

IN THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH AT NEW DELHI

O.A. No. 490 OF 2019

IN THE MATTER OF:

T.S. Singh

...Applicants

Versus

State of Uttar Pradesh

...Respondents

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(P.K. Mishra)
Scientist-E

Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar
Delhi- 110032

Place: Delhi
Date: 29.08.2022

Factual Status Report

In compliance of
Hon'ble NGT, Principal Bench, New Delhi's order dated 29.03.2022
In the matter of Original Application No.490/2019
(T.S. Singh Versus State of Uttar Pradesh)

Joint Committee
(NMCG, CPCB, UPPCB & JAL NIGAM, URBAN, UP)

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1.0. Background

Taking note of the Hon'ble NGT order dated 29.03.2022 in the matter of O.A. No. 490 of 2019 T.S. Singh Versus State of Uttar Pradesh regarding failure of the authorities in the State of UP in preventing discharge of untreated sewage into Sai River at Pratapgarh for long period in violation of law and particularly the directions of the Hon'ble Supreme Court in Paryavaran Suraksha (2017) 5 SCC 326....Hon'ble tribunal has passed order dated 29.03.2022. The relevant part of the order is as follow:

"....Thus, efforts will be required with the object of maintaining water quality at least of class 'B'. Since, funding proposals are received from NMCG, NMCG and CPCB, along with the PCB and Jal Nigam may ascertain factual status while continuing the remedial work. If bioremediation is not giving desired results, NMCG and CPCB may consider viable alternative. Let further action taken report giving the compliance and water quality status as on 30.06.2022 be filed by the Additional Chief Secretary, Urban Development Department, UP by 15.07.2022 with a copy to the OC. The OC may give its own report by 30.07.2022 by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. The report may specify data of Pratapgarh and also other towns in the area like Raebareli and Jaunpur. CPCB and NMCG with assistance of PCB and Jal Nigam may give factual status report. CPCB will be nodal agency for the purpose..."

In compliance to said order, following committee was constituted.

Nominated Members

1. Sh. Rajat Gupta, SWMS, NMCG, New Delhi
2. Sh. Devendra Kumar, Executive Engineer, Jal Nigam, Urban, Raebareli
3. Sh. Arvind Kumar, Scientist 'B', CPCB, RD Lucknow
4. Sh. Manish Tripathi, SA, Regional Office UPPCB, Raebareli

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Other Members

1. Sh. Farhan Ali Adam, Assistant Engineer, NMCG, New Delhi
2. Vikas Agrahari JE, Jal Nigam Pratapgarh, Uttar Pradesh
3. Dr. Rajnish Kumar Sharma, RA, CPCB, RD Lucknow

2.0. Introduction:

River Sai originates from a pond in village Bijgwan near Pihani in district Hardoi and reaches to Jaunpur via Unnao, Raebareli and Pratapgarh. River Sai meets river Gomati at Rajepur in Jaunpur district and further river Gomati meets river Ganga at Kaithi. Total length of river Sai from its origin point to its confluence with Gomti river at Jaunpur is approximately 750 kms. As per UPPCB, Municipal Council Raebareli and Bela-Pratapgarh are two major urban areas located along the stretch of River Sai and remaining stretch of River Sai is in rural agglomeration. As per UP Jal Nigam and UPPCB there are 07 drains in Raebareli and 04 drains in Bela Pratapgarh having outfall in river Sai. These drains also carries sewage generated from the town. In order to prevent the pollution of river Sai, these drains are bioremediated as an interim measure. In Jaunpur, there is no drain having outfall into river Sai. An STP of 18 MLD capacity based on SBR (Sequential Batch Reactor) technology is under development and the same is currently under trail run at Raebareli. Further a STP of 8.95 MLD capacity based on FAB (Fluidize Aerobic Reactor) is under construction at Bela Pratapgarh.

3.0. Meeting of Joint Committee:

The meeting of nominated committee members was convened on 12.07.2022 through Video Conferencing (VC) to discuss the further line of action in the said matter. It was decided to carry out the physical inspection and monitoring of bio remediation work being carried out in 04 drains of Pratapgarh and 07 drains of Raebareli and also investigate the category of water quality of river Sai at Raebareli, Pratapgarh and Jaunpur. It was also decided to inspect the STP of Raebareli and Pratapgarh. Accordingly, inspection and monitoring of drains, river Sai and STP (Raebareli & Pratapgarh) was carried out during 18.07.2022 to 20.07.2022 by Joint Committee.

4.0. Inspection and Monitoring of Joint Committee:

Committee visited to Raebareli, Pratapgarh and Jaunpur during 18.07.2022 to 20.07.2022 and following activities have been under taken:

1. Inspection and monitoring of Drain and STP in Raebareli.
2. Inspection and monitoring of Drain and STP in Bela Pratapgarh Municipal Council.
3. Water quality monitoring of River Sai at Raebareli, Pratapgarh and Jaunpur.

4.1. Inspection and monitoring of Drain and STP in Raebareli:

- Raebareli city has total population of 191316 as per census 2011 and there are 34 wards in the city. The city has 7 nos. of drains outfalling into river Sai. The city has been divided into 4 sewerage zones.
- The sewage generated from the city is discharged through these 07 drains to river Sai. Bio remediation is being carried out in all 07 drains before discharge in river Sai.
- As informed by UP Jal Nigam,
 - the sewage from these 7 drains has been estimated as 32.8 MLD.
 - A sewerage network project for sewerage zones 2, 3 and 4 comprising of 208 Km sewerage network and 18 MLD SBR technology based STP is under development. So far 45 km network has been laid, out of which 30 Km is functional and 18 MLD STP has been constructed. The STP is under trial run and receiving about 2 to 3 MLD of sewage. The project has been targeted for completion by March 2023.
 - A project for sewerage zone 1 comprising about 125 km of sewerage network and 14.8 MLD STP has been proposed under AMRUT 2.0.
- Monitoring of following 07 drains was carried out during visit.
 1. Kaptan Ka Purwa Drain
 2. Police Line Drain
 3. Rewati Ram Drain
 4. Kanpur Road Drain
 5. Surajpur Drain
 6. Mahanandpur Drain
 7. ITI Drain
- Samples of sewage before and after bioremediation in all 07 drains has been collected on 18.07.2022 and analyzed by CPCB. The drain monitoring results are

enclosed at Annexure 1. The summary of BOD results and observations from the monitoring results are as under:

Drain	BOD Before Bioremediation	BOD After Bioremediation
Kaptan Ka Purwa Drain	42.1	60
Police Line Drain	32.1	27.5
Rewati Ram Drain	24.8	48
Kanpur Road Drain	50.9	35.5
Surajpur Drain	100	33.5
Mahanandpur Drain	19.3	21.1
ITI Drain	15	6.49

- The waste water in all the drain was observed to be low strength sewage with raw waste water BOD ranging between 15 to 51 mg/l in 6 Nos. of drains while 100 mg/l in one drain namely Surajpur drain. The significant presence of fecal coliforms indicates sewage contamination in these drains.
- The BOD reduction as a result of bio remediation ranges from 0% to 66.5%. In 5 drains it was observed to be ineffective as the BOD reduction was observed to be less than 30%; in-fact in 3 drains the BOD after bio-remediation was higher than before bioremediation. In two drains the BOD removal efficiency was observed to be satisfactory at 66.5% and 56.7% in Surajpur drain and ITI drain respectively.
- The absolute BOD post bioremediation was found to be more than 30 mg/l in 4 drains while in 2 nos. of drains it was between 20 and 30 mg/l and in one drain less than 10 mg/l.
- The bioremediation is being undertaken by Raebareli Nagar Palika. It has been informed that as part of bio-remediation certain microbial cultures are being dosed in the drains and allowed to feed on organic pollutants during the course of the drain.
- The bio-remediation does not appear to be very effective. The possible reasons could be poor monitoring and control on the dosing and retention time, mixing of sub drains during the course of the stretch being bio-remediated.
- The monitoring results indicate that apparently there does not appear any significant contamination of industrial effluents.

4.2. Inspection and monitoring of Drain and STP in Bela Pratapgarh Municipal Council:

- As per census 2011 total population in Bela Pratapgarh Municipal Council is 76133 having 25 wards.
- There are 4 drains in Bela Pratapgarh municipal council discharging sewage / wastewater into river Sai. Bioremediation was observed to be carried out in all 04 drains.
- As informed by UP Jal Nigam,
 - A Sewerage scheme comprising 12.47 Km sewerage network and 8.95 MLD STP was taken up in 2009-10 under State Sector Programme.
 - Substantial works on the project were completed by 2013 but could not be commissioned causing silting of sewerage network
 - In the year 2020-21 additional funds sanctioned under State Sector Programme for operationalization of the STP. This scheme comprised of I&D of the drains and completing the STP work and operationalizing the same. The works on the same are in progress and expected to be completed by October 2022.
 - Another STP of 13 MLD is proposed under AMRUT 2.0. The DPR for the same is under preparation.
- During visit, STP of capacity 8.95 MLD based on Fluidize Aerobic Bed reactor was found non-operational. Renovation and construction work of STP was still under process. Work on Admin block and boundary wall was in progress. The Disc Filter and Media for the Fluidize Aerobic Bed reactor are yet to be received at the site.
- Tapping of drains and laying of sewage line for connectivity to STP was not completed. It has been observed that approx. 600 m of the 900 m I&D network has been laid and laying of balance line will require NHA clearance. UPJN informed the application for the permission has been made and is being followed up.
- During visit it is found that Bioremediation as well as Chlorination at these 04 drains were being carried out by Municipal Council Bela Pratapgarh.
- Monitoring of following 04 drains was carried out during visit.
 1. Ramleela Maidan Drain
 2. Bhuliapur Drain

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3. Police Line Chakwan Drain
4. Pratapgarh City Drain

- Samples of sewage before and after bioremediation in all 04 drains have been collected on 19.07.2022 and analyzed by CPCB. The drain monitoring results are enclosed at Annexure 2. The summary of BOD results and observations from the monitoring results are as under:

Drain	BOD Before Bioremediation	BOD After Bioremediation
Ramleela Maidan Drain	21.4	15.6
Bhuliapur Drain	20.6	14.9
Police Line Chakwan Drain	25.8	12
Pratapgarh City Drain	21.5	23.6

- The waste water in all the drain was observed to be low strength sewage with raw waste water BOD ranging between 21 to 26 mg/l. The significant presence of fecal coliforms indicates sewage contamination in these drains.
- The BOD reduction as a result of bio remediation ranges from 0% to 53%. In 3 drains it was observed to be ineffective as the BOD reduction was observed to be less than 30%; in-fact in 1 drain the BOD after bio-remediation was higher than before bioremediation. In Police Line Drain the BOD removal efficiency was observed to be satisfactory at 53%.
- The absolute BOD post bioremediation was found to be in the range of 12 to 23.6 mg/l.
- The bioremediation is being undertaken by Bela Pratapgarh Municipal Council. It has been informed that as part of bio-remediation certain microbial cultures are being dosed in the drains and allowed to feed on organic pollutants during the course of the drain.
- The bio-remediation does not appear to be very effective. The possible reasons could be poor monitoring and control on the dosing and retention time.
- The monitoring results indicate that apparently there does not appear any significant contamination of industrial effluents.

4.3. Water quality monitoring of River Sai at Raebareli, Pratapgarh and Jaunpur

- River Sai originates from Hardoi and reaches to Jaunpur via Unnao, Raebareli and Pratapgarh. River Sai meets to river Gomati at Jaunpur and further river Gomati meets to river Ganaga.
- Samples have been taken at Raebareli, Pratapgarh and Jaunpur to assess the river Sai water quality. Analysis report of river water sample is as below.

Parameter	Location of Sample			
	Raebareli (Picnic Spot) 18.07.2022	Pratapgarh (Gai Ghat) 19.07.2022	Jaunpur (Lalabajar) 20.07.2022	Jaunpur (Rajepur Tirmohani) 20.07.2022
pH	7.18	7.89	8.23	8.39
Temperature	24.5	28.0	28	28
Conductivity	570	2703	518	597
Nitrate	<2.2	15.7	12	15.7
DO	6.5	6.7	7.8	7.6
COD	10	59.3	13.1	27.6
BOD	2.14	16.6	4.54	7.24
TC	7.8×10^3	4.9×10^4	4.5×10^4	2.0×10^3
FC	2.0×10^3	3.3×10^4	2.0×10^4	<1.8
Designated Best Use category	D	D	D	D

- River water quality at Raebareli, Pratapgarh and Jaunpur is not meeting class B (pH:6.5-8.5, TC≤500 MPN/100ml, DO≥5mg/l, BOD<3mg/l) criteria of the Designated Best Use Standards due to high levels of TC at all locations and BOD > 3 mg/l at Pratapgarh and Jaunpur (Rajepur Tirmohani) caused by sewage discharge from Raebareli and Pratapgarh.

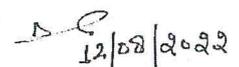
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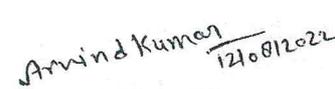



5.0. Concluding remarks:

- ❖ Low strength sewage (BOD <100 mg/l) was also observed at all 11 drains.
- ❖ River water quality was observed class D of the Designated Best Use standards at all location.
- ❖ High value of TC & FC at 11 drains and exceeding value of BOD at some drains may be the reason of Class D water quality of river Sai.
- ❖ For the rejuvenation of river Sai, it is necessary to complete the ongoing projects at Raebareli and Pratapgarh at the earliest. In order to ensure completion of the projects by their current expected date of completion i.e. March 2023 (Raebareli) and Oct'2022 (Pratapgarh), State need to closely follow up the required clearances and expedite the progress.
- ❖ The raebareli STP is receiving just 2 MLD waste water as against the designed 18 MLD STP due to poor progress on network laying and house service connections. The State need to lay greater emphasis on expediting the same to ensure that STP capacity is fully utilized and no untreated sewage is discharged to the river.
- ❖ State need to get the Zone 1 (Raebareli) project approved and grounded at the earliest to ensure that no waste water is discharged from zone 1 to the river Sai.
- ❖ In view of the high TC and FC load in the river water, State need to ensure disinfection unit in the STPs.
- ❖ Bioremediation of the drains need to be continued however the performance need to be improved through process optimization, close monitoring and control.


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Monitoring results of the drains in Raebareli**1. Kaptan Ka Purwa Drain**

Name of the Regional Office of SPCB :	UPPCB Raebareli		
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage		
Instantaneous flow rate of drain :	491.52 m ³ /hr.		
Discharge (River Ganga/Tributary) :	River Sai		
Analysis report related to parameters of Bioremediation efficacy			
Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.25	7.82	--
TSS (mg/l)	43.1	96.6	No reduction
BOD (mg/l)	42.1	60	No reduction
COD (mg/l)	107	97.2	9.16%
Analysis report related to general parameters and trace metal			
Parameters	Before Bioremediation	After Bioremediation	
TDS (mg/l)	980	932	
Chloride (mg/l)	149	135	
Sulphate (mg/l)	33.2	37.7	
Phosphate (mg/l)	3.08	3.04	
Nitrate (mg/l)	<2.2	<2.2	
Ammoniacal Nitrogen(mg/l)	4.99	2.14	
TC (MPN/100 ml)	--	5.4×10 ⁷	
FC (MPN/100 ml)	--	3.5×10 ⁷	
Cobalt (mg/l)	<0.2	--	
Chromium (mg/l)	<0.2	--	
Copper (mg/l)	<0.2	--	
Iron (mg/l)	0.90	--	
Manganese (mg/l)	0.14	--	
Lead (mg/l)	<0.5	--	
Zink (mg/l)	0.13	--	

2. Police Line Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Instantaneous flow rate of drain :	242.854 m ³ /hr.
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.39	7.72	--
TSS (mg/l)	36.7	21.4	41.69 %
BOD (mg/l)	32.1	27.5	14.33 %
COD (mg/l)	97.2	80.4	17.28 %

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	1020	1051
Chloride (mg/l)	145	134
Sulphate (mg/l)	36.3	42.8
Phosphate (mg/l)	3.22	1.83
Nitrate (mg/l)	<2.2	<2.2
Ammoniacal Nitrogen(mg/l)	5.52	3.22
TC (MPN/100 ml)	--	3.5×10 ⁷
FC (MPN/100 ml)	--	2.4×10 ⁷
Cobalt (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2
Copper (mg/l)	<0.2	<0.2
Iron (mg/l)	0.71	0.68
Manganese (mg/l)	0.12	0.12
Lead (mg/l)	<0.5	<0.5
Zink (mg/l)	0.10	0.12

3. Rewati Ram Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Instantaneous flow rate of drain :	Meagre flow
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.32	7.64	--
TSS (mg/l)	77.0	76.5	0.64 %
BOD (mg/l)	24.8	48.0	No reduction
COD (mg/l)	67.6	80	No reduction

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	798	773
Chloride (mg/l)	131	104
Sulphate (mg/l)	45	35.5
Phosphate (mg/l)	3.56	2.86
Nitrate (mg/l)	<2.2	<2.2
Ammoniacal Nitrogen(mg/l)	6.80	3.42

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Prakash


4. Kanpur Road Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli		
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage		
Instantaneous flow rate of drain :	252.696 m ³ /hr.		
Discharge (River Ganga/Tributary) :	River Sai		
Analysis report related to parameters of Bioremediation efficacy			
Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.35	7.45	--
TSS (mg/l)	48.7	20.8	57.29 %
BOD (mg/l)	50.9	35.5	30.26 %
COD (mg/l)	110	84.8	22.9 %
Analysis report related to general parameters and trace metal			
Parameters	Before Bioremediation	After Bioremediation	
TDS (mg/l)	854	1086	
Chloride (mg/l)	159	176	
Sulphate (mg/l)	51.4	61.2	
Phosphate (mg/l)	3.37	<1.5	
Nitrate (mg/l)	<2.2	<2.2	
Ammoniacal Nitrogen(mg/l)	5.45	3.45	
TC (MPN/100 ml)	--	3.5×10 ⁷	
FC (MPN/100 ml)	--	7.0×10 ⁶	
Cobalt (mg/l)	<0.2	<0.2	
Chromium (mg/l)	<0.2	<0.2	
Copper (mg/l)	<0.2	<0.2	
Iron (mg/l)	1.04	0.68	
Manganese (mg/l)	0.10	0.10	
Lead (mg/l)	<0.5	<0.5	
Zink (mg/l)	0.13	0.15	

5. Surajpur Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Flow rate of drain :	216.00 m ³ /hr.
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.46	7.42	--
TSS (mg/l)	168	39.6	76.43 %
BOD (mg/l)	100	33.5	66.50 %
COD (mg/l)	203	74.8	63.15 %

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	1119	1151
Chloride (mg/l)	199	200
Sulphate (mg/l)	64.8	89.6
Phosphate (mg/l)	3.18	3.30
Nitrate (mg/l)	<2.2	<2.2
Ammoniacal Nitrogen(mg/l)	6.36	3.90
TC (MPN/100 ml)	--	1.4×10 ⁷
FC (MPN/100 ml)	--	9.4×10 ⁶
Cobalt (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2
Copper (mg/l)	<0.2	<0.2
Iron (mg/l)	2.22	0.78
Manganese (mg/l)	0.14	0.14
Lead (mg/l)	<0.5	<0.5
Zink (mg/l)	0.22	0.11

6. Mahanandpur Drain

Name of the Regional Office of SPCB :		UPPCB Raebareli		
Type of drain wastewater (Sewage/Industrial/ Mixed) :		Sewage		
Flow rate of drain :		156.00		
Discharge (River Ganga/Tributary) :		River Sai		
Analysis report related to parameters of Bioremediation efficacy				
Parameters bioremediation	for	Before Bioremediation	After Bioremediation	% Reduction
pH		7.46	7.54	--
TSS (mg/l)		29.1	18.8	35.40 %
BOD (mg/l)		19.3	21.1	No reduction
COD (mg/l)		64.4	42.0	34.78 %
Analysis report related to general parameters and trace metal				
Parameters	Before Bioremediation	After Bioremediation		
TDS (mg/l)	874	930		
Chloride (mg/l)	143	120		
Sulphate (mg/l)	44.5	37.7		
Phosphate (mg/l)	3.69	3.07		
Nitrate (mg/l)	<2.2	<2.2		
Ammoniacal Nitrogen(mg/l)	4.49	2.37		
TC (MPN/100 ml)	--	1.7×10^6		
FC (MPN/100 ml)	--	1.3×10^6		
Cobalt (mg/l)	<0.2	<0.2		
Chromium (mg/l)	<0.2	<0.2		
Copper (mg/l)	<0.2	<0.2		
Iron (mg/l)	0.92	1.02		
Manganese (mg/l)	0.22	0.22		
Lead (mg/l)	<0.5	<0.5		
Zink (mg/l)	0.13	0.16		

7. ITI Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Flow rate of drain :	164.71
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.39	7.94	--
TSS (mg/l)	6.81	15.6	No reduction
BOD (mg/l)	15	6.49	56.73 %
COD (mg/l)	43.2	18.8	56.48 %

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	743	601
Chloride (mg/l)	55.3	50.2
Sulphate (mg/l)	19.3	28.0
Phosphate (mg/l)	1.72	<1.5
Nitrate (mg/l)	<2.2	<2.2
Ammoniacal Nitrogen(mg/l)	2.04	0.960
TC (MPN/100 ml)	--	4.5×10 ⁴
FC (MPN/100 ml)	--	2.0×10 ⁴
Cobalt (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2
Copper (mg/l)	<0.2	<0.2
Iron (mg/l)	1.04	1.35
Manganese (mg/l)	0.16	0.10
Lead (mg/l)	<0.5	<0.5
Zink (mg/l)	0.13	0.15

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Monitoring results of the drains in Bela Pratapgarh**1. Ramleela Maidan Drain**

Name of the Regional Office of SPCB :	UPPCB		
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage		
Instantaneous flow rate of drain :	361.411 m ³ /hr.		
Discharge (River Ganga/Tributary) :	River Sai		
Analysis report related to parameters of Bioremediation efficacy			
Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.59	7.75	--
TSS (mg/l)	170	26.4	84.47 %
BOD (mg/l)	21.4	15.6	27.10 %
COD (mg/l)	68.8	59.3	13.80 %
Analysis report related to general parameters and trace metal			
Parameters	Before Bioremediation	After Bioremediation	
TDS (mg/l)	1432	1588	
Chloride (mg/l)	603	701	
Sulphate (mg/l)	143	131	
Phosphate (mg/l)	2.99	2.09	
Nitrate (mg/l)	<2.2	<2.2	
Ammoniacal Nitrogen(mg/l)	0.680	<0.5	
TC (MPN/100 ml)	--	4.9×10 ⁵	
FC (MPN/100 ml)	--	1.7×10 ⁵	
Cobalt (mg/l)	<0.2	<0.2	
Chromium (mg/l)	<0.2	<0.2	
Copper (mg/l)	<0.2	<0.2	
Iron (mg/l)	2.47	1.10	
Manganese (mg/l)	0.24	0.20	
Lead (mg/l)	<0.5	<0.5	
Zink (mg/l)	0.45	0.15	

2. Bhuliapur Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Instantaneous flow rate of drain :	32.4 m ³ /hr.
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.42	7.60	--
TSS (mg/l)	138	78.4	43.19 %
BOD (mg/l)	20.6	14.9	27.67 %
COD (mg/l)	80.7	70.8	12.27 %

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	1217	1350
Chloride (mg/l)	509	647
Sulphate (mg/l)	144	84.7
Phosphate (mg/l)	5.03	2.55
Nitrate (mg/l)	2.54	<2.2
Ammoniacal Nitrogen(mg/l)	5.42	5.79
TC (MPN/100 ml)	--	2.3×10 ⁵
FC (MPN/100 ml)	--	1.3×10 ⁵
Cobalt (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2
Copper (mg/l)	<0.2	<0.2
Iron (mg/l)	1.48	1.24
Manganese (mg/l)	0.14	0.14
Lead (mg/l)	<0.5	<0.5
Zink (mg/l)	0.24	0.18

3. Police line Chakwan Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Instantaneous flow rate of drain :	187.44 m ³ /hr.
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.61	7.77	--
TSS (mg/l)	600	20	96.67 %
BOD (mg/l)	25.8	12.0	53.49 %
COD (mg/l)	124	41.9	66.21 %

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	1406	1449
Chloride (mg/l)	899	662
Sulphate (mg/l)	128	119
Phosphate (mg/l)	2.96	2.29
Nitrate (mg/l)	<2.2	<2.2
Ammoniacal Nitrogen(mg/l)	1.43	1.16
TC (MPN/100 ml)	--	3.3×10 ⁵
FC (MPN/100 ml)	--	2.3×10 ⁵
Cobalt (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2
Copper (mg/l)	<0.2	<0.2
Iron (mg/l)	9.34	0.78
Manganese (mg/l)	0.24	0.12
Lead (mg/l)	<0.5	<0.5
Zink (mg/l)	0.24	0.16

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4. Pratapgarh City Drain

Name of the Regional Office of SPCB :	UPPCB Raebareli
Type of drain wastewater (Sewage/Industrial/ Mixed) :	Sewage
Instantaneous flow rate of drain :	348.92 m ³ /hr.
Discharge (River Ganga/Tributary) :	River Sai

Analysis report related to parameters of Bioremediation efficacy

Parameters for bioremediation	Before Bioremediation	After Bioremediation	% Reduction
pH	7.64	7.97	--
TSS (mg/l)	52.8	156	No reduction
BOD (mg/l)	21.5	23.6	No reduction
COD (mg/l)	82.7	93.4	No reduction

Analysis report related to general parameters and trace metal

Parameters	Before Bioremediation	After Bioremediation
TDS (mg/l)	1554	1417
Chloride (mg/l)	529	543
Sulphate (mg/l)	118	102
Phosphate (mg/l)	<1.5	<1.5
Nitrate (mg/l)	<2.2	<2.2
Ammoniacal Nitrogen(mg/l)	<0.5	1.24
TC (MPN/100 ml)	--	2.4×10 ⁷
FC (MPN/100 ml)	--	1.3×10 ⁷
Cobalt (mg/l)	<0.2	<0.2
Chromium (mg/l)	<0.2	<0.2
Copper (mg/l)	<0.2	<0.2
Iron (mg/l)	3.06	5.81
Manganese (mg/l)	0.10	0.14
Lead (mg/l)	<0.5	<0.5
Zink (mg/l)	0.68	1.19

Photos Gallery of Inspection and Monitoring under O.A. No 490/2019



Photo1: Bioremediation at Revati Ram Drain Raebareli



Photo2: Bioremediation at Kaptan Ka Purwa Drain Raebareli



Photo3: Bioremediation at Police Line Drain Raebareli



Photo4: Bioremediation at Kanpur Road Drain Raebareli



Photo5: Bioremediation at Surajpur Drain Raebareli



Photo6: Bioremediation at Mahanandpur Drain Raebareli

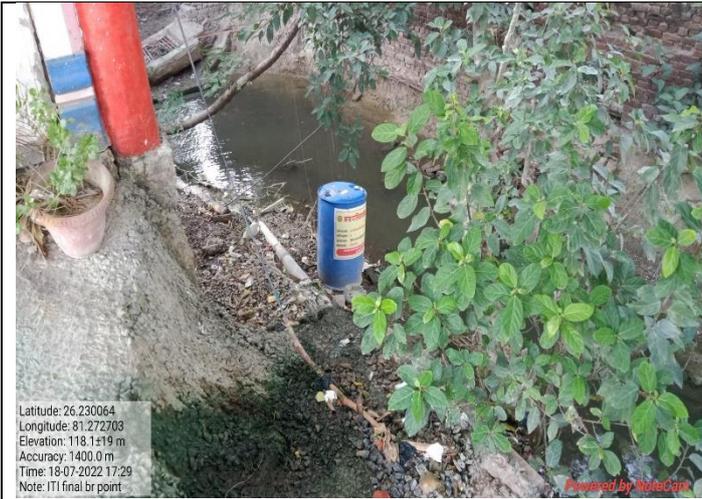


Photo7: Bioremediation at ITI Drain Raebareli



Photo8: River Sai at Raebareli



Photo9: STP at Raebareli



Photo10: Bioremediation at Ramleela maidan Drain Pratapgarh



Photo11: Ramleela maidan Drain Pratapgarh



Photo12: Bioremediation at Bhuliapur Drain Pratapgarh



Photo13: Bioremediation at Policeline Chakwan Drain Pratapgarh



Photo14: Policeline Chakwan Drain Pratapgarh



Photo15: Bioremediation at City Drain Pratapgarh



Photo16: City Drain Pratapgarh



Photo17: River Sai at Pratapgarh



Photo18: STP at Pratapgarh



Photo19: River Sai at Jaunpur



Photo20: River Sai at Jaunpur before confluence to River Gomati

Item No. 03

(Court No. 1)

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

(By Video Conferencing)

Original Application No. 490/2019
(I.A. No. 199/2021)

(With reports dated 22.10.2021, 08.11.2021,
13.01.2022 and 21.03.2022)

T. S. Singh

Applicant

Versus

State of Uttar Pradesh

Respondent

Date of hearing: 29.03.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Applicant: Mr. Shashank Dixit, Advocate for Applicant in I.A 199/2021

Respondent(s): Dr. Rajneesh Dubey, Additional Chief Secretary, Urban
Development Department with Ms. Priyanka Swami, Advocate for
the State of UP
Mr. Pradeep Misra, Adv. for UPPCB

ORDER

1. Issue for consideration is failure of the authorities in the State of UP in preventing discharge of untreated sewage into Sai River at Pratapgarh for long period in violation of law and particularly the directions of the Hon'ble Supreme Court in Paryavaran Suraksha (2017) 5 SCC 326.

2. The Tribunal considered the matter earlier inter alia on 02.01.2020, in the light of the report dated 30.08.2019 filed by the UPPCB as follows:-

“1. District Pratapgarh has 9 towns out of them 7 are statutory towns and 2 Census towns. There are 533,546 households in the district accounting for 1.6 percent of the total households in the state. The average size of households in the district is 6.0 persons. Total population of the city Pratapgarh as per 2011 census is 76.133 and water consumption is 13.70 MLD. The total sewage generation of the city is 8.95 MLD.

2. In Pratapgarh city main drain named City drain originates from Prayagpur Aurehta joins Sai River at Bela Pratapgarh. Distance covered by city drain from Prayagpur Aurehta to its meeting point to Sai River is approx 0.44 Km. City drain carries domestic waste water of habitations settled along the course of river Sai. Total sewage discharge from city drain to river Sai is 8.95 MLD which is untreated in nature. The city drain with a flow of 8.95 MLD will be intercepted and routed to under construction STP of 8.95 MLD at Pratapgarh city near Belhamai Bridge.

3. Above mentioned STP of 8.95 MLD capacity is based on Fluidized Aerobic Bed Reactor (FAB) technology whose main units are Screen & grit chamber, FAB reactor I & II, tube settler, chlorine contact tank, Sludge thickener, sludge drying bed etc. At the time of inspection STP was found non- operational due to under construction of sewer lines and its connectivity with STP. At present sewage is directly discharged into river Sai.

4. It has been informed that STP was constructed in year 2009 by Thermax Ltd in Pratapgarh Jalotsaran Yojna Belha Pratapgarh city with total estimated cost of Rs. 1820.75 Crore in which 8.50 Crore for STP and rest for sewer line, main pumping station and intermediate pumping station. Summary of the Pratapgarh sewerage plan is attached herewith and marked as Annexure no.-1.

5. It has been informed by UP Jal Nigam, Pratapgarh that construction work of STP and main pumping station was started by July 2009 as the land for STP and MPS was made available by Nagar Palika Parishad, Pratapgarh. Later the work was delayed due to P1L in Lucknow bench of Allahabad high court lodged by Dr. R.K Singh owner of a hospital near STP campus.

6. It is informed by U.P. Jal Nigam Pratapgarh that the work of sewer laying etc. cannot be started timely because the funds released for construction was not equivalent to sanctioned amount, and the tender for construction was cancelled six times by competent authority due to different reasons. Later Forest Department imposed ban on laying of sewer and asked for

permission of Govt. of India. Scheme where works are held up due to ban imposed by Forest Dept. Pratapgarh, is attached herewith and marked as Annexure no.-2.

*7. It has been informed that total proposed sewer line for connection of drains to STP is 12.472 Kilometre in which approx. 9 Kilometres sewer line has been installed and rest 3.472 Km is under construction. **Approximately 95% work of STP was completed in 2010 and its testing has been also done.***

8. Regional office UPPCB Raebareli has been directed to EO Nagar Palika Parishad. Pratapgarh and Executive Engineer Jal Nigam Pratapgarh vide letter no. 1305/STP/2017-18 dated 18.01.2018 and 696/STP/P/18-19 dated 10.09.2018 for completion and operation of STP as soon as possible.

9. The river Sai is also covered in the identified "Polluted river stretches" as Priority —V.** In compliance of order passed by Hon'ble NGT on 20-09-2018 in OA 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, **in this regard Pollution Control Board has prepared an Action Plan for rejuvenation of river Sai which has been duly approved by 'River Rejuvenation Committee, U.P.'

3. The Tribunal gave directions for remedial action which remained uncomplied and even till date the situation remains far from satisfactory. The matter was last reviewed on 09.06.2021 in the light of status report filed on behalf of the State and also the report of the Oversight Committee (OC), constituted under the orders of this Tribunal, to monitor some of the directions of this Tribunal in the State of U.P., headed by Justice S.V.S. Rathore, former Judge of the Allahabad High Court. The reports showed that no satisfactory progress had taken place inspite of repeated directions of this Tribunal for preventing and controlling pollution of Sai River and untreated sewage / effluents were continuing to be discharged in the river.

4. The Tribunal noted the stand of the State that 95% of work of setting up of requisite STP was completed 11 years back but the funds were misappropriated. The Tribunal found that no firm date for further

remedial action was given and the remedial action was made contingent upon providing of funds by NMCG which could not be legally upheld as it meant that the pollution was to continue unless the funds were provided by the Central Government. Disapproving such action, the Tribunal held the Additional Chief Secretary, Urban Development Department, U.P. responsible for defiance of order of this Tribunal which under the NGT Act is at par with decree of civil court and directed imposing a cut of Rs. 1,000/- per month from his salary till compliance with warning for further stringent action. The Tribunal also required the Member Secretary, State PCB to explain why action be not taken for failure of the State PCB. The operative part of the order is reproduced below:

“7. We have heard learned Counsel for the State of UP and also the Additional Chief Secretary, Urban Development Department, U.P. present by video conferencing. We are in agreement with the report of the OC that there is no satisfactory progress. There is continued violation of directions of the Hon’ble Supreme Court in Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.¹ and orders of this tribunal. This is resulting in contamination of drains and then of River Sai, which later meets Ganga.

8. Contamination of water sources is a punishable offence under the Water (Prevention and Control of Pollution) Act, 1974 for the last 49 years. The stand of the State atleast since 30.8.2019 (when first report was filed by the PCB as noted earlier) is that the STP was started in 2009 and completed in 2010 to the extent of 95%. The same is not been made operational for the last 11 years. Earlier funds have been illegally misappropriated but no meaningful action is being taken against the violators. Action plan in terms of order of this Tribunal dated 20.9.2018 in OA 673/2018 was prepared which included requisite STP being operated within the timeline mentioned therein even though more than two years have passed. Repeatedly, plea is that unless NMCG funds are available from Central Government, the Municipal Council concerned and the Urban Development Department will not comply with the constitutional obligation of preventing discharge of pollution is being reiterated against the mandate of law laid down by the Hon’ble Supreme Court in Municipal Council, Ratlam v. Shri

¹ (2017) 5 SCC 326

*Virdhichand & Ors.*² as well as *Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.*, supra. This plea is being raised again in spite of its rejection by the Tribunal earlier. Non-availability of NMCG funds cannot be a justification for not stopping pollution. If funds are available from any source, the Tribunal has no objection to the same but in any case, the concerned authorities cannot avoid their responsibility under the public trust doctrine, if necessary, by raising funds, as per directions in the Supreme Court judgement.

9. We may refer to the specific directions of the Hon'ble Supreme Court and this Tribunal on the subject:

Extracts from the judgement of the Hon'ble Supreme Court in Paryavaran Suraksha Samiti Vs. Union of India, supra

"7. Having effectuated the directions recorded in the foregoing paragraphs, the next step would be, to set up common effluent treatment plants. We are informed, that for the aforesaid purpose, the financial contribution of the Central Government is to the extent of 50%, that of the State Government concerned (including the Union Territory concerned) is 25%. The balance 25%, is to be arranged by way of loans from banks. The above loans, are to be repaid, by the industrial areas, and/or industrial clusters. We are also informed that the setting up of a common effluent treatment plant, would ordinarily take approximately two years (in cases where the process has yet to be commenced). The reason for the above prolonged period, for setting up "common effluent treatment plants", according to the learned counsel, is not only financial, but also, the requirement of land acquisition, for the same.

x.....x.....x.....

10. Given the responsibility vested in municipalities under Article 243-W of the Constitution, as also, in Item 6 of Schedule XII, wherein the aforesaid obligation, pointedly extends to "public health, sanitation conservancy and solid waste management", we are of the view that the onus to operate the existing common effluent treatment plants, rests on municipalities (and/or local bodies). Given the aforesaid responsibility, the municipalities (and/or local bodies) concerned, cannot be permitted to shy away from discharging this onerous duty. In case there are further financial constraints, the remedy lies in Articles 243-X and 243-Y of the Constitution. It will be open to the municipalities (and/or local bodies) concerned, to evolve norms to recover funds, for the

²(1980) 4 SCC 162

purpose of generating finances to install and run all the “common effluent treatment plants”, within the purview of the provisions referred to hereinabove. Needless to mention that such norms as may be evolved for generating financial resources, may include all or any of the commercial, industrial and domestic beneficiaries, of the facility. The process of evolving the above norms, shall be supervised by the State Government (Union Territory) concerned, through the Secretaries, Urban Development and Local Bodies, respectively (depending on the location of the respective common effluent treatment plant). The norms for generating funds for setting up and/or operating the “common effluent treatment plant” shall be finalised, on or before 31-3-2017, so as to be implemented with effect from the next financial year. In case, such norms are not in place, before the commencement of the next financial year, the State Governments (or the Union Territories) concerned, shall cater to the financial requirements, of running the “common effluent treatment plants”, which are presently dysfunctional, from their own financial resources.

11. *Just in the manner suggested hereinabove, for the purpose of setting up of “common effluent treatment plants”, the State Governments concerned (including, the Union Territories concerned) will prioritise such cities, towns and villages, which discharge **industrial pollutants and sewer, directly into rivers and water bodies.***
12. *We are of the view that in the manner suggested above, **the malady of sewer treatment, should also be dealt with simultaneously.** We, therefore, hereby direct that “sewage treatment plants” shall also be set up and made functional, within the timelines and the format, expressed hereinabove.*
13. ***We are of the view that mere directions are inconsequential, unless a rigid implementation mechanism is laid down.** We, therefore, hereby provide that the directions pertaining to continuation of industrial activity only when there is in place a functional “primary effluent treatment plants”, and the setting up of functional “common effluent treatment plants” within the timelines, expressed above, shall be of the Member Secretaries of the Pollution Control Boards concerned. **The Secretary of the Department of Environment, of the State Government concerned (and the Union Territory concerned), shall be answerable in case of default. The Secretaries to the Government concerned shall be responsible for monitoring the progress and issuing necessary directions to the Pollution Control Board concerned, as may be***

required, for the implementation of the above directions. They shall be also responsible for collecting and maintaining records of data, in respect of the directions contained in this order. The said data shall be furnished to the Central Ground Water Authority, which shall evaluate the data and shall furnish the same to the Bench of the jurisdictional **National Green Tribunal.**

14. To supervise complaints of non-implementation of the instant directions, the Benches concerned of the National Green Tribunal, will maintain running and numbered case files, by dividing the jurisdictional area into units. The abovementioned case files will be listed periodically. **The Pollution Control Board concerned is also hereby directed to initiate such civil or criminal action, as may be permissible in law, against all or any of the defaulters.**

X.....X.....X.....

16. It however needs to be clarified, that the instant directions and time lines, shall not in any way dilute any time lines and directions issued by Courts or Benches of the National Green Tribunal, hitherto before, wherein the postulated time lines would expire before the ones expressed through the directions recorded above. **It is clarified, that the time lines, expressed hereinabove will be relevant, only in situations where there are no prevalent time line(s), and also, where a longer period, has been provided for.”**

(emphasis supplied)

**Extracts from orders of this Tribunal in OA 593/2017 :
Order dated 21.05.2020**

26. Summary of directions:

- i. All States/UTs through their concerned departments such as Urban/Rural Development, Irrigation & Public Health, Local Bodies, Environment, etc. may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town and village, adhering to the timeline as directed by Hon'ble Supreme Court. STPs must meet the prescribed standards, including faecal coliform.

CPCB may further continue efforts on compilation of River Basin-wise data. Action plans be firmed up with Budgets/Financial tie up. Such plans be overseen by Chief Secretary and forwarded to CPCB before 30.6.2020. CPCB may consolidate all action plans and file a report accordingly.

Ministry of Jal Shakti and Ministry of Housing and Urban Affairs may facilitate States/UTs for ensuring that water

quality of rivers, lakes, water bodies and ground water is maintained.

As observed in para 13 above, 100% treatment of sewage/effluent must be ensured and strict coercive action taken for any violation to enforce rule of law. Any party is free to move the Hon'ble Supreme Court for continued violation of its order after the deadline of 31.3.2018. This order is without prejudice to the said remedy as direction of the Hon'ble Supreme Court cannot be diluted or relaxed by this Tribunal in the course of execution. PCBs/PCCs are free to realise compensation for violations but from 1.7.2020, such compensation must be realised as per direction of this Tribunal failing which the erring State PCBs/PCCs will be accountable."

Order dated 21.09.2020

"11. The Tribunal has already issued directions vide orders dated 28.08.2019 and 21.05.2020 for ensuring that no untreated sewage/effluent is discharged into any water body and for any violation compensation is to be assessed and recovered by the CPCB so that the same can be utilized for restoration of the environment, complying with the principle of 'Polluter Pays' which has been held to be part of 'Sustainable Development' and part of right to life. Control of such pollution is crucial for environment, aquatic life, food safety and also human health. .."

From OA 673/2018:

Order dated 06.12.2019:

6. The Hon'ble Supreme Court noticed the level of degradation of rivers in India and apathy of the authorities as follows:

"58. Rivers in India are drying up, groundwater is being rapidly depleted, and canals are polluted. Yamuna in Delhi looks like a black drain. Several perennial rivers like Ganga and Brahmaputra are rapidly becoming seasonal. Rivers are dying or declining, and aquifers are getting over pumped. Industries, hotels, etc. are pumping out groundwater at an alarming rate, causing sharp decline in the groundwater levels. Farmers are having a hard time finding groundwater for their crops e.g. in Punjab. In many places there are serpentine queues of exhausted housewives waiting for hours to fill their buckets of water. In this connection John Briscoe has authored a detailed World Bank Report, in which he has mentioned that despite this alarming situation there is widespread complacency on the part of the authorities in India.³

³ State of Orissa v. Govt. of India, (2009) 5 SCC 492

“4. We see Yamuna river virtually turned into a sullage. We take judicial notice of this situation. Similar is the position with Ganges. As it proceeds, industrial effluents are being poured in rivers. Sewage is also being directly put in rivers contributing to the river water pollution. We direct the Pollution Control Boards of the various States as well as the Central Pollution Control Board and various Governments to place before us the data and material with respect to various rivers in the concerned States, and what steps they are taking to curb the pollution in such rivers and to management as to industrial effluents, sewage, garbage, waste and air pollution, including the water management. We club the ending case of water management with this matter.⁴

xxx.....xxx.....xxx

11. In spite of above, in flagrant violation of law of the land, polluted water in the form of sewage, industrial effluents or otherwise has continued to be discharged in the water bodies including the rivers or the canals meeting the rivers. Violation of law is not only by private citizens but also statutory bodies including the local bodies and also failure of the regulatory authorities in taking adequate steps. There is no corresponding coercive action posing danger to rule of law when large scale violation of law is not being remedied. This leads to lawlessness.

12. It will be appropriate to note the crisis situation in the country on the subject of availability of potable water. The matter has been considered in the report of Niti Aayog on Composite Water Management Index (CWMI).⁵ Following further information also needs to be noted:

- (i) India is suffering from the worst water crisis in its history and millions of lives and livelihoods are under threat. Currently, 600 million Indians face high to extreme water stress and about two lakh people die every year due to inadequate access to safe water⁶. The crisis is only going to get worse. By 2030, the country’s water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual ~6% loss in the country’s GDP⁷. As per the report of National Commission for Integrated Water Resource Development of MoWR, the water requirement by 2050 in high use scenario is likely to be a milder 1,180 BCM, whereas the present-day availability is 695BCM. The total availability of water possible in country is still lower than this projected demand, at 1,137BCM. Thus, there is an imminent need to deepen our understanding of our water

⁴ M.C. Mehta Vs Union of India- W.P. (Civil) No. 13029/1985 dated 25.11.2019

⁵ Niti Ayog on “Composite Water Management Index”, June 2018, https://niti.gov.in/writereaddata/files/document_publication/2018-05-18-Water-Index-Report_vS8-compressed.pdf.

⁶ Source: WRI Aqueduct; WHO Global Health Observatory

⁷Source: McKinsey & WRG, ‘Charting our water future’, 2009; World Bank; Times of India

resources and usage and put in place interventions that make our water use efficient and sustainable.

- (ii) India is undergoing the worst water crisis in its history. Already, more than 600 million people⁸ are facing acute water shortages. Critical groundwater resources – which account for 40% of our water supply – are being depleted at unsustainable rates.⁹
- (iii) Most states have achieved less than 50% of the total score in the augmentation of groundwater resources, highlighting the growing national crisis—54% of India’s groundwater wells are declining, and 21 major cities are expected to run out of groundwater as soon as 2020, affecting ~100 million people¹⁰.
- (iv) With nearly 70% of water being contaminated, India is placed at 120th amongst 122 countries in the water quality index.

13. As per statistics mentioned before the Lok Sabha on April 6, 2018, waterborne diseases such as cholera, acute diarrhoeal diseases, typhoid and viral hepatitis continue to be prevalent in India and have caused 10,738 deaths, over the last five years since 2017. Of this, acute diarrhoeal diseases caused maximum deaths followed by viral hepatitis, typhoid and cholera.¹¹

14. As per ‘National Health Profile’ published by Central Bureau of Health Investigation, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, a total of 1535 Deaths due to Acute Diarrhoeal Diseases was reported during the year 2013.¹²

Main Causes of Pollution of Rivers

15. As already noted, well known causes of pollution of rivers are dumping of untreated sewage and industrial waste, garbage, plastic waste, e-waste, bio-medical waste, municipal solid waste, diversion of river waters for various purposes affecting e-flow, encroachment of catchment areas and floodplains, over drawl of groundwater, river bank erosion on account of illegal sand mining. In spite of directions to install Effluent Treatment Plants (ETPs), Common Effluent Treatment Plants (CETPs), Sewage Treatment Plants (STPs), and adopting other anti-pollution measures, satisfactory situation has not been achieved. As per CPCB’s report 2016¹³, it has been estimated that 61,948 million liters per day (mld) sewage is generated from the urban areas of which treatment capacity of 23,277 mld is currently existent in India. Thereby the deficit in capacity of waste treatment is of 62%. There is no data available with regard to generation of sewage in the rural areas.

⁸ Source: World Resource Institute

⁹ Source: World Resource Institute

¹⁰ Source: UN Water, ‘Managing water under uncertainty and risk’, 2010; World Bank (Hindustan Times, The Hindu).

¹¹ <https://www.indiaspend.com/diarrhoea-took-more-lives-than-any-other-water-borne-disease-in-india-58143/>

¹² <http://pib.nic.in/newsite/PrintRelease.aspx?relid=106612>

¹³ http://www.sulabhenvi.nic.in/Database/STST_wastewater_2090.aspx July 16, updated on December 6, 2016

xxx.....xxx.....xxx

33. We may note the observations of the Hon’ble Supreme Court:

“26. Enactment of a law, but tolerating its infringement, is worse than not enacting a law at all. The continued infringement of law, over a period of time, is made possible by adoption of such means which are best known to the violators of law. Continued tolerance of such violations of law not only renders legal provisions nugatory but such tolerance by the enforcement authorities encourages lawlessness and adoption of means which cannot, or ought not to, be tolerated in any civilized society. Law should not only be meant for the law-abiding but is meant to be obeyed by all for whom it has been enacted. A law is usually enacted because the legislature feels that it is necessary. It is with a view to protect and preserve the environment and save it for the future generations and to ensure good quality of life that Parliament enacted the anti-pollution laws, namely, the Water Act, Air Act and the Environment (Protection) Act, 1986. These Acts and Rules framed and notification issued thereunder contain provisions which prohibit and/or regulate certain activities with a view to protect and preserve the environment. When a law is enacted containing some provisions which prohibit certain types of activities, then, it is of utmost importance that such legal provisions are effectively enforced. If a law is enacted but is not being voluntarily obeyed, then, it has to be enforced. Otherwise, infringement of law, which is actively or passively condoned for personal gain, will be encouraged which will in turn lead to a lawless society. Violation of anti-pollution laws not only adversely affects the existing quality of life but the non-enforcement of the legal provisions often results in ecological imbalance and degradation of environment, the adverse effect of which will have to be borne by the future generations.¹⁴

xxx.....xxx.....xxx

“61. If the laws are not enforced and the orders of the courts to enforce and implement the laws are ignored, the result can only be total lawlessness. It is, therefore, necessary to also identify and take appropriate action against officers responsible for this state of affairs. Such blatant misuse of properties at large-scale cannot take place without connivance of the officers concerned. It is also a source of corruption. Therefore, action is also necessary to check corruption, nepotism and total apathy towards the rights of the citizens.”¹⁵

xxx.....xxx.....xxx

¹⁴ INDIAN COUNCIL FOR ENVIRO-LEGAL ACTION Vs. UNION OF INDIA AND OTHERS (1996) 5 SCC 281

¹⁵ M.C. Mehta v. Union of India, (2006) 3 SCC 399 – Public functionaries

35. Vide order dated 22.08.2019 in Original Application 200/2014, dealing with the pollution of river Ganga, the Tribunal issued directions and laid down coercive measures to be taken for discharge of untreated sewage in river Ganga:-

“16. xxx.....xxx.....xxx

17. Wherever the work has not commenced, it is necessary that no untreated sewage is discharged into the River Ganga. Bioremediation and/or phytoremediation or any other remediation measures may start as an interim measure positively from 01.11.2019, failing which the State may be liable to pay compensation of Rs. 5 Lakhs per month per drain to be deposited with the CPCB. This however, is not to be taken as an excuse to delay the installation of STPs. For delay of the work, the Chief Secretary must identify the officers responsible and assign specific responsibilities. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers. For delay in setting up of STPs and sewerage network beyond prescribed timelines, State may be liable to pay Rs. 10 Lakhs per month per STP and its network. It will be open to the State to recover the said amount from the erring officers/contractors.

36. Vide order dated 28.08.2019, the Tribunal held:-

“15. xxx.....xxx.....xxx

“16. xxx.....xxx.....xxx

17. As already noted, prevention of pollution of water is directly linked to access to potable water as well as food safety. Restoration of pristine glory of rivers is also of cultural and ecological significance. This necessitates effective steps to ensure that no pollution is discharged in water bodies. Doing so is a criminal offence under the Water Act and is harmful to the environment and public health. ‘Precautionary’ principle of environmental law is to be enforced. Thus, the mandate of law is that there must be 100% treatment of sewage as well as trade effluents. This Tribunal has already directed in the case of river Ganga that timelines laid down therein be adhered to for setting up of STPs and till then, interim measures be taken for treatment of sewage. There is no reason why this direction be not followed, so as to control pollution of all the river stretches in the country. The issue of ETPs/CETPs is being dealt with by an appropriate action against polluting industries. Setting up of STPs and MSW facilities is the responsibility of Local Bodies and in case of their default, of the States. Their failure on the subject has to be adequately monitored. Recovery of

compensation on 'Polluter Pays' principle is a part of enforcement strategy but not a substitute for compliance. It is thus necessary to issue directions to all the States/UTs to enforce the compensation regime, latest with effect from 01.04.2020. We may not be taken to be condoning any past violations. The States/UTs have to enforce recovery of compensation from 01.04.2020 from the defaulting local bodies. On failure of the States/UTs, the States/UTs themselves have to pay the requisite amount of compensation to be deposited with the CPCB for restoration of environment. The Chief Secretaries of all the States may furnish their respective compliance reports as per directions already issued in O.A. No. 606/2018."

10. We confronted the Additional Chief Secretary present that justification forwarded by him was against the law of land and against earlier order of this Tribunal. No meaningful action was taken against persons who misappropriated funds and failed to prevent pollution inspite of clear directions of this Tribunal. Thus, he was liable to be proceeded against for such conduct. On time being granted for filing any further affidavit, following further affidavit has been filed:

"1 to 2. xxx.....xxx.....xxx

3. That soon after his joining he had reviewed the case and the concerned Urban Local Body was directed to ensure that proper Bio-Remediation of the 4 polluted drains is carried out. The assessment of these drains by the State Pollution Control Board after the process has shown considerable improvement in the BOD and COD levels.

4. The DPR for completion of the STP project and Interception & diversion work of the 4 drains is under advance stage of consideration for sanction by NMCG. A technical team of NMCG was to visit the site last month for the assessment of the condition of the existing infrastructure and finalization of the scope of work to be done, however this visit could not be accomplished due to the ongoing Covid-19 pandemic situation. The visit is being rescheduled in near future. The sanction of the project from NMCG is expected in 45 days.

5. That the undersigned undertakes to expedite the process of making the concerned STP fully operational within twelve months from the date of issuance of the Letter of Award by the UP Jal Nigam.

6. That the present Deponent assures the Hon'ble Tribunal to ensure effective action in pursuance of the FIR lodged at Pratapgarh against the erring Jal Nigam officers and Contractor firm- M/s Thermax Ltd. Chinchwad.

7. That the deponent prays for one last opportunity and a time of 2 months to expedite the whole process and comply with the previous order and I offer my unconditional apology for the delay in compliance due to ongoing pandemic situation.”

11. Thus, even after all possible opportunities, there is either inability to understand simple legal position or unwillingness to comply with the directions of the Hon'ble Supreme Court and this Tribunal out of defiance. Above statement shows that for making STP, which is said to have been 95% complete 11 years back, and allotted funds having been misappropriated, operation will require 12 months after award of work. There being no firm date of award of work, timeline given has no practical meaning. It is also not being delinked from NMCG. Thus, in effect the stand is that it will never be done as NMCG has no fixed commitment of providing funds sought within reasonable time. Already 11 years have gone by. In our view this is irresponsible behaviour of the officer who perhaps knows nothing about the value of environmental norms and effect of violation on public health, food safety, aquatic life and over-all environment. The river stretch is loaded with daily disposal of 8.5 MLD sewage effluent causing septicity of the river on account of high fecal coliform and BOD. In spite of mandate of the Water Act, 1974 and the judgement of the Hon'ble Supreme Court in *Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors*, supra, fixing deadline of 31.3.2018 for taking all necessary steps to ensure treatment of sewage before discharge in water bodies, there is no willingness of some officers to even take small step to prevent discharge of pollution in water sources and untenable excuses are raised. This attitude has led to large number of water bodies, including most revered river Ganga remaining polluted. As already mentioned, River Sai involved in the present case is also a tributary of Ganga. The stretch of river Sai between Unnao to Jaunpur is falling under category P-V. UP PCB has not provided feed-back to the OC on formulation of Sai Action Plan and functioning of RRC. Further, PCB has failed to provide water quality data of river Sai, as directed vide order dated 07.10.2020.

12. The above serious defiance may call for stringent action when violation of order of the NGT itself is criminal offence under Section 26 of the NGT Act, 2010 punishable with sentence upto three years and fine upto rupees ten crore. It is also executable as decree of Civil Court under Section 25 of the NGT Act read with Section 51(d) CPC, including by civil imprisonment.

13. Taking a lenient view in the matter and giving last opportunity for remedial action, factoring in the pandemic and the plea that the officer has been given this charge since February, 2021, but to uphold public interest and rule of law, we direct imposing of cut of Rs. 1,000/- per month from the salary of the officer till compliance, with further warning of more stringent action unless there is compliance and change in attitude towards compliance of law. If compliance is ensured and affidavit filed to

the satisfaction of this Tribunal before the next date, the Tribunal may consider restoring the cut and refunding the deducted amount. The Member Secretary, UP PCB may explain why action be not taken for failure of the PCB pointed out hereinabove – not providing water quality data of Sai, functioning of RRC and reporting the progress to the Chief Secretary. The PCB may also report further progress in the matter of recovery of compensation assessed and initiation of prosecution proposed.”

5. The State preferred Civil Appeal No. 2224/2021, *The State of Uttar Pradesh vs. T.S. Singh* and vide order dated 28.06.2021, the Hon’ble Supreme Court passed following order:

“Issue notice.

In view of the undertaking/additional affidavit filed by the petitioner, imposition of cost, as per paragraph 13 of the impugned order, is stayed, in the meanwhile.”

Consideration of the matter today

6. In pursuance of order of this Tribunal, the Additional Chief Secretary, Urban Development Department, UP has filed status report on 08.11.2021 mentioning some of the steps taken – inviting tender, action against the erring contractors/officials. The same is reproduced below:

“xxxxxx.....xxx

4. *That for timely construction and completion of the project, tender has been invited by the office of General Manager, Ganga Pollution Control Unit, UP Jal Nigam (Urban), Prayagraj and the tendering process is now nearing completion, The expected date of issuance of Letter of Award is **10.11.2021** and the construction of STP and tapping work of drains shall begin latest by **20.11.2021**. It is also submitted that the said project shall be completed by the end of October, 2022. A monthly progress report of the milestones achieved shall be submitted to the Oversight Committee, A true copy of the month-wise timeline of activities (Gantt Chart) is annexed herewith as ANNEXURE-C.*

5. *That as submitted in earlier reports, the department has initiated suitable action against the concerned firm and erring officials. It is submitted that the final order*

regarding blacklisting of the firm has been issued by U.P Jal Nigam (Urban) on 30-10-2021. A true copy of the final order regarding blacklisting of the firm "M/s Thermax Ltd., 9-community center, Basant Lok, Vasant Vihar, New Delhi-110057" is annexed herewith as ANNEXURE-D.

6. That in pursuance of the FIR lodged against the erring personnel of U.P Jal Nigam, the department has closely monitored the progress with Superintendent of Police, District-Pratapgarh and it has resulted in the arrest of one accused named Shri Rakesh Srivastava, A true copy of the letter to S.P. Pratapgarh for taking action in FIR is annexed herewith as ANNEXURE-E and a copy of the Police Report of S.P. Pratapgarh dated 02-11-2021, regarding current status of the case is annexed herewith as ANNEXURE-F.
7. That the Executive Officer of the concerned ULB is on deputation to the Department of Urban Development. As per rules, a duly prepared charge-sheet has been sent to the competent authority of the concerned parent department, i.e. D.G., Family Welfare, Lucknow along with a request to initiate disciplinary proceedings against the delinquent official, by the Director, Local Bodies vide letter dated 25-10-2021, A true copy of the said letter of recommendation for Action against the Executive Officer is annexed herewith as ANNEXURE-G.
8. That it is submitted that as per ATR submitted by the ULB, it has under taken interim measures for remediation of drains. A true copy of the ATR of ULB regarding interim measures of remediation is annexed herewith as ANNEXURE-H. It is submitted that the Chief Engineer, Directorate of Local Bodies is being sent to Pratapgarh next week to review the efficiency of the bio-remediation measures taken by the ULB and to suggest improvements therein.
9. It is respectfully submitted that the major concerns of the Hon'ble Tribunal have been taken care of by the Department of Urban Development and personal monitoring of the compliance has been done by the Additional Chief Secretary, Department of Urban Development, Government of U.P.

Additional Prayer:

It is humbly submitted by the deponent that the directions of the Hon'ble Tribunal have been accorded highest priority by the deponent and a sincere effort is being made by me to abide by all the directions in true letter and spirit.

It is most respectfully submitted that an endeavour has been made in the action taken report to cover compliance of all the directions mentioned in the last order. Further, it is prayed that this Hon'ble Tribunal may be pleased to set aside the directions regarding imposition of penalty of Rs. 1000/- per month from the salary of the officer. It is requested that the Hon'ble Tribunal may

kindly consider disposing of the petition in the light of this Status Report.”

7. The OC has filed reports dated 22.10.2021 and 08.11.2021 followed by latest supplementary reports dated 13.01.2022 and 21.03.2022. The said reports have found continued violations and recommended further action. Recommendations in the report dated 08.11.2021 are as follows:

“4. Recommendations

In view of the above we recommend as follows:

1. *As the funds has been allocated, the work order is about to be issue and a Gantt chart showing the timelines for the completion of various activities have been submitted, **the Urban Development Department may be directed to monitor the progress on monthly basis and submit the progress report to the Oversight Committee to ensure that works get completed in time.***
2. *From the list of the erring officials it is visible that the responsibility has been fixed only on those directly responsible for executing the project. **Had the supervisory officers done their job properly, the diversion could have been detected in time and it would have been possible to take departmental action against the erring officials. This would have also prevented the infrastructure created by spending about Rs. 15 crore of public money from remaining idle for such a long time. The Urban Development Department and Jal Nigam need to identify such supervisory officers in one month and take appropriate action against them in another 6 months.***
3. *Actions taken against the erring officers is for the misappropriation of funds only. However, these officers have also violated the Environmental Protection Act 1986. **The UP Government (Home & Urban Department) must ensure that the investigation is completed at the earliest and all culprits are taken to task under the full gamut of law.***
4. ***Monthly water quality reports of 7 months between February 2020 and October 2021 clearly suggest that bioremediation is not being done effectively to control water pollution of the river Sai. EO Pratapgarh need to be directed to ensure that the***

water quality of the drains discharging into the river Sai is within the permissible limits and the UPPCB needs to be directed to take prompt and effective action in case of non-compliance of environmental laws.

5. ***The Additional Chief Secretary Urban Development Department may be directed to coordinate the actions taken by various other Departments (such as Home Department and Environment, Forest and Climate Change Department) to ensure complete compliance the order of Hon'ble NGT through monthly monitoring of this case and a copy of the minutes of the meeting be sent to the oversight committee."***

8. Recommendations in the report dated 13.01.2022 are as follows:

"3. Recommendations

1. ***Urban Development Department, UP Government may be directed to release fund for operation and maintenance of the STP for 15 years.***
2. ***UPPCB may be directed to monitor water quality of the drains in which bioremediation is being done to ensure that they deliver only pollution free water in river Sai every month and submit a quarterly report to the oversight committee for onward transmission to the Hon'ble NGT."***

9. The supplementary report dated 21.03.2022 mentions compliance status and recommendations as follows:

"2. Compliance Status of UP Jal Nigam and Urban Development Department:

- a. ***The physical and financial progress of Interception and Diversion (I&D) Works and overhauling of existing STP work:***

- i. *In para 2 (a) of the report dated 13.01.2022 it was informed that till 04.01.2022 Rs. 1.1228 Cr has been spent completing 9.5% of the work on ground. Now it has been reported that till 15.03.2022 Rs. 2.0872 Cr has been spent completing 28% of the physical work.*

- b. ***Compliance status of the UPPCB***

In para 3 (1a) of the report dated 08.11.2021 the water quality of the untapped drains was provided till the month of October

2021. Now the water quality report of the untapped drains for the month of January, February and March has been submitted by the UPPCB. From the water quality report it emerges that post bioremediation the water quality has come within the permissible limits for all the parameters except the Total Coliform (TC) and Faecal Coliform (FC).

S. No.	Sampling point (Name of Drain)	Parameters recorded beyond permissible limit even after Bioremediation process						
		15.01.2022	22.01.2022	31.01.2022	09.02.2022	19.02.2022	25.02.2022	07.03.2022
1	Ramlila Maidan Drain	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC
2	Bhuliyapur Drain	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC
3	City Drain	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC
4	Police line drain	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC	TC, FC

c. Details of water quality analysis at Sai River U/s Gai Ghat (U/S) and D/s Railway Bridge (D/S) are as follows:

		pH	Colour (Hazen)	DO (mg/l)	BOD (mg/l)	Conductivity (mmho/cm)	TC (MPN/100ml)	Remarks- Designated best use
15.01.2022	U/S	7.98	10	6.9	4.4	0.435	7900	D
	D/S	8.17	10	6.3	4.8	0.513	7000	D
22.01.2022	U/S	8.33	10	7	4.5	0.501	4700	D
	D/S	8.46	10	6.4	4.9	0.571	4900	D
31.01.2022	U/S	8.38	10	6.9	4.5	0.553	4800	D
	D/S	8.58	10	6.5	4.8	0.605	4900	D
09.02.2022	U/S	8.21	10	6.8	4.4	0.398	4900	D
	D/S	8.36	10	6.5	4.9	0.419	7000	D
19.02.2022	U/S	8.12	10	7.0	4.2	0.423	7000	D
	D/S	8.29	10	6.4	4.9	0.493	7900	D
25.02.2022	U/S	8.49	10	6.9	4.3	0.412	7900	D
	D/S	8.63	10	6.3	4.9	0.486	9200	D
07.03.2022	U/S	8.01	10	6.8	4.5	0.398	7900	D
	D/S	8.30	10	6.5	4.9	0.419	9200	D

The results of the water quality analysis of the river Sai indicates that the water quality of the river is designated not suitable for consumption without conventional treatment and disinfection. Also, it is not suitable for outdoor bathing. Only propagation of wildlife and fisheries could be done in the Sai River. The water quality parameters such as pH, BOD, Conductivity and TC has increased and DO has decreased post confluence of the four bio-remediated drains. The colour has not changed post confluence of the drains. From the water quality analysis it may be inferred that the confluence of the four bio-remediated drains is slightly deteriorating the water quality of the Sai River. Thus, other sources of the pollution in the U/S of Gai Ghat region should be identified by the UPPCB and actions may be taken to treat all the identified sources of pollution.

3. Recommendations

- 1. Urban Development Department may be directed to monitor the bioremediation works done by the Nagar Palika Parishad Pratapgarh as they are still not able to achieve the desirable results as TC and FC were recorded beyond the permissible limits. On priority, they must ensure that TC and FC should also be within the permissible limits post bio-remediation.**
- 2. UPPCB may be directed to identify other sources of the pollution in the U/S of Gai Ghat region which are resulting in poor quality of the Sai River. UPPCB must ensure all the identified sources of pollution should be tapped and treated to prevent any discharge of pollutants into the river.**
- 3. The Urban Development Department and Nagar Palika Parishad Pratapgarh should also be directed to estimate the future increase in the population and quantify the subsequent sewage generation in the Nagar Palika. Based on these estimates they must work on making provisions to deal with the growing future needs for treating the sewage to prevent occurrence of any such situation in the future.**

Finding and Direction

10. We have heard the Additional Chief Secretary, Urban Development Department, UP present in person with Counsel and also considered the reports on record. It is seen that water quality is not compliant with the norms and water pollution is still continuing, calling for further remedial action, as recommended by the OC. Mere giving of tender is not enough compliance when timeline fixed by the Hon'ble Supreme Court has expired. Accountability in terms of order of Hon'ble Supreme Court, quoted in para 4 above, is of Secretaries to the Govt. which has not been fixed. PCB under the said orders is to initiate prosecution which has not been done for crossing the timeline as well continuing failure. Let such follow up action in terms of directions Hon'ble Supreme Court be taken at the earliest.

11. There is no objection to the reports filed by the OC which are based on undisputed facts and in line with directions of Hon'ble Supreme Court. Thus, we accept the same and direct further remedial action by the State Authorities. During interaction, we have conveyed to the Additional Chief Secretary, Urban Development Department that similar water pollution mainly due to failure to treat sewage is continuing not only at Pratapgarh but also in other parts of the State which needs to be controlled by a suitable action plan and monitoring by the Urban development Department so as to comply with the directions of the Hon'ble Supreme Court in Paryavaran Suraksha, supra. In these circumstances prayer for deleting direction for imposing cut on the salary in terms of order dated 09.06.2021 cannot be accepted at this stage. Since stay granted by the Hon'ble Supreme Court is operating, the said direction will abide by further orders of the Hon'ble Supreme Court.

12. There is need for proper planning for sewage management. Strategies in this regard can differ depending upon availability of space and quantity of sewage to be treated. While in rural areas, the utilization of treated sewage can be explored for agricultural purpose after requisite treatment. In urban areas, the same can be used for industrial purposes in coordination with the industries and other bulk users. Such planning will help in saving drinking water for drinking purposes. This aspect has been considered by the Tribunal vide order dated 09.03.2022 in OA No. 29/2020(WZ), *Suraj Pradip Ajmera vs. Aurangabad Municipal Corporation* as follows:

“10. During the hearing, suggestion has emerged that an interaction be held at the level of Chief Secretary, Maharashtra with inclusion of Secretary, Urban Development, Maharashtra and Technical Experts

as may be decided by them including from IIT, Bombay, Regional Officer, CPCB and Member Secretary, State PCB to consider possibility of laying pipeline upto the industrial area for transporting treated sewage to the industrial areas so that the same can be utilized for industrial purpose. Industries Association may be associated in the project of sewage treatment and can bear a part of the cost out of Corporate Social/Environmental Responsibility, depending upon the financial capacity of the member industries. This may result in a permanent and long-lasting cheaper solution. If successful, this experiment may be tried appropriately at such other locations in the State as found appropriate and also customized different locations. The Committee may also study such models elsewhere in the country which reportedly have been successful. The Committee may also consider any other viable strategies for sewage treatment and interception and diversion of sewage, use of appropriate effective and economical technology, making group housing societies Zero Liquid Discharge (ZLD) by recycling treating sewage, after treatment in decentralized manner and utilizing the treated sewage for horticulture, flushing, cleaning or other non-drinking purposes. This strategy may help in augmenting availability of potable water particularly in drought affected areas of Aurangabad Region in Maharashtra where potable water had to be transported by trains in the past. The Secretary, Urban Development may act as nodal agency who may call for a meeting within one month.”

13. As already noted, Sai River is one of the identified polluted river stretches for which action plan has been prepared by the River Rejuvenation Committee (RRC) in the State of UP constituted under order of this Tribunal dated 20.09.2018 in OA 673/2018, *News Item Published In ‘The Hindu’ Authored By Shri. Jacob Koshy Titled “More river stretches are now critically polluted: CPCB”*. Execution thereof needs to be ensured.

14. The status report filed by the ACS mentioned that interception of the drain will be completed by October, 2022. However, quantity of sewage generation and capacity of STP ensure 100% household connectivity is not clear. There is also no mention of plan to utilize treated sewage as per action plan for restoration of Sai polluted river stretch from Unnao to Jaunpur, reveals that, 76 villages contribute 17.94 MLD of sewage reaching to the river. In Raebareli, there are 4

drains discharging 9 MLD of sewage. Thus, efforts will be required with the object of maintaining water quality at least of class 'B'. Since, funding proposals are received from NMCG, NMCG and CPCB, alongwith the PCB and Jal Nigam may ascertain factual status while continuing the remedial work. If bioremediation is not giving desired results, NMCG and CPCB may consider viable alternative.

15. Let further action taken report giving the compliance and water quality status as on 30.06.2022 be filed by the Additional Chief Secretary, Urban Development Department, UP by 15.07.2022 with a copy to the OC. The OC may give its own report by 30.07.2022 by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. The report may specify data of Pratapgarh and also other towns in the area like Raebareli and Jaunpur. CPCB and NMCG with assistance of PCB and Jal Nigam may give factual status report. CPCB will be nodal agency for the purpose.

List for further consideration on 17.08.2022.

A copy of this order be forwarded to Justice SVS Rathore, former Judge of the Allahabad High Court at Lucknow, CPCB, NMCG, State PCB and UP Jal Nigam by e-mail.

IA No. 199/2021

This application has been filed by Thermex Limited for being impleaded as a party on the ground that UP Jal Nigam has taken coercive measures against the said company for its failure to perform as per contract. Merely because the issue of water pollution is being considered by this Tribunal cannot be a ground for this Tribunal to go

into the inter-se dispute between the company and UP Jal Nigam. The application cannot be entertained without prejudice to any remedy being taken at any appropriate forum in accordance with law. IA No. 199/2021 is disposed of accordingly.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Arun Kumar Tyagi, JM

Prof. A. Senthil Vel, EM

Dr. Afroz Ahmad, EM

March 29, 2022
Original Application No. 490/2019
(I.A. No. 199/2021)
DV