

Item No. 09

(Court No. 1)

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

(By Video Conferencing)

Original Application No. 102/2021

Acharya Damodar Shastri & Anr.

Applicant(s)

Versus

Union of India & Ors.

Respondent(s)

Date of hearing: 17.12.2021

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

Applicant: Mr. Akash Vashishtha, Advocate

ORDER

1. Grievance in this application is against failure of the State Authorities in preventing discharge of untreated sewage and waste water/effluents from Vrindavan and Kosi towns in river Yamuna and Kosi drain near Sunrakh. The applicants have stated that two STPs at Pagal Baba (4 MLD) and 100-bed hospital (8 MLD) are inadequate to deal with nearly 20 MLD of wastewater generated from the Vrindavan town alone (excluding the Kosi drain). Sewage generated from illegal and unauthorized colonies remains untreated. Constructions on the riverbed and floodplains with active collusion of land mafia/realtors and the government agencies and their officers in the form of houses, ashrams, car parkings and shops etc. are continuing unabated which are discharging their sewage/wastewater directly into the river Yamuna. Most

of the sewer lines and storm drains in Vrindavan remain choked with silt and wastes of all kinds. As a result, waste water is constantly overflowing from the drains on to the roads, lanes and points near the temples and other places of significance. The water quality analysis conducted by the UP Pollution Control Board of the river Yamuna in Vrindavan for January 2021, recorded the BOD levels at 6.2 mg/lit, almost double the maximum permissible levels of up to 3 mg/lit. The Total Coliform was detected to be 68000 MPN/100 ml, about 136 times higher than the maximum allowed levels of 500 MPN/100 ml. The Fecal Coliform was measured to be 31000 MPN/100 ml, about 12.4 times higher than the maximum permissible levels of 2500 MPN/100 ml. The National Mission for Clean Ganga erroneously stated in the letter dated 23.07.2020 that the work of the sewerage has been completed. The State Pollution Control Board has failed to perform its duties to prevent, control and abate pollution in Vrindavan under Section 17 of the Water (Prevention and Control of Pollution) Act, 1974. The act of allowing illegal constructions on the Yamuna floodplains and the discharge of untreated sewage/wastewater and industrial effluents into the storm water drains and then further in river Yamuna violates the judgment, dated 13.01.2015, passed by this Hon'ble Tribunal in *Manoj Misra v. Union of India (O.A. 6 of 2012 and O.A. 300 of 2012)*. Despite specific directions of this Hon'ble Tribunal, vide Order dated 27.01.2021 to the Chief Secretary, UP, the Central Monitoring Committee headed by Secretary, Jalshakti and the River Rejuvenation Committees of UP to remedy the polluted stretches of Yamuna, remedial action is not being taken.

2. Vide order dated 20.05.2021, the Tribunal considered the matter. After referring to order of this Tribunal dated 27.01.2021 in *O.A. No. 06/2012, Manoj Misra v. Union of India*, the Tribunal directed Chief

Secretary, UP, with the assistance of concerned officers, to look into the issue and review the remedial action in pursuance of directions in the order of this Tribunal dated 27.01.2021 as well as judgment of the Hon'ble Supreme Court in *Paryavaran Suraksha Sammiti v. Union of India & Ors.*¹ The Tribunal also requested the Monitoring Committee constituted by this Tribunal for monitoring compliance of environmental norms in the UP, headed by Justice SVS Rathore, former Judge of the Allahabad High Court at Lucknow, to look into the matter and give its independent report of the compliance status as on 30.09.2021.

3. In pursuance of above, the Monitoring Committee headed by Justice SVS Rathore, former Judge of the Allahabad High Court at Lucknow has filed its report on 15.12.2021 giving the compliance status and its observations and recommendation as follows:-

“.....

3.1 Current sewage generation and available treatment capacity: Sewerage & Drainage Unit U.P Jal Nigam had informed that estimated sewage generation by the year 2025 is 110.19 MLD, and actual sewer generation at present is around 77.42 MLD. There are total 36 drains in Mathura and Vrindavan. Total Number of tapped drains and treatment capacity available is as follows:

S. No.	Name of STP	Capacity in MLD	Name of drain tapped
1	Pagal Baba, Vrindavan	4	There are total 12 drains out of which 11 drains are tapped namely Ranapat Ghat Nala, Rajpur Nala, Banshibat Nala, Kesi Ghat Nala, Rangji Ka bagicha Nala, Jagannath Ashram Nala (Merged of Gyan Gudari Nala, Maladhari Nala, Municipal Nala), Gaura Nagar Nala (Merged of C.F.C. Nala), Bhora Ghat Nala, Cheer Ghat Nala, Bihar Ghat Nala (Merged of Jugal Ghat Nala, Jangli Katti Nala, Suraj Ghat Nala) and Kalideh Nala with these STPs
2	Maant Road, Vrindavan	6	

¹ (2017) 5 SCC 326

			except for Chaitanya Vihar Drain (Sunrakh Drain)
3	Laxmi Nagar, Mathura	14.5 and 16	There are total 23 drains out of which 8 drains are tapped namely Gaughat nala, Chintaharan Nala, Rani Ghat Nala, Swami Ghat Nala, Askunda Ghat Nala, Vishram Ghat Nala, Bangali Ghat, and Dhruv Ghat Nala.
	Total	42.5	

3.2 Untapped and partially tapped drains: The status of bio-remediation work being carried out on 17 untapped drains by Mathura Vrindavan Municipal Corporation are as follows:

S. No.	Name of Drains	Flow (MLD)	Length of drains (Km)	Steps taken for tapping of drains	Installation date of bioremediation	Remarks
1.	Kala Pathar Nallah, Mathura	4.5	5	No fund has been released so far. A PFR amounting Rs.319.49cr for construction of 48 MLD STP has been sent to NMCG vide letter no.961/0-628ST/SMCG-UP/01 dated 18.09.2020.	10/12/2020	Water quality (BOD, COD, pH, TSS) analysis of drains namely Jaisinghpura Nala, Masani Nala, Ambakhar Nala, Satrangi Nala, Mahadev Ghat, Dairy farm nala, Aurangabad Nala (U/S), Aurangabad (D/S), Kala pathar nala, Chaitanya Vihar nala was found far beyond the permissible limit except for pH on 01.12.2020 and 21.01.2021. On 24.02.2021 and 22.03.2021, BOD was still beyond the permissible limit and TSS and COD was within the
2.	Aurangabad Downstream Nallah, Mathura	1.92	4.2		12/11/2020	
3.	Aurangabad Upstream Nallah, Mathura	1.41	6		12/11/2020	
4.	Ambakhar Nallah, Mathura	20	28.6 (As per UPPCB records it was 6 Km but at present situation it has been extended much)		10/12/2020	
5.	Chataniya Vihar, Vrindavan	2.58	3.4		14/12/2020	
6.	Sadar Bazar Nallah Mahadev Ghat, Mathura	1.31	3.2		29/11/2020	
7.	Satrangi Nallah, Mathura	0.74	4.8		29/11/2020	
8.	Dairy Farm,	0.17	6.2		13/12/2020	

	Mathura			far.		permissible limit except for Ambakhar nala. On 22.03.2021 all the parameters were within the permissible limit except for BOD for all the locations and TSS for Ambakhar nala. On 22.04.2021, BOD was beyond the permissible limit for all the drains sampled. However, TSS, pH and COD were within the permissible limit
9.	Cant Nallah, Mathura	2.29	5.5		30/06/2021	
10.	Masani Nallah, Mathura	10.02	28.4	The drains will be connected to the STP of 30 MLD under Construction at Masani through pumping station. No compliance report has been submitted so far.	31/12/2020	
11.	Jaisinghpura Nallah, Mathura	1.17	5.4		01/12/2020	
12.	Chakratirath, Mathura	0.79	2.0		30/06/2021	
13.	Krishan ganga, Mathura	0.36	1.5		30/06/2021	
14.	Octroi Post, Mathura	1.95	1.6		30/06/2021	
15.	Shahganj, Mathura	0.88	1.5	30/06/2021		
16.	Rajpur Khadar Mathura	0.16	4.0	No information was provided	30/06/2021	
17.	Gaura Nagar	3.08	3.5	No information was provided	30/06/2021	
	Total	53.33				

3.2.1 Chata Town and Kosi Town: The action taken by Sewerage & Drainage Unit of U.P Jal Nigam to tap the domestic flow from Kosi & Chata town being discharged into the Kosi drain are as follows:

- a. Domestic flow of 14 drains of Chatta town falls into Kosi drain. For treating flow of 14 Drain I&D (Intersection and Diversion) and PFR amounting Rs.97.56cr for construction of 6 MLD STP has been sent to NMCG, New Delhi by SMCG, Lucknow vide letter no.524/0628/SMCG-UP/04 dated 18.06.2021. Post Confluence of domestic flow from Chatta town with the Kosi drain bioremediation work was done till June 2021 by M/s BioXGreen Technology. However since July 2021 the bioremediation dozing had not been done due to rainy season. Bio-remediation work has resumed from Oct 2021. Apart from these major sources of domestic sewage, the domestic sewage being discharged from the nearby villages is also getting discharged into the Kosi drain. The farmers in that region are using water from the Kosi drain and nearby Agra irrigation canal to irrigate their farmlands. The Kosi drain receives the overflow from the nearby farmlands.

b. Nagar Palika Parishad, Kosi is discharging 9MLD domestic untreated waste through 1 drain into the Kosi drain. For treating flow of 1 Drain I&D (Intersection and Diversion) and PFR amounting Rs.76.28cr for construction of 10.5 MLD STP has been sent to NMCG, New Delhi by SMCG, Lucknow vide letter no.961/0-628ST/SMCG-UP/01 dated 18.09.2020.

c. Nagar Panchayat Raya, is discharging 4 MLD of untreated domestic sewage through 14 small drains into the Kosi drain.

3.3 Water Quality of drains

3.3.1 The water quality analysis of the drains post bio-remediation work was done on different dates. Results of these analyses are as follows:

S. No.	Location	Water quality parameters noted beyond the permissible limits.					
		19.4.2021	30.4.2021	19.5.2021	01.6.2021	22.6.2021	26.7.2021
1	Main Drain new post office Kosi Kalan	--	--	--	BOD	--	BOD
2	Ram Nagar Drain near Kali Mandir	--	--	--	BOD	--	BOD
3	Kosi drain before meeting Yamuna river	BOD	BOD	All the parameters were within the permissible limits	--	All the parameters were within the permissible limits	--

The quality of water post bioremediation was sought for all the drains falling into the Kosi Drain from UP Jal Nigam and UPPCB. However, no details were provided by them. During the meeting dated 09.08.2021 it was informed that an inspection is scheduled to be conducted by RO Mathura along with Scientific Assistant and Assistant Environment Engineer on 26.08.2021. The water quality analysis results of the samples collected on the day on inspection are still awaited in spite of multiple reminders.

3.4 Details of main industrial units discharging their effluents into the Kosi drain: The drain receives industrial discharge post treatment from UPSIDC's Kotwan Industrial area and from industries situated on the side of NH-2 (Delhi-Agra highway) through underground pipeline. There are total 12 industrial units discharging 5775 Kl/day effluents into the Kosi drain. Out of these 12 units 2 units are non-operational i.e. M/s Swarn Tax Printers PVT (unit is close since January 2020) and M/s Raghav Fabrics (UPPCB had issued closing order). Details

are provided in Annexure 2. Details of Industrial waste water analysis report is as follows:

Name of Industrial drain	Date of sample collection	Remarks
ETP of DAAN Ghati Mandir, Goverdhan Mathura	19.07.2021	All the parameters were within the permissible limits.
ETP of Mukut Mukhar Bindu Mandir Jatipura, Goverdhan, Mathura	19.07.2021	All the parameters were within the permissible limits.
Kosi drain-Chhata	29.04.2021	All the parameters were within the permissible limits except for BOD.
Kosi drain Industrial drain outlet	29.04.2021	All the parameters were within the permissible limits except for BOD.
Kosi drain Vrindavan-1 Km upstream of Final R notch	29.04.2021	All the parameters were within the permissible limits except for BOD.
Final R notch	29.04.2021	All the parameters were within the permissible limits except for BOD.

Detailed report is provided in Annexure 3.

- 4. Observations of the Chairman Oversight Committee on physical inspection of the remedial works:** The Chairman Oversight Committee-NGT had inspected some of the untapped drains along with Kosi drain in Mathura, Vrindavan on 12.10.2021 and 13.10.2021. It was found during the inspection that work of Bioremediation and Phytoremediation of 16 drains is being done by M/S Nextgen Info World Private Limited. They are using Aquantrin chemical which is a product of "Nualgi" and it is an ITTR approved chemical for this purpose. On one drain phytoremediation work was also being done on experimental basis. Observations in the inspection note are as follows:

4.1 Aurangabad Downstream Drain: Bioremediation is being done at one point only. Phytoremediation is being done at the point where drain meets river Yamuna. It was informed that the company had placed several floating beds but due to recent flood, most of them are missing. However, at the time of inspection, 4 floating beds were present with plantation in it. Plantation has also been planned at both the banks of the drain. It was informed that water quality has improved post treatment. It appears from the bare look of the condition of the plants in the floating bed that the same have been planted recently. May be that the earlier plants might have been damaged in the floods because condition of the plants on the banks of the drain gives rise to such an inference'.

4.2 Aurangabad Upstream Drain: Bioremediation dosing is being done at one point. It was informed that water quality

had improved post treatment. No foul smell was coming from the drain during inspection.

4.3 Chataniya Vihar Drain: In this drain the Kosi drain merges. At the time of inspection some foul smell was there. On spot one employee was picking up floating waste with the help of a net tied with a bamboo. Representative of the company Dr Kalpana Arora told me that due to this picking up of the floating waste, the foul smell is coming. However, none present there made any complaint that this foul smell is a permanent feature.

4.4 Dairy Farm Drain: Dosing work is being done in this drain at one point only. It was also informed that daily one litre chemical is mixed in a big white plastic tank and this tank is sufficient to dose for 24 hrs. I was informed that the water quality has improved a lot. No foul smell was coming from the drain

4.5 Rajpur Khadar: Bio-remediation and phytoremediation work is being done on this drain. It was informed that flow of this drain shall be diverted to 8 MLD STP at Maant road.

4.6 Two domestic drains of Kosi town: Both were small drains and bioremediation work was being done in the same manner. In all the small drains, bandha was also made by placing the sand bags. At some places dosing work was being done by jetting. Direction was given to the authorities concerned to remove the deposited waste on the sides of the drain without further delay otherwise it will obstruct the smooth flow of drain after some time.

4.7 Kosi Drain: During the inspection it was observed that there were three water channels were present. 1st was a Rajbaha (sub canal), parallel to it was Agra irrigation Canal and thereafter there was Kosi drain. At the time of inspection of Kosi drain, there was almost no water in the drain.

4.8 Water quality analysis results of water samples collected on 13.10.2021 from M/s Ginni Filaments Ltd. Post ETP treatment at the time of inspection of Mathura Vrindavan Municipal Corporation indicates that all the parameters analyzed namely Colour, pH, Total Suspended Solids, Biochemical Oxygen Demand, Chemical Oxygen Demand were within the range. Water quality analysis results of water samples collected on 12.10.2021 from Kosi Drain near Sunrakh before meeting Yamuna River indicates colour was turbid, there was no specific odour, pH was 7.8, Suspended Solids were 68 mg/l, BOD was 40 mg/l and COD was 160 mg/l. Both BOD and COD were beyond the permissible limit in this sample. Water quality analysis results of water samples collected on 13.10.2021 from Kosi drain before meeting Industrial drain Kosi Kotwan near Kotwan-Hatana Road Bridge indicates slightly turbid coloured, no specific odour, pH was 7.6, Suspended Solids

were 57 mg/l, BOD was 34 mg/l and COD was 128 mg/l. BOD was beyond the permissible limit in this sample.

- 4.9** *The water quality of river Yamuna U/s Vrindavan, Mathura and D/s Vrindavan, Mathura was analyzed on 09.11.2021. The results of water quality analysis of U/s Vrindavan, Mathura indicate that sample colour was 20 Hazen (slightly yellow), it had unpleasant odour, temperature was 22 °C, pH was 7.6, DO was 5.3 mg/l, BOD was 9.2 mg/l, COD was 36 mg/l and Chloride was 142 mg/l. The results of water quality analysis of D/s Vrindavan, Mathura indicate that sample colour was 20 Hazen (slightly yellow), it had unpleasant odour, temperature was 22 °C, pH was 7.5, DO was 4.2 mg/l, BOD was 10.4 mg/l, COD was 40 mg/l, and Chloride was 154 mg/l. The comparison of water quality in downstream to upstream indicates an increase in BOD, COD and Chloride concentration in the downstream region. Decrease in concentration of Dissolved Oxygen and pH was observed in the downstream region.*
- 4.10** *Again to analyze the water quality, samples were collected on 17.11.2021 from Kosi drain before meeting Yamuna River Vrindavan. The results of the water quality analysis indicate that sample colour was turbid, the sample smells unpleasant, pH was 8.1, Suspended Solids were 86 mg/l, BOD was 46 mg/l, COD was 176 mg/l. BOD was recorded beyond permissible limit.*
- 4.11** *ETP of Ginni Fillament factory: During the inspection it was informed that for certain reasons, several industries were closed. At present, all the running industries are having their own ETPs. The Chairman inspected the ETP of Ginni Fillament factory reported to be the biggest industry of Kosi. It was informed by the representative of the company that they maintain zero liquid discharge. They are treating their treated water further in a big RO plant at three different levels with the help of three different but interconnected machines. They had installed meter at the exit point which was showing the TDS of the treated water. At the time of inspection TDS was around 50 mg/l. It was also informed during the inspection that out of total treated water 40% is reused in the factory and some water is being used in the agricultural land of the company which is situated adjacent to the factory. If in case there is still some left over treated water is there then only it is discharged through drain. In the ETP, inflow and outflow meters are fixed and at the end point, there is a panel which shows the quality of the water that comes out after treatment. All the parameters that were displayed were within permissible limits.*
- 4.12** *Best Practice-Waste Plastic to Fuel Plant: RO Mathura, UPPCB, during the inspection informed that one Peterson Company has started a plant that converts waste plastic into fuel. In the process waste plastic is collected through rag pickers and by other means, thereafter it is cleaned*

and shredded. After that it is heated at high temperature and then compressed. The result of the compression is that oil comes out of it and only carbon is left which is used as fuel.

Water quality analysis reports are annexed as Annexure-4. Detailed inspection report is annexed as Annexure-5.

5. Recommendations

In view of the above, we recommend as follows:

- 1. The water quality report received from RO, Mathura regarding the samples taken from upstream and downstream of River Yamuna at Mathura Vrindavan highlights that **the quality of water in downstream is poorer than that of upstream indicating clearly that the drains falling in River Yamuna in this span is the cause of the deterioration in water quality. It also suggests that the process of bio/phytoremediation is not efficient enough to treat the pollutants to permissible limits.** Concerned authority may be directed to ensure that the bio/phyto remediation works should be done properly to maintain the water quality within the limits.*
- 2. The flow in the drains is also varying very erratically from 0.32 MLD to about 319 MLD. The Committee is of the view that in normal case the amount of sewage received into the drains from households and industrial drain should be more or less the same. The RO, Mathura informed that the excess flow is due to the discharge into the drain from the nearby canal when it over flows. The Committee feels that during April and May the chances of excess water in the irrigation canal are very remote. Therefore, extracts of the logbook of the canal discharge details as maintained by the Irrigation Department should be presented by the RO, Mathura to the Hon'ble NGT with a copy to this Committee explaining the excessive flow in the drain during these months or if there are other reasons, then he should bring them forth in his report.*
- 3. **The State Government should be directed to provide adequate funds for these projects on priority basis immediately.** At the state level there are mechanism for monitoring the progress of such projects by the River Rejuvenation Committee and monthly review meeting of the Chief Secretary, Uttar Pradesh. **The UPPCB should be directed to comply with the direction of the Hon'ble NGT for imposition of EC in case of non-compliance and also to present the water quality report of River Yamuna in meetings of the River Rejuvenation Committee and the Chief Secretary taken every month.***
- 4. It may be directed that MVDA must conduct a plantation drive on the land area cleared from the encroachments so that the*

same is not encroached again. It should promote plantation of native and fruit bearing varieties.

5. The plastic to oil technique can be a useful technique in managing the plastic waste. The Committee is of the view that it may be replicated in other districts also.”

4. The applicant has filed a response to the above is as follows:-

“6. That the Applicants herein seeks to place Photographs, dated: 16.12.2021, of the polluted Kosi drain which is discharging the entire sewage and effluent load directly into the Yamuna River in Vrindavan, along the Parikrama stretch, in front of the Madan Mohan Temple.

(Photographs, dated: 16.12.2021, with GPS locations of the Kosi drain discharging the entire sewage and effluent load directly into the Yamuna River in Vrindavan are annexed herewith and marked as ANNEXURE A-1)

7. That the drains near Chir Ghat and Kesi Ghat are also further not fully intercepted and sewage is seen falling into the Yamuna on several occasions and during night.

8. That the Report of the Ld. Oversight Committee also fails to take into account the Akroor Drain, falling into the Yamuna, situated upstream of the Kesi Ghat. The Applicants seek to place photographs of the Akroor Drain before this Hon“ble Tribunal.

9. That owing to scarce intervening period of the date of filing of the said Report and the listing of the present matter, the Applicants could not physically inspect the area and ascertain other parts of the Report.

10. That the illegal and unauthorized constructions and encroachments on the riverbed and floodplains of the Yamuna in Vrindavan are constantly discharging untreated sewage and effluents into the river and indulging in waste dumping thereon. One of such illegal and unauthorized structures Krishna Kutir Gaushala, situated on the floodplains of Yamuna is perpetually discharging its sewage and dumping waste on the floodplains.

(GPS Photographs of the Krishna Kutir Gaushala, situated illegally on the floodplains of Yamuna, showing discharge of its sewage and waste dumping by it on the floodplains is annexed herewith and marked as ANNEXURE A-2)

11. That the demarcation of Floodplains, in accordance with the „River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016, under the Environment (Protection) Act, 1986, an important constituent in securing the River, also fails to find mention in the Report of the Ld. Oversight Committee.”

5. From the above, it is seen that pollution is continuing and steps taken are inadequate to remedy the situation. The Committee has recommended further action to prevent discharge of untreated sewage effluents in the drains connecting river Yamuna which is a cause of deteriorated water quality and treatment of plastic waste. The State authorities have to ensure availability of necessary funds. The Mathura Vrindavan Development Authority (MVDA) has to undertake plantation drive and also take steps to clear encroachments. Grievance of the applicant including about discharge in Akroor Drain needs to be looked into.

6. Accordingly, we accept the report of the Oversight Committee and issue directions in terms of recommendations in the report. We further direct that suggestions of the applicant be duly considered. There is also need to monitor performance of STPs with reference to fecal coliform and utilizing treated effluents for secondary purposes. Designed capacity of STPs including facility for septage treatment may also be duly utilized. NMCG may take decision on the projects referred to it by the State of UP as per applicable norms particularly on the subject of degraded river stretch downstream Agra. Compliance may be monitored by Chief Secretary, UP in coordination with other State Authorities which may also be overseen by the Monitoring Committee constituted by this Tribunal. MVDA may also take necessary measures, including preventing pollution, removal of encroachments and undertaking adequate plantation.

The application is disposed of.

A copy of this order be forwarded to NMCG, MVDA, Chief Secretary, UP and State PCB by email for compliance.

A copy of this order be also forwarded to Justice SVS Rathore,
former Judge of the Allahabad High Court at Lucknow by e-mail.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. Nagin Nanda, EM

December 17, 2021
Original Application No. 102/2021
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