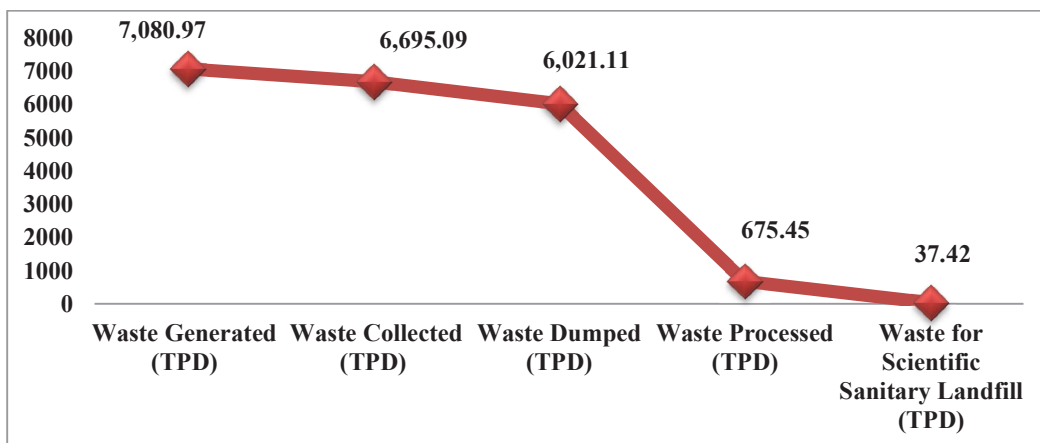
ULBs (*Bongaon, Habra, Uttarpara-Kotrung*) had established a system to recognise the waste pickers, for their integration in solid waste management activities.

Seventeen ULBs⁷⁴ did not form SHGs and two ULBs (*Jhalda* and *Jiaganj-Azimganj*) did not furnish the requested information.

6.2.1.7 Gap between waste generation and disposal, legacy waste and environmental compensation

(i) Audit found that there were gaps in the total waste generated, collected, dumped and processed in the 27 test-checked ULBs, (daily status as on 31 March 2021), as shown in **Chart 6.5**:

Chart 6.5: Gap in solid waste management in the 27 test-checked ULBs



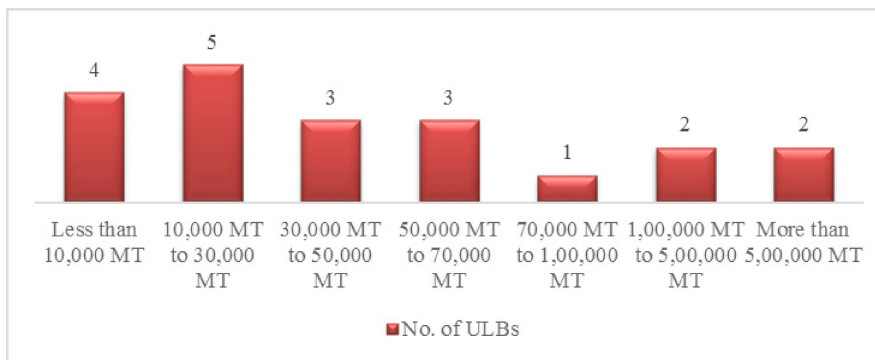
It is evident from **Chart 6.5** that there are huge gaps in the waste generated and processed, as well as in disposal of the residual waste into sanitary landfill sites. The chart also depicts that 85 per cent of the waste generated daily and 89.93 per cent of the waste collected daily, was being unscientifically dumped; only 0.53 per cent of the waste generated daily and 0.56 per cent of the waste collected daily was going to sanitary landfills. 9.54 per cent of the waste generated daily and 10.09 per cent of the waste collected daily was going for processing⁷⁵. This indicated the inability of the ULBs in discharging their functions relating to solid waste management.

(ii) Audit also found that a huge quantity of legacy waste, with a volume of 62,91,950 Metric Tonne (MT), had accumulated in 20 out of 27 ULBs, as shown in **Chart 6.6**.

⁷⁴ Asansol MC, Bansberia, Contai, Coochbehar, Gobardanga, Habra, Kaliyaganj, Kalna, Katwa, Kharagpur, Kolkata MC, Mal, Midnapore, Panihati, Raiganj, Ramjibonpur and Tufanganj.

⁷⁵ Unscientific dumping of 85 per cent of the waste generated daily, 89.93 per cent of the waste collected daily: (6,021.11/7,080.97) per cent and (6,021.11/6,695.09) per cent, respectively; 0.53 per cent of the waste generated daily and 0.56 per cent of the waste collected daily going to sanitary landfills: (37.42/7,080.97) per cent and (37.42/6,695.09) per cent, respectively; 9.54 per cent of the waste generated daily and 10.09 per cent of the waste collected daily going for processing: (675.45/7,080.97) per cent and (675.45/6,695.09) per cent, respectively.

Chart 6.6: Legacy waste in 20 ULBs



There was more than 5,00,000 MT legacy waste, in case of *Asansol MC* (11,00,000 MT) and *Kolkata MC* (41,50,000 MT). In 2021-22, KMDA and SUDA had engaged agencies for bio-remediation/bio-mining of legacy waste, in all the ULBs.

(iii) Hon'ble National Green Tribunal (NGT), in its order dated 17 July 2019, directed that, in case of failure on the part of the ULBs to commence bio-remediation of legacy waste, in compliance with Rule 22 of the SWM Rules (Sl. no. 11), from 1 November 2019, they would be liable to pay compensation.

In another order dated 17 January 2020⁷⁶, the Hon'ble NGT directed that, in case of non-compliance with Rule 22 of the SWM Rules, 2016 (Sl. nos. 1 to 10)⁷⁷, ULBs would be liable to pay compensation from 1 April 2020. Since 95 ULBs were not able to comply with Hon'ble NGT's direction with respect to legacy waste and 124 ULBs failed to comply with the observance of Rule 22 of the SWM Rules, West Bengal State Pollution Control Board calculated the monthly compensation, to be paid by the respective ULBs, from 1 July 2020⁷⁸.

Audit, however, noticed that, SUDA, on behalf of the ULBs, paid a total amount of ₹ 26.62 crore⁷⁹, as environmental compensation, to the Environment Compensation Fund, under WBPCB, Department of Environment, Government of West Bengal, for the period July 2020 to May 2021, in compliance with directions of the Hon'ble NGT, from the interest of Swachh Bharat Mission

⁷⁶ Vide OA No. 519/2019 and 606/2018 respectively.

⁷⁷ Serial nos. 1 to 10; deal with the timeframe for implementation, and state that necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own, directly, or by engaging agencies, within the timeframe specified under these rules.

⁷⁸ Due to the pandemic, the start of period of payment monthly compensation was fixed from 1 July 2020.

⁷⁹ With respect to Rule 22 (Sl. No. 11) dealing with legacy waste: ₹ 5.16 crore for the period July 2020 to October 2020, paid in November 2020; With respect to Rule 22 (Sl. No. 1 to 10) dealing with fresh waste : ₹ 6.52 crore for the period July 2020 to September 2020, paid in November 2020 and ₹ 11.48 crore for the period November 2020 to May 2021, paid in August 2021. ₹ 3.46 crore was also paid in three phases (July 2020, August 2020 and March 2021), but the pertinent period of compensation was not furnished. ₹ 6.49 crore for the period November 2020 to May 2021, was yet to be paid by SUDA.

(SBM) funds⁸⁰. ₹ 6.49 crore pertaining to the compensation for the period November 2020 to May 2021, was yet to be paid by SUDA.

The ULBs were empowered by the State Acts to carry out the devolved function of SWM. Audit, however, noticed the following issues affecting the service delivery, with regard to solid waste management:

- i. ULBs were not given the power to prepare plans for solid waste management, although they were the implementing agencies at the grassroots level.
- ii. ULBs failed to implement segregation at source and door-to-door collection of solid waste. They were dependent on SUDA, for supply of bins, primary and secondary vehicles.
- iii. ULBs failed to estimate the projected waste generation, arrangement for processing units, dumping sites and land filling sites.
- iv. ULBs did not frame bye-laws and did not levy and collect user fees from waste generators, to meet their revenue expenses and reduce waste generation at source.
- v. ULBs did not take necessary steps for bio-remediation and bio-mining of legacy wastes.

In the Exit Conference (October 2022), the Department agreed that many ULBs were infringing the stipulation contained in SWM Rules, due to rapid urbanization, reaching out to dumping sites.

Recommendation:

- 24. ULBs may take steps to reduce waste generation and achieve 100 per cent segregation of waste at source, as well as collection, processing and disposal of segregated waste.**
- 25. ULBs may implement 100 per cent door-to-door collection of solid waste and involve waste pickers/Self Help Groups in this endeavour.**
- 26. ULBs may prepare and adopt bye-laws and implement levy and collection of user fees from waste generators.**
- 27. ULBs may be equipped with adequate manpower and funds, for effective implementation of the Solid Waste Management Rules.**

6.3 Sanitation and Public Health

The functions of ULBs relating to public health and sanitation, *inter alia*, include construction, maintenance and cleansing of sewers, drains, sewerage and drainage works, sewage treatment and preparation of compost manure from sewage and other refuse *etc.*

The urban public health delivery system remains one of the most important areas to be addressed under the public health function of the ULBs, since access to urban health facilities is severely restricted⁸¹ for the urban poor. The National Urban Health Mission (NUHM), launched in 2013, is a sub-mission under the National Health Mission (NHM), which aims to cater to the unique and diverse

⁸⁰ Interest accrued in the Swachh Bharat Mission (SBM) fund maintained at the bank account of SUDA.

⁸¹ NUHM Framework for Implementation, May 2013.

needs of the urban poor and vulnerable population. Cities having a population of 50,000 and above and the district headquarters, were covered under the mission.

6.3.1 Efficacy in implementation of sewerage and drainage functions

In regard to the efficacy in delivery of sewerage and drainage related services, by ULBs, Audit observed as follows:

6.3.1.1 Sewerage and drainage network, outfall

As discussed in **Paragraph 6.3**, Section 63 of the WBM Act and Section 97 of the WBMC Act, describe the construction, maintenance and cleansing of sewers and drains, sewerage and drainage network (in the sphere of public works) and disposal of liquid waste (in the sphere of public health and sanitation), as obligatory functions. Section 29 of the KMC Act also has similar provisions but does not demarcate these functions as being separate from each other. Section 277 of the KMC Act and Section 245 of the WBM Act, also reiterate the role of the ULBs, in providing drainage and sewerage.

Audit, noted that-

(i) Only four ULBs had underground sewerage and drainage networks. The *Kolkata* Municipal Corporation had a sewerage and drainage network of approximately 480 km of piped sewer and 180 km of brick sewer. The *Panihati* Municipality had an underground sewerage network of 23 km, which was not functional. The *Uttarpara-Kotrung* Municipality had an underground sewerage network of 8.5 km, while the length of the sewerage network in *Konnagar* was 0.6 km only. These ULBs also had a network of drainage systems, consisting of both open and closed surface drains.

In 20 ULBs⁸², the sewerage and drainage network consisted of a drainage system of open or closed surface drains, or both. Three ULBs (*Raiganj*, *Ramjibonpur* and *Siliguri* MC) did not furnish information about their sewerage and drainage networks.

Underground Drainage System removes toxic materials and disease causing organisms by draining them away through the channels and do not cause contamination in soil. Open and closed drains may choke due to littering, leading to disruption of sewerage and drainage.

(ii) Audit also noted that, in 20 ULBs⁸³, the drains were finally discharging waste into rivers, canals or lowland near rivers. Nine out of these 20 ULBs (*Bansberia*, *Barrackpore*, *Jiaganj-Azimganj*, *Katwa*, *Kolkata* MC, *Konnagar*, *Panihati*, *Pujali* and *Uttarpara-Kotrung*), were finally discharging waste into the *Hooghly* River, directly or indirectly. Only seven (*Bansberia*, *Barrackpore*, *Jiaganj-Azimganj*, *Katwa*, *Kolkata* MC, *Konnagar* and *Panihati*) of these ULBs had functional/partially functional STPs, indicating that untreated sewage was being discharged into the *Hooghly*, as well as other rivers, causing

⁸² *Asansol* MC, *Bansberia*, *Barasat*, *Barrackpore*, *Bogaon*, *Contai*, *Coochbehar*, *Gobardanga*, *Habra*, *Jhalda*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Katwa*, *Kharagpur*, *Mal*, *Midnapore*, *Pujali*, *Suri* and *Tufanganj*.

⁸³ *Asansol* MC, *Bansberia*, *Barasat*, *Barrackpore*, *Bongaon*, *Coochbehar*, *Habra*, *Jhalda*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Katwa*, *Kolkata* MC, *Konnagar*, *Mal*, *Midnapore*, *Panihati*, *Pujali*, *Tufanganj* and *Uttarpara-Kotrung*.

pollution of water. Eleven ULBs⁸⁴ were discharging into various rivers, canals and ditches.

Three ULBs viz. *Kalna*, *Kharagpur* and *Suri*, were discharging into roadside ditches and paddy fields. Four ULBs viz. *Gobardanga*, *Raiganj*, *Ramjibonpur* and *Siliguri* MC, did not furnish the requested information.

During joint physical verification with officers/officials of the ULBs, outfall of untreated sewers, falling into rivers and clogged open drains, was noticed. Some photographs taken during the joint physical verification are given below:



Exhibit 6.5: Municipal high drain with untreated sewage falling into the *Ichamati* River, in Ward No. 05 at the *Bongaon* Municipality



Exhibit 6.6: Untreated sewer outfall point into the *Bhagirathi* River, at Ward No. 07 at the *Jiaganj-Azimganj* Municipality



Exhibit 6.7: Clogged drain at Ward no. 07, at the *Tufanganj* Municipality



Exhibit 6.8: Confluence of municipal drain with *Torsha* River, near Electric crematorium, at Ward No. 10, at the *Coochbehar* Municipality

⁸⁴ *Asansol MC, Barasat, Bongaon, Contai, Coochbehar, Habra, Jhalda, Kaliyaganj, Mal, Midnapore and Tufanganj.*

(iii) Audit found that, in 18 ULBs⁸⁵, houses had septic tanks with or without soak pit systems. Out of these 18 ULBs, in case of 12 ULBs⁸⁶, septic tanks, with/without soak pits, were connected with the drainage system. Five ULBs viz. *Bansberia*, *Contai*, *Coochbehar*, *Kalna* and *Konnagar* did not specify the system of discharge of household wastewater, while, in one ULB (*Tufanganj*), there was no connection between the septic tanks/soak pits and the drainage system. Nine ULBs viz. *Asansol MC*, *Bongaon*, *Gobardanga*, *Habra*, *Kolkata MC*, *Midnapore*, *Raiganj*, *Ramjibonpur* and *Siliguri MC* did not specify the sanitation system in the households.

(iv) Audit noted the prominent role of parastatals in the sewerage and drainage functions, in Municipal areas. In the *Uttarpara-Kotrung* Municipality, the operation and maintenance of the sewerage system is carried out by KMDA, while the operation and maintenance of the drainage system is carried out by the ULB. The rejuvenation of the lifting station and the pumping station were being carried out by KMDA. Further, in the *Bansberia* and *Barasat* municipalities, construction of the drainage system had been done by KMDA. In case of *Barasat*, the operation and maintenance function is being carried out by the ULB. The role of parastatals, in regard to Sewage Treatment Plants (STPs), is discussed in the next paragraph.

The operation and maintenance of sewerage and drainage system by parastatals undermined the devolution of power conferred on the ULBs as envisaged in the State Acts. During audit, it was noticed that ULBs did not estimate or were unaware of the liquid waste generated under area of its jurisdiction, which was a primary step, required towards mitigating the environmental issues caused by liquid wastes.

6.3.1.2 Sewage Treatment Plants (STPs) and disposal of faecal sludge

Section 98 of the WBMC Act and Section 64 of the WBM Act delineate the treatment of sewage and preparation of compost manure from sewage and other refuse, as discretionary functions.

(i) Seven ULBs out of 27 test-checked ULBs had 13 STPs in their Municipal areas, out of which seven STPs were under the direct control of two ULBs (*Kolkata MC* and *Jiaganj-Azimganj Municipality*). Details of these STPs are given in **Table 6.7**.

⁸⁵ *Bansberia*, *Barasat*, *Barrackpore*, *Contai*, *Coochbehar*, *Jhalda*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Kalna*, *Katwa*, *Kharagpur*, *Konnagar*, *Mal*, *Panihati*, *Pujali*, *Suri*, *Tufanganj* and *Uttarpara-Kotrung*.

⁸⁶ *Barasat*, *Barrackpore*, *Jhalda*, *Jiaganj-Azimganj*, *Kaliyaganj*, *Katwa*, *Kharagpur*, *Mal*, *Panihati*, *Pujali*, *Suri*, *Uttarpara-Kotrung*.

Table 6.7: STPs in Municipal Areas

Sl. No.	ULB	No. of STPs	Authority of Operation & Maintenance	Installed Capacity, in Million Litres per day (MLD)	Present Operational Capacity, in Million Litres per day (MLD)	Details of STPs
1.	Bansberia	1	KMDA	0.3	0.3	Commissioned in July 2020. At present it is partially operational and is undergoing renovation by the KMDA, to make it fully operational. The ULB has no role.
2.	Barrackpore	2	KMDA	24	0	Operations are yet to be started. The ULB has no role.
3.	Jiaganj-Azimganj	2 (Oxidation ponds)	Jiaganj-Azimganj Municipality	1.39	0.94	Previously, the O&M was with PHED. PHED transferred them to the ULB, in March 2010. They are partially operational. At present, rejuvenation is being done by MED.
4.	Katwa	1	PHED	4.36	2.36	Operational. The ULB has no role.
5.	Kolkata MC	5	Kolkata MC	179	70	Three STPs are operational and two are non-operational. The entire O&M lies with <i>Kolkata MC</i> . 3 new STPs, with a total design capacity of 108 MLD, were under construction.
6.	Konnagar (Uttarpara)	1	KMDA	22	12	Partially operational. The ULB has no role.
7.	Panihati	1	KMDA	12	0	At present, non-operational, work is in progress. The ULB has no role.

[Source: information furnished by ULBs, National Inventory of STPs by CPCB, March 2021; Monthly and Quarterly Progress Reports submitted to the National Mission for Clean Ganga (NMCG) and National Green Tribunal (NGT)]

It is evident from **Table 6.7**, even in these seven ULBs, out of the 13 STPs, only eight STPs were operational/partially operational. Further, out of the installed capacity of 243.05 MLD in these 13 STPs, the present operational capacity was only 85.6 MLD.

(ii) Further, during joint physical verification with municipal officials, the STP at *Jiaganj-Azimganj* Municipality was found to be partially functional (**Exhibit 6.9 and 6.10**).



Exhibit 6.9: Partially functional oxidation pond at the STP of the Jiaganj-Azmiganj Municipality



Exhibit 6.10: Pump house of the partially functional STP of the Jiaganj-Azmiganj Municipality

STPs had not been established in the remaining 20 ULBs, due to which untreated waste was being sent to the drains, canals, rivers, low lands *etc.*

(iii) Eighteen ULBs⁸⁷ had been collecting and dumping sludge. Out of these, only two ULBs, viz. *Bansberia* and *Uttarpara-Kotrung*, had facilities of treatment of sludge before dumping. The *Bansberia* Municipality had a Faecal Sludge Treatment Plant (FSTP), where manure is produced. In case of *Uttarpara-Kotrung*, the sludge was being dumped at the Regional Waste Management Centre at *Baidyabati*. The remaining 16 ULBs were dumping untreated sludge into dumping grounds. Nine ULBs viz. *Gobardanga*, *Habra*, *Katwa*, *Kolkata MC*, *Midnapore*, *Raiganj*, *Ramjibonpur*, *Siliguri MC* and *Tufanganj* did not furnish the requested information.

Audit further observed the following issues, affecting the efficacy of discharge of the sewerage and drainage function by the test-checked ULBs:

- i. Lack of an organised underground sewerage and drainage system and drainage system not being connected to households, for effective discharge of wastewater generated in the municipal area were noticed. The presence of open surface drains was also a matter of concern, since these drains may choke due to littering, leading to disruption of sewerage and drainage services.
- ii. Except for *Kolkata MC*, parastatals like the KMDA, PHED and MED, had played a major role in the construction, operation and maintenance of STPs. In the test-checked ULBs, Audit noticed a limited role, or no role, for ULBs, in this regard. Parastatals also had a role in the construction, and operation and maintenance of the sewerage network and drainage system.
- iii. The ULBs were unable to carry out treatment and disposal of the collected faecal sludge.

⁸⁷ *Asansol MC, Bansberia, Barasat, Barrackpore, Bongaon, Contai, Coochbehar, Jhalda, Jiaganj-Azimganj, Kaliyaganj, Kalna, Kharagpur, Konnagar, Mal, Panihati, Pujali, Suri and Uttarpara-Kotrung.*

Recommendation:

28. Government may take immediate steps to construct STPs, with the active involvement of the ULBs.
29. ULBs may take up construction of the sewerage and drainage infrastructure, wherever necessary, on priority basis, and ensure 100 per cent house sewer connections, as per Service Level Benchmarks.

6.3.2 Efficacy in functions relating to Public Health

Out of the 27 selected ULBs, the National Urban Health Mission (NUHM) was operational in 21 ULBs with population of 50,000 or more. Audit observations, in this regard, are discussed in the following paragraphs.

6.3.2.1 Functioning of Urban Primary Health Centres (UPHCs)

In terms of the NUHM Guidelines 2013, and Guidelines for Organising Urban Primary Health Centre Services (January 2018), the UPHCs should function for eight hours, every day, to provide health services to citizens. The suggested timings were 12 PM to 8 PM, or dual shifts from 8 AM to 12 PM and 4 PM to 8 PM. Each UPHC was to have morning and evening Out Patient Departments (OPDs) (OPD timings could vary, as per state norms). The UPHCs were also required to have laboratory facilities, for conducting routine blood and urine tests *etc.*, as well as pharmacy facilities.

Audit however, observed that, as on 31 March 2021:

- (i) Out of 21 ULBs, in one ULB *viz. Asansol MC*, there were two non-operational UPHCs out of 23 UPHCs.
- (ii) Twelve UPHCs out of 33 in three ULBs (in *Barasat*, all six UPHCs; in *Asansol MC*, five UPHCs; and in *Raiganj*, one UPHC), did not have laboratory facilities. In 15 ULBs⁸⁸ all 192 UPHCs had laboratory facilities. Three ULBs *viz., Bansberia, Bongaon and Suri*, did not furnish requested information.
- (iii) In 213 UPHCs under 15 ULBs⁸⁹ (except two non-operational UPHCs under *Asansol MC*), the OPD timings were less than eight hours a day. In four UPHCs, under two ULBs, *viz. Jiaganj-Azimganj and Katwa*, the OPD timings in UPHCs were eight hours or more. Four ULBs *viz., Bansberia, Bongaon, Midnapore and Raiganj*, did not furnish the requested information. In none of the 21 ULBs, were the OPD timings variable.

Except for three ULBs, *viz. Bansberia, Bongaon and Suri*, which did not furnish information, 223 functional UPHCs in 18 ULBs (except two non-operational UPHCs under *Asansol MC*) had pharmacy facilities. The details of OPD timings, laboratory and pharmacy facilities in UPHCs, in 21 ULBs, are given in **Table 6.8**.

⁸⁸ *Bansberia, Barrackpore, Contai, Coochbehar, Habra, Jiaganj-Azimganj, Kaliyaganj, Kalna, Katwa, Kharagpur, Kolkata MC, Konnagar, Panihati, Siliguri MC, Suri and Uttarpara-Kotrung.*

⁸⁹ *Asansol MC, Barasat, Barrackpore, Contai, Coochbehar, Habra, Kaliyaganj, Kalna, Kharagpur, Kolkata MC, Konnagar, Panihati, Siliguri MC, Suri and Uttarpara-Kotrung.*

Table 6.8: Details of OPD timings and Laboratory/Pharmacy facilities in UPHCs, in 21 ULBs

Sl. No.	Name of the ULBs	Population	No. of UPHCs	OPD Timing in UPHCs	OPD Timing in hours	No. of UPHCs with Laboratory facilities	No. of UPHCs with Pharmacy facilities
1	Asansol MC	11,52,443	23	10 AM to 4 PM	6	18	Yes
2	Bansberia	1,03,920	2	Data not furnished	Data not furnished	Data not furnished	Data not furnished
3	Barasat	2,78,435	6	11 AM to 4 PM, in other 5 cases 9 AM to 2 PM	5	0	Yes
4	Barrackpore	1,52,783	3	12 PM to 4 PM	4	3	Yes
5	Bongaon	1,08,864	2	Data not furnished	Data not furnished	Data not furnished	Data not furnished
6	Contai	92,226	2	2 PM to 6 PM	4	2	Yes
7	Coochbehar	77,935	2	10 AM to 4 PM	6	2	Yes
8	Habra	1,47,221	3	11 AM to 3 PM	4	3	Yes
9	Jiaganj- Azimganj	51,790	2	12 PM to 8 PM	8	2	Yes
10	Kaliyaganj	53,530	1	10AM to 2 PM	4	1	Yes
11	Kalna	56,722	1	10 AM to 5 PM	7	1	Yes
12	Katwa	81,615	2	8 AM to 6 PM	10	2	Yes
13	Kharagpur	2,07,604	6	10 AM to 3 PM	5	6	Yes
14	Kolkata MC	44,96,694	144	9 AM to 2 PM	5	144	Yes
15	Konnagar	76,172	2	10 AM to 3 PM	5	2	Yes
16	Midnapore	1,69,264	3	Data not furnished	Data not furnished	3	Yes
17	Panihati	3,77,347	8	11 AM to 5 PM	6	8	Yes
18	Raiganj	1,83,612	4	Data not furnished	Data not furnished	3	Yes
19	Siliguri MC	5,13,264	10	10 AM to 2 PM	4	10	Yes
20	Suri	67,864	1	12 PM to 5 PM	5	Data not furnished	Data not furnished
21	Uttarpara-Kotrung	1,59,147	3	9 AM to 2 PM	5	3	Yes

(Source: data furnished by the ULBs)

6.3.2.2 Shortage of manpower in UPHCs

As per Guidelines, the UPHCs were to be staffed by two Medical Officers (doctors) - one regular and one on part-time basis. There were to be three staff nurses, one pharmacist, one laboratory technician and four to five Auxiliary

Nurse Midwives (ANMs) (depending upon the population covered), apart from clerical and support staff. Apart from part-time Medical Officers, all the staff were to be recruited by the Chief Medical Officer of Health (CMOH) of the district, under the Department of Health and Family Welfare (DH&FW), Government of West Bengal. The part-time Medical Officer could be recruited by the ULB itself.

Audit observed that, as on 31 March 2021:

- (i) Eight ULBs, viz. *Asansol MC, Bansberia, Kalna, Kolkata MC, Panihati, Raiganj, Siliguri MC* and *Uttarpara-Kotrung*, had shortfall in the posts of regular/permanent and part-time Medical Officers in the UPHCs. Shortages, in case of regular/permanent Medical Officers, were noticed in 11 ULBs⁹⁰. In case of part-time Medical Officers, shortages were noticed in 10 ULBs⁹¹. In case of seven ULBs viz. *Barasat, Contai, Jiaganj-Azimganj, Katwa, Kharagpur, Konnagar* and *Midnapore*, there were no vacancies in the posts of Medical Officers (details given in **Appendix-12**).
- (ii) Shortages of staff nurse were noticed in 18 ULBs⁹², while shortages of ANMs were noticed in 20 ULBs.
There was no shortfall of staff nurses in two ULBs (*Jiaganj-Azimganj* and *Suri*). One ULB (*Bongaon*) did not furnish the requested information regarding staff nurse and ANM (details given in **Appendix-12**).
- (iii) In nine ULBs viz. *Asansol MC, Habra, Jiaganj-Azimganj, Kalna, Kharagpur, Kolkata MC, Panihati Raiganj* and *Siliguri MC*, there was shortage of pharmacists and, in eight ULBs viz. *Asansol MC, Contai, Kalna, Kharagpur, Kolkata MC, Midnapore, Panihati* and *Raiganj*, there was shortage of laboratory technician. One ULB (*Bongaon*) did not furnish the requested information. There was no shortfall of pharmacists in case of 11 ULBs and of laboratory technician, in 12 ULBs (details given in **Appendix-12**).

In the remaining six ULBs, viz. *Gobardanga, Jhalda, Mal, Pujali, Ramjibonpur* and *Tufanganj*, where NUHM had not been implemented and, in case of the ULBs under the NUHM scheme, one or more schemes, relating to health, such as Community Based Primary Health Care Services (CBPHCS), Urban Primary Health Care Services (UPHCS), Urban Reproductive and Child Health (Urban RCH), National Vector Borne Disease Control Programme (NVBDGP), were operational.

⁹⁰ *Asansol MC, Bansberia, Habra, Kaliyaganj, Kalna, Kolkata MC, Panihati, Raiganj, Siliguri MC, Suri and Uttarpara-Kotrung.*

⁹¹ *Asansol MC, Bansberia, Barrackpore, Coochbehar, Kalna, Kolkata MC, Panihati, Raiganj, Siliguri MC and Uttarpara-Kotrung.*

⁹² *Asansol MC, Bansberia, Barrasat, Barrackpore, Contai, Coochbehar, Habra, Kaliyaganj, Kalna, Katwa, Kharagpur, Kolkata MC, Konnagar, Midnapore, Panihati, Raiganj, Siliguri MC and Uttarpara-Kotrung.*

Non-functioning of the UPHCs, as per norms, and vacancies in the posts of Medical Officers, staff nurses and ANMs, deprived the urban poor from availing the healthcare benefits, which were central to achieving the objectives of the NUHM.

Recommendation:

30. Government may ensure that all UPHCs in the ULBs are functioning properly, with laboratory facilities. They may also ensure placement of requisite human resources, to implement the NUHM, aiming at the urban poor population's health needs.

KOLKATA

The 05 June 2023

(SATISH KUMAR GARG)

Principal Accountant General (Audit-I)

West Bengal

Countersigned

NEW DELHI

The 07 June 2023

(GIRISH CHANDRA MURMU)

Comptroller and Auditor General of India