36943

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 200/2014

In The Matter of

M.C MEHTA

... Applicant

Versus

UNION OF INDIA &Ors.

... Respondents

BEFORE THE NOTARY PUBLIC GOVT. OF INDIA
AT BARASAT NORTH PARGANAS

Serial No. 4202 2024

AFFIDAVIT ON BEHALF OF THE DISTRICT MAGISTRATE & EX-OFFICIO CHAIRMAN OF AND DISTRICT GANGA PROTECTION COMMITTEE, NORTH 24 PARGANAS DISTRICT.

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Filed by: Smt. Madhumita Bhattacharjee, Advocate for the State of West Bengal
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BINOD BIHARI BISWAS ★ Notary ★ Govt. of INDIA Reg. No. 1381778

01 AUG 2024

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

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Original Application No. 200/2014/PB

And

In the matter of

M.C. Mehta

..... Petitioners

-Versus-

Union of India and others.

..... Respondents

Affidavit on behalf of the District Magistrate & Ex-Officio, Chairman of the District Ganga Protection Committee, North 24 Parganas District.

I, Sri. Sharad Kumar Dwivedi son of Sri. Hriday Narayan Dwivedi, aged about 43 years, by faith- Hindu, by occupation- Service, working as the District Magistrate and Collector, North 24 Parganas, Barasat, Pin- 700124, do hereby solemnly affirm and submit as follows:-

1. That I have been communicated with copy of order/orders in O.A. No. 200/2014 by the Ld. Counsel for the State associated with the instant case.

2. That the Hon'ble National Green Tribunal in order dated 21.02.2024 has been pleased to direct to submit report on heads as per order dated 24.11.2023 of the Hon'ble Tribunal.

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3. Incompliance with the order dated 21.02.2024 of the Hon'ble NGT the report on different heads & sub-heads in placed here in below for kind consideration.

Sl. No.	Issue	Remarks
I.	**Sewage:**	
	a) Per day generation of sewage in each city/town within the District.	a) In this connection it may be mentioned here that sewage generation per day of this district is **292.70** MLD.
	b) Quantity of sewage treated per day, city / town wise.	b) Total quantity of sewage treated per day of this district is **101.28** MLD. Details have been furnished at '**Annexure R-1**'
	c) The number of sewage treatment plant existing and their capacity and capacity utilization and mode of disposal in each city / town.	c) Total **15 (fifteen)** number of sewage treatment plant are existing and their capacity is **175.84** MLD, out of which utilization capacity is (Bhatpara(4)-55.54%,Naihati(2)-94.13%,Barrackpore(2) 54.84%,Halisahar(1)-47.44%, Garulia(1)-92.68%,Titagarh(2)-93.61%, Khardah(1)-90.78%,Panihati(1)-91.67%, Kanchrapara (1)-50.57%). Treated water is being used for different purposes as per policy prepared by UD & MA Department (June, 2020). The rest quantity of water in being discharged in surface water body. Copy of the Policy is annexed herewith marked as '**R-2**'
	d) Quality of discharged treated sewage from each STP, particularly for fecal coliform.	d) Compliant with the standard set by Hon'ble NGT in its order dated 30-04-2019 /MoEF & CC in its notification dated 13-10-2017. Copy of the NGT order and notification is annexed herewith marked as '**R-3**'

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e) Time bound plan to meet the gap, if any, in generation and treatment of sewage

e) An action plan earmarked to shorten the Gap by way of function all the newly constructed STP namely Baranagar (60 MLD Capacity) is being under renovation and expected to be completed by September 2024, STPs of North Barrackpore (30 MLD Capacity) are under construction and expected to be completed by October 2025.While 8 MLD capacity STP at North Barrackpore is yet to start due to change of site and shall start as soon as land is finalized, so as to achieve target of 100% treatment of sewage within shortest possible time. The State is also planning for setting up of STP/s & FSTP/s to mitigate the gap in a phased manner funding from NMCG, AMRUT, & State Funds subject to the availability of land.

f) Details of Hotels, Dharmshala and Ashram operating without proper consent and discharging untreated effluent and the action taken against them.

f) No Hotels, Dharamshala and Ashram operating without proper consent and discharging no untreated effluent in the Jurisdiction and needs no action thereon.

Copy of the report on **a-f** above is annexed herewith marked as **'R-1'**

g) Water quality in river and its tributaries in abutting districts /towns in terms of faecal coliform (MPN/100ml)

g) The water quality report of the district received from West Bengal Pollution Control Board from month of June, 2024 suggests that the pH is above 7.0 units. BOD is also in the satisfied level i.e. as much as BOD level is 3.0 mg/l as per said report.

The report has been described as under:-

Water Quality of River Ganga during June, 2024 in North 24 Parganas

Station	**Palta Shitala tala**	**Palta Shitala tala**	**Palta**	**Palta**	**Dakshi neswar**	**Dakshi neswar**	**The permissible limit**
pH (Unit)	7.5	7.2	7.39	7.26	7.22	7.2	**Between 6.5-8.5**
DO(mg/l)	6.2	6.8	6	7.2	5.78	5.65	**5 mg/l or more**
BOD(mg/l)	2.6	2.7	2.4	2.8	2.69	2.7	**3 mg/l or Less**
Fecal Coliform (MPN/100 ml)	2400	2400	3500	5400	63000	33000	**500(desirable 2500 (Maximum Permissible)**
Fecal Streptococci (MPN/100ml)	460	230	330	310	1200	1100	**100(desirable 500 (Maximum Permissible)**
Total Coliform (MPN/100 ml)	7000	9400	11000	14000	130000	110000	

Copy of the Water Quality report is annexed herewith marked as **'R-4'**

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II.	**Municipal Solid Waste disposal :**	
	a) Per day generation of Solid waste in each city / town within the District.	a) Per day generation of Solid Waste in this district is **1173.747** TPD.
	b) Quantity of solid waste treated per day, in each city / town of the District.	b) Quantity of Solid Waste per day treated is **83.1** TPD.
	c) The gap in treatment of solid waste.	c) The gap in treatment of solid waste is **1090.647** TPD.
	d) Legacy waste and the time bound plan to treat legacy waste.	d) Legacy waste and the time bound plan to treat legacy waste. The report is as follows:

Legacy waste and the time bound plan to treat legacy waste is		
Sl. No.	Name of the ULB	Legacy waste and the time bound plan to treat legacy waste
1	Baranagar	Cluster Project at Pramod nagar including 5 ULBs. Out of 8.5 lakh MT legacy waste, 7.54 lakh MT processed in 1st phase, another 1.2 lakh MT work order given on 24.06.2024. Further 11 lakh MT tendered and evaluation is in progress. 36 months time required from the date of award of contract.
2	Kamarhati	Out of 1.5 lakh MT legacy waste, 0.32 lakh MT processed, in 1st phase. Further 9 lakh MT tendered and evaluation is in progress. 36 months time required from the date of award of contract.
3	Barrackpore	In first phase 72,846 MT of legacy waste has been bio remediated. There is a further accumulation of legacy waste 70,715.120 MT approx. till date; to be tendered within August 2024.Expected timeline within which Biomining and bioremediation of residual quantity is to be done within 12 months from the date of award of contract.
4	Bhatpara	In first phase 58,260 MT of legacy waste has been bio remediated. There is further accumulation of legacy waste 30,000 MT approx. Tender to be floated within December 2024.Expected timeline within which Biomining and bioremediation of residual quantity to be done within 6 months from the date of award of contract.
5	Garulia	In first phase out of 52,449 MT, 25,000 MT of legacy waste has been bio remediated; expected date of completion is September, 2024. There is further accumulation of legacy waste 45000 MT approx. Tender to be floated within August 2024. Expected timeline within which Biomining and bioremediation of residual quantity is to be done within 9 months from the date of award of contract.

e) The manner of utilization of the treated waste as well as rejects arising out of remediation of legacy waste.

f) Current status of dumping of solid waste with reference to location.

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6	Halisahar	In first phase out of 6,799 MT, 3,405 MT of legacy waste has been bio remediated. There is further accumulation of legacy waste 28,000 MT approx. Tender to be floated within March 2025. Expected timeline within which Biomining and bioremediation of residual quantity to be done within 6 months from the date of award of contract.
7	Kanchrapara	In first phase 24,282 MT of legacy waste has been bio remediated. There is further accumulation of legacy waste; the revised work order for drone survey is issued to asess the legacy waste and subsequently tender to be floated for bio remediation. Expected date of completion June, 2025.
8	Khardah	In first phase 46,118 MTof legacy waste has been bio remediated. There is further accumulation of legacy waste 50,000 MT approx. Tender to be floated within August 2024. Expected timeline within which Biomining and bioremediation of residual quantity to be done within 9 months from the date of award of contract.
9	Naihati	In first phase 3,00,00 MT of legacy waste has been bio remediated. There is further accumulation of 71,000 MT of legacy waste at present. With an upfront projection of additional 36,000 MT tender matured in 1st call to process the legacy waste. Expected date of completion March, 2025.
10	North Barrackpore	Not applicable as there is no dumpsite
11	Panihati	In first phase 51,767 MT of legacy waste has been bio remediated. There is further accumulation of legacy waste 1,20,000 MT approx. Tender floated on June, 2024. Expected timeline within which Biomining and bioremediation of residual quantity is to be done within 15 months approx from the date of award of contract.
12	Titagarh	In first phase 1,20,886 MT of legacy waste has been bio remediated. There is further accumulation of legacy waste 70,000 MT approx. Tender to be floated within August 2024 Expected timeline within which Biomining and bioremediation of residual quantity is expected to be done within 12 months from the date of award of contract.

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e) Manner and utilization of treated waste as well as rejects arising out of remediation of legacy waste. The report is as follows:

i) Good earth: low land filling and partially as soil conditioner in garden.
ii) Inert: Low land filling and base course filling in road construction.
iii) RDF: Cement manufacturing unit.
iv) C&D Waste: Used as filter in material road construction.

f) Current status of dumping of solid waste with reference to location. The report is as follows:

Sl. No.	Name of the ULB	Current status of dumping of solid waste with reference to location	
		Dumpsite location	GPS Coordinates of Dumpsite
1	Baranagar	Pramod nagar Dumpsite	22.648176°N, 88.396426°E
2	Kamarhati	(Punjab Villa), Agarpara East Station Road	22°40'41"N, 88°22'52" E
3	Barrackpore	Ward 17- On old Kolkata Road	22.748542 N 88.382122 E
4	Bhatpara	Madral, Ward no. 6, Bhatpara	88.41807E 22.87426N
5	Garulia	Fanching ground road , W.no 11 Garulia , North 24 Parganas	22.817161N, 88.372613E
6	Halisahar	Ward 8 - Niranjan trenching ground	23.2501021N, 88.4116394E
7	Kanchrapara	Ward 12-13, Bidhanpally	23.4150386N, 88.3562766E
8	Khardah	1km from Kalyani Expressway Ruiya Khardah Stoppage	22°44'31"N, 88°24'25"E
9	Naihati	Patterson road, Chighat, W.No. 14, Naihati	22.897030N, 88.410584E
10	North Barrackpore	Not applicable as there is no dumpsite	
11	Panihati	1 KM from Sodepur Barasat Road, kanchkol Stopage	22°41'31"N, 88°23'10"E
12	Titagarh	Oppeside Side of ULB on BT Road	22°44'10"N, 88°22'34"E

Copy of report of **a to f** above is annexed herewith and marked with **R-5.**

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III. **Construction and Demolition waste :**

a) Total per day generation of C & D waste within the District.

b) The detail of plant established for the treatment of C & D waste including the existing capacity and capacity utilization.

a) Total per day generation of Construction and Demolition waste for this district is **124.41** TPD.

b) The detail of plant established for the treatment of C & D Waste including the existing capacity and capacity utilization **0 (zero)** respectively. It is specifically noted that segregated fractions are being sold and reused and the remaining are being disposed at **KMC plant** for processing.

The report is as follows:

Construction and Demolition waste of Ganga Towns North 24 Parganas					
Sl. No.	District	Name of Ganga Town	Total per day generation of C & D Waste within the District (TPD)	The detail of plant established for the treatment of C & D Waste including the existing capacity and capacity utilization	Remarks, if any
1	NORTH 24 PARGANAS	Baranagar	13.55	0	**Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.**
2		Barrackpore	8.75	0	
3		Bhatpara	19.56	0	
4		Garulia	4.55	0	
5		Halisahar	5.95	0	
6		Kamarhati	17.39	0	
7		Kanchrapara	7.09	0	
8		Khardah	6	0	
9		Naihati	12	0	
10		North Barrackpore	7.3	0	
11		Panihati	15.86	0	
12		Titagarh	6.41	0	
		Total	**124.41**	**0**	

Copy of report of **a to b** above is annexed herewith and marked with **R-6.**

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IV.	**Industrial Effluent discharge :**	
	a) Number of industrial unit discharging their effluent treated /untreated in river Ganga and its tributaries and details of defaulting industrial units.	a) **1(One)** Number of industrial unit discharging their effluent treated in river Ganga and its tributaries and details of **no defaulting industrial unit in this district.** M/s. Exide Industries Limited,91, New Chord Road, P.O.-Athpur, P.S.-Jagatdal, 24 Pgs(N)-743128.
	b) Total daily generation of such industrial waste within the District.	b) Total daily generation of such industrial waste within the District is **800** KL and Total industrial waste treated within the District daily is **800** KL. Copy of the report is annexed herewith marked as **'R-7'**
	c) The manner of treatment of the industrial waste so generated.	c) The manner of treatment of the industrial waste so generated is Effluent Treatment Plant.
	d) The discharge effluent analysis from the CETP and ETP treating the industrial waste from each outlet	d) The discharge effluent analysis from the CETP and ETP treating the industrial waste from each outlet. The report is as follows:
	e) The per day generation of industrial solid waste and manner of its treatment and disposal in the District.	e) The per day generation of industrial solid waste **2.4** MT and manner of its treatment and disposal in the District is **2.4** MT Sold to authorize recyclers. Copy of report of **a to e** above is annexed herewith and marked with **R-7.**

The discharge effluent analysis from the CETP and ETP treating the industrial waste from each outlet is		**The permissible limit**
BOD (3 days @ 270C)	NOT DONE	30 mg/l
COD	15.44 mg/l	250 mg/l
Lead	0.011 mg/l	0.1 mg/l
O & G	<5.00 mg/l	10 mg/l
pH (Unit)	7.2 mg/l	6.5 to 8.5
TSS(@103-105°C)	12.00mg/l	50 mg/l

V.	**Regulation of Flood Plain Zone :**	
	a) If the flood plain zone has been demarcated and the extent of encroachment on the flood plain zone in the District.	a-b) For demarcation of Flood Plain Zone in W.B including this district an Expert Committee was constituted to demarcate Flood Plain Zones in West Bengal. The report of Expert Committee was examined by Irrigation and Waterways Department for their observation. The issue was taken up by Chief Secretary in a meeting with the Stakeholder Departments on 08.07.2022. In the meeting, it was resolved that it is not practically possible to implement the Flood Plain zoning in West Bengal and advice would be sought from Ministry of Jal Shakti on how to proceed in the matter. Letter was sent to MOJS on 28.07.2022 seeking guidance on flood plain demarcation and management in W.B. Again a letter also has been sent on 16.07.2024 by the Additional Chief Secretary, of the Government of West Bengal to the Secretary, Ministry of Jal Shakti, Department of Water Resources & River Development & Ganga Rejuvenation, Government of India in which he has sought for the guidance about multiple issues regarding Flood Plain demarcation and management.
	b) The details of direct discharge of pollutants by the encroachers by the side of the river Ganga and its tributaries in the District.	Copy of the letter is annexed herewith marked as **'R-8'**
VI.	**Bio medical waste :**	
	a) The per day total generation of bio medical waste in the	a) As per report received from Environmental Engineer, Barrackpore Regional Office West Bengal Pollution Control Board total bio medical waste generated in this district is **6646.01** Kg/day.

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District.

b) The manner of its treatment and disposal.

b) The manner of treatment and disposal is incineration **5005.41** kg/day and autoclaving **1640.60** kg/day respectively. The report is as follows:

Sl. No.	Name of the District	Number of Health Care Units	The per day total generation of bio medical waste in the District.	The manner of bio medical waste treatment and disposal.		Total (in Kg/Day)
				Incineration-	Autoclaving-	
		a	B	c		d
1	North 24 Parganas	1179	6646.01 Kg/Day	5005.41 Kg/day	1640.60 Kg/day	6646.01 Kg/Day

Copy of the report is annexed herewith marked as **'R-9'**

VII. **Mining**:

a) Number of cases registered within a year against illegal mining in the bed of river Ganga and its tributaries and details of enforcement of mining policy of State and "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM – 2020) and Sustainable Sand Mining Management Guidelines 2016.

b) Number of cases registered within a year against illegal mining in the flood plains of river Ganga and its tributaries and

a)-b) Department of Industry, Commerce and Enterprises Mines stated that the River Ganga is characterized by its perennial nature with a continual flow of water throughout the year. It would be worthwhile to mention that sand mining is completely prohibited under submerged must condition and no potential zone has been identified and published as per the norms for sand mining in the zone of Ganga and its Tributaries belt of this District. As no case of sand mining has been found, question of taking stapes dose not arise in this area.

Copy of the report is annexed herewith marked as **'R-10'**

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	details of enforcement of mining policy of State and "Enforcement & Monitoring Guidelines for Sand Mining" (EMGSM – 2020) and Sustainable Sand Mining Management Guidelines 2016.	

4. An action taken report against 29 nos. CPCB identified drains in this district has been detailed on format report. The report is as follows:

Action taken against 29 nos CPCB identified drains in North 24Parganas District.

SL NO	CODE	NAME OF DRAIN	DIST	Action Taken
1	L48	Dakshineswar ferry ghat	North 24 Parganas	To be Tapped under Howrah-Bally-Baranagar HAM
2	L30	Baranagar/Kuthighata Khal	North 24 Parganas	Engagement of Consultant for preparation of DPR is under process
3	L23	Gandhi ghat Drain @ South gate-1,	North 24 Parganas	Tapped under 6 MLD STP Barrackpore
4	L24	Talpukur	North 24 Parganas	Partially tapped under Bandipur STP
5	L25	Titagarh Drain @ Bishal axmi Ghat	North 24 Parganas	Partially tapped under Bandipur STP
6	L26	Khardha Khal, Khardha	North 24 Parganas	Consultant engaged for preparation of DPR. DPR to be submitted to NMCG tentatively by 14.09.2024.
7	L7	Halisahar Drain	North 24 Parganas	On-line treatment proposal sent to NMCG
8	L45	New Bagher khal	North 24 Parganas	DPR prepared and RSP uploaded.
9	L46	Drain at Halisahar municipality	North 24 Parganas	Engagement of Consultant for preparation of DPR is under process.
10	LB	Gariffa Drain (North)	North 24 Parganas	Partially tapped under Naihati STP(WSP)
11	L9	Gariffa Drain South)/Ramaghat Drain-	North 24 Parganas	Partially tapped under Naihati STP(WSP)
12	L47	Drain at Dadu Ram ghat,	North 24 Parganas	Engagement of Consultant for preparation of DPR is under process

		Naihati		
13	L48	Drain at Ramghat Naihati	North 24 Parganas	Engagement of Consultant for preparation of DPR is under process
14	L18	Monirampore - Barrackpore	North 24 Parganas	To be tapped in the proposed 8 MLD STP of Monirampur
15	L19	Balughat, Manirampore, Pucca drain, Barrackpore	North 24 Parganas	To be tapped in the proposed 8 MLD STP of Monirampur
16	L20	Barrackpore Drain (SP Bung\ow)	North 24 Parganas	To be tapped in the proposed 8 MLD STP of Monirampur
17	L21	Dhobi Ghat Drain, Barrackpore	North 24 Parganas	To be tapped in the proposed 8 MLD STP of Monirampur
18	L22	Barrackpore (adjacent to Ramakrishana Mission)	North 24 Parganas	To be tapped in the proposed 8 MLD STP of Monirampur
19	L27	Drain near PB Ghat @ Kamarhati	North 24 Parganas	Partially tapped under Panihati STP
20	L28	Kamarhati Drain @ JuteMill, Kamarhati	North 24 Parganas	Partially tapped under 60 MLD Baranagar STP under HAM model
21	L29	Dakineshwar - Alambazar	North 24 Parganas	Engagement of consultant for preparation of DPR is under process.
22	LIO	Thannar Khal, Naihati	North 24 Parganas	Partially tapped under Naihati STP(ASP)
23	LII	Bhatpara open pucca drain	North 24 Parganas	NIT has been invited for engagement of consultant
24	L12	Bhatpara Drain	North 24 Parganas	NIT has been invited for engagement of consultant
25	L13	Alliance Jute Mill Drain	North 24 Parganas	Already Tapped with Bhatpara STP
26	L14	Drain between Pratapnagar Rajbari.	North 24 Parganas	NIT shall be invited shortly for engagement of consultant
27	L15	Authpur (Sastrinagar)	North 24 Parganas	Engagement of Consultant for preparation of DPR is under process
28	L16	Debitala pancha khal	North 24 Parganas	Partially tapped under Garulia STP(WSP)
29	L17	Ichapur KhaL	North 24 Parganas	2nd Order polluted drains of Icchpur Khal will be tapped to the on going 30 MLD STP at Babanpur under North Barrackpore HAM Project.

5. **Hydro Project:**

No hydro project is setup on river Ganga and its tributaries found in this district.

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6. **Utilization Certificate:**

i) As per solemn order of the Hon'ble NGT dt. 21.02.2024 it is submitted that the Details of utilization of funds received from NMCG i.c.w. Namami Gange project for North 24 Parganas District. The report is as follows:

Project wise NMCG Fund Utilization under GAP Wing, W & S Sector, KMDA

Sl. No.	District	Name of Project		Utilization Amount (Crore)	Total (Crore)
1	North 24 Parganas	A	Garulia, Naihati, Titagarh, Khardah & Panihati	45.18	974.07
2		B	Kanchrapara	26.32	
3		C	Barrackpore	304.11	
4		D	Bhatpara	32218	
5		E	Halisahar	276.28	

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A

Standard Format of Utilization Certificate

1. Name of Scheme/Project as per Administrative Approval Order: - **Rejuvenation Work for Existing STP at North 24 Parganas, District, W.B**

2. Reference to Administrative Approval (NMCG Order No. and Date): - **F. No.: T-15/2015-16/1092/NMCG**

3. Source of funding: - **NGP**

(For all schemes under EAP/NON-EAP/NGP)*

Sl. No.	WBS(NGRBA)PMG Fund release Order No. & Date.	Amount released by WBS (NGRBA) PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	4
			1. Certified that out of Rs. 45.18 Crore sanctioned during the year 2024-25 In favour of GPCD (NM) and EB - 1 under WBS (NGRBA) PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 45.18 Crore has been utilized for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilized. 2. Utilization of fund stated above, does not include any excess/supplementary works. or, Utilization of fund stated above includes interalia, excess/supplementary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, Utilization of fund includes interalia, excess/supplementary requiring approval of the Government and such approval has been accorded by the UD & MA Department Vide No..... Dated,....
	Total		

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A

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

Executing Division: GPCD (NM) and EB-1, GAP Wing, W & S Sector, KMDA

Sl.No	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost/ Administratively Approved cost)	Awarded Cost / Tendered Amount	Cumulative funds already received	Cumulative UC submitted (copy of U.C. against last installment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & up to the end of the next month , if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col, 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess / Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Rejuvenation Work for Existing STPs at North 24 Parganas District, West Bengal	1. Garulia 2.Naihati 3. Titagarh 4. Khardah and 5. Panihati	Capital Cost: Rs. 45.04 Crore O & M : Rs. 20.51 Crore Total : Rs. 65.55 Crore	Capital Cost: Rs. 47.54 Crore O & M Cost: Rs. 5.45 Total Tender Cost: Rs. 52.99 Crore	Rs.45.18 Crore	Up-to-date	Rs.45.18 Crore	100.00 %	Rs.47.54 Crore	Rs. 34,948.00

BINOD BIHARI BISWAS Reg. No. 3917/18 Notary Public Govt. of INDIA

B

Standard Format of Utilization Certificate

1. Name of Scheme/Project as per Administrative Approval Order: - **KANCHRAPARA I & D WORK WITH STP**

2. Reference to Administrative Approval (NMCG Order No. and Date): - **T-15/2015-16/1195/NMCG**

3. Source of funding: - **NGP**

(For all schemes under EAP/NON-EAP/NGP)*

Sl. No.	WBS(NGRBA)PMG Fund release Order No. & Date.	Amount released by WBS (NGRBA) PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	4
			1. Certified that out of Rs. 26.32 Crore sanctioned during the year 2024-25 In favour of GPCD (SM) under WBS (NGRBA) PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 26.32 Crore has been utilized for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilized. 2. Utilization of fund stated above, does not include any excess/supplementary works. or, Utilization of fund stated above includes interalia, excess/supplementary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, Utilization of fund includes interalia, excess/supplementary requiring approval of the Government and such approval has been accorded by the UD & MA Department Vide No..... Dated,....
	Total		

BINOD BIHARI BISWAS ★ Reg. No: 13817/18 ★ Notary Public Govt. of INDIA

B

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

Executing Division: GPCD (SM), GAP Wing, W & S Sector, KMDA

Sl.No	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost/ Administratively Approved cost)	Awarded Cost / Tendered Amount	Cumulative funds already received	Cumulative UC submitted (copy of U.C. against last installment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & up to the end of the next month , if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col, 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess / Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Kanchrapara I & d Work with STP	Kanchrapara	Rs. 48.77 Crore	Capital Cost: Rs. 25.89Crore O & M Cost: Rs. 23.74 Crore project preparation & Supervision Cost: Rs.1.67 Crore Total: Rs.51.30 Crore	Rs.26.32 Crore	Up-to-date	Rs.26.32 Crore	100.00 %	Rs. 25.89 Crore	Rs. 57,323.00

HARI BISWAS
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Notary Public Govt. of INDIA

C

Standard Format of Utilization Certificate

1. Name of Scheme/Project as per Administrative Approval Order: - **Barrackpore Sewerage System and STP**

2. Reference to Administrative Approval (NMCG Order No. and Date): - **J-22014/1/2011-NRCD-II/Barrackpore Dated: 30.12.2014**

3. Source of funding: - **EAP**

(For all schemes under EAP/NON-EAP/NGP)*

Sl. No.	WBS(NGRBA)PMG Fund release Order No. & Date.	Amount released by WBS (NGRBA) PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	4
			1. Certified that out of Rs. 304.11 Crore sanctioned during the year 2024-25 In favour of GAP/EM-I Division under WBS (NGRBA) PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 304.11 Crore has been utilized for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilized. 2. Utilization of fund stated above, does not include any excess/supplementary works. or, Utilization of fund stated above includes interalia, excess/supplementary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, Utilization of fund includes interalia, excess/supplementary requiring approval of the Government and such approval has been accorded by the UD & MA Department Vide No..... Dated,....
	Total		

BINOD BIHARI BISWAS ★ Notary Public Govt. of INDIA ★ Reg. No : 13917/18

C

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

Executing Division: GPCD (SM), GAP Wing, W & S Sector, KMDA

Sl.No	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost/ Administratively Approved cost)	Awarded Cost / Tendered Amount	Cumulative funds already received	Cumulative UC submitted (copy of U.C. against last installment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & up to the end of the next month , if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col, 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess / Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Barrackpore Sewerage System & STP	Barrackpore	Rs. 341.68 Crore	Rs.266.609Crore (Design-Build: Rs. 233.969(Civil: Rs. 199.70 Crore + E & M: Rs.34.26 Crore) O & M Rs.32.64 Crore	Rs.304.11 Crore	Up-to-date See break-up in series no.3	Rs.304.11 Crore	98.00%	Rs. 229.28 Crore	Rs. 1,85,42,131.00

BINOD BIHARI BISWAS
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Notary Public Govt. of INDIA

D

Standard Format of Utilization Certificate

1. Name of Scheme/Project as per Administrative Approval Order: - **Bhatpara Sewerage System and STP**

2. Reference to Administrative Approval (NMCG Order No. and Date): - **J-26011/9/2010-NRCD- II**

3. Source of funding: - **Non-EAP**

(For all schemes under EAP/NON-EAP/NGP)*

Sl. No.	WBS(NGRBA)PMG Fund release Order No. & Date.	Amount released by WBS (NGRBA) PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	4
			1. Certified that out of Rs. 322.18 Crore sanctioned during the year 2024-25 In favour of GPCD (SM) Division under WBS (NGRBA) PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 322.18 Crore has been utilized for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilized. 2. Utilization of fund stated above, does not include any excess/supplementary works. or, Utilization of fund stated above includes interalia, excess/supplementary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, Utilization of fund includes interalia, excess/supplementary requiring approval of the Government and such approval has been accorded by the UD & MA Department Vide No..... Dated,....
	Total		

BINOD BIHARI BISWAS ★ Reg. No 13817/13 ★ Notary Public Govt. of INDIA

D

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

Executing Division: GPCD (SM), GAP Wing, W & S Sector, KMDA

Sl.No	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost/ Administratively Approved cost)	Awarded Cost / Tendered Amount	Cumulative funds already received	Cumulative UC submitted (copy of U.C. against last installment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & up to the end of the next month , if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col, 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess / Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Bhatpara Sewerage System & STP	Bhatpara	Rs. 228.52 Crore	Design-Build: Rs. 303.97 Crore O & M Rs.28.08 Crore Total: Rs. 332.05 Crore	Rs.322.18 Crore	Up-to-date	Rs.322.18 Crore	100.00 %	Rs. 303.97 Crore	Rs. 57,95,995.00

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E

Standard Format of Utilization Certificate

1. Name of Scheme/Project as per Administrative Approval Order: - **Halisahar Sewerage System and STP**

2. Reference to Administrative Approval (NMCG Order No. and Date): - **J-21011/1/2011-NRCD-II-Halisahar**

3. Source of funding: - **EAP**

(For all schemes under EAP/NON-EAP/NGP)*

Sl. No.	WBS(NGRBA)PMG Fund release Order No. & Date.	Amount released by WBS (NGRBA) PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	4
			1. Certified that out of Rs. 276.28 Crore sanctioned during the year 2024-25 In favour of GPCD (NM) Division under WBS (NGRBA) PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 276.28 Crore has been utilized for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilized. 2. Utilization of fund stated above, does not include any excess/supplementary works. or, Utilization of fund stated above includes interalia, excess/supplementary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, Utilization of fund includes interalia, excess/supplementary requiring approval of the Government and such approval has been accorded by the UD & MA Department Vide No..... Dated,....
	Total		

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E

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

Executing Division: GPCD (SM), GAP Wing, W & S Sector, KMDA

Sl.No	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost/ Administratively Approved cost)	Awarded Cost / Tendered Amount	Cumulative funds already received	Cumulative UC submitted (copy of U.C. against last installment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & up to the end of the next month , if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col, 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess / Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Halisahar Sewerage System & STP	Halisahar	Rs. 332.56 Crore	Design-Build: Rs. 303.97 Crore O & M Rs.28.08 Crore Total: Rs. 332.05 Crore	Rs.276.28 Crore	Up-to-date	Rs.276.28 Crore	100.00 %	Rs. 277.668 Crore	Rs. 23,400.00

Copy of report of **a to e** above is annexed herewith and marked with **R-11.**

ii) **Manner and extend of utilization of funds received from NMCG:**

Any kind of information-education-communication (IEC) Activities Program directed by West Bengal State NGRBA Program Management group(WBSPMG) for which District Ganga Protection Committee (DGPC), North 24 Parganas received fund from WBSPMG and District Ganga Protection Committee, North 24 Parganas never received any kind of fund from National Mission for Clean Ganga (NMCG).

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iii) **Utilization of the amount credited:**

The entire fund received from WBSPMG, have been utilized by District Ganga Protection Committee-North 24 Parganas as per order by Programme Director of West Bengal State NGRBA Program Management Group (WBSPMG) details are as follows:

ULBs wise fund release request to DGPC, North 24 Parganas by ULBs on various IEC activities related to Namami Ganga Project already held in North 24 Parganas District (From May, 2023 to till date)

SL No.	Name of IEC Activity & Date of event	WBSPMG Memo No. & Date	Sanctioned Amt. from WBSPMG (in Rs.)	Fund Request received from	Allotment received from WBSPMG	UC send to WBSPMG
1.	Inaugural Function in the STP Project on Ganga Pollution Abatement	No. 3949/ NGBRA/SPMG/IEC Activities-427/2017-P-I/2018 dated 27.12.2022	2,92,590/-	Garulia,Panihati, Titagarh,Naihati, Kanchrapara,& North Barrackpore Municipalities	No. 4602-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 29.05.2023	1306/DMA/N24PGS Dated 18.12.2023
2.	Ganga Swachhta Pakhwada Programme on Ganga Pollution Abatement	No. 4252/ NGBRA/SPMG/IEC Activities-427/2017-P-II/2018 dated 06.03.2023	50,000/-	Garulia Municipality	No. 4913-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 22.08.2023	1306/DMA/N24PGS Dated 18.12.2023
3.	Mission Life Campaign Programme on Ganga Pollution Abatement	D.O-No.CO/20/2/2023-NMCG,Dated-01.05.2023	1,00,000/-	Garulia Municipality	No. 5404-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 17.01.2024	327/DMA/N24PGS Dated 28.03.2024
4.	Ghat Pe Haat Programme on Ganga Pollution Abatement	No. 4479(9)-NGBRA/SPMG/IEC Activities-427/2017(P-I)/2018, dated 28.04.2023	1,23,079/-	Halisahar,Naihati Garulia Municipalities	No. 5252-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 04.12.2023 & No. 5584-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 14.03.2024	327/DMA/N24PGS Dated 28.03.2024
5.	Mass Awareness Exhibition on Ganga Pollution Abatement	No. 5136/1(10)-NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 13.10.2023	70,000/-	Naihati Municipality	No. 5458-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 06.02.2024	327/DMA/N24PGS Dated 28.03.2024
6.	International Day of Yoga Programme on Ganga Pollution Abatement	No. 4675-NGRBA/SPMG/IEC Activities-427/2017 dated 15.06.2023	50,000/-	Barrackpore Municipality	No. 5458-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 06.02.2024	327/DMA/N24PGS Dated 28.03.2024
7.	World unity Day on Ganga Pollution Abatement	No. 5136/1(10)-NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 13.10.2023	1,49,354/-	Garulia & Kanchrapara Municipalities	No. 5511-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 22.02.2024	327/DMA/N24PGS Dated 28.03.2024
8	Behavioral Chang Programme on Ganga Pollution Abatement	No. 5136/1(10)-NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 13.10.2023	25,000/-	Garulia Municipality	No. 5511-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 22.02.2024	327/DMA/N24PGS Dated 28.03.2024

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9	Ganga Utsav Programme on Ganga Pollution Abatement	No. 5136/1(10)-NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 13.10.2023	1,00,000/-	Naihati Municipality	No. 5511-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 22.02.2024	327/DMA/N24PGS Dated 28.03.2024
10	Wall Painting on Ganga Pollution Abatement	No. 5371/ NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 08.01.2024	10,450/-	Halisahar Municipality	No. 5584-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 14.03.2024	327/DMA/N24PGS Dated 28.03.2024
11	Slogan Competition on Ganga Pollution Abatement	No. 5371/ NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 08.01.2024	19,960/-	Halisahar Municipality	No. 5584-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 14.03.2024	327/DMA/N24PGS Dated 28.03.2024
12	River Festival Programme on Ganga Pollution Abatement	No. 5136/1(10)-NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 13.10.2023	1,00,000/-	Panihati Municipality	No. 5584-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 14.03.2024	327/DMA/N24PGS Dated 28.03.2024
13	Public Outreach and Knowledge based events on Ganga Pollution Abatement	No. 5136/1(10)-NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 13.10.2023	95,455/-	Naihati, Baranagar & North Barrackpore Municipalities	No. 5584-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 14.03.2024	327/DMA/N24PGS Dated 28.03.2024
14	Mass Awareness Vehicle on Ganga Pollution Abatement	No. 5371/ NGBRA/SPMG/IEC Activities-427/2017-P-III/2023 dated 08.01.2024	49,000/-	Naihati Municipality	No. 5584-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 14.03.2024	327/DMA/N24PGS Dated 28.03.2024
15	Swachhta Hi Seva on Ganga Pollution Abatement	No. 5024-IEC Activities-427/2017 Dated 19.09.2023	49,100/-	Kanchrapara Municipality	No. 5511-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 22.02.2024	327/DMA/N24PGS Dated 28.03.2024
16	Display Flex Banner During Durga Puja 2023, Programme on Ganga Pollution Abatement	No. 5148(9)-NGBRA/SPMG/IEC Activities-427/2017(P-III)/2023, dated 17.10.2023	24,300/-	Kanchrapara Municipality	No. 5511-NGRBA/SPMG/IEC Drive-679/2022, Dtd. 22.02.2024	327/DMA/N24PGS Dated 28.03.2024
	Total		**13,08,288/-**			

7. Ring Fenced Account:

As per solemn order of the Hon'ble NGT dt. 21.02.2024 it is submitted that the Details of Ring Fenced Account for North 24 Parganas District. The report is as Follows:

2023-2024 Rs. In lakh

Sl. No	Name of District	Name of ULB/Agency	Amount Released
1	North 24 Parganas	Bidhannagar MC	355.08000
		Executive Engineer, MED, Barasat	137.53800
		Total Release 2023-24	**492.61800**

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Rs. In lakh

2024-2025

Sl. No	Name of District	Name of ULB/Agency	Amount Released
1	North 24 Parganas	Executive Engineer, MED, Bidhannagar	21.76600
		SLRDC	148.77600
		Total Release 2024-25	**170.53200**

Copy of the report is annexed herewith marked as **'R-12'**

8. **Other Associated activities undertaken by DGPC:**

Number of awareness programme conducted as per approved Annual Action Plan for the month of January, February and June 2024 on Ghat Pe Haat 2024, Behavioral Change Communication, Public Outreach and Knowledge based events, Mass Awareness Vehicle, Wall Painting and Slogan Competition and International Day of Yoga Programme on Ganga Pollution Abatement, all together 7 programme were organized at Garulia, Naihati, North Barrackpore, Halisahar, Kanchrapara, Baranagar respectively on different dates.

Copy of the report is annexed herewith marked as **'R-13'** (Photo **Annexure 'R-14'** is referred to).

9. That it is submitted that the District Ganga Protection Committee, North 24 Parganas District has taken all possible measures for implementing the programmes vis-à-vis work relating to Ganga Pollution Abatement as submitted herein above, which the Hon'ble Tribunal may graciously accept.

10. That the statements as contained in the foregoing paragraph no. 1 to 8 are true to my knowledge and belief based on records as available in the office of the deponent and the rest are my humble submission before this Hon'ble Tribunal.

01 AUG 2024

SOLEMNLY AFFIRMED Before me ..... Duly identified By.... R.C. Roy ..... Advocate

Identified by me
Rajat Chandra Roy

Advocate

Sharad Kumar Dwivedi
Deponent
District Magistrate
North 24 Parganas

District Magistrate
North 24-Parganas, Barasat

BINOD BIHARI BISWAS
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Reg. No.: 13817/18

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01 AUG 2024

VERIFICATION:

I, the deponent above- named, do hereby verify and declare that the statements made in the aforesaid paragraphs are true and correct to the best of my knowledge and information and I believe that nothing material has been concealed there from.

Verified at on day of 2024.

Identified by me

Ranjit Chandra Roy

Advocate

Gharat Kumar Dwivedi

Deponent
District Magistrate
North 24 Parganas
District Magistrate
North 24-Parganas, Barasat

HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
O. A. NO. 200/2014

In The Matter of
M.C. Mehta.
... APPLICANT

VERSUS

Union of India &Ors.

... RESPONDENT(S)

AFFIDAVIT ON BEHALF OF THE RESPONDENT No....., DISTRICT MAGISTRATE & COLLECTOR, NORTH 24 PARGANAS DISTRICT.

01 AUG 2024

SOLEMNLY AFFIRMED ..... Duly
Identified By.... Advocate

BINOD BIHARI BISWAS
Notary Govt. of INDIA
Reg. No.: 13817/18

01 AUG 2024

BINOD BIHARI BISWAS
Reg. No 13817/18
Notary Public Govt. of INDIA

Ms. Madhumita Bhattacharjee,
Advocate
For The State of West Bengal
Email: bhattacharjee.madhumita@gmail.com
(M): 9811785211

I. Sewage

Name of the District: North 24 Parganas

SL No	Name of Town	Sewage Generation per day (in MLD) *	Quantity of Sewage treated per day (in MLD)	Status of existing Sewage Treatment Plant (STP)				Quality of discharged treated sewage from each STP, particularly for Faecal Coliform	Time bound plan to meet up the gap	Details of Hotels, Dharmashala, Ashram operating without proper consent and discharging untreated effluent	Water Quality in terms of Faecal Coliform (MPN/100 ml)
				Number of STP	Built up Capacity in MLD	Capacity Utilization(%) **	Mode of disposal in each town				
		[a]	[b]	[c]				[d]	[e]	[f]	[g]
1	Bhatpara	46.25	27.21	4	60.50	55.54%	A] Treated Water is being re-used for different purposes as per policy prepared by UD&MA Deptt. (June, 2020) B] Balance treated water is being discharged in surface water body	compliant with the standards notified by MoEF & CC dated 13-10-2017	a) 30 MLD capacity STP is under construction at North Barrackpore (Timeline: Oct, 2025). b) 60 MLD capacity STP is under renovation at (Baranagar) (Timeline: September, 2024) c) 8 MLD capacity STP at (North Barrackpore) is yet to start due to change of site. (Timeline would commence once the land is finalized). d) 15 KLD capacity FSTP at (Garulia) is under Process of sanction e) 60 KLD capacity FSTPs are in operational at Baranagar Municipal area. f) State is also planning for setting up of STP/s & FSTP/s to mitigate the gap in a phased manner funding from NMCG, AMRUT, & State Funds subject to the availability of land.	No Hotels, Dharamshala and Ashram operating without proper consent and no discharging untreated effluent of the jurisdiction as per report received from different Municipalities.	Water Quality report including Faecal Coliform for the month of June, 2024 is stated at paragraph 'g' page no. 3 at the affidavit. The report is received from WBPCB.
2	Naihati	28.90	17.00	2	18.06	94.13%					
3	Barrackpore	17.92	8.83	2	24.00	54.84%					
4	Halisahar	14.43	5.10	1	16.00	47.44%					
5	Garulia	10.37	3.80	1	4.10	92.68%					
6	Titagarh	12.78	8.50	2	9.08	93.61%					
7	Khardah	14.96	12.80	1	14.10	90.78%					
8	Panihati	48.13	11.00	1	12.00	91.67%					
9	Kanchrapara	14.13	7.04	1	18.00	50.57%					
10	North Barrackpore	16.48	NA	NA	NA	NA					
11	Kamarhati	39.50	NA	NA	NA	NA					
12	Baranagar	28.85	NA	NA	NA	NA					
	Total	292.70	101.28	15	175.84	NA					

** Utilization capacity is worked out on the basis of as on date design flow of each STP.

As per latest Water Quality Report of WBPCB, BOD level of entire stretch of River Ganga is within the permissible limit of bathing standard i.e 3.0 mg/l

Apart from construction of STP for addressing the BOD level, state is also focusing on to reduce Faecal Coliform level in the river Ganga by using different alternative technologies for treatment of Drains, Nallahs and Khals discharging in River Ganga.

For construction of STPs/FSTPs, availbility of encumbrance free land with proper title and ownership is one of the major constraints in the State. The State is giving all-out efforts in search of suitable and feasible land for construction of these utilities.

ANNEXURE- R-2

Treated Wastewater Re-use Policy
of
Urban West Bengal

June 2020

Prepared by

Urban Development & Municipal Affairs Department
Government of West Bengal

Preface

ANNEXURE- R-2

Poor sanitation and wastewater management in developing countries leads to the contamination of fresh water sources and is a major cause of water borne diseases and also affect the health of eco-systems. Around 80% of all waste water is discharged into the surface water bodies without any treatment where it creates health, environmental and climate-related hazards. Urbanization further exacerbates this challenge with increasing wastewater generation, while at the same time using more of Earth's dwindling resources. Recycling and reuse of treated wastewater is an important part of the sanitation cycle and critical in an environment with decreasing freshwater availability and increasing costs for delivering desirable quality water, often from far distance. Recovering the water, energy, nutrients and other precious materials embedded in wastewater is a key opportunity to be seized. Target 6.3 of the Sustainable Development Goals (SGD) commits governments to halving the proportion of untreated wastewater and sustainability, increasing recycling and safe reuse by 2030.

This policy document gives substantial focus to the financial and economic benefits of wastewater recycling from the perspective of public spending. The policy presents possible strategies for city and state planners in view of the sanitation situation and the role of wastewater recycling in the cities in West Bengal, and focuses on recycling at the end of sewage systems with appropriate centralized or decentralized technology solution alongwith extensive public awareness activities.

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Overview

About Wastewater: At a Glance

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What is Wastewater:

Wastewater can have a number of definitions (UN-Water 2015). The approach taken in this policy is a very broad definition following that outlined in the UNEP/UN-Habitat document 'Sick Water?'. Thus, Wastewater is defined as "a combination of one or more of:

- domestic effluent consisting of blackwater (excreta, urine and faecal sludge) and grey- water (kitchen and bathing wastewater);
- water from commercial establishments and institutions, including hospitals;
- industrial effluent, storm water and other urban run-off;
- agricultural, horticultural and aquaculture effluent, either dissolved or as suspended matter

Although, using this definition, the term 'wastewater' clearly encompasses domestic, commercial, industrial, agricultural components and also fecal sludge, these are sometimes covered separately in order to clarify or highlight the importance of the individual components or wastewater streams. (UN-Water, 2015).

Types of wastewater:

Wastewater comes in three main types namely Black water, Gray water and Yellow water.

Black water
This is wastewater that originates from toilet fixtures, dish washers, and food preparation sinks. It is made up of all the things that one can imagine going down the toilets, bath and sink drains. They include poop, urine, toilet paper and wipes; body cleaning liquids, anal cleansing water and so on. They are known to be highly contaminated with dissolved chemicals, particulate matter and is very pathogenic.

Gray water
This is wastewater that originates from non-toilet and food fixtures such as bathroom sinks, laundry machines, spas, bathtubs and so on. Technically It is sewage that does not contain poop or urine. Gray water is treated very differently from Black water and is usually suitable for re-use.

Yellow water
This is basically urine collected with specific channels and not contaminated with either black water or gray water.

Sources of wastewater

Domestic Sewage
This includes all wastewater generated by home dwellings, public restrooms, hotels, restaurants, motels, resorts, schools, places of worship, sports stadiums, hospitals and other health centres, apartments and the like. They all produce high volumes of wastewater.

Non-sewage
This includes water from floods (storm water), runoff (rainwater running through cracks in the ground and into gutters), water from swimming pools, water from car garages and cleaning centres including laundromats, beauty salons, commercial kitchens, energy generation plants, industries and so on.

Wastewater is also generated from agricultural facilities. Water used for cleaning in animal farms, washing harvested produce and cleaning farm equipment.

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How is wastewater harmful?

In certain parts of the world, especially in developing countries, wastewater is pumped directly into the sea or into fresh water bodies without any form of treatment. In other parts of developed countries, lack of adequate wastewater treatment infrastructure, maintenance and outdated systems heavily compromise wastewater treatment efforts. The effects of this (either treated or partly treated) can be classified in the following:

Water pollution:
Fresh water bodies and marine waters, into which wastewater is discharged may be polluted and rendered unsafe for human use. Depending on what is discharged, aquatic life may be harmed too.

Water security:
There is water scarcity in many places in the world. Wastewater discharged on lands can leach into underground water tables and potentially contaminate aquifers and underground water. If discharged in freshwater bodies, it may render water sources unsuitable for use.

Ecosystem services:
All ecosystems are connected and they all ultimately depend on water. Similarly, all water (surface and underground) is connected. This means careless wastewater discharge can have some serious ripple effect. One common effect of wastewater is the eutrophication of fresh water bodies and oceans. If one part of the ecosystem chain is destroyed, it can upset its entire food chain.

Agriculture / Fisheries / Tourism:
Wastewater for irrigation may contain unsuitable chemicals and higher concentrations of nutrients needed for crops. This can result in delay and under yielding. Wastewater used for animal farming may also contain harmful things and chemicals dissolved in them. Animals may die, and there is a chance that humans that eat such animals may be harmed too. In some places, fecal sewage is discharged directly into the sea/river. The discharge contains pathogens and harmful dissolved chemicals which can affect fishing in that area. The smell and such behavior do not encourage tourism to that area.

Health of urban and rural populations:
Wastewater is a big health issue, as it carries and transports a myriad of diseases and illnesses. It is believed that about 2.2 million people die each year (globally) from diarrhoeal disease. (WHO) At least 1.8 million children under five years die every year due to water related disease, or one every 20 seconds (WHO, 2018).

What is Waste water Management?

Wastewater management is the process of taking wastewater and treating/managing it in order to reduce the contaminants to acceptable levels so as to be safe for discharge into the environment. There are effectively two basic types of wastewater treatment: centralized and decentralized. Centralized systems are large-scale systems that gather wastewater from many users for treatment at one or a number of sites, whereas decentralized systems are dealing with wastewater from individual users, or small clusters of users, at the neighborhood or small community level.

The choice between centralized or decentralized wastewater management systems will depend upon a number of different factors, but it is important that full consideration be given to both the options rather than the situation that has existed in the past where sewerage was often considered to be the only 'proper' form of urban sanitation (UN-Water, 2015).

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Availability of Water in West Bengal

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- West Bengal possesses 7.5% of Water Resources of India.
- Annual Per capita availability of fresh Water:

Year	Water Availability (In m^3)
1961	5177
2001	1869
2025	1341

- Availability of Surface Water is 13.29 Million hectare meters (M.ham), 40% of it is useable.
- Availability of Ground Water is 2.38 M.ham, totally useable.

Requirement of Water in West Bengal in (M.ham)

Sector	2000	2011	2025
Agriculture	5.38	7.71	10.98
Domestic	0.26	0.28	0.38
Industry	0.26	0.38	0.59
Power (Thermal)	0.31	0.00	0.00
Inland Navigation	3.63	3.63	3.63
Forestry	0.01	0.01	0.01
Ecology, Environment and Others	1.00	1.00	1.00
Total (M.ham)	10.85	13.02	16.60
* Source: State Irrigation Department			

Shortfall of Water in West Bengal

As the supply of water is naturally constrained and demand is increasing in leaps and bounds the GAP in between is extending with time.

GROWTH OF POPULATION AND DECLINING PER CAPITA WATER		
YEAR	POPULATION (in Crore)	PER CAPITA WATER (in cu.m)
1951	2.63	2574
1961	3.49	1940
1971	4.43	1528
1981	5.46	1240
1991	6.81	996
2001	8.02	844
2011	9.40	720
* Source: State Irrigation Department		

Water Requirement vs Supply		
YEAR	Water Requirement (M.ham)	Deficit
2001	10.85	38%
2011	13.02	48%
2025	16.60	59%
* Source: State Irrigation Department		

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Main Features of Urban West Bengal

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Area of West Bengal: 88752 sq. km.
Total No. of Districts: 23 nos.

Area of Statutory Towns of West Bengal: 2742.21 sq. km. (3.09% of Total Area of WB)

Total Towns:

1. 125 Statutory Urban Local Bodies having 2938 Wards
   - 7 Municipal Corporations; 115 Municipalities; 3 Notified Area Authorities
2. 782 Census Towns

Three Industrial Township Authorities – Nabadiganta Industrial Township Authority, Bantala Industrial Township Authority and Golden City Industrial Township Authority

Development Authority – 19 Nos.

Urban Growth:

- Density of Urban Population – 6798 per sq. km. (highest in India)
- 30% of the total Urban Population live in Slum Areas
- Population share in size classes of towns to total Urban Population (Census 2011):

Sl No	Category of Town	Population Range	No. of Towns	Total Population
1	Municipal Corporation		7	8591218
2	A	above 2,15,000	13	4013321
3	B	above 1,70,000 to 2,15,000	8	1548015
4	C	above 85,000 to 1,70,000	34	4010347
5	D	above 35,000 to 85,000	42	2321142
6	E	below 35,000	21	473658
	TOTAL		**125**	**20957701**

Sl No	Town Size Classes	No. of Towns	Total Population
1	I (> 1000000 population)	3 MC	6726212
2	I (> 500000 - 1000000 population)	3 MC	1698139
3	I (> 100000 - 500000 population)	1 MC & 47 Municipality	9040626
4	II (50000-99999 pop.)	33 Municipality	2334791
5	III (20000-49999 pop.)	29 Municipality & 1 Notified Area Authority	1036389
6	IV (10000-19999 pop.)	5 Municipality & 2 Notified Area Authority	112417
7	V (5000-9999 pop.)	1 Municipality	9127
	TOTAL	**125**	**20957701**

Service Level Scenario of Piped Water Supply in Urban West Bengal

Piped Water Supply				
Sl No	Indicator	Service Level Benchmark	Present Status (Average)	Gap
1	Household level coverage (%)	100%	56%	44%
2	Per capita supply of water	135 lpcd	72 lpcd	63 lpcd

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Comparative Urban Growth of India and West Bengal

Sl .No.	Years	India (In Million)	West Bengal (in Million)
1	1961	78.16	8.54
2	1971	107.82	10.97
3	1981	159.46	14.45
4	1991	217.61	18.71
5	2001	285.36	22.43
6	2011	377.11	29.1
Source: 1. Census of India			

Urbanization in West Bengal

Year	Total Population (in Million)	Urban Population (In Million)	% of Urban Population
1981	54.6	14.4	26.37%
1991	68.1	18.7	27.46%
2001	80.17	22.5	28.06%
2011	91.2	29.1	31.90%

Some Statistic of Urban West Bengal

Sl. No.	Particulars	Generation/ Capacity (MLD) As on 2020
1.	Estimated Sewage Generation	2758.07
2.	Estimated Sewage Treatment Capacity exist	2039

In West Bengal, an Internationally recognized Energy Efficient natural Sewage Treatment System acting as carbon sink was established in East Kolkata Wet Land. Here 900 MLD domestic sewage are getting treated in a energy efficient natural treatment system, which is regularly being used in pisciculture.

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Water Demand with Projected view of next 50 years in West Bengal

Sl No	Municipality/ Corporation	Population in 2020	Rate of Growth per year	Population in 2070
1	West Bengal Urban Area	31,819,118	1.585%	69,850,157

		Ultimate Year 2070	Units	Remarks
Projected Population		69850157	Nos.	Based on population computed
Floating Population @	2.00%	1397003	Nos.	Assumed
Total Population		71247160	Nos.	
Population Served in LPCD @	135	9618366619	Lit/Day	CPHEEO Manual
Institutional & Industrial Demand @	8.00%	769469330	Lit/Day	Assumed
Fire Fighting @ 100000(Popu/1000)^0.5		26692164	Lit/Day	CPHEEO Manual
UFW @	15%	1562179217	Lit/Day	CPHEEO Manual
Total Estimated Demand		**11976707329**	Lit/Day	
Total Estimated Demand		**11976.71**	**MLD**	
Required demand for next 50 years in KMA area		**2635.00**	**MGD**	

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Capacity of STP in Towns beside Ganga River ANNEXURE- R-2

Sl.No.	Town	District	Agency Responsible for Construction and/or O & M	Installed Capacity (MLD)
1	(a)Kolkata- (b)Cossipore Chitpore (c)Graden reach	Kolkata	KMC	122.50
2	(a) Howrah (b) Kona (c) Howrah STP (d) Anupara (e) North Howrah	Howrah	KMDA	127.00
3	Ulluberia		KMDA	
4	Serampore	Hooghly	KMDA	18.90
5	Chandanagar		KMDA	22.70
6	Bhadreswar		KMDA	7.60
7	Champdani		KMDA	0.30
8	Bansberia		KMDA	0.30
9	Baidyabati		KMDA	6.00
10	Konnagar		KMDA	
11	Rishra		KMDA	
12	Uttarpara-Kotrung		KMDA	22.00
13	Hooghly-Chinsurah		KMDA	29.30
14	Panihati	North 24 Parganas	KMDA	12.00
15	Titagarh		KMDA	23.00
16	Bhatpara		KMDA	61.00
17	Baranagar		KMDA	40.00
18	Kamarhati		KMDA	
19	Garulia		KMDA	7.90
20	Naihati		KMDA	11.60
21	Halisahar		KMDA	6.50
22	Barrackpore		KMDA	24.00
23	Khardah		KMDA	3.00
24	Kanchrapara		KMDA	18.00
25	Maheshtala	South 24 Parganas	KMDA	26.00
26	Budge Budge		KMDA	9.30
27	Diamond Harbour		KMDA	0.52
28	Nabadwip	Nadia	KMDA	19.50
29	Kalyani		KMDA	21.00
30	Gayeshpur		KMDA	8.33
31	Santipur		KMDA	6.00
32	Krishnanagar		MED	
33	Chakdah		MED	
34	Ranaghat		KMDA	11.80
35	Katwa	Burdwan	KMDA	10.45
36	Haldia	Purba Mednipur	MED	
37	English Bazar	Malda	MED	
38	Murshidabad	Murshidabad	KMDA	11.96
39	Jaigunj-Ajimganj		KMDA	8.00
40	Dhulian		MED	
41	Jangipur		KMDA	13.00
42	Behrampore		KMDA	3.70
43	Raiganj	Uttar Dinajpur	MED	
44	North Barrackpore	North 24 Parganas	KMDA	14.85
			Total	**728.01**

Status of old STPs maintained

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SL. No.	Location of STP	Year of Commissioning	STP Capacity	Technology Adopted	Present Functional Status	Purpose of Use of Treated Water
1.	Baidyabati	2007	6.00 MLD	Oxidation Pond	Operational	Used in pisiculture purpose
2.	Champdani	2009	1.00 MLD	Aerated Lagoon	Non-operational	-
3.	Bhadreswar	2006	7.60 MLD	Aerated Lagoon	Operational	Used in pisiculture purpose
4.	Bansberia	2009	1.00 MLD	Waste Stabilization Pond	Non-operational	-
5.	Chandannagar	1993	22.70 MLD	Bio-filter and Waste Stabilization Pond	Operational	Used in pisiculture purpose and partially for agriculture
6.	Garulia	2004	7.90 MLD	Waste Stabilization Pond	Non-operational	-
7.	Titagarh	1989	23.00 MLD	WSP, ASP and Low Cost STP	Operational	Used for agricultural purpose
8.	Seerampore	1990	18.90 MLD	Trickling Filter	Non-operational	-
9.	Uttarpara – Kotrung, Konnagar and Rishra	2007	22.00 MLD	Low Cost STP	Operational	Used for pisiculture and for agricultural purpose
10.	Panihati	1993	12.00 MLD	Low Cost STP	Non-operational	-
11.	Naihati	2009	11.56 MLD	ASP	Operational	-

Status of new STP augmented / to be augmented

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SL. No.	Location of STP	STP Capacity	Expected Date of Commissioning / Already Commissioned	Technology Being Adopted	Purpose of Use of Treated Water	Remarks
1.	Kalyani	21.00 MLD	2018	Trickling Filter and Waste Stabilization Pond	Being used for pisiculture and proposed for Agriculture and Industrial use	Already Commissioned
2.	Hooghly – Chinsurah	29.30 MLD	2022	SBR	-	Tendering Stage
3.	Mahestala	30.20 MLD	2022	SBR	-	
4.	Budge Budge	9.50 MLD	2020	SBR	-	Work in Progress
5.	Baranagar – Kamarhati	60.00 MLD	2022	Trickling Filter	-	LOA Awarded
6.	Halisahar	16.00 MLD	2020	SBR	-	Work in Progress
7.	Bhatpara	60.50 MLD	2018	FBBS Technology	Partially used for pisiculture	Already Commissioned
8.	Barrackpore	24.00 MLD	2020	SBR	-	Work in Progress
9.	Kona	62.00 MLD	2022	SBR & WSP	-	LOA Awarded
10.	Arupara	65.00 MLD	2022	SBR	-	
11.	Kanchrapara	18.00 MLD	2022	Aerated Lagoon	-	In the process of finalization of tender

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Industrial Waste Water Treatment ANNEXURE- R-2

Effluent Treatment Plants (ETPs) and/or Common Effluent Treatment Plants (CETPs) are integral part of industrial wastewater management systems. A CETP caters to a number of industrial units with same of closely similar industrial processes as only in such case the CETP can be designed in respect of the treatment chemistry. ETPs are the ultimate step of wastewater treatment by any industry before discharge to the environment. It is a compulsion for any water polluting industrial unit to have a suitable ETP treating the wastewater to the required discharge standard.

Depending on two wastewater components, (1) the volume of discharge and (2) the wastewater quality, "Grossly Polluting Industries (GPI)" has been identified in the state. Such GPIs are considered to be highly water polluting industries. At present West Bengal has 46 such Industries. An account of the quantum of wastewater discharge by these industrial units is provided in table below. The wastewater discharged by these industries will be identified in the first place for further treatment and reuse in (1) the same industry, or, (2) in industries or establishments nearby. As industrial wastewater, even after treated to the prescribed discharge standard, may contain substances unsuitable for certain uses, reuse of industrial wastewater requires a level of scrutiny before specific re-use.

An industrial unit will have to submit specific application to the State Pollution Control Board about the scheme of the re-use and can initiate such activity after specific approval by the State Board. The State Government shall actively consider incentive scheme(s) for the industries willing for initiating wastewater re-use schemes.

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Industrial Waste Water Discharge

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An account of wastewater discharge by Grossly Polluting Industries in West Bengal		
INDUSTRY NAME	DISTRICT	WASTE WATER DISCHARGE QUANTITY (M3 / Day)
BALLAVPUR PAPER MFG.ITD	Burdwan	288
BardhamanDharmaraj Paper Mill Private Limited	Burdwan	8
Durgapur Steel Plant (DSP)	Burdwan	22390
EAST INDIA PHARMACEUTICAL WORKS LIMITED (DURGAPUR WORKS)	Burdwan	140
Krishna Tissues Private Limited	Burdwan	620
SAIL-IISCO Steel Plant	Burdwan	32700
The Durgapur Projects Limited	Burdwan	57500
Bengal Beverages Pvt. Ltd.	Hooghly	730
Berger Paints India Ltd. (BAICL Divn.)	Hooghly	80
Dankuni Coal Complex, S.E.C.L.	Hooghly	1000
Grasim Industries Limited (Unit - Aditya Birla Insulators)	Hooghly	208
ITC Limited, PSPD, Unit: Tribeni	Hooghly	14000
Kesoram Rayon - Unit of Cygnet Industries Ltd.	Hooghly	11670
Mother Dairy Calcutta	Hooghly	700
Nalco Water India Limited	Hooghly	33
PMC Rubber Chemicals India Pvt. Ltd.	Hooghly	244
BERGER PAINTS INDIA LIMITED	Howrah	72.2
PEPSICO INDIA HOLDINGS PVT. LTD. (FRITOLAY DIVISION)	Howrah	1312.4
Britannia Industries Limited	Kolkata	236
Diamond Beverages (P) Limited	Kolkata	213
Gun and Shell Factory	Kolkata	2278
Hindustan Unilever Limited	Kolkata	300
AdaniWilmar Limited	Medinipore(E)	107
Exide Industries Limited	Medinipore(E)	630
Haldia Petrochemicals Limited	Medinipore(E)	11470
Indian Oil Corporation Limited- Haldia Refinery	Medinipore(E)	6300
IVL Dhunseri Petrochem Industries Private Limited	Medinipore(E)	403
MCPI Private Limited	Medinipore(E)	30792
Ruchi Soya Industries Limited	Medinipore(E)	130
Shree Renuka Sugars Ltd	Medinipore(E)	740
Tata Chemicals Limited	Medinipore(E)	45
UPL Limited (United Phosphorus Limited)	Medinipore(E)	72
UNIGLOBAL PAPERS PVT. LTD	Medinipore(W)	210
UNITECH PAPERS MILLS PVT. LTD	Medinipore(W)	242
AB Mauri India Pvt. Ltd.	Nadia	225
Khaitan (India) Ltd.	Nadia	200
SUPREME PAPER MILLS LTD	Nadia	1230
EMAMI PAPER MILLS LTD. (UNIT-GULMOHAR)	North 24-Parganas	900
EXIDE INDUSTRIES LIMITED, SHYAMNAGAR UNIT	North 24-Parganas	1660
INDIAN PULP AND PAPER PRIVATE LIMITED	North 24-Parganas	241.25
METAL & STEEL FACTORY (ORDNANCE FACTORY, MINISTRY OF DEFENCE)	North 24-Parganas	4411
IFB AGRO INDUSTRIES LTD (Noorpur- 743368)	South 24-Parganas	1189
Kohinoor Paper & Newsprint Pvt. Ltd.	South 24-Parganas	12
UNITED BREWERIES LIMITED,KALYANI UNIT	Nadia	950
Krishna Tissues Private Limited	Burdwan	620
Nataraj Electro Casting	Burdwan	2
CETP of Bantala Leather Complex	South 24-Parganas	20000

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Policy Statement

proportional increase in civic amenities is already putting pressure on water resource management in urban areas. By 2050, half of India's population will live in urban areas and face issues around water. These bring more into focus on the institutional arrangements and delivery mechanisms of this scarce and non-substitutable resource.

West Bengal is the most densely populated state of India at 1000 persons per square km. Its average urban density is much higher at around 7500 persons per square km. West Bengal has liberal water availability as a natural resource that supports intensive rain-fed agriculture. However the pressure on urban water resources has been increasing over some years due to increasing population, low investment in supply augmentation and dilapidating state of existing systems. It is realized that current and future fresh water demand could be met by enhancing water use efficiency and demand management.

With rapid expansion of cities and domestic water supply, quantity of wastewater is increasing in the same proportion. As per CPHEEO estimates about 70-80% of total water supplied for domestic use gets generated as wastewater. The per capita wastewater generation by the class-I cities and class-II towns, representing 72% of urban population in India, has been estimated to be around 98 lpcd while that from the National Capital Territory-Delhi alone (discharging 3,663 mld of wastewaters, 61% of which is treated) is over 220 lpcd (CPCB, 1999). As per CPCB estimates, the total wastewater generation from Class I cities (498) and Class II (410) towns in the country is around 35,558 and 2,696 MLD respectively. While, the installed sewage treatment capacity is just 11,553 and 233 MLD, respectively, thereby leading to a gap of 26,468 MLD in sewage treatment capacity. Maharashtra, Delhi, Uttar Pradesh, West Bengal and Gujarat are the major contributors of wastewater (63%; CPCB, 2007a). Further, as per the UNESCO and WWAP (2006) estimates (Van-Rooijen *et al.*, 2008), the industrial water use productivity of India (TWP, in billion constant 1995 US$ per m3) is the lowest (i.e. just 3.42) and about 1/30th of that for Japan and Republic of Korea. It is projected that by 2050, about 48.2 BCM (132 billion litres per day) of wastewaters (with a potential to meet 4.5% of the total irrigation water demand) would be generated thereby further widening this gap (Bhardwaj, 2005). Thus, overall analysis of water resources indicates that in coming years, there will be a twin edged problem to deal with reduced fresh water availability and increased wastewater generation due to increased population and industrialization.

Though wastewater reuse is endorsed in many policies and programmes, there is a lack of clear guidelines and frameworks to support the implementation of such projects. As a result, the reuse of reclaimed water for non-potable purposes continues to face challenges. The problem is further exacerbated by limited enforcement of the restriction to extract groundwater for non-potable purposes. More detailed policies and stronger enforcement is needed for wastewater reuse projects to be viable.

To address these issues in a coordinated and focused manner by the development actors, a need has been felt to articulate an uniform State Policy on treated waste water re-use with specific direction towards the reforms in planning, institutional framework, capacity building, research & development, legal & regulatory measures, financial arrangement, public-private partnership, technology upgradation, community participation and awareness. The UD & MA Department has formulated this Policy taking the note of the National Policy of Government of India.

This Policy is applicable to the interventions carried out by Urban Development & Municipal Affairs Department, Development Authorities, Urban Local Bodies and private organizations in urban areas. Other Departments and Institutions carrying out similar/related projects in urban areas are also requested to follow this Policy.

2. Statement of Intent:

The Government intends to shift his role from 'Provider' to 'Provider cum Facilitator cum Regulator' in sustainable management of water resources by way of establishing an effective system of re-use of treated wastewater by the urban citizens of West Bengal thereby reducing dependency on fresh ground/surface water resources bringing reforms in the areas of Planning, Institution, Finance, Technology and Legal & Regulation.

3. Objectives:

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3.1. Immediate Objective: (2 Years)

- To assess sources of generation of wastewater and quantity of wastewater production in urban West Bengal and to create a GIS enabled MIS
- To identify bulk users of water like Industrial Clusters, Metro rail, Indian Railways, Infrastructure Projects, Construction Sectors, Agriculture, Bus Depots and Public Works Department, and quantify their potential water demand as bulk user of water.
- To assess the existing centralized and decentralized plants of wastewater treatment especially the Sewage Treatment Plants (STPs), Effluent Treatment Plants (ETPs) & Common Effluent Treatment Plants (CETPs) and take appropriate measures for upgradation or expansion.
- To identify centralized and decentralized options of wastewater treatment and its application in appropriate places.
- To develop land bank for centralized wastewater treatment plants
- To develop an integrated approach in wastewater management bringing coordinated mission between several Government Departments and Private Sector.
- To develop several issue-based policies & actions and review the existing legal & regulatory measures to bring reforms in wastewater management and its re-use.
- To ensure employment opportunities in wastewater management and its re-use
- To attract investment in wastewater management with innovative financial mechanisms.
- To formulate a comprehensive plan on water resource management including wastewater management with active community participation in Urban Wastewater Treatment and its re-use in cost effective manner.

3.2. Medium Term Objective: (next 4 Years)

- To develop a comprehensive institutional arrangement in all levels either through new establishment of institution or re-orienting institutions responsible for proper planning, implementation, monitoring, conflict resolution and grievance redressal of wastewater treatment & its re-use with appropriate management system, and leveraging awareness about green habit and collective behavioural change amongst all citizens.
- To implement the comprehensive plan on water resource management including wastewater management in urban West Bengal in phased manner subject to availability of finance.
- To establish an appropriate system of operation and maintenance of the wastewater treatment infrastructure through active involvement of the citizens.

3.3. Long Term Objective: (next 4 Years)

- Planned wastewater treatment infrastructure and its re-use are fully functional and maintained in each city.
- Reduce pressure on potable water (fresh ground and surface water) vis a vis reduce pressure on wastewater treatment facilities.

4. Key issues:

- Wastewater management happening in piecemeal manner.
- Lack of awareness among all stakeholders in treatment and disposal of wastewater: As a result, there is insufficient focus on ensuring adequate coverage of network sewerage, and connections to the same; or on decentralised options, where network sewerage may not be viable; and on the health hazards for use of untreated wastewater in agriculture.
- Viability of urban wastewater treatment facilities: Lack of revenue generation from sanitation services in urban centres and/or fiscal transfers for the same are inadequate to ensure operation and maintenance of wastewater treatment plants to required standards. Consequentially, secondarily treated wastewater often does not meet regulatory standards, and is unfit for reuse.
- Lack of clear guidelines and framework: While wastewater reuse finds mention in several policies and programmes, there is an absence of a clear framework to support implementation of projects in a manner that aligns stakeholder interests and priorities, and is operationally sustainable
- Institutional coordination: Water plays a significant role in several sectors, including urban, agriculture, industries and power. There is a need for a platform for interaction and coordination among sectoral departments and other concerned stakeholders to facilitate greater synergies and collaboration towards efficient resource use.

5. Alignment with International/ National Policies and Frameworks

Several policy and guideline documents in India recognized the concept of waste water re-use, and the need to include the same in water supply management programs. Specifically, this policy aligns with the following national and international agenda:

- UN Sustainable Development Goals: The Sustainable Development Goals (SDGs) are focused, among other areas, on environmental protection and prosperity creation. In particular, the policy aligns with the following SDGs: SDG 3: Good Health and Well-Being; SDG 6: Clean Water and Sanitation; SDG 8: Decent Work and Economic Growth; SDG 11: Sustainable Cities and Communities.
- National Water Policy 2012: The National Water Policy 2012 promotes and incentivizes the reuse of wastewater, including through Section 6.3: 'Recycling and reuse of water, including return flows, should be the general norm'; Section 7.3: 'Recycling and reuse of water, after treatment to specified standards, should also be incentivized through a properly planned tariff system'; and Section 11.7: 'Subsidies and incentives should be implemented to encourage ... and recycling / reuse, which are otherwise capital intensive.
- National Service Level Benchmarks; National Urban Sanitation Policy (NUSP): The National Service Level Benchmarks, instituted by the Ministry of Housing & Urban Affairs, Government of India, establish a 20% target for reuse of urban wastewater generated.
- Power Tariff Policy (revised, 2016): The revised power tariff policy mandates thermal power plants within 50 kms of a city STP to off-take all the treated wastewater from the STP. Charges incurred in conveyance of wastewater from the STP to the power plant are eligible for pass through in the power tariff.
- *Atal* Mission for Rejuvenation & Urban Transformation (AMRUT): Following the policy guidelines implementation of wastewater reuse infrastructure solutions in selected towns and cities has been taken up.

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6. Policy Actions:

6.1. Institutional Set up for Implementation, Monitoring and Management:

- State Level High Powered Committee should be constituted under the Chairmanship of the Chief Secretary to Government of West Bengal alongwith the other members – the Additional Chief Secretary/Principal Secretary/Secretary from the Departments of Health & Family Welfare, Environment, PHED, MSME, Water Investigation, Irrigation & Water Ways, UD & MA, P&RD and Commerce & Industry, for overall supervision, monitoring and policy advice.
- A State Level Steering Committee should be constituted under the chairmanship of Principal Secretary/Secretary, UD & MA Department alongwith the representatives of Health & Family Welfare, Environment, WBPCB, PHED, P&RD, MSME, Water Investigation, Irrigation & Water Ways, UD & MA and Commerce & Industry, for supervising the regular implementation and monitoring of wastewater treatment and its use.
- Urban Development & Municipal Affairs Department should act as Nodal Department for implementation of Treated Wastewater Re-use Policy and its action plan.
- State Urban Development Agency under UD & MA Department should act as Nodal Agency for implementation of Treated Wastewater Re-use Policy and its action plan.
- A State Level Waste Water Management Cell with sufficient experts should be established at SUDA for day to day monitoring and technical advisory.
- Technical support in implementation should be provided by Municipal Engineering Directorate. If required, professional technical agency may be engaged.
- The primary responsibility of Urban Local Body is to aware the citizen and industries towards treatment of wastewater and its reuse implementing all legal provisions, even imposition of fine for non treatment. In this connection, ULBs will get strong support from WBPCB.
- The Development Authorities/Unnayan Parishads should be responsible for implementation and O&M of large Sewage Treatment Plants, whereas the Urban Local Bodies should be responsible for implementation and O&M of small Sewage Treatment Plants and decentralized wastewater treatment plants.
- The Urban Local Bodies should promote establishment of decentralized wastewater treatment plants and rain water harvesting technologies encouraging the citizen through incentives.
- ULBs and Development Authorities should constitute Task Force for implementation and monitoring of treatment of wastewater & its use in their jurisdiction.
- Requirement of manpower resource gap in ULBs/Development Authorities should be addressed by way of filling up the vacant posts or engaging outsourced agency.

6.2. Development and Maintenance of Information Base and planning:

A Comprehensive Database Development and appropriate Management Information System utilizing GIS platform should be established for regular assessment of water demand, wastewater generation and reuse of treated wastewater in several sectors and mapping the requirement/location of centralized and decentralized treatment plants. For this following steps should be adopted:

- Develop coordination between UD & MA Department, Environment Department, PHED and Water Resource Investigation & Development Department
- Develop coordinated information sharing mechanism between water promotion departments like UD&MA, PHED and Water Resource Investigation & Development Department, and ULBs/Development Authorities
- Develop GIS enabled Management Information System for the cities.
  - i) Preparation of Geo-referenced City base Map
  - ii) Conducting Technical Surveys like Plane Table, Contour Survey
  - iii) Conducting Study on 'as is' situation of underground water, surface water, water lines, sewer lines etc.
  - iv) Conducting Socio-Economic Survey and Development of Management Information System

v) Integration of Spatial Data with the information of abovementioned surveys/studies to create GIS enabled MIS.
vi) Establishment of Central Data Monitoring Centre

- Develop coordination between UD & MA Department and Land & Land Reforms Department for updation of Land Records of the cities and development of Land Bank for plants.
- Provision of manpower & development of physical infrastructure for maintaining database development & management system in the concerned Departments especially in UD & MA Department, Development Authorities, Unnayan Parishads, and Urban Local Bodies.
- Preparation of Urban Water Resource Management Plan alongwith Wastewater Resource Management Plan by each ULB: Traditionally, water authorities have managed their water supply, sewerage and storm water drainage systems as separate entities. Integrated urban water resource planning is a structured planning process to evaluate concurrently the opportunities to improve the management of water, sewerage and drainage services within an urban area in ways which are consistent with broader catchment and river management objectives. Catchment management impacts directly and indirectly on all three components of the urban water cycle, having effects on drinking water quality, wastewater treatment and storm water management.
- Each waste water treatment plant should have a physical and financial pre feasibility study alongwith environmental impact assessment
- Planning for establishment of water testing laboratory in affordable location regionally should be developed.
- Each ULB/implementing organization should develop a plan for commercialization/marketing of treated waste water involving citizen and private actors.
- DPR of STP should include effective plan for reuse of treated water, long term operation & maintenance and commercialization i.e. pricing of treated water, and the DPR implementing agency should ensure that.
- Management of STPs should be effectively planned involving user groups.
- Management of ETPs/CETPs should be efficiently monitored by ULB/DA/WBPCB on regular interval and in planning of ETP/CEPT establishment by the industry, mandatory provisions should be there to include the purpose of use of treated water.
- Local or regional storage facility of treated waste water and network plan for supply for reuse shall be developed through a systematic study.

6.3. Comprehensive Land Use Planning:

New Land Use Development and Control Plan for West Bengal specifically for the Statutory Towns, other Census Towns and upcoming Growth Centres are very much required for systematic planning of wastewater treatment plants both for centralized and decentralized plants.

6.4. Legislation and Guidance Documents to follow:

- Environment (Protection) Act, 1986
- The Environment (Protection) rules,1986
- The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006
- Water Bodies Conservation Act
- The East Kolkata Wetlands (Conservation and Management) Act, 2006/2008
- The West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005/2006
- Manual on Sewerage and Sewage Treatment Systems, 2013 of CPHEEO
- The water (Prevention and control of pollution) Act,1974
- The water (Prevention and control of pollution) Amended rules, 2011
- The water (Prevention and control of pollution) Rules, 1975
- National Urban Sanitation Policy 2008
- National Water Policy 2012
- West Bengal Municipal Act and Municipal Corporation Acts
- Quality standards suggested by Central Pollution Control Board and West Bengal Pollution Control Board.

- Standards set by Bureau of Indian Standards (BIS)
- Effluent Quality guidelines for health protection measures in aquaculture use of waste water
- Quality guidelines for health protection in using human wastes for aquaculture.
- Service Level Benchmarks Fixed By Ministry of Urban Development

6.5. Legal Issues:

- Imposition of legal provision to the respective stakeholders for installation of STP/ETP/CETP.
- The legal rights over the sale and revenue issues of reclaimed water is an emerging issue and being addressed by the State Government separately.
- ULB/Industry should reuse, recycle, & resale the effluents, sewage, septage water to the end users within or outside the jurisdiction of the ULB.
- West Bengal Municipal and Municipal Corporations Acts should be amended incorporating the provision for treatment of waste water in centralized & decentralized manner and reuse of the same.
- Ground water extortion shall be mandatorily prohibited, especially for agriculture, industry & construction sectors, and instead of that use of surface water and treated waste water should be imposed.
- Mandatory provisions shall be made for bulk user of water like Fire Brigade, Industrial Clusters, Metro rail, Indian Railways, road wash, Infrastructure Projects, Construction Sectors, Agriculture & Agriculture Extension sectors, Bus Depots and Public Works Department to use treated waste water.
- Imposition of fine on the Industries for not establishing Effluent Treatment Plant/Common Effluent Treatment Plant and non reuse of that water.
- State level treated waste water specifications and standards shall be amended (to be encouraged to adopt as per IS and ISO standards) to include and ensure a safe reuse and to produce high economic return products.

6.6. Technology Options for Wastewater Treatment:

The coverage of waste water treatment should be the application of appropriate waste water treatment technologies in both the centralized and decentralized models having low cost & user friendly to operate; both in capital and in operation & maintenance. The centralized models should have commercial value of cost recovery.

Technological options for waste water treatment plants should be based on treatment standard, quantum of sewage inflow, BOD level, location of plants or utilization of recycled waste water etc., details of the design considerations and operating requirements for a variety of technologies suitable under different conditions has been explained in Chapter 7 of part A of Manual on Sewerage and Sewage Treatment Systems (2013) of CPHEEO.

It shall be ensured that old STPs should be upgraded and new STPs confirm to such standards so as to enable utilization of treated waste water directly by the users as far as possible.

Effluent Treatment Plants and Common Effluent Treatment Plants of Industries should confirm to such standards so as to enable utilization of treated waste water directly by them or other users as far as possible.

Decentralized wastewater treatment models should be showcased before the citizen in several public places like parks etc. and should be promoted for bulk waste generators.

Accessible and affordable water quality testing arrangement should be in place locally or regionally.

The developers should use innovative/conventional/generic technologies developed by IITs/NEERI and other Institute of repute while implementing the projects.

The choice of technology should have low requirement of space, power and efficiency.

For each project, conducting environmental impact assessment and social impact assessment are mandatory, alongwith technical and financial feasibility analysis.

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6.7. Technology Reforms:

Government intends to propagate and extend new cost-effective, energy efficient and eco-friendly technologies. For this following issues should be considered.

- Promote Research & Development relating to alternate treatment technologies as well as energy conservation practices involving Technological Institutes/Universities/ Science & Technology Department of West Bengal
- Technological Institutes/Universities/ Science & Technology Department of West Bengal, shall be requested to develop economically viable wastewater treatment decentralized models.
- Technological Innovation shall be worked out for protecting flora & fauna and also human settlements from man-made and different kinds of natural & man-made disaster.
- Government would facilitate the creation of quality testing facilities for water across the State for ensuring quality control. The existing facilities in technological institutions would also be utilized.

6.8. R&D for Technology and its Commercialization:

A technology fund shall be set up under UD & MA Department in order to Research & Development (R&D) for appropriate cost effective and geographically suitable technologies for wastewater treatment. This shall also include identification and innovation of proper models. Products developed through this R&D will be commercialized through supermarket, retail outlet, mart, urban technology parks etc.

6.9. Reuse of Treated Water:

Wastewater is a huge resource that should be harnessed properly, it can bring a lot of health and economic benefits, increase food production, enhance fishing, tourism, rural and urban livelihoods. Following areas of reuse of treated water should be followed:

- Irrigation and Agriculture: Storm water, urban runoff and effluent from animal farms can be captured for irrigation and other farming needs. This kind of wastewater is usually high in nutrients (nitrogen, phosphorus, potassium, micronutrient and organic matter). It saves fertilizer cost and also preserves surface and underground water that they would have otherwise used. The sludge from treatment sites can be used in composting sites and sent to agricultural fields.
- Energy and Construction: The waste materials (sludge) collected from a treatment plant can be biodegraded in a controlled environment and then combusted (burnt at high temperatures) to release Methane (A gas similar to natural gas). This can be used in boilers at homes and in buildings, as well as for cooking and heating purposes. This digester kind of biodegrading can contain contaminants and so the process has to be done properly. The sludge from treatment plants can also be combusted to produce electricity.
- There are different types of sludge. Sludge could be fecal (from human and animal poop flushed down the drains) and regular sludge, from rubbish and garbage that get into drains and sewage systems. Fecal sludge is high in contaminants and must be treated well before discharge.
- Water used in the kitchen can be collected and used to gardens and lawns. A couple of gallons each day means a significant saving on water by the end of the year. Families can also reduce the amount of wastewater they produce by using of bathrooms.
- Community Latrines and Toilets washing, road cleaning, construction activities, pisciculture, Car Washing, maintenance of parks gardens & developing urban landscaping, rejuvenation of ponds, lakes, rivers, and emergency purpose for fire brigade
- Rainwater Harvesting: It should be mandatory to reuse the rain water in sanitary activities and groundwater recharging.
- Industries should reuse their treated water and sludge and minerals to be sold out for appropriate use. Further industries within 30 km of a Sewage Treatment Plant should use treated water in place of fresh surface/ground water.
- Bulk users of water like Fire Brigade, Industrial Clusters, Metro rail, Indian Railways, road wash, Infrastructure Projects, Construction Sectors, Agriculture & Agriculture Extension sectors, Bus Depots and Public Works Department should use treated waste water.
- The excess amount of treated waste water may be used for ground water recharging.

Inspite of these, Government intends the following:

- Commerce & Industry Department should make a voluntary target for treated wastewater to comprise 20% of the total state-wide industrial water use by 2020
- In compliance with the Government of India's recently revised Power Tariff Policy (2016), Department of Power, Government of West Bengal should coordinate partnerships of thermal power plants with urban centres within 50 km radius for off-take of all Wastewater treatment available; and facilitate operational sustainability of wastewater treatment plants

6.10. Awareness Generation:

Government intends to promote awareness among all the stakeholders for achieving the goal of 'Re-use of treated wastewater'. For the said purpose, Government is directing the development actors to promote the awareness considering the following issues.

- Awareness should be generated regarding different Government Programmes to reach & sustain the benefit upto the end beneficiary.
- Awareness should be generated regarding several Policies, Acts and Laws related to Water resource and wastewater management & reuse.
- Awareness should be generated regarding Environment Protection.
- Awareness should be generated widely on good quality and cost effective centralized & decentralized technologies of wastewater management systems.
- Awareness should be generated for providing service charges, user fee and fine
- Awareness should be generated regarding maintenance of created assets and also for developing environment friendly & hygienic city
- Multiple channels like media (social, print, broad cast etc.), advertising, flyers, brochures, booklets, road shows, rallies, public addressing, etc. should be used.
- Techniques for Community Mobilization to be adopted
    - i) Involving community in their own development process
    - ii) Growing interest of Community through Cultural & Healthy Recreational facility
    - iii) Educating community on Human Rights
    - iv) Preparing IEC materials according to community need
    - v) Display Programme, Activity & Achievement Charter
    - vi) Display success story in different places
    - vii) Disseminating/ Displaying Literal & Visual Documentation
    - viii) Fair
    - ix) Involving Media.
- A system of incentives and penalties should be devised to encourage greater participation among residents, compliance by service providers and better performance of ULBs.
- Reward system may be developed for high performing ULBs/citizens.
- Government shall issue appropriate guideline for community mobilization and awareness generation.

6.11. Capacity Building and Training:

Capacity building is crucial in achieving and sustaining wastewater management and its use. Focus on capacity building, exposure visit and training of concerned staffs of State/Regional/District level agencies/departments, ULB level officials and elected representatives, Community based organizations and other stakeholders shall be made.

i) Capacity building of the personnel should be coordinated by ILGUS involving the State Training Agencies, Institutes of Private & Public Bodies and Technology Universities.
ii) Specialist institutions shall also be involved so that the knowledge development on newer approaches and technologies is quickly made available.

iii) The State Agencies/ULBs/Private Actors shall take assistance from National and State level resource organizations in consolidating and applying the existing and new knowledge in a 'learning by doing' framework and building capacities of a range of personnel from different kind of backgrounds.

iv) State shall give an effort to create new posts and fill up the vacant posts for the promotion of these activities.

v) State shall give an effort to develop institutional infrastructure of all the related State / District / Regional / Sub-Division / ULB level Departments / Agencies / Resource Centres to promote wastewater treatment and its reuse.

Capacity building will comprise:

- Bulk training/workshop/exposure visit for a range of municipal and other stakeholder personnel - right from start of the campaign in the ULB.
- Differentiated and specialized training on a demand-basis to personnel over the period of the Plan implementation.
- For Technical assistance, the State shall arrange for bulk and specialised training of State/Regional/District/ULB level personnel, assisting State Agencies/ULBs by procuring and deploying/ managing service providers (study consultants and NGOs, technical resource agencies), and providing coordination support to city-wide communications, planning and implementation management.

6.12. Monitoring and Evaluation:

- To establish the strong monitoring and evaluation system involving community, State shall endeavour to engage independent/ external Monitoring & Evaluation Agency for Third Party Quality Monitoring and time to time evaluation of the projects/progress parallel with the abovementioned monitoring mechanism.
- West Bengal Pollution Control Board shall monitor the water quality of the treated plants (centralized or decentralized) to ensure compliance with quality standards required for different reuse categories.
- An effective Grievance Redressal mechanism should be developed at State/ULB and Development Authority level.
- State shall also institutionalize Social Audit System to involve community in monitoring & evaluation system.

6.13. Welfare Measures:

At the time of implementing this policy, large financial investment will be observed, which will create large employment opportunity for different classes of people and will provide sufficient water to all sections of the society. Realizing the fact Government intends to imply the welfare measures particularly for the poor. They will get an opportunity of getting employment in this sector. To provide benefit to the poor Government shall take the following measures.

- Training infrastructure shall be developed for skill development of the workers to be engaged in this Sector.
- With increasing growth in urban sector, different kinds of employment opportunities will come up for the poor (for both male and female) that should be promoted with the help of several livelihood promotion departments and private agencies. Their skills shall be developed providing training to them (after market assessment on soft skill, security guard, computer operation, repair etc.) and loans shall be provided from different Government Programmes for entrepreneurship development.
- National Skill Development Mission should be dovetailed for skill development in this sector.
- Several welfare measures for them like support for house construction, education for their children, provident fund, coverage under Health & Life Insurance, social security schemes etc. shall be implemented converging development programme of several departments.

6.14. Involvement of NGO/Private Sector:

ANNEXURE- R-2

Government shall encourage the development actors to engage NGO/Private Agency in the following areas for promotion of waste water treatment and its reuse

- Capacity Strengthening of ULB & Community Level Staffs
- Planning
- Research & Development
- Piloting innovative projects
- Community Mobilization
- Mapping Job Potentiality
- Private Public Partnership Projects
- Operation & Maintenance
- Facilitating in Social Audit
- Quality Assurance
- Evaluation

6.15. Source of Funding:

In this rapid urbanization stage, to reuse of treated waste water in Urban West Bengal, Government wants to develop some innovative financial instruments to meet up the demand for investment. Financing should be arranged in following ways.

- Central and State Finance Commission Funds
- State Budget for this purpose
- Available Programme funds
- Leveraging similar fund of several Departments
- Pooled Fund of West Bengal Municipal Development Fund Trust as loan
- Externally Aided Funds
- Provide incentives to the financial institutions, Micro finance institutions, mutual funds, corporate sectors, trusts and foreign institutional investors for investing in treatment of wastewater.
- Promoting well designated Public-Private Partnership
- Inviting Corporate Social Responsibility
- Inviting Foreign Direct Investment developing a mechanism for direct investment from Non Resident Indians and Persons of Indian Origin.
- Imposing service charge on wastewater treatment
- Imposing penalty on ULB/Industry for non treatment of waste water and not developing provision for reuse of that water
- Imposing user charge on treated wastewater use and also commercializing the use of treated water i.e. revenue generation from selling of treated water.

6.16. Targeted Timeline:

- To reach 50% coverage of collection of sewage and its treatment as per prescribed standards in all ULBs by 2023
- To reach 75% coverage of collection of sewage and its treatment as per prescribed standards in all ULBs by 2026
- To reach 100% coverage of collection of sewage and its treatment as per prescribed standards in all ULBs by 2029
- To reuse 25% of treated wastewater within 2022 for non potable/other purpose
- To reuse 50% of treated wastewater within 2025 for non potable/other purpose
- To reuse 80% of treated wastewater within 2030 for non potable/other purpose

6.17. Expected outcome of this Policy:

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- New social and economic opportunities and avenues emerge where wastewater is recycled and reused based on cost recovery and profit generating business models.
- Augmented capacities across institutions (State & ULB level) that could possibly be replicated in other sectors.

6.18. Interpretation and Amendment:

- Any issue or doubt regarding this policy shall be referred to Department of UD & MA, GoWB whose decision will be final and binding on all concerned.
- Department of UD & MA, GoWB may from time to time amend the provisions as contained in this policy as considered necessary.
- Department of UD & MA, GoWB shall have the power to issue guidelines and instructions from time to time to operationalise this policy.

ANNEXURE- R-3

Item No. 04 Court No.1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 1069/2018
(M.A. No. 1792/2018, M.A. No. 1793/2018, I.A. No. 150/2019 & I.A. No. 151/2019)

Nitin Shankar Deshpande Applicant(s)

Versus

Union of India &Ors. Respondent(s)

Date of hearing: 30.04.2019

CORAM: **HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON**
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s): Ms. Ekta Sikri and Ms. K. Gayatri, Advocates

For Respondent (s): Mr. Rajkumar, Advocate for CPCB
Mr. Gigi C. George, Advocate for MoEF&CC
Mr. Dhruv Mehta, Sr. Advocate with Mr. Ashish Wad and Mr. Sidharth Mahajan, Advocates

ORDER

1. The issue for consideration is effluent discharge standards for STPs as laid down vide Notification dated 13.10.2017 by way of Environment (Protection) Amendment Rules, 2017 against Serial No. 105 of Schedule-I to the Environment (Protection) Rules, 1986.

2. Vide order dated 21.12.2018, this Tribunal noted that untreated or partially treated sewage is a major source of pollution in the country.

The Hon'ble Supreme Court in the case of *Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.*[1] directed taking of steps so that huge gap in sewage generated and treated is bridged.

3. The Tribunal also noted that the proposed standards as per Draft Notification dated 24.11.2015 issued by Ministry of Environment, Forest & Climate Change (MoEF & CC) are sought to be diluted by the impugned Notification as follows:

Sr. No.	Parameters	Old Norms 1986	Draft Norms Nov., 15	MoEF& CC Notification October 2017
1.	Biochemical Oxygen Demand (BOD) (mg/l)	<30	<10	<30 and <20 (metro cities)
2.	Chemical Oxygen Demand (COD) (mg/l)	<250	50	No limit
3.	Total Suspended Solids (TSS) (mg/l)	<100	<20	<100 and <50 (metro cities)
4.	Total Nitrogen (mg/l)	<100	<10	No limit
5.	Ammonical Nitrogen (mg/l)	<50	<5	No limit
6.	Total Phosphorus (mg/l)	No limit	No limit	No limit
7.	Fecal Coliform MPN/100 ml	No limit	<100	<1000

4. The Tribunal also noted that the relaxed standards will deteriorate the water quality and degrade the environment and be a retrograde

[1] (2017) 5 SCC 326

step. The dilution will also affect the human life and the water quality of the rivers.

5. Accordingly, the Tribunal constituted an Expert Committee comprising the nominees from IIT Kanpur, IIT Roorkee, NEERI and CPCB which was to give its report after examining the best available technologies and best practices and after referring to the Experts study on the subject particularly CPCB Report on "River Stretches for Restoration of Water Quality, 2014-15" and the order of this Tribunal on the subject of polluted river stretches dated 20.09.2018 in Original Application No. 673/2018 in the matter of News item published in *"The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB"*. The Tribunal also directed stay of operation of the impugned Notification and application of pre-revised standards till further orders.

6. Accordingly, report has been received from CPCB vide e-mail dated 30.04.2019 forwarding the Expert Committee report. The report noted the current status of water quality of rivers which flows in India and the fact that 351 river stretches out of 323 rivers were polluted. There was need for revised standards for BOD and COD with a view to protect the water quality of the rivers/streams. There was also a need for revised standards for TSS, for Nitrogen (Ammonia & Nitrates) and Phosphorus and for Fecal Coliform.

ANNEXURE- R-3

7. The Committee while discussing the need for revised the Standards for BOD and COD observed that:

"Inclusion of COD in sewage discharge certainly offers advantages in terms of early diagnosis on functioning of STPs and thus helps in resorting immediate measures/corrective actions. This is because analysis of COD is completed within 5 Hours as against 5 days at 20°c or 3 days at 27°C for BOD (Sawyer & Mccarty, V. Edition). Moreover, if Government wishes to regulate STPs across the county through online monitoring system in future, inclusion of COD in Discharge Standards will prove beneficial for the reason that COD sensors are quite reliable and readily available in Indian market, however the same is not the case with BOD sensors. Thus, from regulatory point of view also, COD is an important parameter and needs to be included in sewage Discharge Standards."

While discussing the need for revised standards for TSS the Committee has observed that:

" The Microbial quality of wastewater could be linked with the TSS concentration. The larger the Suspended solids, the larger shall be the presence of bacteria, protozoa and viruses. High TSS wastewater cannot be easily disinfected, as the suspended particles "hide" these microorganisms and also react with chemical disinfectants."

Further the committee observed:

"A well designed and operated conventional sewage treatment system such as activated sludge process can meet 20 mg/L effluent TSS discharge standards. Many STPs bases on secondary wastewater treatment all over the globe are able to achieve 10-20mg/L. TSS without any tertiary treatment."

ANNEXURE- R-3

Further with regard to the need for revised standard for Nitrogen (Ammonia & Nitrates) and Phosphorus it has been elaborated by Committee that:

"Nitrogen and phosphorus in all forms are major rate limiting elements essential for the growth of alage and other vegetation in water bodies leading to a state called eutorphication. The greenish color water with large vegetation growth is common sight for not only lakes and ponds but also slow moving rivers.

Eutrophication arises from the oversupply of nutrients (N & P), which leads to overgrowth of plants and alage. Degradation of dead alage and plants by microbes consumes dissoloved oxygen in the water, thereby creating the state of hypoxie.

Eutrophication leads to many problems related to water quality:

- *Large Dissolved oxygen variation leads to fish kills*
- *Filling the water body with dead algae and other vegetation.*
- *Decomposition of dead algae and vegetation at the bottom causing oxygen depletion and further release of nutrient.*
- *Release of algal toxins and odors causing substances make the water unsuitable for human and animal consumption."*

The Committee has also observed that:

Due to the absence of dilution and worsening of our rivers and lakes, it is necessary to move towards nutrients (nitrogen and phosphorus) regulations in water bodies.

ANNEXURE- R-3

The Committee while discussing the revised standards for Fecal Coliforms observed:

"As per "Houses and Household Amenities, Latrine Facility, Census of India - 2011, Registrar General and Commissioner, India" available at http://censusindia.gov.in/ 2011census/hlo/ Data sheet/ India / Latrine. Pdf; Out of 7.9 Crores Urban Households (UHH), nearly 1.7 Crores UHH (i.e. 20 %) lacks adequate sanitation. At the same time more than 5 lakhs villages in the country are now open defecation free (ODF) (https:// sbm.gov.in/sbmdashboard / ODF.aspx.) Although rural parts are covered through sanitary toilets, effluent from septic tanks from newly built 9.2 crores toilets across the country is unavoidable. This may pose very high health risk owing to the fact that "Sanitation" including collection, conveyance and treatment is either absent or inadequate in such areas. ***Relaxing FC pose risk to downstream cities/town/villages that rely on drinking water source on same water body in case of rivers. It appears quite reasonable to say that FC Standards be prescribed to 100 MPN/100 ml. considering its impact on human health in general and readiness of Indian wastewater sector to handle the same (Recommended value of FC in CPHEEO Manual, 2013 is MPS230/100 ml.).*** *(emphasis added)*

Hence, CPHEEO 2013 recommended the following guidelines for treated sewage discharge into surface water which after some travel may join a ***drinking water source to be used as source of supply for drinking water as given in following Table 5.20***

Table 5.20 Recommended Guidelines for Treated Sewage if Discharged into Surface Water to be used as source of Drinking Water.

Parameter	*MoEF Standards (A)*	*Recommended Values*
BOD, mg/L	*30*	*Less than 10*
SS, mg/L	*100*	*Less than 10*
TN, mg/L	*100*	*Less than 10*
Dissolved P, mg/L	*5*	*Less than 2*
Faecal Coliforms, MPN/100 mL	*Not specified*	*Less than 230*

(A) General Standards, Environmental Protection Rule, 1986 & as authorized by PCB

- *In order to achieve the above values, the treatment process would need to be designed for nutrient removal in addition to the conventional BOD and SS removal. It has also been reported that if the nutrients were removed to the levels mentioned in Table 3.20, then the amount of chlorine required for disinfection would be less at about 5 mg/ l.*

Considering aforementioned analysis, the Chairman CPCB directed all State Pollution Control Boards to make it mandatory for local bodies to set up sewerage systems for treatment and disposal of sewage to meet the prescribed standards ie., pH 6.5-9, BOD (mg/L): Not more than 10, COD (mg/L): Not more than 50, TSS (mg/L) : Not more than 20, NH_4-N (mg/L): Not more than 5, N-total (mg/L) Not more than 10 ,Fecal Coliforms (MPN/100 ml) Less than 230. The details are provided in Annexure 1."

8. The report further mentions that the stringent standards in terms of Draft Notification dated 24.11.2015 are not only economically viable

and technically feasible, the cost will not be significantly high. In this regard, it was observed:

"7.0 ECONOMIC VIABILITY & RESOURCE POSITION

1. For Nitrification (Conversion of ammonia to nitrate), 20-30% larger aeration tanks are required with additional 40-50 % aeration demand. The Total capital and O&M cost of the system increases by 10-20 & 5-10 % respectively.

2. For further removal of nitrate from wastewater, denitrification (conversion of nitrate to Nitrogen gas) is needed by additional anoxic tank in the system. The capital cost further increases by 5-10 %. Nevertheless, denitrification gives 25 % oxygen credit which reduces 25 % aeration requirement.

3. Finally, overall capital and operational cost implications for achieving standards for metropolitan and class-I cities shall be 20-30 %.

4. Typical total unit costs for wastewater treatment based on experience gained in Western Europe and the USA is presented in Figure XX (WHO/ UNEP 1997), The total unit cost for secondary treatment (BOD < 20-30 mg/L, & TSS < 50-100 mg/L) varies between 1.5-2.0 US$/m3, while for tertiary treatment (BOD, TSS & TN < 10 mg/L) it is 2.0-2.5 US$/m3. The additional burden is approximately 25-33 % which matches with Indian experience as well.

5. In recent years, many STPs are constructed based on effluent BOD, TSS & TN < 10 mg/L) and all the well operated and maintained STPs are providing the desired effluent quality. Some of these STPs are monitored by IIT Roorkee in recent years under several research projects and NGT reports. The performance evaluation results for 20 MGD Nilothi STP, 20 MLD Pappan Kalan STP, 15 MLD Delhi Gate STP and 5 MGD Kapashera STP of Delhi submitted to NGT alongwith 3.0 MID

STP, Rishikesh, 1 MGD STP, Delhi, 27 MGD STP, Haridwar etc., monitored under various research projects is attached as Annexure 3.

6. CPCB has also conducted study on technological achievability of proposed standards. Delhi Jal Board has installed and commissioned 04 STPs on advanced treatment technology along with coliform reduction facilities.

7. In addition, the following STPs all over India are producing the desired quality: 1.5 MLD STP, Cubbon Park, Bangalore, 2.0 MLD STP, Pahalgam, 3.5 MLD STP, Tapovan, Rishikesh, 4.0 MLD STP, IIT' Madras, 12.5 MLD STP, Tonca, Goa, 15.0 MLD STP, Gorakhpur, 17.3 MLD STP, Zirakpur, Punjab, 18 MLD STP, Sarai, Haridwar, 20.0 MLD STP, Hyderabad, 20.0 MLD Sangvi, Pune, 30 MLD STP, Hyderabad, 37.5 MLD STP, UP Housing Board, Lucknow, 40.0 MLD Kharadi, Pune, 40.0 MLD STP, Hubbali, Karnataka, 45 MLD STP, Mundhwa, Pune, 50 MLD STP Kalamboli, Navi Mumbai, 54 MLD STP, Noida, 55.0 MLD, Singanpure, Surat, 56 MLD STP, Indirapuram, Ghaziabad, 68.0 MLD STP, Dehradun, 100 MLD STP, Vashi Navi Mumbai, 130 MLD STP, Nagpur, 137 MLD STP, Greater Noida, 245 MLD STP Indore, etc.

8. In practical experience with actual tendered cost, the experience has been quite differing. Many tenders based on old and less stringent quality standards have been awarded at much higher per MLD cost as compared to STPs having more stringent standards. Plus on a long term basis, new technologies have lower life cycle costs. Other factors which are encouraging most corporations and contractors to adopt new technologies are more compact designs, less land requirement, less construction time, better material of construction, less maintenance cost, automation and less dependency on expensive trained manpower to operate plants in remote locations."

9. Accordingly, the Committee further observed that:

"• *The new stringent standards are devised considering the deterioration condition of water bodies and unavailability of adequate dilution water in our water bodies. If not stringent quality standards are not implemented then in the coming future with more population burden on rivers, situation will further deteriorate.*

- *The greatest benefit of these standards is to achieve all purpose non-portable reuse quality effluent. Each STP is to be treated as a source of water for reuse and recycling, helping in mitigating drought/climate change in the country. It will also reduce exploitation of groundwater reserves and dependency on rainfall which has become quite unpredictable in the past few years. Climate change is a reality that should be addressed and adopted for in the coming future. It will go a long way in reducing agricultural dependency on bore well water.*
- *If treatment of wastewater is not carried out with intention of reuse and recycle expenditure on conveyance/long distance transport of water/sewage will be much higher. Even as on toady in many cities cost of conveyance of water is much higher than the treatment of sewage to make it fit for most uses including domestic uses. For example the cost of transporting water from Narmada to fulfil water supply needs of Indore city (approximately @ Rs. 20/cum) is much higher than the cost of treating sewage to tertiary level."*

In view of above and severity of depletion of aquatic resources vis-a-vis the financial aspects related to conveyance and treatment of water/sewage the committee recommended that the effluent discharge for STPs to be as follows:

ANNEXURE- R-3

"

Sl. No.	Industry	Parameters	Standards (Applicable to all mode of disposal)			
1	2	3	4			
	Sewage Treatment Plants (STPs)		Mega and Metropolitan Cities	Class I Cities	Others	Deep Marine Outfall
		pH	5.5-9.0	5.5-9.0	5.5-9.0	5.5-9.0
		Bio-Chemical Oxygen Demand (BOD)	10	20	30	30
		Total Suspended Solids (TSS)	20	30	50	50
		Chemical Oxygen Demand (COD)	50	100	150	150
		Nitrogen-Total	10	15	-	-
		Phosphorus-Total(For Discharge into Ponds, Lakes)	1.0	1.0	1.0	
		Fecal Coliform (FC) (Most Probable	Desireable-100 Permissible-	Desireable-230 Permissi	Desireable-1000 Permissible-	Desirable-1000 Permissibl

		Number per 100 mililiter, MPN/ 100 ml	*230*	*ble-1000*	*10,000*	*e-10,000*

Note:

(i) *Mega-Metropolitan Cities have population more than 1 crore, Metropolitan Cities-Population more than 10 Lakhs and Class-1 Population more than 1 Lakh.*

(ii) *All value in mg/l except for pH and Fecal Coliform.*

(iii) *These standards will be applicable for discharge into water bodies as well as for land disposal/applications.*

(iv) *These Standards shall apply to all new STPs for which construction is yet to be initiated.*

(v) *The existing/under construction STPs shall achieve these standards within 07 years from the date of notification.*

(vi) *In case where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100m away from discharge point, then norms for deep sea marine discharge shall be applied.*

(vii) *Reuse/Recycling of treated effluent shall be encouraged.*

(viii) *State Pollution Control Boards/Pollution Control Committees may make these norms more stringent taking into account the local conditions.*

"

10. We have heard Learned Counsel for the parties.

11. Learned Counsel for the applicant submits that while the Expert Committee is fully justified in suggesting parameters as per its report for Mega-Metropolitan Cities, there is no justification for different and diluted standards for Class-I cities, Other cities or Deep Marine Outfall and to that extent the report of the Expert Committee fall short of the required scientific logic and database. While

recommending the diluted standards for Class-I cities, Other cities or Deep Marine Outfall the Committee has not given any explanation with regard to the existing pollution load in these areas, the available systems in place, the efficacy of the systems in terms of meeting of norms, the population impacted by deteriorating water quality and likely consequences on health of people if these diluted norms are permitted. There is no scientific justification offered for diluting the norms for these areas in which the majority of country's population resides. Also such standards we feel must apply not only to new STPs but also to the existing ones. Further, there is no justification for non-application of such standards for seven years for existing STPs.

12. Learned Counsel for CPCB and interveners are unable to justify dilution of standards for areas other than Mega Metropolitan Cities or for existing STPs.

13. We find that there is no justification for diluted standards for areas other than Mega and Metropolitan Cities. The water quality standards are required to be same for the population of major cities or other cities. No justification has been shown for different standards for persons living in cities other than Mega and Metropolitan Cities. Major population of this country will be affected by diluted standards and only persons in Mega and Metropolitan Cities will have comparatively better standards without any valid reason or distinction. We may note that filters, UV filters etc. are facilities

mainly available in major cities and not in smaller cities or villages where the standards are proposed to be diluted.

14. Accordingly, we accept the report of the Expert Committee with the modification that the standards recommended for Mega and Metropolitan Cities will also apply to rest of the country. We also direct that the standards will apply not only for new STPs but also for existing/under construction STPs without any delay and giving of seven years time stands disapproved.

MoEF & CC may issue an appropriate Notification in the matter within one month from today.

The Application is disposed of.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

April 30, 2019
Original Application No. 1069/2018
SN

WEST BENGAL POLLUTION CONTROL BOARD

37013

Water Quality of Polluted River stretches of 17 rivers in West Bengal during June 2024

Priority	River	Stations	pH(Unit)	(DO)(mg/l)	BOD(mg/l)	Total Coliform(MPN/100ml)	Fecal Coliform (MPN/100ml)	Fecal Streptococci(MPN/100ml)
I	Mahananda	Sliguri (Upstream)	7.1	5.4	2.5	110000	23000	70
	Mahananda	Ramghat(Downstream)	7.05	3.3	18	220000	50000	4900
II	Vidyadhari	Haroa bridge (upstream)	7.41	2.07	10.36	94000	40000	790
	Vidyadhari	Malancha (downstream)	7.1	1.48	4.47	63000	27000	580
II	Churni	Downstream of Ranaghat town	7.93	3.5	2.4	70000	22000	1700
	Churni	Majhdia	7.85	2.2	3.57	22000	9200	790
III	Matha bhanga	Gobindapur	7.82	1.7	3.86	170000	92000	2800
IV	Ganga	Farakka	7.58	6.7	2.6	790	330	33
	Ganga	Farakka	7.19	6.4	2.8	1100	490	33
	Ganga	Khagra	7.66	6.3	1.95	2200	790	70
	Ganga	Khagra	7.16	6	2.4	2200	1300	49
	Ganga	Baharampore	7.5	6.3	1.8	13000	3500	460
	Ganga	Baharampore	7.29	6	2.5	13000	3500	790
	Ganga	Gorabazar	7.54	6.1	2.1	9400	2400	490
	Ganga	Gorabazar	7.21	5.9	2.6	11000	2200	330
	Ganga	Nabadip	7.68	7.3	2.6	2200	1100	70
	Ganga	Nabadip	7.68	6.5	2.5	3500	1100	63
	Ganga	Tribeni	7.65	7.6	2.8	3500	1400	63
	Ganga	Tribeni	7.31	7	2.8	3500	1300	94
	Ganga	Palta Shitalatala	7.5	6.2	2.6	7000	2400	460
	Ganga	Palta Shitalatala	7.2	6.8	2.7	9400	2400	230
	Ganga	Palta,	7.39	6	2.4	11000	3500	330
	Ganga	Palta	7.26	7.2	2.8	14000	5400	310
	Ganga	Serampore	7.46	6.3	2.3	33000	11000	490
	Ganga	Serampore	7.32	6.6	2.8	23000	7900	790
	Ganga	Dakshmineswar	7.22	5.78	2.69	130000	63000	1200
	Ganga	Dakshmineswar	7.2	5.65	2.7	110000	33000	1100
	Ganga	Garden reach	7.24	5.4	2.82	170000	84000	1100
	Ganga	Garden reach	7.24	5.46	2.81	140000	79000	1300
	Ganga	Howrah-shivpur	7.19	5.5	2.72	110000	49000	940
	Ganga	Howrah-shivpur	7.17	5.36	2.86	94000	39000	840
	Ganga	Uluberia,	7.04	5.6	2.77	32000	14000	490
	Ganga	Uluberia,	7.39	5.59	2.77	27000	11000	340
	Ganga	Durgachak near Pathikhali,	8.4	5.1	1.35	22000	11000	460
	Ganga	Durgachak near Pathikhali,	8.4	5.9	1.4	14000	7900	330
	Ganga	Diamond harbour,	7.66	5.93	2.66	4700	2400	170
	Ganga	Diamond harbour,	7.16	5.85	2.7	2600	1300	110

37014

ANNEXURE- R-4

Water Quality of Polluted River stretches of 17 rivers in West Bengal during June 2024

Priority	River	Stations	pH(Unit)	(DO) (mg/l)	BOD (mg/l)	Total Coliform(MPN /100ml)	Fecal Coliform(MPN /100ml)	Fecal Streptococci (MPN/ 100ml)
IV	KANSI	Downstream at Midnapore	8.4	7	1.5	7900	4900	230
IV	JALANGI,	Downstream of Krishna nagar	7.59	5.1	2.9	7900	3500	330
V	Damodar	Dishergarh	7.94	7.8	2.15	1700	1100	21
	Damodar	IISCO near Dhenna Village,	7.8	7.8	2.05	2100	1700	26
	Damodar	Narainpur	7.7	7.7	2.05	2600	2200	17
	Damodar	Near Mujher Mana Village	7.75	6.8	2.7	2200	1400	21
	Damodar	Andal D/s	7.7	7.8	2.1	2600	2100	14
	Damodar	Andal U/s	7.56	7.7	2.7	2100	1400	17
	Damodar	Asansol U/s	7.85	7.9	2.05	3300	1700	26
	Damodar	Durgapur U/s	7.65	7.7	2.15	2700	1700	17
	Damodar	Raniganj D/s	7.6	7.8	2.15	3200	1700	21
	Damodar	Water intake point for Burdwan Town	8.35	7.9	2.2	2600	2100	14
V	Dwarka	Upstream of Tarapith at Sadhak Bamdeb ghat	7.3	7	2.7	4000	2600	21
	Dwarka.	Downstream of Tarapith Satighat	7.44	6.8	2.75	4600	3300	17
V	Barakar	Asansol	7.89	7.8	2.25	2700	2100	17
V	Rupnarayan	Geonkhali	7.7	5.5	1.4	17000	9400	390
	Rupnarayan	Kolaghat (Down Stream)	8.2	5.3	1.55	9400	4900	140
V	Dwarakeshwar	Bankura town	7.67	7.8	2.05	2700	2100	22
V	Teesta	At Jalpesh	7.36	6.4	1.7	14000	5000	79
	Teesta	At Sevoke	6.8	8.3	2.5	5000	2200	34

WEST BENGAL POLLUTION CONTROL BOARD

The following four rivers have been removed from this list of polluted River stretches based on improvement in water quality in 2022 compared to 2018

Priority	River	Stations	pH(Unit)	(DO)(mg/l)	BOD (mg/l)	Total Coliform(MPN/100ml)	Fecal Coliform(MPN/100 ml)	Fecal steeptococci (MPN/100 ml)
Delisted	Silabati	Ghatal (Downstream)	*8.37*	*8*	*1.55*	*6300*	*3300*	*110*
	Mayurakshi	Suri Town	*7.93*	*9.1*	*1.55*	*2600*	*1700*	*14*
	Kaljani	Downstream of Alipurduar	*7.48*	*7.5*	*1.5*	*17000*	*8000*	*94*
	Karola	Downstream of Jalpaiguri	*7.13*	*8.2*	*2*	*17000*	*8000*	*94*
Primary Water quality Criteria for bathing water			6.5-8.5	≥5	≤3		<2500	,500

Note: Implementation of Polluted River Stretches Action Plan, presently the above four Rivers i.e., Silabati, Mayurakshi, Kaljani, Karola have been improved and is removed from the list. Therefore, Polluted River Stretches in West Bengal stands with 13 rivers.

ANNEXURE- R-4

MINISTRY OF ENVIRONMENT AND FORESTS

NOTIFICATION

New Delhi, the 25th September, 2000

G.S.R. 742(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely.

1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2000.

(2) Save as otherwise provided in this notification, they shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986,—

(1) In Schedule I, after serial number 89 relating to Noise standards for fire crackers and the entries relating thereto, the following serial numbers and entries shall be inserted, namely:—

"90. Standards for coal mines

1. Air Quality Standards

The Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM), Sulphur dioxide (SO_2) and Oxides of Nitrogen (NOx) concentration in downwind direction considering predominant wind direction, at a distance of 500 metres from the following dust generating sources shall not exceed the standards specified in the Tables I, II and III given below:

Dust Generating Sources

Loading or unloading, Haul road, coal transportation road, Coal handling plant (CHP), Railway sliding, Blasting, Drilling, Overburden dumps, or any other dust generating external sources like coke ovens (hard as well as soft), briquette industry, nearby road etc.

ANNEXURE- R-4

93. Primary Water Quality Criteria for Bathing Waters.

In a water body or its part, water is subjected to several types of uses. Depending on the types of uses and activities, water quality criteria have been specified to determine its suitability for a particular purpose. Among the various types of uses there is one use that demands highest level of water quality or purity and that is termed as "Designated Best Use" in that stretch of water body. Based on this, water quality requirements have been specified for different uses in terms of primary water quality criteria. The primary water quality criteria for bathing water are specified along with the rationale in table 1.

Table 1.

PRIMARY WATER QUALITY CRITERIA FOR BATHING WATER
(Water used for organised outdoor bathing)

CRITERIA		RATIONALE
1. Fecal Coliform MPN/100 ml:	500 (desirable) 2500 (Maximum Permissible)	To ensure low sewage contamination. Fecal coliform and fecal streptococci are considered as they reflect the bacterial pathogenicity.
2. Fecal Streptococci MPN/100 ml:	100 (desirable) 500 (Maximum Permissible)	The desirable and permissible limits are suggested to allow for fluctuation in environmental conditions such as seasonal change, changes in flow conditions etc.
2. pH:	Between 6.5 –8.5	The range provides protection to the skin and delicate organs like eyes, nose, ears etc. which are directly exposed during outdoor bathing.
3. Dissolved Oxygen:	5 mg/l or more	The minimum dissolved oxygen concentration of 5 mg/l ensures reasonable freedom from oxygen consuming organic pollution immediately upstream which is necessary for preventing production of anaerobic gases (obnoxious gases) from sediment.
4. Biochemical Oxygen demand 3 day,27°C:	3 mg/l or less	The Biochemical Oxygen Demand of 3 mg/l or less of the water ensures reasonable freedom from oxygen demanding pollutants and prevent production of obnoxious gases";

Municipal Solid Waste

ANNEXURE- R-5

District	Sl. No.	ULB	Per day generation of Solid Waste in each city / town within the District	Quantity of solid waste treated per day, in each city/town of the District.	The gap in treatment of solid waste.	Legacy Waste and the time bound plan to treat legacy waste.	The manner of utilization of the treated waste as well as rejects arising out of remediation of legacy waste	Current status of dumping of solid waste with reference to location	
								Dumpsite location	GPS Coordinates of Dumpsite
NORTH 24-PGS	1	Baranagar	167		167	Cluster Project at Pramodnagar including 5 ULBs. Out of 8.5 lakh MT legacy waste, 7.54 lakh MT processed in 1st phase, another 1.2 lakh MT work order given on 24.06.2024. Further 11 lakh MT tendered and evaluation is in progress. 36 months time required from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Pramodnagar Dumpsite	22.648176°N, 88.396426°E
NORTH 24-PGS	2	Kamarhati	160		160	Out of 1.5 lakh MT legacy waste,0.32 lakh MT processed, in 1st phase. Further 9 lakh MT tendred and evaluation is in progress. 36 months time required from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	(Punjab Villa), Agarpara East Station Road	22°40'41"N, 88°22'52" E
NORTH 24-PGS	3	Barrackpore	50		50	In first phase 72,846 MTof legacy waste has been bio remediated. There is a further accumulation of legacy waste 70,715.120 MT approx. till date; to be tendered within August 2024.Expected timeline within which Biomining and bioremediation of residual quantity is to be done within 12 months from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Ward 17- On old Kolkata Road	22.748542 N 88.382122 E
NORTH 24-PGS	4	Bhatpara	205	15.98	189.02	In first phase 58,260 MTof legacy waste has been bio remediated. There is further accumulation of legacy waste 30,000 MT approx. Tender to be floated within December 2024 Expected timeline within which Biomining and bioremediation of residual quantity to be done within 6 months from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Madral, Ward no. 6, Bhatpara	88.41807E 22.87426N
NORTH 24-PGS	5	Garulia	35.77	21	14.77	In first phase out of 52,449 MT, 25,000 MTof legacy waste has been bio remediated, expected date of completion is September, 2024. There is further accumulation of legacy waste 45000 MT approx. Tender to be floated within August 2024. Expected timeline within which Biomining and bioremediation of residual quantity is to be done within 9 months from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Fanching ground road , W.no 11 Garulia , North 24 Parganas	22.817161N, 88.372613E
NORTH 24-PGS	6	Halisahar	52	11.3	40.7	In first phase out of 6,799 MT, 3,405 MTof legacy waste has been bio remediated. There is further accumulation of legacy waste 28,000 MT approx. Tender to be floated within March 2025. Expected timeline within which Biomining and bioremediation of residual quantity to be done within 6 months from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Ward 8 - Niranjan trenching ground	23.2501031N, 88.4116394E

Ganga Town Report for NGT

Municipal Solid Waste

ANNEXURE- R-5

District	Sl. No.	ULB	Per day generation of Solid Waste in each city / town within the District	Quantity of solid waste treated per day, in each city/town of the District.	The gap in treatment of solid waste.	Legacy Waste and the time bound plan to treat legacy waste.	The manner of utilization of the treated waste as well as rejects arising out of remediation of legacy waste	Current status of dumping of solid waste with reference to location	
								Dumpsite location	GPS Coordinates of Dumpsite
NORTH 24-PGS	7	Kachrapara	53.84	20.33	33.51	In first phase 24,282 MT of legacy waste has been bio remediated. There is further accumulation of legacy waste, the revised work order for drone survey is issued to asess the legacy waste and subsequently tender to be floated for bio remediation. Expected date of completion June, 2025.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Ward 12-13, Bidhanpally	23.4150386N, 88.3562766E
NORTH 24-PGS	8	Khardah	46.437		46.437	In first phase 46,118 MTof legacy waste has been bio remediated. There is further accumulation of legacy waste 50,000 MT approx.Tender to be floated within August 2024. Expected timeline within which Biomining and bioremediation of residual quantity to be done within 9 months from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	1km from Kalyani Expressway Ruiya Khardah Stoppage	22°44'31"N, 88°24'25"E
NORTH 24-PGS	9	Naihati	107	8.76	98.24	In first phase 3,00,00 MTof legacy waste has been bio remediated.There is further accumulation of 71,000 MT of legacy waste at present. With an upfront projection of additional 36,000 MT tender matured in 1st call to process the legacy waste. Expected date of completion March, 2025.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Patterson road, Chighat, W.No. 14, Naihati	22.897030N, 88.410584E
NORTH 24-PGS	10	North Barrackpore	73		73	Not applicable as there is no dumpsite			
NORTH 24-PGS	11	Panihati	176		176	In first phase 51,767 MTof legacy waste has been bio remediated. There is further accumulation of legacy waste 1,20,000 MT approx. Tender floated on June, 2024. Expected timeline within which Biomining and bioremediation of residual quantity is to be done within 15 months approx from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	1 KM from Sodepur Barasat Road, kanchkol Stopage	22°41'31"N, 88°23'10"E
NORTH 24-PGS	12	Titagarh	47.7	5.73	41.97	In first phase 1,20,886 MTof legacy waste has been bio remediated. There is further accumulation of legacy waste 70,000 MT approx. Tender to be floated within August 2024 Expected timeline within which Biomining and bioremediation of residual quantity is expected to be done within 12 months from the date of award of contract.	1. Goodearth : low land filling and partially as soil conditioner in garden. 2. Inert : low land filling and base course filling in road construction. 3. RDF : Cement manufacturing units 4. C & D waste : used as filler material in road construction	Oppeside Side of ULB on BT Road	22°44'10"N, 88°22'34"E
Total			1173.747	83.1	1090.647				

ANNEXURE- R-6

Ganga Town Report for NMCT

Construction and Demolition waste

District	Sl. No.	ULB	Total per day generation of C&D waste within the District (TPD)	The detail of plant established for the treatment of C&D waste including the existing capacity and capacity utilization	Remarks
NORTH 24-PGS	1	Baranagar	13.55	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	2	Kamarhati	17.39	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	3	Barrackpore	8.75	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	4	Bhatpara	19.56	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	5	Garulia	4.55	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	6	Halisahar	5.95	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	7	Kachrapara	7.09	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	8	Khardah	6	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	9	Naihati	12	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	10	North Barrackpore	7.3	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	11	Panihati	15.86	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
NORTH 24-PGS	12	Titagarh	6.41	0	Segregated fractions are being sold and reused and the remaining are being disposed at KMC plant for processing.
Total			124.41		

ANNEXURE- R-7

Industrial Effluent discharge									
		a	b			c	d		e
Sl. No.	Name of the District	Number of industrial unit discharging their effluent treated/untreated in river Ganga and its tributaries and details of defaulting industrial units.	Total daily generation of such industrial waste within the District	Total industrial waste treated within the District daily	Time bound plan to meet the gap, if any, then what steps are being taken to bridge the gap in generation and treatment of industrial waste	The manner of treatment of the industrial waste so generated.	The discharge effluent analysis from the CETP and ETP treating the industrial waste from each outlet		The per day generation of industrial solid waste and manner of its treatment and disposal in the District
1	North 24 Parganas	No. o funits-1 Name and address of unit- M/s. Exide Industries Limited,91, New Chord Road, P.O.-Athpur, P.S.-Jagatdal, 24 Pgs(N)-743128	800 KL	800 KL	-	Effluent Treatment Plant	BOD (3days@27°C)	NOTDONE	2.4MT. Sold to authorized recyclers.
							COD	15.44mg/l	
							Lead	0.011mg/l	
							O&G	<5.00mg/l	
							pH(Unit)	7.2mg/l	
							TSS(@103-105°C)	12.00mg/l	

R. Saha
13/06/24.
Environmental Engineer
Barrackpore Regional Office
W.B. Pollution Central Board

BINOD BIHARI BISWAS
NOTARY PUBLIC GOVT. OF INDIA
Reg. No. 138171/18

37021

shni Sen, IAS
Additional Chief Secretary

ANNEXURE- R-8

Environment Department
Government of West Bengal
PRANI SAMPAD BHAWAN, 5th Floor,
LB-2, Sector III, Salt Lake, Kolkata - 700 106
Ph.: (033) 2335 2742 (O), Fax : (033) 2335 0271
E-mail : acsenvwb@gmail.com

To
The Secretary,
Ministry of Jal Shakti,
Department of Water Resources &
River Development & Ganga Rejuvenation,
Government of India

Date: 16/07/2024

Sub: Issues related to Flood Plain Zone in West Bengal

Ref: Letter from ACS, Environment Department, Govt. of W.B. dated 28th July,2022

Sir,

Your kind attention is drawn to the fact that the Hon'ble National Green Tribunal (NGT) has from time to time, passed orders on floodplains, their identification and demarcation by the State concerned. The issue of demarcation of flood plain zone has been dealt with by the Hon'ble Principal Bench in O.A.200/2014 (*M.C. Mehta –vs- Union of India & Ors.*)

In this connection, a letter has been issued by this Department *vide* Memo No. EN/1653/3C-24/2021 dated 28th July, 2022 (copy enclosed) mentioning details of the issues and seeking your guidance in the matter as to how to address the multiple issues related to floodplain demarcation and management in West Bengal due to its unique geographical features.

It is once again requested to kindly offer your guidance in the matter as to how West Bengal should address the multiple issues mentioned above related to floodplain demarcation and management.

Yours faithfully,

Rshni Sen

Additional Chief Secretary to
the Government of West Bengal

Enclo: as stated

37022

ANNEXURE- R-8

Government of West Bengal
Department of Environment

Prani Sampad Bhawan,5th Floor,LB-2,Sec-III, Saltlake City, Kolkata-106

No. EN/1653 /3C-24/2021

July 28, 2022

From :: Vivek Kumar
Additional Chief Secretary to the
Government of West Bengal

To :: The Secretary
Ministry of Jal Shakti
Department of Water Resources &
River Development & Ganga Rejuvenation
Govenment of India

Sub: Issues related to Floodplain Management in West Bengal

Ref: Orders of Hon'ble National Green Tribunal passed in O.A.200/2014 and O.A. 65(THC) of 2016/EZ

Sir

Your kind attention is drawn to the fact that Hon'ble National Green Tribunal (NGT) has, from time to time, passed Orders on floodplains, their identification and demarcation by the States concerned.

2. An Expert Committee under the leadership of Dr. Sunando Bandhopadhay, Department of Geography, University of Calcutta was constituted to demarcate floodplain zones in Ganga and Bhagirathi- Hooghly river basin of West Bengal. A copy of the said report is enclosed for ready reference. The findings of the Expert Committee are summarised below:

i. The plains drained by the Ganga and its principal distributary, the Bhagirathi-Hooghly measures 42,371 sq.km in the State of West Bengal.

ii. Considering five highest magnitude flood events of 1995-2020 period for five overlapping zones, it was found that 33% area of the region is subject to inundation by flood.

iii. The inundated area spreads over 226 CD blocks of 14 districts.

Estimated population (2021) residing in this area is 76,250,487 and the average population density is 1629/sq.km.

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v. Some of the most densely populated blocks including some major urban pockets, located close to the principal rivers are susceptible to flooding.

3. The Irrigation & Waterways Department was requested to examine the report of the Expert Committee and give their observations. The observations of Irrigation & Waterways Department are stated as follows:

3.1 It is worthwhile to mention that the Hon'ble NGT in its order dated 29/05/2019, stated that such identified floodplain will have to be declared as "No Construction" Zone. It has also been mentioned in the report that the identified floodplain is a densely populated area, having an average population density of 1629 /square K.M and 35% being urban areas.

3.2 Considering above, it is suggested that only the full river path while ruling at the Highest Flood Level (H.F.L) of last 25 years (1995-2000), is identified and declared as floodplain for the purpose of imposing restriction on construction activities with the following understanding:-

3.2.1 Such identification will be applicable for all the river stretches of main Ganga-Padma River, Bhagirathi- Hooghly River and all its tributaries.

3.2.2 In case of no embankment on either side of the river, the extreme points of the banks considering the meandering of the river in last 25 years, will be considered for the demarcation of floodplain.

3.2.3 In case of no embankments on both sides, the distance between the top of two embankments will be considered for the demarcation of floodplain.

3.2.4 In case of embankment only at one side of the river, the width of the river between the top of embankment on one side and the extreme point of the bank on the other side considering meandering in last 25 years, will be considered for the demarcation of floodplain.

3.2.5 Considering very high level flood discharge through the river Ganga in case of Malda and Murshidabad districts, an additional strip of land along the river bank or embankment on both side of the river, beyond the provisions, stated at (3.2.2), (3.2.3) & (3.2.4) above will also be demarcated as floodplain to provide additional space for the river, the width of which will be fixed on case to case basis on further study.

3.3 It is pertinent to mention the definition in 'Floodplain' embodied in the draft "Flood Plain Zoning" bill, sent by Ministry of Jal Shakti, Government of India in 2021, includes any river channel and the adjacent low land susceptible to natural flood inundation during period of maximum discharge due to overtopping or breach of river embankment or natural bank or due to unfavourable outfall condition like existence of high tide level. So considering above, it is suggested

ANNEXURE- R-8

that demarcation of floodplain is re-assessed based on the assumptions and analogy stated above.

4. On 08.07.2022, a meeting was chaired by the Chief Secretary, Government of West Bengal with the stakeholder Departments to discuss implementation of NGT's Orders on floodplain, the Report of the Expert Committee and the respective observations of the Departments concerned. After a thread-bare discussion, the following decision was taken:

4.1 "It was agreed that unlike upper riparian States, the deltaic West Bengal, having a wide expanse, is extremely fertile, densely populated with sizeable urban pockets and ecologically productive. While the Ganga and its tributaries in the upper catchment is enclosed by valley walls, the Bengal delta is absolutely flat. The Hon'ble Tribunal has clarified that 'the distance for no construction zone is to be measured from highest flood line at least in the last 25 years.' In West Bengal, the HFL went beyond Indo-Bangladesh border during 1998 and 2000 floods.

4.2 Accordingly, it was felt that the unique geographical characteristics of West Bengal make floodplain zoning difficult in the framework stipulated by Hon'ble National Green Tribunal and the Ministry of Jal Shakti, since going by the available flood data, a very large part of the State of West Bengal's geographical area would fall within the floodplains of the Ganga river systems and its tributaries. The House agreed that dealing with the issue of floodplains in lower riparian States falling in Ganga delta, requires a region-specific approach. It was decided that a representation would be sent to Ministry of Jal Shakti highlighting the impracticability/ difficulty in implementing the current guidelines in respect of West Bengal, and seeking their advice on how to proceed further in the matter."
(Copy of the minutes of the meeting is enclosed).

5. In the light of the above facts, you are requested to kindly offer your guidance in the matter as to how West Bengal should address the multiple issues mentioned above related to floodplain demarcation and management.

Yours faithfully,

Additional Chief Secretary to the
Government of West Bengal

Enclo: as stated

BINOD BIHARI BISWAS ★ Notary Public ★ GOVT. OF INDIA Reg. No. 12317118

37025

ANNEXURE- R-9

Bio medical Waste			
Sl. No.	Name of the District	The per day total generation of bio medical waste in the District	The manner of its treatment and disposal
1	24 Pgs (N)	6646.01 Kg/day	1) Incineration- 5005.41 Kg/day and 2) Autoclaving- 1640.60 Kg/day

R Saha
28/03/24
Environmental Engineer
Barrackpore Regional Office
W.B. Pollution Central Board

BINOD BIHARI BISWAS ★ Notary Public Govt. of INDIA ★ Reg. No. 13817/18

37026

Government of West Bengal
Department of Industry, Commerce and Enterprises
Mines Branch
4, Abanindranath Tagore Sarani (Camac Street), Kolkata-700016

ANNEXURE- R-10

No. 214-ICE-12015(99)/8/2024-MINES SEC-Dept. of ICE Date: 16.04.2024

From: The Deputy Secretary
to the Government of West Bengal

To: The Additional District Magistrate (Try.)
&
Member Convener of District Ganga Committee, North 24 Parganas
Office of the District Magistrate
North 24 Parganas, Barasat
Kolkata-700124

Sub : Order of the Hon'ble NGT Principal Bench, New Delhi dated 24/11/2023 & 21/02/2024 – reg.

Sir,

In connection with the above subject, I am directed to refer to your Letter No:351/DMA/N24PGS dated 03/04/2024 and communicate below, the view of this department regarding issues raised on Mining in the solemn order mentioned in the subject.

The river Ganga is characterized by its perennial nature with a continual flow of water throughout the year. It would be worthwhile to mention that sand mining is completely prohibited under submerged conditions and no potential zone has been identified and published as per the norms for sand mining in district of North 24 Parganas. In regard to the incidences of illegal sand mining, if any reported, necessary action may be taken from your end as per extant legal provisions and the same may be communicated to the H'ble Court.

This is for your kind information and necessary action.

Yours faithfully,

Deputy Secretary
to the Govt of West Bengal

No. 214-1(1)/ICE-12015(99)/8/2024-MINES SEC-Dept. of I, C&E Date: 16.04.2024

1. Copy forwarded to PS to Secretary (Mines), Dept. of I, C&E with request to place it for kind appraisal of the authority.

Deputy Secretary
to the Govt of West Bengal

BINOD BIHARI BISWAS ★ Notary Public Govt. of INDIA ★ Reg. No. 1381718

ANNEXURE- R-11

Revised Fund Utilization of NMCG Project, under GAP Wing, W&S Sector, KMDA.

Sl. No.	District	Name of Project	Utilization Amount (Cr.)	Total (Crore)
1.	Nadia	Kalyani	117.38	303.96
		Nabadwip	32.47	
		Gayeshpur	154.11	
2.	Howrah	Howrah, Bally & Baranagar	182.44	182.44
3.	South 24 Pgs.	Maheshtala	75.76	243.79
		Budge Budge	168.03	
4.	North 24 Pgs.	Bhatpara	322.18	974.07
		Kanchrapara	26.32	
		Barrackpore	304.11	
		Garulia, Naihati, Titagarh, Khardah & Panihati	45.18	
		Halisahar	276.28	
5.	Hooghly	Uttarpara-Kotrung	15.44	116.52
		Hooghly- Chinsurah	83.49	
		Chandannagar-Bansberia	9.09	
		Baidyabati-Bhadreswar	8.50	
6	Murshidabad	Berhampore & Jangipur	34.83	34.83

10/07/2024

10/7/24

Chief Engineer
Water & Sanitation Sector
GAP Wing, KMDA

BINOD BIHARI BISWAS ★ Regd. Publ. Govt. of INDIA ★ Regd. No. 1381/13

37028

Standard Format of Utilisation Certificate

ANNEXURE- R-11

1) Name of Scheme/Project as per Administrative Approval Order: Rejuvenation Work for Existing STP at North 24 Parganas District, West Bengal

2) Reference to Administrative Approval (NMCG Order No. and Date): F. No.: T-16/2015-16/1092/NMCG

3) Source of funding: (For all schemes under EAP/NON-EAP/NGP)*: NGP

Sl No	WBS(NGRBA) Fund release Order No. & Date.	Amount released by WBS(NGRBA)PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	6
			1. Certified that out of Rs. 45.18 Crore sanctioned during the year 2024-25 In favour of GPCD (NM) and EB - 1 under WBS(NGRBA)PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 45.18 Crore has been utilised for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilised. 2. Utilisation of fund stated above, does not include any excess/supplimentary works. or, Utilisation of fund stated above includes interalia, excess/supplimentary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, utilisation of fund includes interalia, excess/supplimentary requiring approval of the Government and such approval has been accorded by the UD & MA Department vide No. ..... dated, ...
	Total		

Note:

1 In the 2nd Certificate, there are three options keep only and strike out the remaining two.

1/7/24

Countersigned

Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

01/7/2024

BIHARI BISWAS ★ Notary ★ BINOD GONDI
Reg. No. - 1381718
Govt. of INDIA

37029

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

ANNEXURE- R-11

Executing Division: GPCD (NM) and EB-1, GAP Wing, W & S Sector, KMDA

Sl. No.	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost / Administra-tively Approved cost)	Awarded Cost/ Tendered Amount	Cumulative fund already received	Cumulative UC submitted (copy of U.C. against last instalment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & upto to the end of the next month, if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col. 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess/ Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Rejuvenation Work for Existing STP at North 24 Parganas District, West Bengal	(1) Garulia (2) Naihati (3) Titagarh (4) Khardah and (5) Panihati	Capital Cost: Rs. 45.04 Crore O & M: Rs. 20.51 Crore Total: Rs. 65.55 Crore	Capital Cost: Rs. 47.54 Crore O & M Cost: Rs. 5.45 Total Tender Cost: 52.99 Crore	45.18 Crore	Up-to-date	45.18 Crore	100.00%	47.54 Crore	Rs. 34,948.00

Note: 1. Please submit Utilization Certificate in the prescribed proforma (format enclosed) for the last instalment of fund received.
2. Please submit source of fund-wise (NGP) separate indents (Modified).

01/07/2024

Chief Engineer
KMDA

1/7/24
Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

37030

Standard Format of Utilisation Certificate

ANNEXURE- R-11

1) Name of Scheme/Project as per Administrative Approval Order: KANCHRAPARA I & D WORK WITH STP

2) Reference to Administrative Approval (NMCG Order No. and Date): T-16/2016-16/1195/NMCG

3) Source of funding: (For all schemes under EAP/NON-EAP/NGP)*: NGP

Sl No	WBS(NGRBA) Fund release Order No. & Date.	Amount released by WBS(NGRBA)PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	6
			1. Certified that out of Rs. 28.32 Crore sanctioned during the year 2024-25 in favour of GPCD(SM) under WBS(NGRBA)PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 28.32 Crore has been utilised for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilised. 2. Utilisation of fund stated above, does not include any excess/supplimentary works. or, Utilisation of fund stated above includes interalia, excess/supplimentary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, utilisation of fund includes interalia, excess/supplimentary requiring approval of the Government and such approval has been accorded by the UD & MA Department vide No. ..... dated, ...
	Total		

Note:

1 In the 2nd Certificate, there are three options keep only and strike out the remaining two.

Countersigned

Chief Engineer
Water & Sanitation Sector
CMA, NMCG

BINOD BIHARI BISWAS ★ Notary ★ Public Govt. of INDIA
Reg. No. - 1381717/9

04/09/2024

37031

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under NGP

ANNEXURE- R-11

Executing Division: GPCD(SM), GAP Wing, W & S Sector, KMDA

Sl. No.	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost / Administra-tively Approved cost)	Awarded Cost/ Tendered Amount	Cumulative fund already received	Cumulative UC submitted (copy of U.C. against last instalment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & upto to the end of the next month, if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col. 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess/ Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Kanchrapara I&D Work with STP	Kanchrapara	Rs. 48.77 Crore	Capital Cost: Rs. 25.89 Crore O & M: Rs. 23.74 Crore Project Preparation & Supervision Cost: Rs. 1.67 Crore Total: Rs. 51.30 Crore	Rs. 26.32 Crore	Up-to-date	Rs. 26.32 Crore	100.00%	25.89 Crore	Rs. 57,323.00

Note: 1. Please submit Utilization Certificate in the prescribed proforma (format enclosed) for the last instalment of fund received.
2. Please submit source of fund-wise (NGP) separate indents (Modified).

9/8/24

Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

Chief Engineer
KMDA

01/08/2024

BINOD BIHARI DAS ★ Notary Public Govt. of INDIA ★ Reg No. 138/1978

37032

ANNEXURE- R-11

Standard Format of Utilisation Certificate

1) Name of Scheme/Project as per Administrative Approval Order: Barrackpore Sewerage System and STP

2) Reference to Administrative Approval (UD&MA Deptt. G.O no and date): J-22014/1/2011-NRCD-II/Barrackpore Dated: 30.12.2014

3) Source of funding: (For all schemes under EAP / NON EAP)* : EAP

Sl.No	WBS(NGRBA) Fund release Order No. & Date.	Amount released by WBS(NGRBA)PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	6
			1. Certified that out of Rs.304.11 Crore sanctioned during the year 2024-25 in favour of GAP/EB-I Division under WBS(NGRBA)PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 304.11 Crore has been utilised for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilised. 2. Utilisation of fund stated above, does not include any excess/supplimentary works. or, Utilisation of fund stated above includes interalia, excess/supplimentary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, utilisation of fund includes interalia, excess/supplimentary requiring approval of the Government and such approval has been accorded by the UD & MA Department vide No. ..... dated, ...
	Total		

Note:

1 In the 2nd Certificate, there are three options keep only and strike out the remaining two.

7/7/24

Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

Countersigned

07/5/2024

37033

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under EAP / NON EAP

ANNEXURE- R-11

Executing Division: EB-I, GAP Wing, W & S Sector, KMDA

Sl. No.	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost / Administra-tively Approved cost)	Awarded Cost/ Tendered Amount	Cumulative fund already received	Cumulative UC submitted (copy of U.C. against last instalment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative Civil physical progress (% on Rs. 199.70 Cr.) anticipated uptill end of indenting month if indent submitted by 7th of the month & upto to the end of the next month, if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col. 9	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess/ Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Barrackpore Sewerage System & STP	Barrackpore	Rs. 341.68 Crore	Rs.266.609 Crore (Design-Build: Rs. 233.969 Cr. (Civil: Rs. 199.70 Cr. + E&M: Rs. 34.26 Cr.) O&M: Rs. 32.64 Cr.	Rs.304.11 Crore	Up-to-date See break-up in serial no. 3	Rs.304.11 Crore	98.00%	Rs. 229.28 Crore	Rs. 1,85,42,131.00

Note: 1. Please submit Utilization Certificate in the prescribed proforma (format enclosed) for the last instalment of fund received.
2. Please submit source of fund-wise (EAP / NON EAP) separate indents (Modified).
3. Execution (Civil & EM): 244.55, Price escalation: 34.37, GST Impact: 17.50 & Other Expns: 7.69 Total: 304.11

Chief Engineer
Water & Sanitation Sector
GAP Wing, KMDA

Chief Engineer
KMDA

BINOD BIHARI BISWAS ★ Notary Public Govt. of INDIA ★ Reg. No. - 1381718

37034

ANNEXURE- R-11

Standard Format of Utilisation Certificate

1) Name of Scheme/Project as per Administrative Approval Order: Bhatpara Sewerage System and STP

2) Reference to Administrative Approval (UD&MA Deptt. G.O no and date): J-26011/9/2010-NRCD-II

3) Source of funding: (For all schemes under EAP / NON EAP)* : Non-EAP

Sl.No	WBS(NGRBA) Fund release Order No. & Date.	Amount released by WBS(NGRBA)PMG (Rs. In lakh) (Central & State shares to be shown separetely)	Remarks
1	2	3	6
			1. Certified that out of Rs. 322.18 crore sanctioned during the year 2024-25 in favour of GPCD (SM) Division under WBS(NGRBA)PMG Letter(s) No. given in the margin, a cumulative sum of Rs. 322.18 Crore has been utilised for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilised. 2. Utilisation of fund stated above, does not include any excess/supplimentary works. or, Utilisation of fund stated above includes interalia, excess/supplimentary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, utilisation of fund includes interalia, excess/supplimentary requiring approval of the Government and such approval has been accorded by the UD & MA Department vide No. ..... dated, ...
	Total		

Note:

1 In the 2nd Certificate, there are three options keep only and strike out the remaining two.

BINOD BIHARI [illegible] Notary Govt. of INDIA Regd. No. 1981178

01/7/2024

27/7/24

Countersigned Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

37035

Statement of Status of the Scheme and Requisition Form for the Scheme/Project under EAP / NON EAP

ANNEXURE- R-11

Executing Division: GPCD (SM), GAP Wing, W & S Sector, KMDA

Sl. No.	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost / Administra-tively Approved cost)	Awarded Cost/ Tendered Amount	Cumulative fund already received including (O&M) and Reinbursement of Electricity Bill	Cumulative UC submitted (copy of U.C. against last instalment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & upto to the end of the next month, if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col. 10	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess/ Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Bhatpara Sewerage System & STP	Bhatpara	Rs. 228.52 Crore	Design-Build: Rs. 303.97 Crore O & M: Rs. 28.08 Crore Total: Rs. 332.05 Crore	Rs. 322.18 Crore	Up-to-date	Rs. 322.18 Crore	100.00%	Rs. 303.97 Crore	Rs. 57,95,995.00

Note: 1. Please submit Utilization Certificate in the prescribed proforma (format enclosed) for the last instalment of fund received.
2. Please submit source of fund-wise (EAP / NON EAP) separate indents (Modified).
3. O &M Bill Rs. 2,57,44,495.00 & Electricity Reimbursement Rs.4,26,49,882.00

BISWAS ★ BINOD BIHARI ★ Notary ★ REG. NO. 19811/18 ★ Govt. of INDIA

01/09/2024

7/2/24

Chief Engineer
KMDA

Chief Engineer
Water & Sanitation Sector
GAP Wing, KMDA

37036

ANNEXURE- R-11

Standard Format of Utilisation Certificate

1) Name of Scheme/Project as per Administrative Approval Order: Hallanhar Sewerage System and STP

2) Reference to Administrative Approval (UD&MA Deptt. G.O no and date): J-21011/1/2011-NRCD-II-Hallanhar

3) Source of funding: (For all schemes under EAP / NON EAP)* EAP

Sl.No	WBS(NGRBA) Fund release Order No. & Date.	Amount released by WBS(NGRBA)PMG (Rs. In lakh) (Central & State shares to be shown separately)	Remarks
1	2	3	6
			1. Certified that out of Rs.276.28 Crore sanctioned during the year 2024-25 in favour of GPCD (NM) Division under WBS(NGRBA)PMG Letter(s) No. given in the margin, a cumulative sum of Rs.276.28 Crore has been utilised for the purpose for which it was sanctioned and the balance sum of Rs. NIL remains unutilised. 2. Utilisation of fund stated above, does not include any excess/supplimentary works. or, Utilisation of fund stated above includes interalia, excess/supplimentary works within the limit of sanction by the competent authority as per codal provisions & prevailing Govt. orders in the UD & MA Department and within the administratively approved cost. or, utilisation of fund includes interalia, excess/supplimentary requiring approval of the Government and such approval has been accorded by the UD & MA Department vide No. ..... dated, ...
	Total		

Note:

1 In the 2nd Certificate, there are three options keep only and strike out the remaining two.

8/8/24

Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

Countersigned

8/7/24

BINOD BIHARI DAS
Reg No. 1381718
Notary Public Govt. of INDIA

Statement of Status of the Scheme and Requisition of Fund for the Scheme/Project under EAP / NON EAP

ANNEXURE- R-11

Executing Division: GPCD (NM), GAP Wing, W & S Sector, KMDA

Sl. No.	Name of the Scheme/Project	Location	Sanctioned Cost (Balance cost / Administra-tively Approved cost)	Awarded Cost/ Tendered Amount	Cumulative fund already received	Cumulative UC submitted (copy of U.C. against last instalment of fund to be enclosed.)	Gross Booked Expenditure against col. 8 (gross amount inclusive of statutory deductions).	Cumulative physical progress (%) anticipated uptill end of indenting month if indent submitted by 7th of the month & upto to the end of the next month, if indent submitted thereafter	Anticipated gross value of works depending on physical progress shown in col. 9	Indent of fund (gross amount inclusive of statutory deductions) Refer to Note below (IT, VAT, ST, Cess/ Royalty included)
1	2	3	4	5	6	7	8	9	10	11
1	Halisahar Sewerage System & STP	Halisahar	Rs. 332.56 Crore	Design- Build: Rs. 277.668 Crore O & M: Rs. 34.16 Total: Rs. 311.828 Crore	Rs. 276.28 Crore	Up-to-date	Rs. 276.28 Crore	100.00%	277.668 Crore	Rs. 23,400.00

Note: 1. Please submit Utilization Certificate in the prescribed proforma (format enclosed) for the last instalment of fund received.
2. Please submit source of fund-wise (EAP / NON EAP) separate indents (Modified).

Chief Engineer
Water & Sanitation Sector,
GAP Wing, KMDA

Chief Engineer
KMDA

ANNEXURE- R-12

Fund released to the ULBs of West Bengal under Ring Fenced Account

2023-24

Rs. In lakh

Sl. No	Name of District	Name of ULB/Agency	Amount Released
1	Murshidabad	Jiaganj Azimganj	117.19800
2	Kolkata	Kolkata MC	5423.19000
3	North 24 Parganas	Bidhannagar MC	355.08000
4		Executive Engineer, MED, Barasat	137.53800
5	Nadia	Coopers Camp	3.09200
6		Santipur	3.98500
7	Birbhum	Sainthia	41.91000
8		Rampurhat	9.31300
9	Hooghly	Arambag	15.00000
10	Purba Medinipur	Tamluk	4.50000
11		KMDA	10031.79200
12		SUDA	4150.58100
13	Malda		0.00000
14	South 24 Parganas		0.00000
15	Howrah		0.00000
		Total Release 2023-24	**20293.17900**

2024-25

Rs. In lakh

Sl. No	Name of District	Name of ULB/Agency	Amount Released
1	Kolkata	Kolkata MC	161.43000
2	Purba Bardhaman	Burdwan	32.83898
3	North 24 Parganas	Executive Engineer, MED, Bidhannagar	21.76600
4		SLRDC	148.77600
		Total Release 2024-25	**364.81098**
		Total Release	**20657.98998**

** The indicated fund includes release for NMCG in different Ganga Towns

- **Number of Awareness Programme conducted as per approved Annual Action Plan- component wise:**

Sl. No.	Name of the Awareness programme	Date of Programme	Component	Number of Programme	Name of the Municipality	Photos
1	Behavioral Change Communication	14.01.2024	Performance of Local Folk Art (To preach the River Pollution Abatement)	1	Garulia	Annexure – R-14
2	Public Outreach and Knowledge based events	30.01.2024	Various types of Knowledge Based Public Outreach activities on River Pollution Abatement with the involvement of specially abled children.	3	Baranagar, North Barrackpore &Naihati	Annexure – R-14
3	Ghat PeHaat	14.01.2024 & 22.01.2024	Ganga Aarti &Promote the livelihood generation showcasing local products preferably,	2	Garulia and Naihati	Annexure – R-14
4	Mass Awareness Vehicle	11.02.2024	Tableau Campaign for 7 Days with folk performance on Waste Management	1	Naihati	Annexure – R-14
5	Wall Painting	19.02.2024	Wall Painting on Maintaining Bio-Diversity	2	Halisahar	Annexure – R-14
6	Slogan Competition	16.02.2024	Slogan Competition on River Pollution Abatement among students	2	Halisahar	Annexure – R-14
7	International Day of Yoga	21.06.2024	International Day of Yoga 2024 on River Pollution Abatement among students	1	Halisahar	Annexure – R-14

BINOD BIHARI GHOSH Notary Public Govt. of INDIA Reg. No. 13817/16

Photos

Behavioral Change Communication of Garulia Municipality

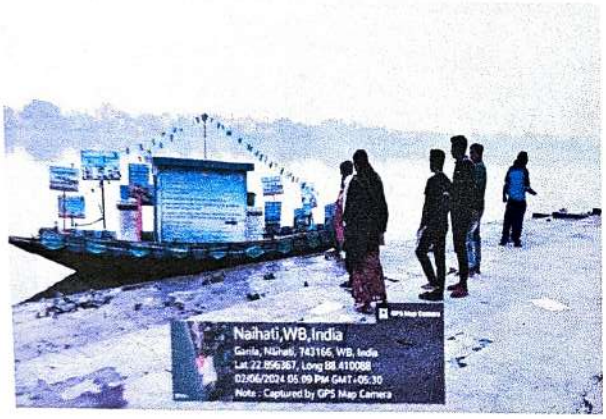
Public Outreach and Knowledge based events of Baranagar, North Barrackpore & Naihati Municipality

Ghat Pe Haat of Garulia Municipality

ANNEXURE-R-14

Photos

Ghat Pe Haat of Naihati Municipality



Mass Awareness Vehicle of Naihati Municipality

Slogan Competition of Halisahar Municipality

37042

ANNEXURE-R-14

Photos

Wall Painting of Halisahar Municipality

International Day of Yoga 2024 of Halisahar Municipality

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01 AUG 2024