Corrected on 26.09.2020

Item Nos. 01 to 03 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 593/2017

Paryavaran Suraksha Samiti & Anr. Applicant(s)

Versus

Union of India & Ors. Respondent(s)

WITH

Original Application No. 673/2018

In Re: News item published in "The Hindu" authored by Shri Jacob Koshy, titled "More river stretches are now critically polluted: CPCB"

WITH

Original Application No. 829/2019

Lt. Col. Sarvadaman Singh Oberoi Applicant(s)

Versus

Union of India & Ors. Respondent(s)

WITH

Original Application No. 148/2016

Mahesh Chandra Saxena Applicant(s)

Versus

South Delhi Municipal Corporation & Ors. Respondent(s)

Date of hearing: 21.09.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

ORDER

I. Original Application No. 593/2017

Review of proceedings before the Tribunal

1. Proceedings in this matter are a follow up of the judgment of the Hon'ble Supreme Court dated 22.02.2017 in **Paryavaran Suraksha Samiti Vs. Union of India**[1], which mandates establishment and functioning of requisite ETPs/CETPs/STPs by 31.3.2018 and in default, to take coercive measures. This Tribunal has been mandated to monitor compliance. The pertinent directions therein are:

> "***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 purpose of generating***

[1] (2017) 5 SCC 326

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.*"***

(emphasis supplied)

2. The matter has been dealt with earlier, in light of status reports about the gaps in waste generation and treatment, and requisite number of treatment plants. Notices were issued to all State/UT PCBs/ PCCs, and status reports sought. The CPCB was directed to prepare an action plan for compliance of the order of the Hon'ble Supreme Court, monitor execution and file quarterly reports before this Tribunal and also upload the same on its website. Penal action was to be taken for failure in compliance of the orders of the Hon'ble Supreme Court by way of recovery of compensation and other coercive means. Orders passed by this Tribunal earlier include those dated 25.05.2017, 03.08.2018, 19.02.2019, 28.08.2019 and 21.05.2020.

3. It may be noted that the Tribunal is also simultaneously considering overlapping issues in several matters, including:

- **O.A. 673/2018**: remedial action for 351 identified polluted river stretches. **This matter now is, and will henceforth be, reviewed together with the present matter**.
- **O.A. 829/2019**: issue of coastal pollution on account of discharge of untreated effluents/sewage. *This matter now is reviewed together with the present matter, and will stand disposed of in terms of directions herein.*

- **O.A. 148/2016**: management of sewage treated water is involved. *This matter now is reviewed together with the present matter, and will stand disposed of in terms of directions herein.*
- **O.A. 1038/2018**: 100 identified polluted industrial clusters, in which the water pollution is caused mainly by discharge of untreated sewage/effluents.
- **O.A. 606/2018**: monitoring compliance of Solid and Liquid Waste Management, including river pollution. **The Tribunal interacted with Chief Secretaries of all the States/UTs, who appeared, in person, with progress reports on significant environmental issues**. They were directed to personally monitor ongoing compliance at least monthly through dedicated cells.

4. Further, in O.A. 673/2018, the Tribunal directed constitution of **River Rejuvenation Committees (RRC)** in all the States/UTs, headed by Chief Secretaries, to prepare and execute action plans for restoration of the polluted river stretches. The action plans envisage prevention of discharge of untreated effluents/sewage. Apart from O.A. 673/2018, which deals with the rejuvenation of 351 river stretches generally, the Tribunal is considering remedial action for control of pollution of certain rivers separately, under Supreme Court directions, or otherwise[2].

[2] These include (not an exhaustive list):
- M.C. Mehta V. UOI **O.A. No. 200/2014** (pollution of **Ganga**), see also 2017 NGTR (3) PB 1
- Manoj Mishra V. UOI, **O.A. No. 06/2012** (pollution of **Yamuna**)
- Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case) **O.A. No. 138/2016** (TNHRC) (pollution of river **Ghaggar**)
- Mahendra Pandey V. UOI & Ors. **O.A. No. 58/2017** (river **Ramganga**, a tributary of river Ganga)
- Sobha Singh & Ors. V. State of Punjab & Ors. O.A. 916/2018, and **O.A. No. 101/2014** (rivers **Sutlej and Beas**)
- Amresh Singh V. UOI & Ors. **O.A. No. 295/2016, Execution Application No. 32/2016** (rivers **Chenab and Tawi**)
- Nityanand Mishra V. State of M.P. & Ors. **O.A. No. 456/2018** (river **Son**)
- Doaba Paryavaran Samiti V. State of U.P. &Ors. **O.A. No. 231/2014** (river **Hindon**)

5. Whilst not necessary to refer to all previous orders, we start with the Tribunal's order of **28.08.2019**, **wherein for the first time, the Tribunal set up a compensation regime for default.** The Tribunal considered the CPCB reports dated 30.05.2019, 19.07.2019 and 14.08.2019 with compiled status of setting up of ETPs/ CETPs/STPs and methodology for assessment of environmental compensation. The Tribunal noted that **deficit in capacity of liquid waste treatment was 62 percent which was the major source of polluting rivers and water bodies**. In the said order, the following directions were issued:-

> ***"****21. We may now sum up our directions:*
>
> *(i) The Environmental compensation regime fixed for industrial units, GRAP, solid waste, sewage and ground water in the report dated 30.05.2019 is accepted and the same may be acted upon as an interim measure.*
>
> *(ii) SPCBs/PCCs may ensure remedial action against non-compliant CETPs or individual industries in terms of not having ETPs/fully compliant ETPs or operating without consent or in violation of consent conditions. This may be overseen by the CPCB. CPCB may continue to compile information on this subject and furnish quarterly reports to this Tribunal which may also be uploaded on its website.*
>
> ***(iii) All the Local Bodies and or the concerned departments of the State Government have to ensure 100% treatment of the generated sewage and in default to pay compensation which is to be recovered by the States/UTs, with effect from 01.04.2020. In default of such collection, the States/UTs are liable to pay such compensation. The CPCB is to collect the same and utilize for restoration of the environment.***
>
> *(iv) The CPCB needs to collate the available data base with regard to ETPs, CETPs, STPs, MSW facilities, Legacy Waste sites and prepare a river basin-wise macro picture in terms of gaps and needed interventions.*
>
> ***(v) The Chief Secretaries of all the States/UTs may furnish their respective compliance reports on this subject also in O.A. No. 606/2018.***

- Arvind Pundalik Mhatre V. MoEF&CC &Ors. **O.A. No. 125/2018** (river **Kasardi**)
- Sudarsan Das V. State of West Bengal & Ors. **O.A. No. 173/2018** (river **Subarnarekha**) Meera Shukla V. Municipal Corporation, Gorakhpur & Ors. **O.A. No. 116/2014** (rivers **Ami, Tapti, Rohani and Ramgarh lake**)
  - O.A. 426/2018, Mohammed Nayeem Pasha & Anr. v. The State of Telangana & Ors. (river Musi)
  - O.A. 50/2018, Nav Yuva Sanghatan & Ors. v. The Secretary, Narmada, Water Resources, Water Supply & Kalpsar Department & Ors. (river Tapi).

*List for further consideration on 21.05.2020, unless required earlier. A copy of this order be placed on the file of O.A. No. 606/2018 relating to all States/UTs and be sent to Chief Secretaries of all States/UTs, Secretary MoEF&CC, Secretary Jal Shakti and Secretary, MoHUA.***"**

(emphasis supplied)

6. Thereafter on **21.05.2020**, **wherein the Tribunal directed data collection by river basin; reduction of timelines; the Central Government to facilitate the State/UTs efforts; and CPCB to study extent of reduction of pollution load**. The following directions were issued:-

"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.

ii. ***The CPCB may study and analyse the extent of reduction of industrial and sewage pollution load on the environment, including industrial areas and rivers and other water bodies and submit its detailed report to the Tribunal.***

iii. *During the lockdown period there are reports that the water quality of river has improved, the reasons for the same may be got studied and analysed by the CPCB and report submitted to this Tribunal. If the activities reopen, the compliance to standards must be maintained by ensuring full compliance of law by authorities statutorily responsible for the same.*

iv. *Accordingly, we direct that States which have not addressed all the action points with regard to the utilisation of sewage treated water may do so promptly latest before 30.06.2020, reducing the time lines in the action plans.* ***The timelines must coincide with the timelines for setting up of STPs since both the issues are interconnected.*** *The CPCB may compile further information on the subject accordingly.*

v. *Needless to say that since the issue of sources of funding has already been dealt with in the orders of the Hon'ble Supreme Court, the States may not put up any excuse on this pretext in violation of the judgment of the Hon'ble Supreme Court."*

Review of Compliance Status Reports

CPCB Report dated 16.09.2020

7. In light of the order of 21.05.2020, CPCB filed a report dated 16.09.2020. In substance, the report states that 1831 industries are working without ETP, 1123 with non-compliant ETPs, there are 62 non-compliant CETPs, 530 non-compliant STPs, several projects are still at proposal/construction stage, OCEMS data for 11 PCBs/PCCs is not in public domain, there is a gap in waste generated and treated and large number of dump sites are not scientifically managed resulting in contamination of water. **There is, thus, a need for more rigorous and continuous monitoring, including further steps for coercive measures to enforce rule of law and citizens' right to clean**

environment. The authorities must ensure reduction in pollution load for meaningful good governance.

8. The findings in the report include:-

"A. 2.0 Compliance Status of ETPs, CETPs & STPs reported by SPCBs/PCCs

*i. As per the data received from SPCBs/PCCs, out of total 64,484 number of industries requiring ETPs, 62,653 industries are operating with functional ETPs and **1,831 industries are operating without ETPs.** Show-cause notices and closure directions have been issued to 856 and 824 industries, respectively for operating without ETPs. Legal cases have been filed against 6 industries and action is under process for 145 industries. Out of 62,653 operational industries, 61,530 industries are complying with environmental standards and **1,123 industries are non-complying**. Show-cause notices and closure directions have been issued to 613 and 135 industries, respectively, for non-compliance. Legal cases have been filed against 13 industries and action is under process for 362 industries.*

*ii. As per the data received from SPCBs/PCCs, there are total 191 CETPs, out of which 129 CETPs are complying with environmental standards and **62 CETPs are non-complying**. Show-cause notices and closure directions have been issued to 20 and 5 CETPs, respectively for non-compliance. Legal cases have been filed against 8 CETPs and action is under process for 29 CETPs.*

*iii. As per the data received from SPCBs/PCCs, there are total 15,730 STPs (including municipal and other than municipal (non-municipal/stand-alone) STPs), out of which, 15,200 STPs are complying with environmental standards and **530 STPs are non-complying**. Show-cause notices and closure directions have been issued to 262 and 28 STPs, respectively, for non-compliance. Legal cases have been filed against 17 STPs and action is under process for 223 STPs.*

iv. As per the data received from SPCBs/PCCs, there are 84 CETPs in construction/proposal stage, whereas, for STPs, 1,081 projects (municipal and non-municipal) are under construction/proposal stage.

*v. As per the data received from SPCBs/PCCs, 15 SPCBs/PCCs (namely- Andhra Pradesh, Assam, Bihar, Goa, Haryana, Himachal Pradesh, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Odisha, Puducherry, Tamil Nadu, Telangana and West Bengal) are displaying OCEMS data in public domain. **The links provided by Gujarat and***

Uttarakhand SPCBs are password protected and data is not available in public domain. The 4 SPCBs (namely, Chhattisgarh, Jammu & Kashmir, Punjab and Sikkim) have not provided appropriate web links. Further, Chandigarh PCC has clarified that OCEMS data will be displayed after upgradation of STPs. Karnataka SPCB has requested for time till 30.09.2020 to make the system operational. *Mizoram SPCB has informed that there is no industry requiring OCEMS connectivity. Lakshadweep PCC informed that there is no industry in the Union Territory of Lakshadweep.*

OCEMS data of 11 SPCBs/PCCs (Andaman & Nicobar, Arunachal Pradesh, Daman & Diu, Dadra Nagar Haveli, Delhi, Manipur, Meghalaya, Nagaland, Rajasthan, Tripura and Uttar Pradesh) is not available in public domain.

B. 3.1 Sewage Management

3.1.1 Compliance status w.r.t. the directions under Para 24 and 26 (iv)

i. *CPCB requested all States/UTs vide email/letter dated 03.06.2020, 24.06.2020 and 24.08.2020 to submit action plans as per the format and compliance reports. Further, CPCB has also provided link of the report submitted to the Hon'ble NGT indicating observations/ shortcomings on action plans of reuse of treated sewage, to the SPCBs/PCCs. A copy of the correspondences is attached at* ***Annexure-II.***

ii. *Accordingly, action plan was received from the State of Punjab and revised action plans were received from Jammu and Kashmir (UT), Lakshadweep, Rajasthan (specific to Ajmer district), and Sikkim. Information is awaited from other States.* ***The gap analysis of action plans is attached*** *as* ***Annexure-III.***

iii. *4 States/UTs (Arunachal Pradesh, Manipur,* ***Uttar Pradesh, Uttarakhand) have not submitted any information*** *till date.*

3.1.2 Compliance w.r.t. directions under Para 26 (i)

i. *CPCB communicated to all SPCBs/PCCs to provide information on STPs inventory as per the format, vide letter dated 15/07/2020. A copy of letter is attached as Annexure-IV. Based on continuous follow-up, all SPCBs/PCCs have provided information on STPs and same is attached as Annexure-V.*
ii. *CPCB vide letter dated 24.08.2020 has requested all States/UTs to submit action plans through online portal of CPCB.*

C. *3.2 River basin-wise macro picture of ETPs, CETPs, STPs, MSW Facilities and Legacy Waste Sites*

The Hon'ble NGT, in the matter of OA No. 593 of 2017, vide order 28.08.2019, directed CPCB to collect the data of ETPs, CETPs, STPs, MSW facilities and legacy waste sites and prepare a river-basin-wise macro picture in terms of gaps.

In compliance of the Hon'ble NGT's directions, CPCB has developed an online portal for the collection of river-basin wise information. The details of the river basins associated with the concerned states, as adopted from River Basin Classification, 2019 of Central Water Commission, is given at ***Annexure-VI.*** *The portal, with modules for ETPs, CETPs and STPs, is operational and SPCBs/PCCs are in the process of using the same for submission of information.*

3.2.1. Status of ETPs:

CPCB has been collecting the industry specific information related to river basin, locational coordinates (latitude & longitude), disposal point for trade effluent, treatment capacity & actual treatment, environmental compliance status, action taken by concerned authority in case of non-compliance, etc. Further, provision for capturing information regarding pollution load of four major water quality parameters i.e. pH, BOD, COD and TSS are being also incorporated. SPCBs/PCCs have been reminded to expedite the work for data submission, vide letter dated 12.05.2020, 30.07.2020 and 25.08.2020 (email). Copy of the correspondences is given at ***Annexure-VII (a to c).***

So far, information from 6 SPCBs/PCCs (namely; Delhi, Haryana, Daman & Diu, Mizoram, Odisha and Tripura) have been received through CPCB portal. Rest of the SPCBs/PCCs are under the process of compilation and submission of data. The data submitted by Haryana, Daman & Diu, Delhi and Odisha SPCB/PCC has some shortcomings, which were communicated vide letter dated 07.09.2020 & 09.09.2020. A Copy of the correspondences to concerned SPCBs/PCCs is given at ***Annexure-VIII (a to d).***

Although, to have the complete and clear picture, data from all the States/UTs is required, however, preliminary analysis based on the information received from 04 SPCBs/PCCs, is as follows:

a. ***River basin-wise disposal point of industrial units for the discharge of trade effluent:***

As per the river basin-wise information received from 04 SPCBs/PCCs (Delhi, Daman & Diu, Mizoram and Tripura), there are total 1,544 industrial units in these States/UTs. The river basin-wise number of units with respect to their effluent discharge points is summarized in the following table:

Table No. 1: River basin-wise status of trade effluent generating units and their disposal points

SI. No.	River Basin	State/ UT	Number of units w.r.t. their effluent disposal points									Total
			CETP	Canal	Drain	Land/ Irrigation	River	Sewer	STP	ZLD	Others	
1	Ganga	Delhi	817	1	571	0	0	26	1	3	0	**1419**
2	West flowing rivers from Tapi to Tadri	Daman & Diu	0	0	0	2	1	0	0	20	21	**44**
3	Minor river basins drainage to Bangladesh & Burma	Mizoram	0	0	61	0	0	0	0	0	0	**61**
		Tripura	4	0	2	I	2	0	0	0	II	**20**
Total			**821**	**1**	**634**	**3**	**3**	**26**	**1**	**23**	**32**	**1544**

b. River basin-wise discharge of treated/partially treated effluents

Based on the information received from Delhi, Daman & Diu, Mizoram and Tripura SPCB/PCC, river basin-wise quantum of treated/partially treated industrial effluents, is summarized in the following table:

Table No. 2: River basin-wise status of discharge of treated/partially treated effluent at various disposal points

SI. No.	River Basin	State/UT	Discharge Volume at the				Particular discharge point (KLD)					Total
			CETP	Canal	Drain	Land/ irrigation	River	Sewer	STP	ZLD	Others	
I	Ganga	Delhi	6178	0	6721	0	0	177	195	6	0	13277
2	West flowing rivers from Tapi to Tadri	Daman & Diu	0	0	0	24	400	0	0	1210	233	1867
3	Minor river basins drainage to Bangladesh & Burma	Mizoram	0	0	43	0	0	0	0	0	0	43
		Tripura	545	0	2	18	1320	0	0	0	470	**2355**
Total			**6723**	0	**6766**	**42**	**1720**	**177**	**195**	**1216**	**703**	**17542**

c. River basin-wise discharge of untreated/partially treated industrial trade effluent

As per the available information for the 04 States/UTs, the Table No. 3 summarizes the river basin-wise status of the designed capacity of ETPs, daily average volume of effluent generation and Discharge of untreated/partially treated effluent (KLD).

Table No. 3 River-basin wise industrial effluent generation and treatment

Sl. No.	***River Basin***	***State/UT***	***Designed capacity of ETPs (KLD)***	***Daily Average Volume of Effluent Generation***	***Daily average volume of treated effluent (KLD)***	***Discharge of untreated/ partially treated effluent (KLD)***
			(i)	***(ii)***	***(iii)***	***(iv) = (ii) — (iii)***
1	*Ganga*	*Delhi*	*32358*	*13417*	*13338*	*79*
2	*West flowing rivers from Tapi to Tari*	*Daman & Diu*	*4351*	*1867*	*1867*	*0*
3	*Minor river basins drainage to Bangladesh & Burma*	*Mizoram*	*95*	*44*	*43*	*1*
		Tripura	*13869*	*2359*	*2355*	*4*
Total			***50673***	***17687***	***17603***	***84***

3.2.2 River basin-wise status of CETPs:

So far, river basin-wise information of CETPs have been received from 6 SPCBs/PCCs (namely Chandigarh, Delhi, Mizoram and Tripura, Daman & Diu and Dadra Nagar Haveli). The Chandigarh, Mizoram Daman & Diu and Dadra Nagar Haveli, have informed that there is no CETP in their State/UT. The information from other SPCBs/PCCs is awaited.

3.2.3 River basin-wise status of STPs:

CPCB has developed a portal to facilitate submission of river basin-wise data for STPs. CPCB vide letter dated 24.08.2020 has requested all States/UTs to submit action plans and river basin-wise data through portal. The information from SPCBs/PCCs is awaited.

3.2.4 River basin-wise status of MSW Facilities and Legacy Waste Sites:

CPCB developed the formats for collection of information regarding Municipal solid Waste (MSW) processing facilities, landfill sites and dumpsites from all the States/UTs, to ensure compliance with Hon'ble NGT Directions. The formats circulated to all States/UTs vide letter dated July 31, 2020 ***Annexure-IX.*** *Information has been received from 10 States/UTs (namely;*

Kerala, Maharashtra, Jammu & Kashmir, Himachal Pradesh, Mizoram, Tamil Nadu, Delhi, West Bengal, Meghalaya & Pondicherry). Out of the 10 states, Tamil Nadu has provided information for only dumpsites. On the basis of information, as submitted by States/UTs, the status is as follow:

3.2.4.1 Status of MSW facilities and legacy waste sites

a) State wise distribution of the SWM facilities is given in Table No. 4. River basin-wise distribution of the SWM facilities is given in Table No. 5.

Table No. 4: State-wise Distribution of Solid Waste Management Facilities

Sl. No.	Name of the State	Waste Processing	Landfill Sites	Dumpsite
1.	Delhi	40	2	3
2.	Himachal	52	0	15
3.	Jammu &	3	7	53
4.	Kerala	20	-	39
5.	Maharashtra	103	19	62
6.	Meghalaya	2	**1**	5
7.	Mizoram	26	1	5
8.	Puducherry	4	3	3
9.	Tamil Nadu	Not Provided	Not Provided	136
10.	West Bengal	9	2	107
TOTAL		**259**	**35**	**428**

Table No. 5: River basin-wise Distribution of Solid Waste Management Facilities

Sl. No.	River basin	Name of the State	Waste Processing	Landfill	Dumpsite
1.	Alur	Kerala	0	0	1
2.	Amravati	Maharashtra	0	0	1
3.	Anchar	Jammu & Kashmir	1	**1**	**1**
4.	Beas	Himachal Pradesh	5	0	3
5.	Bharthpuza	Kerala	0	0	1
6.	Bhatsa	Maharashtra	0	0	1
7.	Bhawani	Tamil Nadu	0	0	1
8.	Bindusar	Maharashtra	1	0	1
9.	Binwa Khud	Himachal Pradesh	0	0	1
10.	Bori	Maharashtra	1	0	1
11.	Cauvery	Tamil Nadu	0	0	3
12.	Chalakudy	Kerala	1	0	0
13.	Chandrabhaga	Maharashtra	1	1	1
14.	Chitra Puzha	Kerala	1	0	2
15.	Darna	Maharashtra	1	0	1
16.	Devanathi	Tamil Nadu	0	0	1
17.	Gandhari	Maharashtra	1	1	0
18.	Ganga	West Bengal	4	0	0

19.	*Ghodnadi*	*Maharashtra*	*1*	*0*	*1*
20.	*Girnna*	*Maharashtra*	*1*	*0*	*2*
21.	*Godavari*	*Maharashtra*	*5*	*1*	*5*
22.	*Gomai*	*Maharashtra*	*1*	*0*	*1*
23.	*Grad*	*Jammu & Kashmir*	*0*	*0*	*1*
24.	*Haldi*	*West Bengal*	*2*	*2*	*0*
25.	*Hatheli Khud*	*Himachal Pradesh*	*1*	*0*	*1*
26.	*Hiwara*	*Maharashtra*	*1*	*0*	*1*
27.	*Indrayani*	*Maharashtra*	*2*	*1*	*2*
28.	*Jhelum*	*Jammu & Kashmir*	*0*	*2*	*2*
29.	*Kadalundi River*	*Kerala*	*1*	*0*	*2*
30.	*Kalam*	*Himachal Pradesh*	*1*	*0*	*0*
31.	*Kalyan creek*	*Maharashtra*	*3*	*1*	*1*
32.	*Kan*	*Maharashtra*	*0*	*0*	*1*
33.	*Kanhan*	*Maharashtra*	*3*	*0*	*2*
34.	*Karamana*	*Kerala*	*0*	*0*	*1*
35.	*Karuvannoor*	*Kerala*	*0*	*0*	*1*
36.	*Khir Ganga*	*Himachal Pradesh*	*1*	*0*	*0*
37.	*Kolar*	*Maharashtra*	*1*	*0*	*1*
38.	*Kora Puzha*	*Kerala*	*1*	*0*	*1*
39.	*Koringa*	*Puducherry*	*0*	*0*	*1*
40.	*Koyana*	*Maharashtra*	*1*	*1*	*1*
41.	*Krishna*	*Maharashtra*	*6*	*2*	*6*
42.	*Kundalika*	*Maharashtra*	*1*	*1*	*1*
43.	*Maharaza*	*Tamil Nadu*	*0*	*0*	*1*
44.	*Manjara*	*Maharashtra*	*1*	*1*	*1*
45.	*Markanda River*	*Himachal Pradesh*	*1*	*0*	*0*
46.	*Marna*	*Maharashtra*	*0*	*0*	*1*
47.	*Meenachil*	*Kerala*	*0*	*0*	*1*
48.	*Minkjai*	*Meghalaya*	*0*	*0*	*1*
49.	*Mithi*	*Maharashtra*	*0*	*0*	*1*
50.	*Mula*	*Maharashtra*	*38*	*0*	*1*
51.	*Nallathanni*	*Kerala*	*0*	*0*	*1*
52.	*Nira*	*Maharashtra*	*1*	*1*	*1*
53.	*Pabbar river*	*Himachal Pradesh*	*2*	*0*	*0*
54.	*Panchganga*	*Maharashtra*	*2*	*1*	*2*
55.	*Panzara*	*Maharashtra*	*1*	*0*	*1*
56.	*Patalganga*	*Maharashtra*	*2*	*0*	*2*
57.	*Pedhi*	*Maharashtra*	*0*	*0*	*1*
58.	*Pelhar*	*Maharashtra*	*1*	*0*	*1*
59.	*Penganga*	*Maharashtra*	*2*	*0*	*2*
60.	*Puzhakal*	*Kerala*	*0*	*0*	*1*
61.	*Rangavali*	*Maharashtra*	*1*	*0*	*1*
62.	*Ravi*	*Himachal Pradesh*	*1*	*0*	*1*
63.	*Ringre*	*Meghalaya*	*1*	*0*	*1*
64.	*Satluj*	*Himachal Pradesh*	*4*	*0*	*1*
65.	*Savitri*	*Maharashtra*	*0*	*0*	*1*
Sl.	*River basin*	*Name of the State*	*Waste*	*Landfill*	*Dumpsite*
66.	*SEER KHAD*	*Himachal Pradesh*	*1*	*0*	*0*
67.	*Sina*	*Maharashtra*	*1*	*0*	*1*
68.	*Sirsa*	*Himachal Pradesh*	*0*	*0*	*1*
69.	*Suketi Khad*	*Himachal Pradesh*	*1*	*0*	*0*
70.	*Swan river*	*Himachal Pradesh*	*1*	*0*	*0*
71.	*Tapi*	*Maharashtra*	*2*	*1*	*2*
72.	*Tawi*	*Jammu & Kashmir*	*0*	*0*	*1*
73.	*Tirur*	*Kerala*	*0*	*0*	*1*

74.	*Titur*	*Maharashtra*	*1*	*0*	*1*
75.	*Tuirial*	*Mizoram*	*1*	*1*	*0*
76.	*Ulhas*	*Maharashtra*	*3*	*0*	*3*
77.	*Umiam*	*Meghalaya*	*1*	*1*	*1*
78.	*Una Khad*	*Himachal Pradesh*	*1*	*0*	*0*
79.	*Uppanaru*	*Tamil Nadu*	*0*	*0*	*1*
80.	*Valapattanam*	*Kerala*	*0*	*0*	*1*
81.	*Wainganga*	*Maharashtra*	*5*	*3*	*5*
82.	*Wardha*	*Maharashtra*	*3*	*2*	*2*
83.	*Wena*	*Maharashtra*	*1*	*0*	*1*
84.	*Yamuna*	*Delhi*	*41*	*2*	*3*
85.	*NA*	*Break-up given*	*88*	*8*	*325*
		TOTAL	*259*	*35*	*428*

b) The SWM facilities located in the ten states are spread over 84 river basins, a majority of them are significantly small.

c) The information, regarding river basin in which a particular solid waste management facility is falling, has not been reported for 34% of the waste processing facilities, 22% of the landfills and 75% of the dumpsites. State wise number of states for which the river basin in which the waste management facility has not been provided is given in the Table No. 6.

Table No. 6: SWM facilities for which river basin has not been indicated

State/UT	Waste processing facilities	Landfills	Dumpsites
Himachal Pradesh	31	No sanitary landfill site	7
Jammu & Kashmir	2	4	48
Kerala	16	Not provided	25
Maharashtra	7	1	1
Meghalaya	0	0	2
Mizoram	25	0	5
Puducherry	4	3	2
Tamil Nadu	Not provided	Not provided	128
West Bengal	3	0	107
Total	**88**	**8**	**325**

d) The number of dumpsites (428) is substantially higher than the number of scientifically designed landfills (35). As no arrangement for collection and treatment of leachate is provided in these dumpsites, there is a high potential of contamination of surface and groundwater resources at these dumpsites.

e) Capacity of one landfill site in Maharashtra is exhausted.

f) ***Fresh waste is reported to be dumped at 224 out of 428 dumpsites.***

g) ***Disposal of legacy waste is not under consideration in 46 out of 428 dumpsites***

h) ***Bio-remediation in 72 out of 428 dumpsites is not being done in accordance with CPCB guidelines.***

i) *Ground water analysis report is not available for 215 out of the 259 waste processing sites, 26 out of 35 landfill sites, 222 of the 428 dumpsites.*

j) *174 out of the 259 waste processing facilities, 16 out of 35 landfill sites and 422 out of 428 dumpsites have not provided leachate treatment facilities.*

k) *Only 22 out of the 259 waste processing facilities, 14 out 35 landfill sites and 109 out of 428 dumpsites have confirmed that the leachate complies with the stipulated norms.*

l) *Locational coordinates for waste processing facilities have not been provided for 60 out of 259 facilities and point of disposal for 214 out of 259 facilities; 8 out of 35 landfill sites and 20 out of 35 point of disposal of leacheates; 80 out of 428 dumpsites and 376 out of 428 point of disposal of leachates.**"***

Report of the Oversight Committee (OC) constituted by the Tribunal for the State of UP

9. A separate report has been received on 18.09.2020 from the OC for the State of UP. The report has given the compliance status. Most of the directions have been found to be 'not complied' or 'partially complied' which is again a matter of concern. **Thus, the State of UP needs to address the OC recommendations for 100% treatment and reuse of treated water, ground water management, setting up of adequate number of OCEMs and preparing District Environment Plans**. **This may be monitored by the CMC as well.**

10. The OC recommendations are as follows:-

"1. ***The action plan for 100% sewage treatment and action plan for reuse of the treated water should be prepared as directed by the Hon'ble NGT in its order.*** *The Committee directed the Principal Secretary, Urban Development to submit the action plan to the CPCB immediately as they have already crossed the prescribed time limit. A copy of both the action plans should also be given to the committee.*

2. ***The issue of Groundwater*** *is being dealt by Central Ground Water Board as per Supreme Court Orders. Recently some States including UP have passed their own legislations on the subject and created their own State Boards. In the light of the Supreme Court Order and the State Act, the Oversight Committee felt that the roles of Central Ground Water Board /Authority and State Ground Water Board/ Authority need to be clarified. Also, the Central Government needs to come out atleast with a legislation/model legislation on Ground water to ensure uniformity amongst States.*

3. The Committee felt that though ***there are complaints of reverse boring and consequent contamination of groundwater leading to widespread diseases and even mortality in affected areas, the issue has not been dealt with the seriousness that it deserves.*** *Presently Reverse Boring is dealt with alongwith other offences for polluting water sources under Section 24(1 a) of Water Pollution Act1974 with penalty clause under Section 43. The Committee felt that specific provisions need to be done for Reverse Boring and the penalty amount needs to be increased because this act is similar to abetment to mass murder of the community.*

4. ***OCEMS for STPs****: CPCB has installed 36 real time monitoring stations all across the country out of which 21 are in Uttar Pradesh as part of the Online Continuous Effluent Monitoring System (OCEMS). The number of stations in Ganga is 15, 5 on its tributaries and 1 is on a drain. A central control room has been established at UPPCB HQs to do 24x7 monitoring of pollution data relating to these stations. The system was very effective in monitoring pollution in Ganga river during Kumbh and was widely appreciated.* ***The Committee feels that these stations be established in all Polluted River Stretches so that all gap areas are covered and major polluting sources are monitored on 24x7 basis****. UPPCB may be directed to ascertain the number of such stations required for ensuring monitoring of all such polluted river stretches in the State. A list regarding the location and tentative cost of setting up the stations alongwith likely sources of funding may be prepared by SPCB and submitted to the Committee within one month. The online monitoring stations will overcome the challenges of manual monitoring and prevent data fudging.*

5. ***OCEMS for industries****: The* ***State Pollution Control Board should ensure compulsory installation of Online Continuous Effluent Monitoring System (OCEMS) in all GPIs along with Pan-tilt Zoom Web Camera with open access to the department****. Consent to operate shall be provided only after such compliance.*

*6. Even after so much of emphasis t****he District Environment Plan (DEP) has not been finalized yet. UPPCB may be directed to get it implemented in all the***

Districts within a month, failing which adverse entries be recorded in the ACRs of concerned officers. The DEPs should focus inter alia on the working of ETPc, STPs and CETPs.

7. As per the compliance report of UPPCB it is evident that they are continuously monitoring the STPs/ETPs/CETPs and have installed OCEEMS in the State for online monitoring still the same information is not reflected in the report of CPCB. Thus, it is directed that UPPCB should timely submit their progress report to the CPCB.

8. Chief Secretary may be directed to take immediate steps to activate the district level Environment committee to meet regularly at least once in two weeks as directed by Hon'ble NGT. It will help to tackle the issues, adversely affecting the environment at an early stage."

Going Forward

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. Since CMC headed by the Secretary, Ministry of Jal Shakti has taken over monitoring of abatement of pollution of polluted river stretches in the country in coordination with the Chief Secretaries who are heading the RRCs in the States, henceforth the monitoring of directions for ensuring requisite number of pollution control devices may also be monitored by the CMC with a view to enable compliance of mandate of law. **The CMC may give a consolidated quarterly report covering the status of compliance with regard to adequate number of pollution control equipments as well as steps taken for**

rejuvenation of rivers in terms of orders already passed in OA 673/2018 and in the light of observations in paras 7 and 9 above.

II. Original Application No. 673/2018

Review of proceedings before the Tribunal

12. As noted earlier, the issue for consideration in this matter is rejuvenation of 351 polluted river stretches causing threat to public health and the environment. The Tribunal has considered the matter on several occasions *suo motu* as well as on directions of the Hon'ble Supreme Court with regard to certain polluted river stretches, **including Ganga and Yamuna**. It is not necessary to refer to all such orders. We may only refer to the directions issued on 06.12.2019 and 29.06.2020 which are as follows.

13. Directions in order dated **06.12.2019:**

"XII. Directions:

47. We now sum up our directions as follows:

i. 100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 atleast to the extent of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.

ii. Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. Rs. 10 lakhs per month per STP.

iii. *We further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by the Chief Secretaries of all the States/UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.*

iv. For above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/UTs atleast once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01.04.2020.

v. *The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.*

vi. *Monthly progress report may be furnished by the States/UTs to Secretary, Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers.*

vii. As already mentioned, procedures for DPRs/tender process needs to be shortened and if found viable business model developed at central/state level.

viii. Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.

ix. *CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the execution of the action plans prepared by the States which may start forthwith, if not already started.*

x. *The action plan prepared by the Delhi Government which is to be approved by the CPCB has to* ***follow the action points delineated in the order of this Tribunal dated 11.09.2019 in O.A. No. 06/2012.***

xi. *Since the report of the CPCB has focused only on BOD and FC without other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of bio magnification,* ***a survey may now be conducted with reference to all the said parameters*** *by involving the SPCB/PCCs within three months. Monitoring gaps be*

identified and upgraded so to cover upstream and downstream locations of major discharges to the river. CPCB may file a report on the subject before the next date by e-mail at judicial-ngt@gov.in.

xii. Rivers which have been identified as clean may be maintained."

(emphasis supplied)

14. Directions in order dated **29.06.2020:**

"XII. Directions:
45. We reiterate our directions in order dated 6.12.2019 in the present matter, reproduced in Para 38 above, read with those in order dated 21.5.2020 in OA 873/2017 and direct CPCB and Secretary, Jal Shakti to further monitor steps for enforcement of law meaningfully in accordance with the directions of the Hon'ble Supreme Court and this Tribunal. ***The monitoring is expected with reference to ensuring that no pollution is discharged in water bodies and any violation by local bodies or private persons are dealt with as per mandate of law as laid down in orders of the Hon'ble Supreme Court and this Tribunal without any deviation from timelines. The higher authorities must record failures in ACRs as already directed and recover compensation as per laid down scale. Every State/UT in the first instance must ensure that at least one polluted river stretch in each category is restored so as to meet all water quality standards upto bathing level. This may serve as a model for restoring the remaining stretches."***

Review of Compliance Status Reports

CPCB Report dated 15.09.2020

15. Report of the CPCB filed on 15.09.2020 in pursuance of order dated 29.06.2020 in O.A. 673/2018 mentions the status of approval of action plans in a tabular form in Annexure -2 which is summed up as follows:-

"

- *All 61 action plans pertaining to Priority I and Priority II polluted river stretches submitted by 18 States & 2 UTs have been approved along with conditions by CPCB Task Team*
- *Out of 115 Action plans pertaining to P-Ill and P-IV polluted river stretches received from 24 States & 1 UT, 108 action plans pertaining to 22 States and 1 UT have been approved along with the conditions.*

- *Total 169 action plans submitted by 24 States & 3 UTs have been approved by CPCB Task Team."*

Annexure-2 is reproduced below:-

"State-wise Identified Polluted Rivers and the Status of Action Plans approved by CPCB in compliance to Hon'ble NGT Orders dated 20.09.2018, 19.12.2018, 08.04.2019, 6.12.2019 & 29.6.2020 in OA No. 673 of 2018 (as on 10.09.2020)

Name of the State/UT	*Total No. of Identified polluted River stretches (PRS)*	*Priority I & II PRS approved*		*Priority III PRS*		*Priority IV PRS*		*Priority V PRS**	*Total Action Plans approved by CPCB Task Team*
		Priority I	*Priority II*	*Total Number*	*CPCB Task Priority III approved*	*Total Number*	*Priority IV approved*		
Andhra Pradesh	*5*	*0*	*0*			*2*	*2*	*3*	*2*
Assam	*44*	*3*	*1*	*4*	*4*	*3*	*3*	*33*	*11*
Bihar	*6*	*0*	*0*	*1*	*1*			*5*	*1*
Chhattisgarh	*5*	*0*	*0*			*4***	*0*	*1*	*0*
DD & DNH	*1*	*1*	*0*					*0*	*1*
Delhi	*1*	*1*	*0*					*0*	*1*
Goa	*11*	*0*	*0*	*1*	*1*	*2*	*2*	*8*	*3*
Gujarat	*20*	*5*	*1*	*2*	*2*	*6*	*6*	*6*	*14*
Haryana	*2*	*2*	*0*					*0*	*2*
Himachal Pradesh	*7*	*1*	*1*	*1*	*1*			*4*	*3*
J & K	*9*	*0*	*1*	*2*	*2*	*2*	*2*	*4*	*5*
Jharkhand	*7*	*0*	*0*			*3***	*0*	*4*	*0*
Karnataka	*17*	*0*	*0*	*4*	*4*	*7*	*7*	*6*	*11*
Kerala	*21*	*1*	*0*			*5*	*5*	*15*	*6*
Madhya Pradesh	*22*	*3*	*1*	*1*	*1*	*3*	*3*	*14*	*8*
Maharashtra	*53*	*9*	*6*	*14*	*14*	*10*	*10*	*14*	*39*
Manipur	*9*	*0*	*1*					*8*	*1*
Meghalaya	*7*	*2*	*0*			*3*	*3*	*2*	*5*
Mizoram	*9*	*0*	*0*	*1*	*1*	*3*	*3*	*5*	*4*
Nagaland	*6*	*1*	*0*	*1*	*1*	*2*	*2*	*2*	*4*
Odisha	*19*	*1*	*0*	*3*	*3*	*2*	*2*	*13*	*6*
Puducherry	*2*	*0*	*0*			*1*	*1*	*1*	*1*
Punjab	*4*	*2*	*0*			*1*	*1*	*1*	*3*
Rajasthan	*2*	*0*	*0*	*1*	*1*			*1*	*1*
Sikkim	*4*	*0*	*0*					*4*	*0*
Tamil Nadu	*6*	*4*	*0*			*1*	*1*	*1*	*5*
Telangana	*8*	*1*	*2*	*2*	*2*	*2*	*2*	*1*	
Tripura	*6*	*0*	*0*					*6*	
Uttar Pradesh	*12*	*4*	*0*	*1*	*1*	*2*	*2*	*5*	*7*
Uttarakhand	*9*	*3*	*1*	*1*	*1*	*4*	*4*	*0*	*9*
West Bengal	*17*	*1*	*1*	*3*	*3*	*4*	*4*	*8*	*9*
Grand Total	*351*	*45*	*16*	*43*	*43*	*72*	*65*	*175*	*169*

**Action plans pertaining to Priority V does not need approval by CPCB.*
*** Action plans under consideration, upon receipt of RRC approved revised action plans from the respective State."*

16. The report further mentions that certain States sought omission of polluted river stretches from the list. In response, CPCB prepared a

criteria that a stretch can be deleted from the list of polluted river stretches if water quality complies with the criteria for two years. The report also mentions that in terms of order dated 06.12.2019, Central Monitoring Committee (CMC) has been constituted under the Chairmanship of Secretary, MoJS to review the status of compliance of implementation of action plans with the Chief Secretaries of all States/UTs, with the assistance of the CPCB and the NMCG.

CMC Report dated 15.09.2020

17. Compliance status has been mentioned in the CMC report as follows:-

> ***"Existing Sewage Infrastructure***
>
> *In respect of the existing sewage infrastructure,* ***53,396 MLD of sewage (from urban settlements) is generated in 31 States/ UTs and 29,556 MLD capacity of STPs exists (1212 nos.) which approximates to about 55% of sewage generation. Against the existing capacity, only 62% of the capacity is being utilized for treatment of municipal sewage*** *(except for Andhra Pradesh, Tripura and West Bengal who have not reported the figures of utilization of existing capacity).* ***Rest of the existing capacity remains unutilized because of various reasons, including lack of availability of conveyance of sewage to treatment plants, technology issues requiring up-gradation of plants, or dysfunctionality on various counts. This leaves a gap of 24,144 MLD in treatment capacity for which States are regularly being asked to provide their inputs with regards to their plans to fill the gap including that for financing the creation of infrastructure****. It is also important that operational STPs remain compliant to the STP outlet standards as per environmental norms. The data obtained from the States of Chhattisgarh, Daman, Diu and Dadra Nagar Haveli, Gujarat, Manipur, Odisha, Sikkim, Tripura, Uttarakhand and Uttar Pradesh shows that* ***out of total 235 operational STPs in these States, 162 STPs are compliant to the outlet standards and a large number of STPs remain non-compliant to the environmental norms****. Other States have failed to report compliance of existing STPs to STP outlet standards. The States have assured that the same will be provided to CMC. The details of sewage generation, existing*

sewage treatment capacity, its utilization and gap thereof is presented in ***Table-1****.*

Table-1: Details of Existing Sewage Infrastructure in the 31 States/UTs

No.	*State*	*Sewage Generation (in MLD)*	*Existing STP (capacity in MLD and No.)*	*Capacity Utilization (In MLD)*	*Gap in Treatment at present (in MLD)*
1	***Andhra Pradesh***	*1384*	*515.45*	*-*	*868.55*
2	***Assam***	*703*	*0*	*0*	*703*
3	***Bihar***	*651.5*	*40 (2 STPs)*	*22 (55%)*	*611.5*
4	***Chhattisgarh***	*600*	*73.1 (3 STPs)*	*6 (8.2%)*	*526.9*
5	***Daman, Diu And Dadra Nagar Haveli***	*20.5*	*17.21 (2 STPs)*	*5.2 (30%)*	*3.29*
6	***Delhi***	*3273*	*2714 (35 STPs)*	*2455 (90%)*	*559*
7	***Goa***	*165*	*78.35 (9 STPs)*	*46.6 (59%)*	*86.65*
8	***Gujarat***	*3765*	*3378 (70 STPs)*	*2812 (83%)*	*387*
9	***Haryana***	*1454*	*1767*	*1466 (82%)*	*-*
10	***Himachal Pradesh***	*102.8*	*86.9*	*55.1 (63%)*	*15.9*
11	***Jammu & Kashmir***	*970*	*126.80 (11 STPs)*	*80.70 (63%)*	*843.2*
12	***Jharkhand***	*700*	*131 (19 STPs)*	*75 (57%)*	*569*
13	***Karnataka***	*3356.5*	*2561 (142 STPs)*	*1704 (66%)*	*795.5*
14	***Kerala***	*3759.28*	*124.135 (11 STPs)*	*81.325 (65%)*	*3634.935*
15	***Madhya Pradesh***	*2183.65*	*690.76 (25 STPs)*	*524.24 (75%)*	*1492.89*
16	***Maharashtra***	*9757*	*7746 (137 STPs)*	*4013 (51%)*	*2011*
17	***Manipur***	*114.054*	*27 (1 STP)*	*8 (29%)*	*87.05*
18	***Meghalaya***	*87.91*	*0*	*0*	*87.91*
19	***Mizoram***	*80*	*10 (1 STP)*	*0*	*70*
20	***Nagaland***	*44.3*	*25.4 (1 STP)*	*0*	*18.9*
21	***Odisha***	*439.49*	*91 (5 STPs)*	*70 (76%)*	*348.49*
22	***Puducherry***	*84*	*56*	*30 (52%)*	*28*
23	***Punjab***	*2111*	*1621.5 (115 STPs)*	*80%*	*456*

24	***Rajasthan***	*1712*	*966 (68 STPs)*	*43%*	*746*
25	***Sikkim***	*47.68*	*19.02 (6 STPs)*	*17 (89%)*	*28*
26	***Tamil Nadu***	*2070.855*	*1484.42 (56 STPs)*	*798.34 (53%)*	*586.435*
27	***Telangana***	*2453*	*920.1*	*810 (88%)*	*1532.9*
28	***Tripura***	*175*	*8 (1 STP)*	*-*	*167*
29	***Uttarakhand***	*329.33*	*355.13 (61 STPs)*	*203.9 (57%)*	*-*
30	***Uttar Pradesh***	*5500*	*3365.88 (105 STPs)*	*2566.55 (76%)*	*2134.11*
31	***West Bengal (as per CPCB Report 2018)***	*5303*	*557.64 (43 STPs)*	*-*	*4745.36*
	Total	***53,396.849***	***29,556.795***		***24,144.47***

In particular, ***poor capacity utilization of Rajasthan (43%), Manipur (29%), Daman Diu & Dadra Nagar Haveli (30%), Chhattisgarh (8%), Maharashtra (51%), Puducherry (53%), Tamil Nadu (53%) needs consideration and attention for which Chief Secretaries of the concerned States have been apprised through D.O. letters from Secretary, Department of Water Resources, River Development & Ganga Rejuvenation. The States of Assam and Meghalaya do not have any existing treatment capacity while Tripura & Manipur has only one STP each. The compliance of existing STPs in Telangana (88%), Madhya Pradesh (75%), Delhi (90%), Gujarat (83%), Haryana (82%), Odisha (76%), Punjab (80%), Sikkim (89%), UP (76%), remains good. This needs to be maintained and continuously improved. Utilization has not been reported by Andhra Pradesh, West Bengal, Tripura, for which these States have been reminded.***

Most of States do not have online system of monitoring the functioning of STPs, both in respect of quantity of sewage being treated and whether the treatment conforms to the environmental norms for STP outlet standards. Directions are required to be given to States to not only ensure that created capacity is optimally utilized by carrying out condition assessment of existing STPs/ sewage infrastructure in a fixed time frame, say another 3 months, but also putting in plans to upgrade STPs requiring upgradation so as to make them functional. In addition, it is also equally important that States must develop a modern technology based online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage

infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future*. Such a system will enable that health of sewage treatment facility is readily available, with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.*

So far as monitoring of water quality of rivers by CPCB is concerned, ***CPCB must continue to monitor all the parameters prescribed under »Primary Water Quality Criteria for Bathing Water" notified under Environment (Protection) Rules, 1986 (i.e. pH, DO, BOD, Faecal Coliform and Faecal Streptococci) as well as COD and other recalcitrant toxic pollutants having tendency for bio-magnification as prescribed under »Guidelines on Water Quality Monitoring - 2017" issued by MoEF&CC****. The monitoring will ensure that environmental standards are observed in respect of rivers and other water bodies."*

18. The report gives State-wise details of the projects which are ongoing, under tendering, awaiting sanction and where DPRs are yet to be prepared. Further mention has been made of the status of bio-remediation projects as follows:

"The status of in-situ bioremediation/ phyto-remediation in Polluted River Stretches being undertaken by the State was monitored. Most of the States have reported that they ***do not have technical expertise as well as competency to take up in-situ bio-remediation/ phyto-remediation measures****. Further, it has been reported that due to lack of availability of vendors, appropriate agencies with proven capability to implement such works and non-availability of standard rates, the progress in this activity has been slow.* ***Accordingly, Andhra Pradesh, Assam, Gujarat, Kerala, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Odisha, Rajasthan, Sikkim, Tamil Nadu, Tripura are yet to take up any such measures on the drains in the polluted river stretches.*** *Other States have taken up measures on pilot basis only which they propose to evaluate based on the results obtained before works in other reaches are taken. Uttar Pradesh, West Bengal have reported that works have been taken up in 42 drains and 10 drains respectively in their State.*

Further, Hon'ble NGT's vide its order dated 05.3.2020 (hearing on 18.2.2020) in the matter OA No. 06 of 2012 Manoj Mishra & Ors. while considering the report of Yamuna Monitoring Committee on "Approach to in-situ bio- remediation/ phyto-remediation of sewage in drains of Delhi", has observed and directed that CPCB report on "Alternate technologies for management of WW drains" be revised and circulated to MoUD, MoJS, NMCG and Govt. of Delhi, UP, Haryana for formulation of Policy for alternate technologies for waste water drain management. The same has already been informed to the States for their guidance to enable them to take decisions in implementation.

State wise status of bio-remediation/ phyto-remediation projects is given below.

19. The status of Industrial Pollution Management has been mentioned as follows:-

8. Industrial Pollution Management in the State/ UTs:

*"So far as measures for abatement of industrial pollution are concerned, the State-wise details about number of water polluting industries, industries having ETPs, quantity of effluent discharge, treatment capacity of ETPs and number of ETPs and CTPs is given in **Table-7**. It can be seen from the information provided by the States that only Delhi, Dadra and Nagar Haveli and Kerala have all the industries with functional ETPs. In respect of Andhra Pradesh, Kerala, Bihar, Jharkhand and Assam, data submitted by States has been observed to be inconsistent and needs to be further clarified by the States.*

All the industries located in catchment of Polluted River Stretches in State of Gujarat, Delhi, Odisha, Maharashtra, Sikkim, Meghalaya, Jharkhand and Bihar have been provided with functional ETPs. The compliance status of these ETPs is being reviewed and will be taken up in subsequent meetings of CMC."

20. Finally State specific issues have been mentioned. The report also gives the status of Solid Waste Management, Ground Water Augmentation Afforestation, Floodplain and E-flow Management and Scrutiny of Action Plans for P-II and P-IV.

Observations and recommendations in the CMC report:

21. The observations and recommendations in the report are as follows:

"States are regularly submitting Monthly Progress Reports, in the requisite formats, by the stipulated dates. However, ***quality of information provided in MPR in respect of a few States is wanting and needs to be improved.*** *As MPRs are one of an important document which provides requisite status in respect of various activities being undertaken as per approved Action Plans, the quality of information is important for meetings of CMC and further reporting to Hon"ble NGT. MPR before being submitted should therefore, necessarily be studied by senior officers in States and so certified.*

- *Most of States have informed that the progress of ongoing works has been severely affected due to COVID-19 pandemic which has impacted issues related to mobilization of skilled and unskilled manpower as well as supply of materials besides site works. Site works often reportedly get affected due to lockdown kind of situations whenever the same is under enforcement. The project completion timelines, therefore, are getting impacted due to these factors also.*

- *States have failed to report specific reasons for delay in grounding the projects as well identification of officials responsible for the delays. The necessary reporting from the States is being taken up and will be followed up in future review meetings.*

- *States have reported about financing difficulties being faced by them on account of resource crunch due to COVID-19 situation. States, reportedly are trying to arrange funding for priority projects and will be apprising the status in subsequent meetings of the CMC. The process of sanctioning of projects, being dependent on funding, is getting affected due to pandemic situation.*

- ***Considering financial limitations, States/ UTs may take up STP projects on Hybrid Annuity Model, which, as a business model, enables the Urban Local Body/ State Government to fund the development and operation of sewage treatment infrastructure taking into account the future flow of revenue.*** *It will help ULBs to tap the external market funding for development & operation of sewage infrastructure, apart from quality treatment services. NMCG has prepared model tender documents for development of STPs through HAM and recently these documents have also been approved by NITI Aayog.*

- ***One City- One Operator concepts offer integrating the rehabilitation and Operation & Maintenance of the existing treatment infrastructure along with development & operation of new STPs.*** *This concept can be integrated with HAM model, as is being done in many projects under Namami Gange.*

- *Government of India has also introduced **National Faecal Sludge & Septage Management (FSSM) Policy in 2017 to emphasize the importance of treating the faecal sludge from on-site sanitation system**. Some State Governments have also issued State level FSSM policies/ guidelines. Nearly 25 Faecal Sludge Treatment Plants (FSTPs) are operational and another 400 are in the offing in the country. Other States must consider adopting State level FSSM policies/ guidelines for regulating the handling, treatment and disposal of faecal sludge.*

- *Many of the States/ UTs have also been looking for alternatives beyond conventional STPs for treatment the sewage/ faecal sludge. States may consider implementation of FSTPs and/or co-treatment of faecal sludge in existing STPs, or may judiciously adopt any other alternate treatment technology, in towns wherever feasible.*

- *Many States/ UTs are constructing or have proposed to develop STPs in Polluted River Stretches with capacity less than 2 MLD. States, in such situations, may consider to adopt installation of **decentralized modular STPs; which offer advantages in form of lesser time involved in commissioning of systems, less land footprints, easy operations; instead of conventional centralized STPs based on techno-commercial considerations.** This will also enable them to comply to NGT stipulated timelines.*

- *States have created assets for treatment of sewage and capacity of **STPs so created is not being optimally utilised due to many reasons, including lack of availability of conveyance of sewage to treatment plants, technology issues requiring up-gradation of plants, or dysfunctionality etc.** A large number of STPs remain non-compliant to STPs outlet norms. States must ensure optimum utilization of the existing treatment infrastructure and also ensure compliance of the plants with regard to the environment norms. For this purpose, States may carry condition assessment studies of existing STPs/ sewage infrastructure in a fixed time frame, say another 3 months so as to identify the reasons of sub-optimum utilization and dysfunctionality of existing STPs. This will help them in finalizing plans to upgrade STPs requiring upgradation so as to make them functional.*

- *States do not have an online monitoring system in place to monitor (both quantity and quality of treated water) the health of existing sewerage infrastructure. States must consider to develop an online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future. Such a system will enable that health of sewage treatment facility is readily available,*

with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.

- ***53 projects*** *with capacity of about* ***867.46 MLD*** *in Polluted River Stretches are expected to be completed by December 2020. The concerned States must ensure that monthly monitoring and regular watch on the progress of these projects is to be maintained, so that the completion timelines are strictly complied and projects commissioned in time.*

- ***41 projects*** *are likely to be completed during time window of January 2021-March 2021. Progress of these projects is also required to be continuously monitored at State level so that lag, if any, in adhering to the timelines is avoided.*

- *State of Maharashtra, Telangana & Gujarat have to ensure that decision on tenders already called by State are finalized and the pending land acquisition issues for many STPs are sorted out urgently.****"***

Report of OC dated 16.09.2020 for the State of UP

22. In O.A. 673/2018, a separate report has been filed by the Oversight Committee constituted by this Tribunal for the State of UP making following recommendations:

"1. Only 45% of the total Sewage Generation of 4292 MLD in the catchment areas of these 12 Polluted River Stretches is being treated. To check this 2336 MLD untreated discharge from going in the rivers, all the 324 drains flowing in these rivers need to be tapped, the treatment capacity be increased by increasing the number of STPs, In situ remediation of untreated sewage be done as an interim measure and E Flow of these rivers need to be maintained above a prescribed level.

2. Out of total 324 drains in 12 polluted river stretches, 289 are untapped till date. Plan details along with timelines and corresponding physical and financial progress regarding tapping of these 289 drains be filed by the Govt. before NGT within a month.

3. Out of total 4292 MLD sewage generated in the catchment area of these 12 polluted rivers stretches, only 1956 MLD is treated in 79 STPs. That leaves a gap of 2336 MLD untreated sewage discharge. DPRs have been prepared/sanctioned for 47 new STPs for 1796 MLD. The

DPRs for remaining 540 MLD gap should be immediately prepared and sanctioned by the State. Out of 47 STPs sanctioned, only in 26 construction has started. The progress appears to be very slow. The State Govt. should file the physical and financial progress of STP capacity augmentation before NGT along with definite timelines within a month.

4. Progress of in situ remediation as an interim measure also is not satisfactory. ***In 37 untapped drains falling in Priority 1, only one drain was found under Phyto Remediation during inspection. CPCB has already given notice for EC for Rs 18 Crore.*** *The proposed timelines for in situ remediation along with details of project approval and financial approvals for these 289 untapped drains be filed by the Govt before NGT within a month.*

5. Though minimum E Flow is being maintained in River Ganga, no such study had taken place in these stretches. *Now IIT Delhi is doing a study in 8 perennial rivers out of these 12 Stretches and its report will come by December 2020.Irrigation Department needs to adhere to the timelines regarding study and post study action plan to maintain minimum E Flows in these river stretches.*

6. The State government should deposit the Performance Guarantee of Rs.15 crore as mandated by NGT.

7. Monitoring of Grossly Polluting Industries needs to be stepped up. ***Out of 386 identified GPIs, 87 were issued show cause notices. Total EC imposed was Rs 20.62 crore, out of which approx. Rs 10 crore has been realised. UPPCB should issue notices to all defaulters and also realize the balance EC. 1092 GPIs in Ganga Basin are connected 24x7 to Central Control Room at Lucknow through OCEMS. It yielded excellent results during Kumbh****. Same system needs to be followed in these stretches. This will increase transparency and accountability in the pollution reporting of these GPIs.*

8. Regarding demarcation of floodplain zones, identification survey is going on and after it the notification pillars will be set up. This entire exercise is expected to get completed by October, 2020. ***The Committee feels that Irrigation Department should closely monitor it to adhere to the timelines****.*

Regarding Gomti (0.A 24/2018)

1. The sewage treatment capacity of Gomti needs to be augmented at Lucknow. ***The present treatment capacity is 438 MLD against requirement of 784 MLD. The gap of 346 MLD is proposed to be filled up in 3 Phase-160 MLD in Phasel, 102 MLD in Phase2 and 85 MLD in Phase3.So far Phase 2 comprising of Bijnor STP (80 MLD) and Ghaila STP (22MLD) is pending for sanction with NMCG.DPR for Phase3 (Bharwara 85 MLD) is under preparation. The State Govt should immediately get these STPs sanctioned and ensure that work commences as per timelines prescribed by NGT****.*

2. *In the interim, NGT had directed that in situ remediation measures be taken up to check the discharge of untreated water in the river. Unfortunately, despite two pilots having been taken in the past, no in situ remediation has been initiated. CPCB/SPCB may impose and realize EC as directed by NGT on this count.*

3. ***There are many flaws in Waste Management Processing Plant in Lucknow managed by M/s Eco Green. During the inspection visits in June, 2020 it was found that in landfill site area along with the inert material, urban solid waste was also present. No 'waste to energy' work had been started in the treatment unit. ETP was non-operational and its O&M was unsatisfactory. The leachates was getting collected around it. Such negligence is unacceptable. SPCB must issue show cause notice within a fortnight to Nagar Nigam and impose EC for violations of Environmental norms with liberty to the Nagar Nigam to realize it from the Operator along with such penal action as they deem fit.***

General Recommendations:

1. ***Sewerage Network****: The Hon'ble NGT vide order dated 22.08.2019 had directed to complete ongoing sewerage network work by 1.07.2020 and after that it was directed that payment of environmental compensation of Rs. 10 lakhs per month would be deposited with CPCB for discharging untreated sewage in any drain connected to river Ganga or its tributaries. Accordingly, CPCB shall initiate imposition of EC and issue notices within 15 days. Principal Secretary Urban Development should personally monitor the progress of tapping of untapped drains.*

2. ***Phytoremediation/bioremediation****: The Hon'ble Tribunal directed phytoremediation/ bioremediation to be done as an interim measure until tapping of drains is complete. In case of non-compliance beyond 1.11.2019, penalty of 5 lakh per drain per month was to be imposed by CPCB. CPCB must submit report regarding how much EC has been realized out of total imposed EC of Rs 18 crore on 120 drains for non-compliance of this order for the period 1.11.2019 to 31.1.2020.*

3. ***STPs****: Vide order dated 22.08.2019 it was stated that with regard to sewerage works/STP under construction, after 01.07.2020, direction for payment of environmental compensation of Rs. 10 lakhs per STP per month to CPCB will apply. Accordingly, CPCB shall calculate EC and send notices to defaulters in the next 15 days. It shall also explain why notices have not been issued in this regard so far.*

4. ***Timelines****: The oversight committee is concerned that the progress on ground is minimal and timelines keep on getting shifted. The State government, while keeping in mind the NGT directions, must provide firm timelines for completion of work within one month to the Committee with reference to the following issues:*

   - *Tapping of untapped drains*

- *STP/CETPs installation in the State*
- *Action Plan for treated water*
- *Complete demarcation of Floodplain zones in Phase I*
- *Detailed mapping of legacy waste and standardization of process for remediation*
- *Completion of project for conserving and sustainably managing Floodplain Wetland*

5. ***OCEMS for STPs**: CPCB has installed 36 real time monitoring stations all across the country out of which 21 are in Uttar Pradesh as part of the Online Continuous Effluent Monitoring System (OCEMS). The number of stations in Ganga is 15, 5 on its tributaries and 1 is on a drain. A central control room has been established at UPPCB HQs to do 24x7 monitoring of pollution data relating to these stations. The system was very effective in monitoring pollution in Ganga river during Kumbh and was widely appreciated.* ***The Committee feels that these stations be established in all Polluted River Stretches so that all gap areas are covered and major polluting sources are monitored on 24x7 basis. UPPCB may be directed to ascertain the number of such stations required for ensuring monitoring of all such polluted river stretches in the State. A list regarding the location and tentative cost of setting up the stations alongwith likely sources of funding may be prepared by SPCB and submitted to the Committee within one month. The online monitoring stations will overcome the challenges of manual monitoring and prevent data fudging.***

6. ***OCEMS for industries: The State Pollution Control Board should ensure compulsory installation of Online Continuous Effluent Monitoring System (OCEMS) in all industrial units along these polluted river stretches along with Pan-tilt Zoom Web Camera with open access to the department.*** *Consent to operate shall be provided only after such compliance.*

7. Green Belts: The Irrigation Department should coordinate with Forest Department of the State to identify vacant areas /flood planes on the banks of these river stretches which may be developed as Green Belts. An action plan regarding this may be submitted by Irrigation Department to Department of Forest, Uttar Pradesh within two months. Moreover, the Plantation model of Gautam Budh Nagar developed under Public-Private Partnership can be replicated in other districts of the State (Refer Annexure VII).

8. Flood Plain Zones: The Irrigation Department, Uttar Pradesh and Central Water Commission need to expedite work related to identification and demarcation of floodplain zones. There is lack of coordination at the field level between Irrigation Department and Revenue Department for correction of records. Chief Secretary should ensure coordination between the two departments so that floodplains are jointly demarcated, revenue records corrected accordingly, encroachments removed and pillars are fixed. The progress in this

matter be monitored in Chief Secretary's monthly review meeting and informed to NGT regularly in the quarterly report.

9. ***Cleaning of Ghats****: The State government must ensure cleaning and maintenance of ghats by organizing local people, NGOs and professional agencies. The copy of the action taken with documentary evidences to be submitted to the Committee.*

10. ***Crematoria****: In order to prevent disposal of dead bodies into these rivers, provision of crematoria in rural areas is necessary. The existing scheme of construction of crematoria in villages handled by Panchayati Raj Department needs to be strengthened.*

11. ***Idol Immersion****:* ***The Committee recommends banning of idol immersion in all these rivers in Uttar Pradesh.*** *Chief Secretary may be asked to issue directions to concerned department for creation of artificial ponds, if found absolutely necessary (as done in NCR-Delhi region for preventing pollution in river Yamuna) for idol immersion during traditional festivals like Ganesh Chaturthi and Durga Puja specifying prior permission of District Administration and strict timelines pertaining to religious days only.*

12. ***Ground Water Recharge****: The Committee recommends steps to be taken for* ***ground water recharge by digging of ponds and establishing drain network to tap excess runoff during rainfall.*** *Such simple interventions have been taken up in district Mathura, Uttar Pradesh to increase groundwater level and rejuvenate water bodies (Refer Annexure VIII).*

13. ***Replication of Success stories****: The Committee also recommends replication of* ***successful waste management models such as that of Vengurla town in Sindhurdurg district, Maharashtra in small towns of Uttar Pradesh****. This town has converted a landfill into a waste management park, generates revenue from waste and has paved way for Sustainable Development.*

14. ***Floating Barriers****: In order to restrict and regulate waste into rivers, the committee recommends* ***use of floating barriers as being used on Cooum River in Chennai.***

15. ***Improvement in Capacity Utilisation of existing STPs****: The Committee feels that there is no point establishing new STPs/CETPs without reforming the operational performance of existing STPs/CETPs.* ***There is lot of scope for improving the efficacy and functioning of the current STPs/CETPs. They need to be continuously monitored on a 24x7basis.All the STPs in the State should be equipped with SCADA, connected with a central control room, continuously monitored 24x7 , their performance analysed on day to day basis, problem areas like maintenance issues be addressed without any delay and accountability be fixed for non performance/suboptimal performance. The Committee appreciates the One***

Operator One City scheme followed by UP, which will certainly help in focusing responsibility.

16. ***Phyto Remediation****: Phyto remediation measures have not been realistically tried.* ***The DPR of Rs 1796 crores for 459 drains sent to NMCG appears to be excessive. It needs to be reviewed. It appears that these estimates are prepared by engineers and not by environmentalists. If instead of civil construction, natural solutions are proposed, the project can be prepared at a fraction of the cost proposed currently and may be more efficacious****. A few demonstration projects regarding phyto remediation at a relatively much lower cost could be taken up with the help of environment experts so that these proposed projects could be realistically remodeled.*

17. ***Bio-Plastics****: Use of bio-plastics/bio-degradables in every sector viz. domestic and industrial sectors is a viable solution to prevent rivers from choking and warding off adverse implications on biodiversity. The State government may develop plans for switching to bio-plastics/bio-degradables at macro level within six months.*

18. ***Awareness Generation****: The residents of different districts are contended to see the clean water of all the rivers during the lockdown period. In view of this, the Committee suggests conducting mass awareness campaigns and media-based water consciousness campaigns that make people sensitive towards the environment as well as show that they are an integral part of the solution. Further, "One Drop project" can be followed to create awareness about environment.*

19. ***Floating barrier****: In the year 2015,* ***Alpha MERS developed an indigenous design of floating trash barrier for controlling hyacinth and trash from flowing in water****. The barrier made of steel and aluminium with a high tensile strength claims to have an ability to survive in both polluted water bodies and change in water levels. For the first time in November 2017 these barriers were deployed in Cooum river in Chennai. Currently, the barriers have been deployed at eight locations in Cooum river (NDTV,2018)*

20. ***CETPs****:* ***None of the polluting industries should be allowed to run without properly functioning CETP/ETP****. Regarding 7 CETPs in the State, it was reported that all were functional and achieving norms. UPPCB has to continuously monitor their performance and shut down the cluster if the CETP performance is not compliant with environment norms. Special focus to be kept on tanneries and textile industries. Moreover, the implementation of new CETPs at Jajmau and Unnao and upgradation of CETP at Mathura and Banthar is already quite delayed. Timelines for implementation be strictly followed and accountability be fixed for delay. All GPIs to compulsorily install OCEMS within 2 months with open access to UPPCB so that there are no gaps in monitoring. No consent to operate be issued by UPPCB without verifying compliance. All new distilleries to compulsorily have ZLD.*

21. ***FSSTPs**: There has been considerable delay in implementation of all FSSTP Plants underway in 60 AMRUT towns. The process needs to be expedited. **The procurement process with specifications be standardized. List of vendors be circulated and whole process should be put on GeM portal to ensure transparency and cut down delay.** Regarding faecal sludge management following steps to be undertaken:*

a) ***The percentage of households connected to main sewer is just 1015% in the State**. U.P Jal Nigam to be asked about the current status of sewer connections in the State and analyse the gaps.*

b) *At a number of places, toilets constructed under Swachh Bharat for ODF are not connected to sewerage network. . It is required that these toilets be connected to either the sewerage network or arrangements be made to periodically transfer there faecal sludge to nearby FSSTP plants.*

c) *It is required that **FSSTP Plants be built on priority at designated STPs and arrangements for transfer of Faecal sludge from non network areas be implemented at the earliest in order to have better and effective sewage management**. The State Govt should share the action plan for implementation of the FSTP Policy at the earliest with NGT.*

d) *It is recommended that in households wherein sewer connections are not present, the concerned authority must ensure that the households are connected to FSSTP plant.*

22. ***One city one operator model for sewage management**: The State government started "one city one operator" model wherein single company operates, maintains and manages sewage treatment and network infrastructure in the city. Implementation of such models has made operation and maintenance easy as there can be no shifting of responsibility and the entire process is under the command of one company. However, it is needed that proper monitoring of these operators and the plants managed by them is done in each city so as to assess the efficacy of STP plants. Urban Development Department must submit an evaluation report in this regard within three months.*

23. ***Encroachment along drains**: **At many places in the State there are encroachments in the flood plains of drains. For example more than 300-400 encroacher households are living in the flood plain of Kukrail drain in Lucknow city**. In the absence of any regular toilet facilities, their faecal matter/grey water is washed away directly in the river Gomti, which also supplies drinking water to Lucknow city.. The State government needs to take steps for removing such encroachments on priority by rehabilitating these households under the "Housing for All" programme.*

24. ***Floodplain Zones**: The process of demarcation of Floodplain zones is quite slow. There is lack of co-ordination at the field level between Irrigation Department and Revenue Department for correction of revenue records. Chief Secretary should ensure coordination between the Departments so that the floodplains are jointly demarcated, revenue records corrected*

accordingly, pillars are erected and encroachments are removed in these floodplains. The progress may be monitored in Chief Secretary's monthly review meeting and informed to NGT regularly in the quarterly report.

25. ***River side Mining**: **Reckless sand mining in river beds leads to erosion and environmental degradation**. There has to be compulsory demarcation of boundaries of all mineral leases before permission be given for mining. Mining should be as per EIA notification, 2006, MOEF notification dated 15.01.2016 and Sustainable Sand Mining Management Guidelines,2016. **DMs /SSPs be made fully accountable for ensuring compliance of the directions.** In case of illegal mining, besides seizure of vehicles and all mining equipment, exemplary penalty be levied. CPCB should work out SOPs for levying penalty which should include besides cost of material mined out, cost of ecological damage also. All mining sites should compulsorily install CCTV cameras. Regular patrolling by Police and night monitoring through Drones.*

26. ***Groundwater Recharge**: **Over drawal of groundwater adversely affects the E Flow of rivers. Out of 820 blocks, UP has 280 blocks in the OCS category** (82-overexploited, 47-critical and 151- semi critical). No consent to operate be given by UPPCB without taking NOC from CGWA. State has recently enacted its own State Ground Water Act, 2019 and set up its own State Ground Water Authority. One of the reasons for poor implementation of Ground Water Act is lack of manpower at field level. The State should provide enough manpower at field level for proper enforcement.*

27. ***Rejuvenation of water bodies**: Rejuvenated water bodies lead to constant recharge of ground water as also proper E Flow in the rivers. The State Government may prepare an action plan by 31.07.2020 as per NGT directives mentioning the number of identified water bodies, location details, water quality status, compliance status, prioritization and detailed action plans. All the ponds should be identified and geo-tagged. In case of non-compliance, CPCB would issue notice for compensation for Rs.1 lakh/month.*

28. ***Bio Diversity Parks**: **Development of Bio Diversity Parks in the vicinity of rivers lead to continuous recharge of aquifers and maintenance of E Flow of the rivers**. CPCB may circulate Guidelines for Biodiversity parks to the States to enable them to develop these Parks.*

29. ***Monsoon Discharge**: The Committee reiterates the direction of Hon'ble NGT vide order dated 14.07.2020 in O.A.985/2019 which states that CPCB has to issue strict directions to ensure that no authority allows discharge of polluted sewage or polluted effluents directly into a water channel or stream even during the monsoon season.*

30. Success story of river Tamsa in Ayodhya should be circulated among all the District Magistrates and they

should be asked to identify and take up similar activities, with the involvement of local public, that may help in improvising the water bodies/rivers / groundwater or environment in any manner that too with the minimum financial burden.

31. *All these rivers throughout have multitudes of temples on both banks. Floral offerings from the devotees of these temples invariably find their place in these rivers.* ***IIT Kanpur has come out with a low price model wherein they convert these flowers into incence sticks (Agarbattis) which can be used in these temples itself. This way the flowers are recycled and it saves expenditure on incence sticks as well****. This model is being used in Kashi Vishwanath temple at present. It could be used elsewhere to lessen river pollution.*

32. ***Monitoring Mechanism****: The Committee finds that a number of problems are coordination problems among various departments. Such issues can easily be resolved* ***if there is a regular monthly meeting at the CS level, which unfortunately is not happening. The Committee requests the CS to hold a monthly monitoring meeting as laid down in the monitoring framework submitted by the State Govt before NGT****."*

Consideration of CMC and OC reports

23. The CMC report states that it addressed communication to all the Chief Secretaries and explained Hybrid Annuity Model (**HAM**) based PPP projects, One City One Operator (**OCOO**) concept, as implemented for sewerage intervention projects under Namami Gange programme as well as Faecal Sludge and Septage Management (**FSSM**) concept. The business model for liquid waste management has in-built mitigation mechanism against time & cost overrun, improper design, sub-optimal operation and failure to meet the performance standards. As a business model, HAM enables the Urban Local Body/ State Government to fund the development and operation of sewage treatment infrastructure taking into account the future flow of revenue. States were also facilitated by holding a Webinar on "Mainstreaming Faecal Sludge & Septage Management in Ganga Basin", which was attended by officials from

almost all the States. The Webinar also included a session on experience of Odisha which has taken up FSSM extensively, besides initiatives taken by NMCG in these directions. States were urged to consider the implementation of FSTPs and/ or co-treatment of faecal sludge in existing STPs, in all towns wherever feasible, so that dumping of the faecal sludge in water bodies/ land and thereby polluting them, can be avoided. The States/UT Administrations were specifically requested to ensure that **at least one polluted river stretch in each category is restored to meet all water quality standards up to bathing level** as ordered by this Tribunal. This may serve as a "model" with a view to replicate the efforts for restoring the remaining stretches. **States have failed to report reasons for delay in grounding the projects as well identification of officials responsible for the delays**. The necessary reporting from the States is being taken up and will be followed up in future review meetings.

Going Forward

24. **We have duly considered the CPCB, CMC and OC reports as above and noted the gaps and recommendations. We accept the recommendations of the Committees already quoted above that the States should furnish quality information and comply with the directions of this Tribunal in terms of orders dated 06.12.2019 and 29.06.2020. The violation of mandate of 100% treatment of sewage may be visited with the assessment and recovery of compensation and violation of timelines for setting up of pollution control devices may also be likewise strictly enforced with the compensation regime in place. There is also need for fully utilizing and augmenting the existing infrastructure as already noted above.**

25. **The States/UTs may consider using HAM as a business model as well as OCOP concept, FSSM Policy, alternative models for treatment of sewage/faecal sludge, decentralized STPs and also strengthen the online monitoring system. We are also of the view that flood plain zones of all the rivers need to be mapped and demarcated and encroachments removed therefrom. The same be utilized for plantation, creation of bio-diversity parks and constructed wetlands or other recreational purposes, consistent with the environmental concern. We agree with the OC that river side mining needs to be regulated. To reduce the timelines for setting up of STPs, many States/UTs are consuming time in preparing DPRs whereas model DPRs can be prepared and used for shortening the timelines. Similarly, SOPs need to be prepared for the timeline to be taken in setting up of STPs as well as for maintenance and operation of existing STPs particularly those not meeting the norms. Number of monitoring stations also needs to be suitably increased. We are also of the view that the State RRCs must function effectively and the Chief Secretaries must hold monthly meetings as it is found from the report of the OC for the State of UP that the Chief Secretaries may not be doing so. Huge failures of the States/UTs may show poor governance as far as environment is concerned which may need to be remedied. As found by the CMC, neither delay is explained nor accountability is fixed for the failure of the concerned officers which is not a happy situation.**

26. While dealing with the control of pollution of River Ganga, the Tribunal noted that following action points for monitoring:

i. *Setting up of STPs, Interception and Division (I&D) of drains and preventing untreated sewage and effluents*
ii. *Use of treated water*
iii. *Use of sludge manure*
iv. *Status of septage management*
v. *Compliance in relation to industries*
vi. *Installation of STPs/treatment facilities in Hotels/Ashrams and Dharmshalas.*
vii. *Water quality monitoring of river Ganga and its tributaries.*
viii. *Maintenance of environmental flow in river Ganga.*
ix. *Disposal of Bio-medical waste.*
x. *Compliance of Solid Waste Management (SWM) Rules, 2016.*
xi. *Preparation of maps and zoning of flood plains.*
xii. *Mining activity under supervision of the concerned authorities.*
xiii. *Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.*

CMC/RRCs/ OC for UP may conduct further monitoring keeping in mind the above action points.

III. Original Application No. 829/2019, lt. Col. Sarvadaman Singh Oberoi v. Union of India & Ors.

Review of proceedings before the Tribunal

27. OA 829/2019 deals with remedial action against pollution of sea water along the Indian Coastal areas. The Tribunal, vide order dated 03.12.2019, noted the problem and sought a report from the Central Pollution Control Board (CPCB), after referring to the observations of the Hon'ble Supreme Court in *Indian Council for Enviro Legal Action v. UOI,* ***(1996) 5 SCC 281*** that degradation of coastal areas was a matter of serious concern and affected aesthetic and environment which required Environmental Management Plans to ensure that coastal water remains fit for human and aquatic life. It was observed that major source of pollution is municipal sewage and effluents in the same manner as polluted river stretches. The National Coastal Zone Management Authority (NCZMA) has been constituted but the problem of marine pollution continues. CPCB report dated 11.03.2020 was considered on **29.06.2020**. It was found that in most of the coastal areas there was

non-compliance with regard to the water quality parameters on account of untreated sewage and industrial effluents being discharged into the marine waters through river systems. Apart from untreated effluents/sewage, there was lack of management of hazardous waste, bio-medical waste, municipal solid waste, plastic waste, e-waste and C&D waste which also affected the marine water quality. Integrated Coastal Management Plans were required with the assistance of NCSCM and MoEF&CC. The Tribunal accordingly directed that concerned departments of all the concerned States/UTs may implement the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and ensure 100% treatment of sewage/effluents in the same manner in which the Tribunal has issued directions for preventing untreated sewage and effluents being discharged into the rivers in OA 673/2018. **The Tribunal directed the State PCBs/PCCs/Chief Secretaries to take remedial action and file their reports with the CPCB so that the CPCB could file a consolidated action taken report**.

Review of CPCB Report dated 10.09.2020

28. **Accordingly, CPCB has filed its action taken report dated 10.09.2020** mentioning the directions issued to the 13 Coastal State PCBs/PCCs as follows:

> ***"A. That the directions under Section 33 (A) of the Water (Prevention and Control of Pollution) Act, 1974 shall be issued to all the concerned local bodies /urban bodies/municipalities/authorities in the coastal States/UTs within 15 days from the date of issuance of these directions:***
>
> *i. To set up a sewerage system for sewage collection, conveyance, treatment and its disposals to cover the entire local/urban coastal area within the respective jurisdiction.*
>
> *ii. To develop adequate capacity of sewage treatment using conventional STPs or any other technology and ensure to*

comply with the discharge norms as prescribed by the coastal SPCBs/PCCs under consent mechanism prescribed under Water (Prevention & Control of Pollution) Act, 1974.

iii. *For ensuring treatment and use of treated sewage for non-potable purposes such as industrial process, railways & bus cleaning, flushing of toilets through dual piping, construction activities, horticulture and irrigation etc.*

iv. *To set up requisite facilities for collection, transportation, treatment and disposal of Municipal Solid Waste, Plastic Waste, Construction and Demolition Waste generated as well as bio-mining of the existing legacy dumpsites in accordance with the Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Construction & Demolition Waste Management Rules, 2016 as amended respectively, notified under the Environment (Protection) Act, 1986, in the coastal areas within the respective jurisdiction of the State/UT.*

v. *For periodic cleaning and removal of plastic waste/solid waste in coastal areas to prevent marine pollution and for ensuring its safe disposal in accordance with the provisions notified under the Environment (Protection) Act, 1986.*

vi. *To submit a time bound action plan for management of sewage, municipal solid waste, plastic waste, C & D waste generated in the respective jurisdiction of the local/urban bodies in coastal areas as mentioned in afore-said paras, within a period of two months from the date of issuance of the directions dated 31/8/2020.*

B. Directed all the 13 Coastal SPCBs/PCCs shall:

i. *Ensure proper treatment and disposal of industrial effluent generated from water polluting industries located in the coastal States/UTs by ensuring installation of captive ETPs or disposal of industrial effluent through CETPs by prescribing PETP Standards under consent mechanism and for safe disposal or utilization of treated effluents in accordance with the disposal modes permitted under Environment (Protection) Act, 1986.*

ii. *Ensure proper treatment and disposal of industrial hazardous waste generated from hazardous waste generating industries located in the coastal States/UTs and to ensure requisite infrastructure for environmentally sound management of generated hazardous waste in accordance with the Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016 as amended notified under the Environment (Protection) Act, 1986.*

iii. *Associate with National Centre for Coastal Research (NCCR), Chennai under Ministry of Earth Sciences for monitoring and assessment of coastal waters within the jurisdiction of the coastal States/UTs up to 5 km from shore and to evolve*

strategies for protection of the coastal areas in association with Coastal Zone Management Authority in the State.

*iv. Prepare time bound comprehensive action plans along with implementing agencies in consultation with the respective Coastal Zone Management Authority for control of coastal Pollution in States/UTs, and submit to CPCB within three months from the date of issuance of these directions i.e. by 25th November 2020.***"**

Going Forward

29. While the CPCB report mentions the directions issued to 13 Costal State PCBs/PCCs but compliance of such directions needs to be monitored. We have dealt with *OA Nos. 593/2017* and *673/2018*, dealing with the setting up of ETPs/ STPs/CETPs and preventing discharge of untreated effluents/sewage into the rivers hereinabove. **The subject of coastal pollution needs to be dealt with in the same manner as polluted river stretches by preparing action plans of each States/UTs which may also be monitored by the Central Monitoring Committee (CMC) simultaneously with the 351 polluted river stretches and the said subject may also be covered in the next report of the CMC. As already mentioned, the CMC is to be headed by the Secretary, Ministry of Jal Shakti and assisted by the CPCB and NMCG and at the States/UTs level, the Chief Secretaries have to monitor the compliance status and give reports to and interact with the CMC.**

OA No. 829/2019 stands disposed of and further monitoring of the issue will henceforth be in *OA 593/2017* and *OA 673/2018*.

IV. Original Application No. 148/2016, Mahesh Chandra Saxena V. South Delhi Municipal Corporation & Ors.

Review of proceedings before the Tribunal

30. The issue of utilization of sewage treated water is incidental to setting up and operation of STPs. In view of shortage of clean water for drinking purposes, use of treated water for secondary purposes results in more clean water being available for drinking purposes. In absence of proper planning, fresh water is used for secondary purposes, which needs to be avoided. Vide order dated 11.09.2019, the Tribunal noted:

> *"1. … … **Delhi is an urbanized city state having a population of about 20 millions which is expected to increase to 23 million by the year 2021. Present total water requirement for domestic purposes for population of 20 million @ 60 GPCD works out to 1200 MGD. Present average potable water production by Delhi Jal Board is about 936 MGD and includes about 80-85 MGD of ground water. Thus, there is a gap of 204 MGD. Only 81.3 households have piped water supply. Reuse of water both in domestic and industrial sectors is essential. Around 150 billion liters of sewage water is produced in India annually. 70% of Singapore drinks treated sewage water.[3] There appears to be no satisfactory plan with any of the States/Union Territories (UTs) in the country. This Tribunal monitored the matter with reference to the NCT of Delhi for more than two years and passed several orders.***
>
> *2. Finally, on 27.11.2018, the Tribunal considered the report of the Delhi Jal Board (DJB) dated 16.11.2018 to the effect that **460 MGD waste water was being treated but reuse of such water was not being ensured.***
>
> *3. **As per CPCB's report 2016[4], 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. To remedy this situation orders have been passed by the Hon'ble Supreme Court[5] as well as this Tribunal[6] directing 100% treatment of the sewage and industrial effluents by installing requisite ETPs/CETPs/STPs. Proper utilization of treated water has implications not only to save*

---

[3] Second interim report dated 31.07.2019 of Monitoring Committee constituted under O.A. No. 496/2016.

[4] http://www.sulabhenvis.nic.in/Database/STST_wastewater_2090.aspx July 16, updated on December 6, 2016

[5] Paryavaran Suraksha Samiti Vs. Union of India, (2017) 5 SCC 326

[6] Paryavaran Suraksha Samiti Vs. Union of India, O.A No. 593/2017 order dated 28.08.2019

potable water but also to prevent illegal extraction of groundwater and conservation of water bodies. Timelines have been laid down for ensuring treatment of sewage and effluents for preventing pollution of river Ganga[7] *as well as other polluted river stretches which will result in more treated water being available.*

4. ***Having regard to the necessity to ensure utilization of treated waste water to reduce pressure on the ground water resources throughout the country, the Tribunal directed all the States/UTs in India to prepare and furnish their action plans within three months to the Central Pollution Control Board (CPCB) so that CPCB could review the same and issue further directions.***

5. Report dated 01.05.2019 furnished by the CPCB was considered by this Tribunal on 10.05.2019 and it was noted that some of the States did not furnish their action plans and the action plans furnished by some of the States needed improvements. The Tribunal directed that the States/UTs which had not yet furnished their action plans may do it by 30.06.2019 and such action plans may have monitoring mechanism for coordination with the local bodies which will be the responsibility of the Chief Secretaries of the States/UTs.

6. ……..

"7. ***It is well known that absence of plan for reuse of treated water affects recharge of ground water and also results in fresh water being used for purposes for which treated water can alternatively be used. Proper plans for reuse of waste water can add to availability of potable water which is many times denied this basic need or has to travel long distances to fetch clean water****. This being a substantial question of environment, direction is issued to the States/UTs which have not yet submitted their action plans to do so latest by 30.06.2019, failing which the Tribunal may have to consider coercive measures, including compensation for loss to the environment. The plans may include a monitoring mechanism in the States for coordination with the local bodies. This will be the responsibility of the Chief Secretaries of all the States/UTs.*

8 The issue is also connected with the rejuvenation of 351 river stretches. The States/UTs may include this subject in the deliberations with the Central Monitoring Committee constituted in terms of orders dated 08.04.2019 in O.A. No. 673/2018, News item published in The Hindu authored by Shri Jacob Koshy titled More river stretches are now critically polluted CPCB and order dated 24.04.2019 in O.A.606/2018, Compliance of Municipal Solid Waste Management Rules, 2016. ***The Chief Secretaries may also include this subject in their reports to this Tribunal in pursuance of orders passed in O.A. No. 606/2018 on 16.01.2019 and further orders in their presence."***

[7] O.A No. 200/2014

31. The report of the CPCB dated 15.05.2020 was considered on **21.05.2020,** wherein the gap analysis was given as follows:

> ***"3.0 GAP ANALYSIS***
>
> *As per Hon'ble NGT Directions dated 10.5.2019, suggestive measures for action plan for use of treated sewage was uploaded on CPCB's website. The same was also sent to all States/UTs vide letter dated 16.07.2019. CPCB had directed all States / UTs to cover the following action points in the Action Plan to be prepared for use of treated sewage:*
>
> *i. Estimation of quantity of present and projected sewage generation,*
> *ii. Estimation of Present and planned treatment capacity*
> *iii. Identification of Bulk users (Irrigation, horticulture, Industries, PWD and Railways etc) and to quantify the usage*
> *iv. Estimation of quantity of treated sewage to be used by the bulk users*
> *v. Specification time lines to meet the target.*
>
> *Accordingly, action plan submitted by 31 States / UTs were assessed based on its adequacy in addressing the above-mentioned points. The overview of the assessment is given in Table-1. Following are the major observations based on the assessment:*
>
> ***i. 06 States/ UTs (Andhra Pradesh, Delhi, Puducherry, Haryana, Tamil Nadu, Madhya Pradesh) have addressed all the five action points as listed above in their action plan.***
>
> ***ii. 10 States/UTs have partially addressed the above- listed action points in their action plan. 09 States / UTs (Gujrat, Chhattisgarh, Jharkhand, Goa, Daman & Diu, Dadar Nagar Havelli, Jammu and Kashmir, Maharashtra and Rajasthan) have identified bulk users However, quantity of treated sewage to be used by these bulk-users as well as timelines for meeting these targets have not been specified. Chandigarh has not estimated the presented / projected qty of Sewage generation and not specified timelines for meeting the target.***
>
> ***iii. 08 States / UTs (Assam, Bihar, Himachal Pradesh, Mizoram, Nagaland, Meghalaya, Orissa and West Bengal) have submitted very limited information in the action plan.***
>
> ***iv. Action plan received from 03 States (Kerala (Trivandrum), Karnataka (Bangalore), Telangana (Hyderabad) are city specific. Action plan for treated sewage reuse in the state not provided.***
>
> ***v. Apart from above, it has been informed 4 States / UTs that due to local terrain and technical issues and***

action plan could not be conceptualized., 02 UTs (Lakshadweep, Andaman and Nicobar Islands) do not have STPs and having only septic management. Fecal Sludge Treatment Plant has been planned in these UTs. 02 States (Sikkim, Tripura) have high water table and therefore plan to discharge treated water to rivers.

vi. 5 States/ UTs (Arunachal Pradesh, Manipur, Uttar Pradesh, Uttarakhand, Punjab) have not submitted any information.

CPCB's observations on the action plan submitted by the individual states/UTs have been enumerated in Table 1.
Additional observations on the action plan submitted by the States /UTs are as follows:

i. Only 14 States/UTs (Andhra Pradesh, Daman & Diu, Delhi, Gujarat, Haryana, Himachal Pradesh, J&K, Madhya Pradesh, Maharashtra, Nagaland, Rajasthan, Tripura, Puducherry, A&N) have estimated present quantity of Sewage generated in their States/UTs.

ii. Only 3 States/UTs (Haryana, Himachal Pradesh, Jammu & Kashmir) have adequate capacity of Sewage treatment w.r.t to present quantity of sewage generated.

iii. Major bulk users identified include- Irrigation, horticulture,, Rejuvenation of water bodies, Construction, Recreation, Railways, Vehicles and Coach washing, firefighting, recreation and industry.

iv. 13 States/UTs (Andhra Pradesh, Maharashtra, Chhattisgarh, Goa, Delhi, Rajasthan, Tamil Nadu, Puducherry, Odisha, Madhya Pradesh, Gujarat, Haryana, Jharkhand) plan to use treated sewage in industries which include Steel Plant, Thermal Power Plant, Refineries and Railways.

v. Percentage of reuse of treated sewage planned maximum in Haryana (80 %) followed by Puducherry (55 %), Delhi (50 %), Chandigarh (35 %), Tamil Nadu (25%), Madhya Pradesh (20 %), Andhra Pradesh (5 %).

vi. NCT of Delhi has set target to increase their re usage from 12.5 % to 60 %. In future, utilization of 341 MGD treated sewage are proposed for drinking purpose (197 MGD), Irrigation (112 MGD) and 10 MGD in rejuvenation of water bodies.

vii. Time-line specified by States/UTs for implementation of Action Plan varies between 2020 -2030."

(emphasis supplied)

32. The Tribunal issued following directions:

> ***"24. Accordingly, we direct that States which have not addressed all the action points may do so promptly latest before 30.06.2020, reducing the time lines in the action plans. The timelines must coincide with the timelines for setting up of STPs since both the issues are interconnected. All the States may take steps accordingly. The CPCB may compile further information on the subject. The compliance for action plans will be the responsibility of the Secretaries of Urban Development/other concerned, including Irrigation & Public Health, Local Bodies, Rural Development Departments of all the States/UTs and to be overseen by the Chief Secretaries. The Ministry of Jal Shakti and Ministry of Housing and Urban Affairs, Government of India may also monitor and coordinate the situation appropriately in the interest of water qualities of rivers, lakes, water bodies and protection of groundwater."***

Review of CPCB Report dated 16.09.2020

33. **Accordingly, the CPCB has filed its report dated 16.09.2020** detailing the compliance status as follows:

> "***3.1.1 Compliance status w.r.t. the directions under Para 24 and 26 (iv)***
>
> *i. CPCB requested all States/UTs vide email/letter dated 03.06.2020, 24.06.2020 and 24.08.2020 to submit action plans as per the format and compliance reports. Further, CPCB has also provided link of the report submitted to the Hon'ble NGT indicating observations/ shortcomings on action plans of reuse of treated sewage, to the SPCBs/PCCs. A copy of the correspondences is attached at* ***Annexure-II.***
>
> *ii. Accordingly, action plan was received from the State of Punjab and revised action plans were received from Jammu and Kashmir (UT), Lakshadweep, Rajasthan (specific to Ajmer district), and Sikkim. Information is awaited from other States.* ***The gap analysis of action plans is attached as Annexure-III.***
>
> *iii. 4 States/UTs (Arunachal Pradesh, Manipur, Uttar Pradesh, Uttarakhand) have not submitted any information till date.*
>
> ***3.1.2 Compliance w.r.t. directions under Para 26 (i)***
>
> *i. CPCB communicated to all SPCBs/PCCs to provide information on STPs inventory as per the format, vide letter dated 15/07/2020. A copy of letter is attached as Annexure-IV. Based on continuous follow-up, all*

SPCBs/PCCs have provided information on STPs and same is attached as Annexure-V.

ii. *CPCB vide letter dated 24.08.2020 has requested all States/UTs to submit action plans through online portal of CPCB."*

Going Forward

34. **In view of the above reports finding a huge gap in utilisation of sewage treated water, further action needs to be taken by all the States/UTs to ensure updating and enforcement of the action plans for 100% utilization of the treated water for secondary purposes.**

35. Since the above issue is interrelated to the issue of operation of STPs, it will be appropriate that **this aspect is also now monitored by the CMC headed by the Secretary, Ministry of Jal Shakti and assisted by the CPCB and NMCG. Ministry of Urban Development may also nominate an officer of not below the rank of Joint Secretary in the said Committee**. OA No. 148/2016 need not be kept pending separately which stands disposed of as the subject will be henceforth considered in OA 593/2017 and OA 673/2018.

V. Directions:

36. Accordingly, we issue following directions:

i. All the States/UTs may address gaps in generation and treatment of sewage/effluents **by ensuring setting up of requisite number of functional ETPs, CETPs and STPs**, as directed by the Hon'ble Supreme Court in (2017) 5 SCC 326.

ii. The timeline for commissioning of all STPs fixed by the Hon'ble Supreme Court, i.e., 31.03.2018, has long passed. The Hon'ble Supreme Court directed that the State PCBs must initiate prosecution of the erring Secretaries to the Governments, which

has also not happened. This Tribunal was directed to monitor compliance and in the course thereof, we direct that compensation may be recovered in the manner already directed in earlier orders (See, **Paras 5 and 6** herein), which may be deposited with the CPCB for restoration of the environment.

iii. The unutilized capacity of the existing STPs may be utilized expeditiously.

iv. The States/ UTs may ensure that the CETP, ETPs and STPs meet the laid down norms and remedial action be taken wherever norms are not met.

v. It must be ensured that no untreated sewage/effluent is discharged into any water body. Prompt remedial action may be taken by the State PCBs/PCCs against non-compliant ETPs/CETPs by closing down or restricting the effluents generating activity, recovering compensation and taking other coercive measures following due process of law.

vi. Directions outlined in **Paras 24-26** herein may be implemented by the States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level.

vii. Wherever action plans have not yet been finalized in respect of polluted river stretches or polluted coastal stretches, the same may be completed within one month from today. The execution of action plans may be overseen in the manner already directed in OA 673/2018 by River Rejuvenation Committees (**RRCs**). In the coastal areas, the said Committees may be known as 'River/Coastal Rejuvenation Committees'. The action plans must have provision for budgetary support in the manner laid

down by the Hon'ble Supreme Court or otherwise which aspect may also be monitored by the CMC.

viii. Directions outlined in **Para 29** herein may be implemented by the concerned coastal States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level. OA No. 829/2019 stands disposed of and further monitoring of the issue will henceforth be in OA 593/2017 and OA 673/2018.

ix. Directions outlined in **Para 34 and 35** herein may be implemented by the States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level. OA No. 148/2016 stands disposed of and further monitoring of the issue will henceforth be in OA 593/2017 and OA 673/2018.

x. CMC may consider development of an appropriate App to enable easy filing and redressal of grievances with regard to illegal discharge of sewage/effluents.

xi. The monitoring by the CMC may have the target of reduction of pollution loads and improvement of water quality of rivers and coastal areas.

xii. The CMC may also monitor the setting up of the bio-diversity parks, constructed wetlands and other alternative measures to reduce pollution load.

xiii. The CMC may also monitor demarcation of flood plain zones.

xiv. The treated sewage water may be duly utilized for secondary purposes by preparing appropriate action plans and reports in this regard be filed with the CPCB periodically.

xv. CMC may submit its consolidated update report incorporating all the above, before the next date. Each action point mentioned in Para 26 may be individually covered, and summarized in a tabular format.

37. A copy of this order may be forwarded to the Chief Secretaries of all the States/UTs, CPCB, NMCG, all PCBs/ PCCs, Secretaries, Ministry of Jal Shakti and Ministry of Housing and Urban Development, by email.

List for further consideration on February 16, 2021.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

September 21, 2020
Original Application No. 593/2017
Original Application No. 673/2018
Original Application No. 829/2019
Original Application No. 148/2016
SN & DV

Item Nos. 01 to 03 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 593/2017

Paryavaran Suraksha Samiti & Anr. Applicant(s)

Versus

Union of India & Ors. Respondent(s)

WITH

Original Application No. 673/2018

In Re: News item published in "The Hindu" authored by Shri Jacob Koshy, titled "More river stretches are now critically polluted: CPCB"

WITH

Original Application No. 829/2019

Lt. Col. Sarvadaman Singh Oberoi Applicant(s)

Versus

Union of India & Ors. Respondent(s)

WITH

Original Application No. 148/2016

Mahesh Chandra Saxena Applicant(s)

Versus

South Delhi Municipal Corporation & Ors. Respondent(s)

Date of hearing: 21.09.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

ORDER

I. Original Application No. 593/2017

Review of proceedings before the Tribunal

1. Proceedings in this matter are a follow up of the judgment of the Hon'ble Supreme Court dated 22.02.2017 in **Paryavaran Suraksha Samiti Vs. Union of India**[1], which mandates establishment and functioning of requisite ETPs/CETPs/STPs by 31.3.2018 and in default, to take coercive measures. This Tribunal has been mandated to monitor compliance. The pertinent directions therein are:

> "***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 purpose of generating***

[1] (2017) 5 SCC 326

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.*"***

(emphasis supplied)

2. The matter has been dealt with earlier, in light of status reports about the gaps in waste generation and treatment, and requisite number of treatment plants. Notices were issued to all State/UT PCBs/ PCCs, and status reports sought. The CPCB was directed to prepare an action plan for compliance of the order of the Hon'ble Supreme Court, monitor execution and file quarterly reports before this Tribunal and also upload the same on its website. Penal action was to be taken for failure in compliance of the orders of the Hon'ble Supreme Court by way of recovery of compensation and other coercive means. Orders passed by this Tribunal earlier include those dated 25.05.2017, 03.08.2018, 19.02.2019, 28.08.2019 and 21.05.2020.

3. It may be noted that the Tribunal is also simultaneously considering overlapping issues in several matters, including:

- **O.A. 673/2018**: remedial action for 351 identified polluted river stretches. **This matter now is, and will henceforth be, reviewed together with the present matter**.
- **O.A. 829/2019**: issue of coastal pollution on account of discharge of untreated effluents/sewage. *This matter now is reviewed together with the present matter, and will stand disposed of in terms of directions herein.*

- **O.A. 148/2016**: management of sewage treated water is involved. *This matter now is reviewed together with the present matter, and will stand disposed of in terms of directions herein.*
- **O.A. 1038/2018**: 100 identified polluted industrial clusters, in which the water pollution is caused mainly by discharge of untreated sewage/effluents.
- **O.A. 606/2018**: monitoring compliance of Solid and Liquid Waste Management, including river pollution. **The Tribunal interacted with Chief Secretaries of all the States/UTs, who appeared, in person, with progress reports on significant environmental issues**. They were directed to personally monitor ongoing compliance at least monthly through dedicated cells.

4. Further, in O.A. 673/2018, the Tribunal directed constitution of **River Rejuvenation Committees (RRC)** in all the States/UTs, headed by Chief Secretaries, to prepare and execute action plans for restoration of the polluted river stretches. The action plans envisage prevention of discharge of untreated effluents/sewage. Apart from O.A. 673/2018, which deals with the rejuvenation of 351 river stretches generally, the Tribunal is considering remedial action for control of pollution of certain rivers separately, under Supreme Court directions, or otherwise[2].

[2] These include (not an exhaustive list):
- M.C. Mehta V. UOI **O.A. No. 200/2014** (pollution of **Ganga**), see also 2017 NGTR (3) PB 1
- Manoj Mishra V. UOI, **O.A. No. 06/2012** (pollution of **Yamuna**)
- Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case) **O.A. No. 138/2016** (TNHRC) (pollution of river **Ghaggar**)
- Mahendra Pandey V. UOI & Ors. **O.A. No. 58/2017** (river **Ramganga**, a tributary of river Ganga)
- Sobha Singh & Ors. V. State of Punjab & Ors. O.A. 916/2018, and **O.A. No. 101/2014** (rivers **Sutlej and Beas**)
- Amresh Singh V. UOI & Ors. **O.A. No. 295/2016, Execution Application No. 32/2016** (rivers **Chenab and Tawi**)
- Nityanand Mishra V. State of M.P. & Ors. **O.A. No. 456/2018** (river **Son**)
- Doaba Paryavaran Samiti V. State of U.P. &Ors. **O.A. No. 231/2014** (river **Hindon**)

5. Whilst not necessary to refer to all previous orders, we start with the Tribunal's order of **28.08.2019**, **wherein for the first time, the Tribunal set up a compensation regime for default.** The Tribunal considered the CPCB reports dated 30.05.2019, 19.07.2019 and 14.08.2019 with compiled status of setting up of ETPs/ CETPs/STPs and methodology for assessment of environmental compensation. The Tribunal noted that **deficit in capacity of liquid waste treatment was 62 percent which was the major source of polluting rivers and water bodies**. In the said order, the following directions were issued:-

> ***"****21. We may now sum up our directions:*
>
> *(i) The Environmental compensation regime fixed for industrial units, GRAP, solid waste, sewage and ground water in the report dated 30.05.2019 is accepted and the same may be acted upon as an interim measure.*
>
> *(ii) SPCBs/PCCs may ensure remedial action against non-compliant CETPs or individual industries in terms of not having ETPs/fully compliant ETPs or operating without consent or in violation of consent conditions. This may be overseen by the CPCB. CPCB may continue to compile information on this subject and furnish quarterly reports to this Tribunal which may also be uploaded on its website.*
>
> ***(iii) All the Local Bodies and or the concerned departments of the State Government have to ensure 100% treatment of the generated sewage and in default to pay compensation which is to be recovered by the States/UTs, with effect from 01.04.2020. In default of such collection, the States/UTs are liable to pay such compensation. The CPCB is to collect the same and utilize for restoration of the environment.***
>
> *(iv) The CPCB needs to collate the available data base with regard to ETPs, CETPs, STPs, MSW facilities, Legacy Waste sites and prepare a river basin-wise macro picture in terms of gaps and needed interventions.*
>
> ***(v) The Chief Secretaries of all the States/UTs may furnish their respective compliance reports on this subject also in O.A. No. 606/2018.***

- Arvind Pundalik Mhatre V. MoEF&CC &Ors. **O.A. No. 125/2018** (river **Kasardi**)
- Sudarsan Das V. State of West Bengal & Ors. **O.A. No. 173/2018** (river **Subarnarekha**) Meera Shukla V. Municipal Corporation, Gorakhpur & Ors. **O.A. No. 116/2014** (rivers **Ami, Tapti, Rohani and Ramgarh lake**)
  - O.A. 426/2018, Mohammed Nayeem Pasha & Anr. v. The State of Telangana & Ors. (river Musi)
  - O.A. 50/2018, Nav Yuva Sanghatan & Ors. v. The Secretary, Narmada, Water Resources, Water Supply & Kalpsar Department & Ors. (river Tapi).

*List for further consideration on 21.05.2020, unless required earlier. A copy of this order be placed on the file of O.A. No. 606/2018 relating to all States/UTs and be sent to Chief Secretaries of all States/UTs, Secretary MoEF&CC, Secretary Jal Shakti and Secretary, MoHUA.***"**

(emphasis supplied)

6. Thereafter on **21.05.2020**, **wherein the Tribunal directed data collection by river basin; reduction of timelines; the Central Government to facilitate the State/UTs efforts; and CPCB to study extent of reduction of pollution load**. The following directions were issued:-

"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.

ii. ***The CPCB may study and analyse the extent of reduction of industrial and sewage pollution load on the environment, including industrial areas and rivers and other water bodies and submit its detailed report to the Tribunal.***

iii. *During the lockdown period there are reports that the water quality of river has improved, the reasons for the same may be got studied and analysed by the CPCB and report submitted to this Tribunal. If the activities reopen, the compliance to standards must be maintained by ensuring full compliance of law by authorities statutorily responsible for the same.*

iv. *Accordingly, we direct that States which have not addressed all the action points with regard to the utilisation of sewage treated water may do so promptly latest before 30.06.2020, reducing the time lines in the action plans.* ***The timelines must coincide with the timelines for setting up of STPs since both the issues are interconnected.*** *The CPCB may compile further information on the subject accordingly.*

v. *Needless to say that since the issue of sources of funding has already been dealt with in the orders of the Hon'ble Supreme Court, the States may not put up any excuse on this pretext in violation of the judgment of the Hon'ble Supreme Court."*

Review of Compliance Status Reports

CPCB Report dated 16.09.2020

7. In light of the order of 21.05.2020, CPCB filed a report dated 16.09.2020. In substance, the report states that 1831 industries are working without ETP, 1123 with non-compliant ETPs, there are 62 non-compliant CETPs, 530 non-compliant STPs, several projects are still at proposal/construction stage, OCEMS data for 11 PCBs/PCCs is not in public domain, there is a gap in waste generated and treated and large number of dump sites are not scientifically managed resulting in contamination of water. **There is, thus, a need for more rigorous and continuous monitoring, including further steps for coercive measures to enforce rule of law and citizens' right to clean**

environment. The authorities must ensure reduction in pollution load for meaningful good governance.

8. The findings in the report include:-

"A. 2.0 Compliance Status of ETPs, CETPs & STPs reported by SPCBs/PCCs

*i. As per the data received from SPCBs/PCCs, out of total 64,484 number of industries requiring ETPs, 62,653 industries are operating with functional ETPs and **1,831 industries are operating without ETPs.** Show-cause notices and closure directions have been issued to 856 and 824 industries, respectively for operating without ETPs. Legal cases have been filed against 6 industries and action is under process for 145 industries. Out of 62,653 operational industries, 61,530 industries are complying with environmental standards and **1,123 industries are non-complying**. Show-cause notices and closure directions have been issued to 613 and 135 industries, respectively, for non-compliance. Legal cases have been filed against 13 industries and action is under process for 362 industries.*

*ii. As per the data received from SPCBs/PCCs, there are total 191 CETPs, out of which 129 CETPs are complying with environmental standards and **62 CETPs are non-complying**. Show-cause notices and closure directions have been issued to 20 and 5 CETPs, respectively for non-compliance. Legal cases have been filed against 8 CETPs and action is under process for 29 CETPs.*

*iii. As per the data received from SPCBs/PCCs, there are total 15,730 STPs (including municipal and other than municipal (non-municipal/stand-alone) STPs), out of which, 15,200 STPs are complying with environmental standards and **530 STPs are non-complying**. Show-cause notices and closure directions have been issued to 262 and 28 STPs, respectively, for non-compliance. Legal cases have been filed against 17 STPs and action is under process for 223 STPs.*

iv. As per the data received from SPCBs/PCCs, there are 84 CETPs in construction/proposal stage, whereas, for STPs, 1,081 projects (municipal and non-municipal) are under construction/proposal stage.

*v. As per the data received from SPCBs/PCCs, 15 SPCBs/PCCs (namely- Andhra Pradesh, Assam, Bihar, Goa, Haryana, Himachal Pradesh, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Odisha, Puducherry, Tamil Nadu, Telangana and West Bengal) are displaying OCEMS data in public domain. **The links provided by Gujarat and***

Uttarakhand SPCBs are password protected and data is not available in public domain. The 4 SPCBs (namely, Chhattisgarh, Jammu & Kashmir, Punjab and Sikkim) have not provided appropriate web links. Further, Chandigarh PCC has clarified that OCEMS data will be displayed after upgradation of STPs. Karnataka SPCB has requested for time till 30.09.2020 to make the system operational. *Mizoram SPCB has informed that there is no industry requiring OCEMS connectivity. Lakshadweep PCC informed that there is no industry in the Union Territory of Lakshadweep.*

OCEMS data of 11 SPCBs/PCCs (Andaman & Nicobar, Arunachal Pradesh, Daman & Diu, Dadra Nagar Haveli, Delhi, Manipur, Meghalaya, Nagaland, Rajasthan, Tripura and Uttar Pradesh) is not available in public domain.

B. 3.1 Sewage Management

3.1.1 Compliance status w.r.t. the directions under Para 24 and 26 (iv)

i. *CPCB requested all States/UTs vide email/letter dated 03.06.2020, 24.06.2020 and 24.08.2020 to submit action plans as per the format and compliance reports. Further, CPCB has also provided link of the report submitted to the Hon'ble NGT indicating observations/ shortcomings on action plans of reuse of treated sewage, to the SPCBs/PCCs. A copy of the correspondences is attached at* ***Annexure-II.***

ii. *Accordingly, action plan was received from the State of Punjab and revised action plans were received from Jammu and Kashmir (UT), Lakshadweep, Rajasthan (specific to Ajmer district), and Sikkim. Information is awaited from other States.* ***The gap analysis of action plans is attached*** *as* ***Annexure-III.***

iii. *4 States/UTs (Arunachal Pradesh, Manipur,* ***Uttar Pradesh, Uttarakhand) have not submitted any information*** *till date.*

3.1.2 Compliance w.r.t. directions under Para 26 (i)

i. *CPCB communicated to all SPCBs/PCCs to provide information on STPs inventory as per the format, vide letter dated 15/07/2020. A copy of letter is attached as Annexure-IV. Based on continuous follow-up, all SPCBs/PCCs have provided information on STPs and same is attached as Annexure-V.*
ii. *CPCB vide letter dated 24.08.2020 has requested all States/UTs to submit action plans through online portal of CPCB.*

C. *3.2 River basin-wise macro picture of ETPs, CETPs, STPs, MSW Facilities and Legacy Waste Sites*

The Hon'ble NGT, in the matter of OA No. 593 of 2017, vide order 28.08.2019, directed CPCB to collect the data of ETPs, CETPs, STPs, MSW facilities and legacy waste sites and prepare a river-basin-wise macro picture in terms of gaps.

In compliance of the Hon'ble NGT's directions, CPCB has developed an online portal for the collection of river-basin wise information. The details of the river basins associated with the concerned states, as adopted from River Basin Classification, 2019 of Central Water Commission, is given at ***Annexure-VI.*** *The portal, with modules for ETPs, CETPs and STPs, is operational and SPCBs/PCCs are in the process of using the same for submission of information.*

3.2.1. Status of ETPs:

CPCB has been collecting the industry specific information related to river basin, locational coordinates (latitude & longitude), disposal point for trade effluent, treatment capacity & actual treatment, environmental compliance status, action taken by concerned authority in case of non-compliance, etc. Further, provision for capturing information regarding pollution load of four major water quality parameters i.e. pH, BOD, COD and TSS are being also incorporated. SPCBs/PCCs have been reminded to expedite the work for data submission, vide letter dated 12.05.2020, 30.07.2020 and 25.08.2020 (email). Copy of the correspondences is given at ***Annexure-VII (a to c).***

So far, information from 6 SPCBs/PCCs (namely; Delhi, Haryana, Daman & Diu, Mizoram, Odisha and Tripura) have been received through CPCB portal. Rest of the SPCBs/PCCs are under the process of compilation and submission of data. The data submitted by Haryana, Daman & Diu, Delhi and Odisha SPCB/PCC has some shortcomings, which were communicated vide letter dated 07.09.2020 & 09.09.2020. A Copy of the correspondences to concerned SPCBs/PCCs is given at ***Annexure-VIII (a to d).***

Although, to have the complete and clear picture, data from all the States/UTs is required, however, preliminary analysis based on the information received from 04 SPCBs/PCCs, is as follows:

a. ***River basin-wise disposal point of industrial units for the discharge of trade effluent:***

As per the river basin-wise information received from 04 SPCBs/PCCs (Delhi, Daman & Diu, Mizoram and Tripura), there are total 1,544 industrial units in these States/UTs. The river basin-wise number of units with respect to their effluent discharge points is summarized in the following table:

Table No. 1: River basin-wise status of trade effluent generating units and their disposal points

SI. No.	River Basin	State/ UT	Number of units w.r.t. their effluent disposal points									Total
			CETP	Canal	Drain	Land/ Irrigation	River	Sewer	STP	ZLD	Others	
1	Ganga	Delhi	817	1	571	0	0	26	1	3	0	**1419**
2	West flowing rivers from Tapi to Tadri	Daman & Diu	0	0	0	2	1	0	0	20	21	**44**
3	Minor river basins drainage to Bangladesh & Burma	Mizoram	0	0	61	0	0	0	0	0	0	**61**
		Tripura	4	0	2	I	2	0	0	0	II	**20**
Total			**821**	**1**	**634**	**3**	**3**	**26**	**1**	**23**	**32**	**1544**

b. River basin-wise discharge of treated/partially treated effluents

Based on the information received from Delhi, Daman & Diu, Mizoram and Tripura SPCB/PCC, river basin-wise quantum of treated/partially treated industrial effluents, is summarized in the following table:

Table No. 2: River basin-wise status of discharge of treated/partially treated effluent at various disposal points

SI. No.	River Basin	State/UT	Discharge Volume at the				Particular discharge point (KLD)					Total
			CETP	Canal	Drain	Land/ irrigation	River	Sewer	STP	ZLD	Others	
I	Ganga	Delhi	6178	0	6721	0	0	177	195	6	0	13277
2	West flowing rivers from Tapi to Tadri	Daman & Diu	0	0	0	24	400	0	0	1210	233	1867
3	Minor river basins drainage to Bangladesh & Burma	Mizoram	0	0	43	0	0	0	0	0	0	43
		Tripura	545	0	2	18	1320	0	0	0	470	**2355**
Total			**6723**	0	**6766**	**42**	**1720**	**177**	**195**	**1216**	**703**	**17542**

c. River basin-wise discharge of untreated/partially treated industrial trade effluent

As per the available information for the 04 States/UTs, the Table No. 3 summarizes the river basin-wise status of the designed capacity of ETPs, daily average volume of effluent generation and Discharge of untreated/partially treated effluent (KLD).

Table No. 3 River-basin wise industrial effluent generation and treatment

Sl. No.	***River Basin***	***State/UT***	***Designed capacity of ETPs (KLD)***	***Daily Average Volume of Effluent Generation***	***Daily average volume of treated effluent (KLD)***	***Discharge of untreated/ partially treated effluent (KLD)***
			(i)	***(ii)***	***(iii)***	***(iv) = (ii) — (iii)***
1	*Ganga*	*Delhi*	*32358*	*13417*	*13338*	*79*
2	*West flowing rivers from Tapi to Tari*	*Daman & Diu*	*4351*	*1867*	*1867*	*0*
3	*Minor river basins drainage to Bangladesh & Burma*	*Mizoram*	*95*	*44*	*43*	*1*
		Tripura	*13869*	*2359*	*2355*	*4*
Total			***50673***	***17687***	***17603***	***84***

3.2.2 River basin-wise status of CETPs:

So far, river basin-wise information of CETPs have been received from 6 SPCBs/PCCs (namely Chandigarh, Delhi, Mizoram and Tripura, Daman & Diu and Dadra Nagar Haveli). The Chandigarh, Mizoram Daman & Diu and Dadra Nagar Haveli, have informed that there is no CETP in their State/UT. The information from other SPCBs/PCCs is awaited.

3.2.3 River basin-wise status of STPs:

CPCB has developed a portal to facilitate submission of river basin-wise data for STPs. CPCB vide letter dated 24.08.2020 has requested all States/UTs to submit action plans and river basin-wise data through portal. The information from SPCBs/PCCs is awaited.

3.2.4 River basin-wise status of MSW Facilities and Legacy Waste Sites:

CPCB developed the formats for collection of information regarding Municipal solid Waste (MSW) processing facilities, landfill sites and dumpsites from all the States/UTs, to ensure compliance with Hon'ble NGT Directions. The formats circulated to all States/UTs vide letter dated July 31, 2020 ***Annexure-IX.*** *Information has been received from 10 States/UTs (namely;*

Kerala, Maharashtra, Jammu & Kashmir, Himachal Pradesh, Mizoram, Tamil Nadu, Delhi, West Bengal, Meghalaya & Pondicherry). Out of the 10 states, Tamil Nadu has provided information for only dumpsites. On the basis of information, as submitted by States/UTs, the status is as follow:

3.2.4.1 Status of MSW facilities and legacy waste sites

a) State wise distribution of the SWM facilities is given in Table No. 4. River basin-wise distribution of the SWM facilities is given in Table No. 5.

Table No. 4: State-wise Distribution of Solid Waste Management Facilities

Sl. No.	Name of the State	Waste Processing	Landfill Sites	Dumpsite
1.	Delhi	40	2	3
2.	Himachal	52	0	15
3.	Jammu &	3	7	53
4.	Kerala	20	-	39
5.	Maharashtra	103	19	62
6.	Meghalaya	2	**1**	5
7.	Mizoram	26	1	5
8.	Puducherry	4	3	3
9.	Tamil Nadu	Not Provided	Not Provided	136
10.	West Bengal	9	2	107
TOTAL		**259**	**35**	**428**

Table No. 5: River basin-wise Distribution of Solid Waste Management Facilities

Sl. No.	River basin	Name of the State	Waste Processing	Landfill	Dumpsite
1.	Alur	Kerala	0	0	1
2.	Amravati	Maharashtra	0	0	1
3.	Anchar	Jammu & Kashmir	1	**1**	**1**
4.	Beas	Himachal Pradesh	5	0	3
5.	Bharthpuza	Kerala	0	0	1
6.	Bhatsa	Maharashtra	0	0	1
7.	Bhawani	Tamil Nadu	0	0	1
8.	Bindusar	Maharashtra	1	0	1
9.	Binwa Khud	Himachal Pradesh	0	0	1
10.	Bori	Maharashtra	1	0	1
11.	Cauvery	Tamil Nadu	0	0	3
12.	Chalakudy	Kerala	1	0	0
13.	Chandrabhaga	Maharashtra	1	1	1
14.	Chitra Puzha	Kerala	1	0	2
15.	Darna	Maharashtra	1	0	1
16.	Devanathi	Tamil Nadu	0	0	1
17.	Gandhari	Maharashtra	1	1	0
18.	Ganga	West Bengal	4	0	0

19.	*Ghodnadi*	*Maharashtra*	*1*	*0*	*1*
20.	*Girnna*	*Maharashtra*	*1*	*0*	*2*
21.	*Godavari*	*Maharashtra*	*5*	*1*	*5*
22.	*Gomai*	*Maharashtra*	*1*	*0*	*1*
23.	*Grad*	*Jammu & Kashmir*	*0*	*0*	*1*
24.	*Haldi*	*West Bengal*	*2*	*2*	*0*
25.	*Hatheli Khud*	*Himachal Pradesh*	*1*	*0*	*1*
26.	*Hiwara*	*Maharashtra*	*1*	*0*	*1*
27.	*Indrayani*	*Maharashtra*	*2*	*1*	*2*
28.	*Jhelum*	*Jammu & Kashmir*	*0*	*2*	*2*
29.	*Kadalundi River*	*Kerala*	*1*	*0*	*2*
30.	*Kalam*	*Himachal Pradesh*	*1*	*0*	*0*
31.	*Kalyan creek*	*Maharashtra*	*3*	*1*	*1*
32.	*Kan*	*Maharashtra*	*0*	*0*	*1*
33.	*Kanhan*	*Maharashtra*	*3*	*0*	*2*
34.	*Karamana*	*Kerala*	*0*	*0*	*1*
35.	*Karuvannoor*	*Kerala*	*0*	*0*	*1*
36.	*Khir Ganga*	*Himachal Pradesh*	*1*	*0*	*0*
37.	*Kolar*	*Maharashtra*	*1*	*0*	*1*
38.	*Kora Puzha*	*Kerala*	*1*	*0*	*1*
39.	*Koringa*	*Puducherry*	*0*	*0*	*1*
40.	*Koyana*	*Maharashtra*	*1*	*1*	*1*
41.	*Krishna*	*Maharashtra*	*6*	*2*	*6*
42.	*Kundalika*	*Maharashtra*	*1*	*1*	*1*
43.	*Maharaza*	*Tamil Nadu*	*0*	*0*	*1*
44.	*Manjara*	*Maharashtra*	*1*	*1*	*1*
45.	*Markanda River*	*Himachal Pradesh*	*1*	*0*	*0*
46.	*Marna*	*Maharashtra*	*0*	*0*	*1*
47.	*Meenachil*	*Kerala*	*0*	*0*	*1*
48.	*Minkjai*	*Meghalaya*	*0*	*0*	*1*
49.	*Mithi*	*Maharashtra*	*0*	*0*	*1*
50.	*Mula*	*Maharashtra*	*38*	*0*	*1*
51.	*Nallathanni*	*Kerala*	*0*	*0*	*1*
52.	*Nira*	*Maharashtra*	*1*	*1*	*1*
53.	*Pabbar river*	*Himachal Pradesh*	*2*	*0*	*0*
54.	*Panchganga*	*Maharashtra*	*2*	*1*	*2*
55.	*Panzara*	*Maharashtra*	*1*	*0*	*1*
56.	*Patalganga*	*Maharashtra*	*2*	*0*	*2*
57.	*Pedhi*	*Maharashtra*	*0*	*0*	*1*
58.	*Pelhar*	*Maharashtra*	*1*	*0*	*1*
59.	*Penganga*	*Maharashtra*	*2*	*0*	*2*
60.	*Puzhakal*	*Kerala*	*0*	*0*	*1*
61.	*Rangavali*	*Maharashtra*	*1*	*0*	*1*
62.	*Ravi*	*Himachal Pradesh*	*1*	*0*	*1*
63.	*Ringre*	*Meghalaya*	*1*	*0*	*1*
64.	*Satluj*	*Himachal Pradesh*	*4*	*0*	*1*
65.	*Savitri*	*Maharashtra*	*0*	*0*	*1*
Sl.	*River basin*	*Name of the State*	*Waste*	*Landfill*	*Dumpsite*
66.	*SEER KHAD*	*Himachal Pradesh*	*1*	*0*	*0*
67.	*Sina*	*Maharashtra*	*1*	*0*	*1*
68.	*Sirsa*	*Himachal Pradesh*	*0*	*0*	*1*
69.	*Suketi Khad*	*Himachal Pradesh*	*1*	*0*	*0*
70.	*Swan river*	*Himachal Pradesh*	*1*	*0*	*0*
71.	*Tapi*	*Maharashtra*	*2*	*1*	*2*
72.	*Tawi*	*Jammu & Kashmir*	*0*	*0*	*1*
73.	*Tirur*	*Kerala*	*0*	*0*	*1*

74.	*Titur*	*Maharashtra*	*1*	*0*	*1*
75.	*Tuirial*	*Mizoram*	*1*	*1*	*0*
76.	*Ulhas*	*Maharashtra*	*3*	*0*	*3*
77.	*Umiam*	*Meghalaya*	*1*	*1*	*1*
78.	*Una Khad*	*Himachal Pradesh*	*1*	*0*	*0*
79.	*Uppanaru*	*Tamil Nadu*	*0*	*0*	*1*
80.	*Valapattanam*	*Kerala*	*0*	*0*	*1*
81.	*Wainganga*	*Maharashtra*	*5*	*3*	*5*
82.	*Wardha*	*Maharashtra*	*3*	*2*	*2*
83.	*Wena*	*Maharashtra*	*1*	*0*	*1*
84.	*Yamuna*	*Delhi*	*41*	*2*	*3*
85.	*NA*	*Break-up given*	*88*	*8*	*325*
		TOTAL	*259*	*35*	*428*

b) The SWM facilities located in the ten states are spread over 84 river basins, a majority of them are significantly small.

c) The information, regarding river basin in which a particular solid waste management facility is falling, has not been reported for 34% of the waste processing facilities, 22% of the landfills and 75% of the dumpsites. State wise number of states for which the river basin in which the waste management facility has not been provided is given in the Table No. 6.

Table No. 6: SWM facilities for which river basin has not been indicated

State/UT	Waste processing facilities	Landfills	Dumpsites
Himachal Pradesh	31	No sanitary landfill site	7
Jammu & Kashmir	2	4	48
Kerala	16	Not provided	25
Maharashtra	7	1	1
Meghalaya	0	0	2
Mizoram	25	0	5
Puducherry	4	3	2
Tamil Nadu	Not provided	Not provided	128
West Bengal	3	0	107
Total	**88**	**8**	**325**

d) The number of dumpsites (428) is substantially higher than the number of scientifically designed landfills (35). As no arrangement for collection and treatment of leachate is provided in these dumpsites, there is a high potential of contamination of surface and groundwater resources at these dumpsites.

e) Capacity of one landfill site in Maharashtra is exhausted.

f) ***Fresh waste is reported to be dumped at 224 out of 428 dumpsites.***

g) ***Disposal of legacy waste is not under consideration in 46 out of 428 dumpsites***

h) ***Bio-remediation in 72 out of 428 dumpsites is not being done in accordance with CPCB guidelines.***

i) *Ground water analysis report is not available for 215 out of the 259 waste processing sites, 26 out of 35 landfill sites, 222 of the 428 dumpsites.*

j) *174 out of the 259 waste processing facilities, 16 out of 35 landfill sites and 422 out of 428 dumpsites have not provided leachate treatment facilities.*

k) *Only 22 out of the 259 waste processing facilities, 14 out 35 landfill sites and 109 out of 428 dumpsites have confirmed that the leachate complies with the stipulated norms.*

l) *Locational coordinates for waste processing facilities have not been provided for 60 out of 259 facilities and point of disposal for 214 out of 259 facilities; 8 out of 35 landfill sites and 20 out of 35 point of disposal of leacheates; 80 out of 428 dumpsites and 376 out of 428 point of disposal of leachates.**"***

Report of the Oversight Committee (OC) constituted by the Tribunal for the State of UP

9. A separate report has been received on 18.09.2020 from the OC for the State of UP. The report has given the compliance status. Most of the directions have been found to be 'not complied' or 'partially complied' which is again a matter of concern. **Thus, the State of UP needs to address the OC recommendations for 100% treatment and reuse of treated water, ground water management, setting up of adequate number of OCEMs and preparing District Environment Plans**. **This may be monitored by the CMC as well.**

10. The OC recommendations are as follows:-

"1. ***The action plan for 100% sewage treatment and action plan for reuse of the treated water should be prepared as directed by the Hon'ble NGT in its order.*** *The Committee directed the Principal Secretary, Urban Development to submit the action plan to the CPCB immediately as they have already crossed the prescribed time limit. A copy of both the action plans should also be given to the committee.*

2. ***The issue of Groundwater*** *is being dealt by Central Ground Water Board as per Supreme Court Orders. Recently some States including UP have passed their own legislations on the subject and created their own State Boards. In the light of the Supreme Court Order and the State Act, the Oversight Committee felt that the roles of Central Ground Water Board /Authority and State Ground Water Board/ Authority need to be clarified. Also, the Central Government needs to come out atleast with a legislation/model legislation on Ground water to ensure uniformity amongst States.*

3. The Committee felt that though ***there are complaints of reverse boring and consequent contamination of groundwater leading to widespread diseases and even mortality in affected areas, the issue has not been dealt with the seriousness that it deserves.*** *Presently Reverse Boring is dealt with alongwith other offences for polluting water sources under Section 24(1 a) of Water Pollution Act1974 with penalty clause under Section 43. The Committee felt that specific provisions need to be done for Reverse Boring and the penalty amount needs to be increased because this act is similar to abetment to mass murder of the community.*

4. ***OCEMS for STPs****: CPCB has installed 36 real time monitoring stations all across the country out of which 21 are in Uttar Pradesh as part of the Online Continuous Effluent Monitoring System (OCEMS). The number of stations in Ganga is 15, 5 on its tributaries and 1 is on a drain. A central control room has been established at UPPCB HQs to do 24x7 monitoring of pollution data relating to these stations. The system was very effective in monitoring pollution in Ganga river during Kumbh and was widely appreciated.* ***The Committee feels that these stations be established in all Polluted River Stretches so that all gap areas are covered and major polluting sources are monitored on 24x7 basis****. UPPCB may be directed to ascertain the number of such stations required for ensuring monitoring of all such polluted river stretches in the State. A list regarding the location and tentative cost of setting up the stations alongwith likely sources of funding may be prepared by SPCB and submitted to the Committee within one month. The online monitoring stations will overcome the challenges of manual monitoring and prevent data fudging.*

5. ***OCEMS for industries****: The* ***State Pollution Control Board should ensure compulsory installation of Online Continuous Effluent Monitoring System (OCEMS) in all GPIs along with Pan-tilt Zoom Web Camera with open access to the department****. Consent to operate shall be provided only after such compliance.*

*6. Even after so much of emphasis t****he District Environment Plan (DEP) has not been finalized yet. UPPCB may be directed to get it implemented in all the***

Districts within a month, failing which adverse entries be recorded in the ACRs of concerned officers. The DEPs should focus inter alia on the working of ETPc, STPs and CETPs.

7. As per the compliance report of UPPCB it is evident that they are continuously monitoring the STPs/ETPs/CETPs and have installed OCEEMS in the State for online monitoring still the same information is not reflected in the report of CPCB. Thus, it is directed that UPPCB should timely submit their progress report to the CPCB.

8. Chief Secretary may be directed to take immediate steps to activate the district level Environment committee to meet regularly at least once in two weeks as directed by Hon'ble NGT. It will help to tackle the issues, adversely affecting the environment at an early stage."

Going Forward

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. Since CMC headed by the Secretary, Ministry of Jal Shakti has taken over monitoring of abatement of pollution of polluted river stretches in the country in coordination with the Chief Secretaries who are heading the RRCs in the States, henceforth the monitoring of directions for ensuring requisite number of pollution control devices may also be monitored by the CMC with a view to enable compliance of mandate of law. **The CMC may give a consolidated quarterly report covering the status of compliance with regard to adequate number of pollution control equipments as well as steps taken for**

rejuvenation of rivers in terms of orders already passed in OA 673/2018 and in the light of observations in paras 7 and 9 above.

II. Original Application No. 673/2018

Review of proceedings before the Tribunal

12. As noted earlier, the issue for consideration in this matter is rejuvenation of 351 polluted river stretches causing threat to public health and the environment. The Tribunal has considered the matter on several occasions *suo motu* as well as on directions of the Hon'ble Supreme Court with regard to certain polluted river stretches, **including Ganga and Yamuna**. It is not necessary to refer to all such orders. We may only refer to the directions issued on 06.12.2019 and 29.06.2020 which are as follows.

13. Directions in order dated **06.12.2019:**

"XII. Directions:

47. We now sum up our directions as follows:

i. 100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 atleast to the extent of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.

ii. Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. Rs. 10 lakhs per month per STP.

iii. *We further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by the Chief Secretaries of all the States/UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.*

iv. For above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/UTs atleast once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01.04.2020.

v. *The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.*

vi. *Monthly progress report may be furnished by the States/UTs to Secretary, Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers.*

vii. As already mentioned, procedures for DPRs/tender process needs to be shortened and if found viable business model developed at central/state level.

viii. Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.

ix. *CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the execution of the action plans prepared by the States which may start forthwith, if not already started.*

x. *The action plan prepared by the Delhi Government which is to be approved by the CPCB has to* ***follow the action points delineated in the order of this Tribunal dated 11.09.2019 in O.A. No. 06/2012.***

xi. *Since the report of the CPCB has focused only on BOD and FC without other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of bio magnification,* ***a survey may now be conducted with reference to all the said parameters*** *by involving the SPCB/PCCs within three months. Monitoring gaps be*

identified and upgraded so to cover upstream and downstream locations of major discharges to the river. CPCB may file a report on the subject before the next date by e-mail at judicial-ngt@gov.in.

xii. Rivers which have been identified as clean may be maintained."

(emphasis supplied)

14. Directions in order dated **29.06.2020:**

"XII. Directions:
45. We reiterate our directions in order dated 6.12.2019 in the present matter, reproduced in Para 38 above, read with those in order dated 21.5.2020 in OA 873/2017 and direct CPCB and Secretary, Jal Shakti to further monitor steps for enforcement of law meaningfully in accordance with the directions of the Hon'ble Supreme Court and this Tribunal. ***The monitoring is expected with reference to ensuring that no pollution is discharged in water bodies and any violation by local bodies or private persons are dealt with as per mandate of law as laid down in orders of the Hon'ble Supreme Court and this Tribunal without any deviation from timelines. The higher authorities must record failures in ACRs as already directed and recover compensation as per laid down scale. Every State/UT in the first instance must ensure that at least one polluted river stretch in each category is restored so as to meet all water quality standards upto bathing level. This may serve as a model for restoring the remaining stretches."***

Review of Compliance Status Reports

CPCB Report dated 15.09.2020

15. Report of the CPCB filed on 15.09.2020 in pursuance of order dated 29.06.2020 in O.A. 673/2018 mentions the status of approval of action plans in a tabular form in Annexure -2 which is summed up as follows:-

"

- *All 61 action plans pertaining to Priority I and Priority II polluted river stretches submitted by 18 States & 2 UTs have been approved along with conditions by CPCB Task Team*
- *Out of 115 Action plans pertaining to P-Ill and P-IV polluted river stretches received from 24 States & 1 UT, 108 action plans pertaining to 22 States and 1 UT have been approved along with the conditions.*

- *Total 169 action plans submitted by 24 States & 3 UTs have been approved by CPCB Task Team."*

Annexure-2 is reproduced below:-

"State-wise Identified Polluted Rivers and the Status of Action Plans approved by CPCB in compliance to Hon'ble NGT Orders dated 20.09.2018, 19.12.2018, 08.04.2019, 6.12.2019 & 29.6.2020 in OA No. 673 of 2018 (as on 10.09.2020)

Name of the State/UT	*Total No. of Identified polluted River stretches (PRS)*	*Priority I & II PRS approved*		*Priority III PRS*		*Priority IV PRS*		*Priority V PRS**	*Total Action Plans approved by CPCB Task Team*
		Priority I	*Priority II*	*Total Number*	*CPCB Task Priority III approved*	*Total Number*	*Priority IV approved*		
Andhra Pradesh	*5*	*0*	*0*			*2*	*2*	*3*	*2*
Assam	*44*	*3*	*1*	*4*	*4*	*3*	*3*	*33*	*11*
Bihar	*6*	*0*	*0*	*1*	*1*			*5*	*1*
Chhattisgarh	*5*	*0*	*0*			*4***	*0*	*1*	*0*
DD & DNH	*1*	*1*	*0*					*0*	*1*
Delhi	*1*	*1*	*0*					*0*	*1*
Goa	*11*	*0*	*0*	*1*	*1*	*2*	*2*	*8*	*3*
Gujarat	*20*	*5*	*1*	*2*	*2*	*6*	*6*	*6*	*14*
Haryana	*2*	*2*	*0*					*0*	*2*
Himachal Pradesh	*7*	*1*	*1*	*1*	*1*			*4*	*3*
J & K	*9*	*0*	*1*	*2*	*2*	*2*	*2*	*4*	*5*
Jharkhand	*7*	*0*	*0*			*3***	*0*	*4*	*0*
Karnataka	*17*	*0*	*0*	*4*	*4*	*7*	*7*	*6*	*11*
Kerala	*21*	*1*	*0*			*5*	*5*	*15*	*6*
Madhya Pradesh	*22*	*3*	*1*	*1*	*1*	*3*	*3*	*14*	*8*
Maharashtra	*53*	*9*	*6*	*14*	*14*	*10*	*10*	*14*	*39*
Manipur	*9*	*0*	*1*					*8*	*1*
Meghalaya	*7*	*2*	*0*			*3*	*3*	*2*	*5*
Mizoram	*9*	*0*	*0*	*1*	*1*	*3*	*3*	*5*	*4*
Nagaland	*6*	*1*	*0*	*1*	*1*	*2*	*2*	*2*	*4*
Odisha	*19*	*1*	*0*	*3*	*3*	*2*	*2*	*13*	*6*
Puducherry	*2*	*0*	*0*			*1*	*1*	*1*	*1*
Punjab	*4*	*2*	*0*			*1*	*1*	*1*	*3*
Rajasthan	*2*	*0*	*0*	*1*	*1*			*1*	*1*
Sikkim	*4*	*0*	*0*					*4*	*0*
Tamil Nadu	*6*	*4*	*0*			*1*	*1*	*1*	*5*
Telangana	*8*	*1*	*2*	*2*	*2*	*2*	*2*	*1*	
Tripura	*6*	*0*	*0*					*6*	
Uttar Pradesh	*12*	*4*	*0*	*1*	*1*	*2*	*2*	*5*	*7*
Uttarakhand	*9*	*3*	*1*	*1*	*1*	*4*	*4*	*0*	*9*
West Bengal	*17*	*1*	*1*	*3*	*3*	*4*	*4*	*8*	*9*
Grand Total	*351*	*45*	*16*	*43*	*43*	*72*	*65*	*175*	*169*

**Action plans pertaining to Priority V does not need approval by CPCB.*
*** Action plans under consideration, upon receipt of RRC approved revised action plans from the respective State."*

16. The report further mentions that certain States sought omission of polluted river stretches from the list. In response, CPCB prepared a

criteria that a stretch can be deleted from the list of polluted river stretches if water quality complies with the criteria for two years. The report also mentions that in terms of order dated 06.12.2019, Central Monitoring Committee (CMC) has been constituted under the Chairmanship of Secretary, MoJS to review the status of compliance of implementation of action plans with the Chief Secretaries of all States/UTs, with the assistance of the CPCB and the NMCG.

CMC Report dated 15.09.2020

17. Compliance status has been mentioned in the CMC report as follows:-

> ***"Existing Sewage Infrastructure***
>
> *In respect of the existing sewage infrastructure,* ***53,396 MLD of sewage (from urban settlements) is generated in 31 States/ UTs and 29,556 MLD capacity of STPs exists (1212 nos.) which approximates to about 55% of sewage generation. Against the existing capacity, only 62% of the capacity is being utilized for treatment of municipal sewage*** *(except for Andhra Pradesh, Tripura and West Bengal who have not reported the figures of utilization of existing capacity).* ***Rest of the existing capacity remains unutilized because of various reasons, including lack of availability of conveyance of sewage to treatment plants, technology issues requiring up-gradation of plants, or dysfunctionality on various counts. This leaves a gap of 24,144 MLD in treatment capacity for which States are regularly being asked to provide their inputs with regards to their plans to fill the gap including that for financing the creation of infrastructure****. It is also important that operational STPs remain compliant to the STP outlet standards as per environmental norms. The data obtained from the States of Chhattisgarh, Daman, Diu and Dadra Nagar Haveli, Gujarat, Manipur, Odisha, Sikkim, Tripura, Uttarakhand and Uttar Pradesh shows that* ***out of total 235 operational STPs in these States, 162 STPs are compliant to the outlet standards and a large number of STPs remain non-compliant to the environmental norms****. Other States have failed to report compliance of existing STPs to STP outlet standards. The States have assured that the same will be provided to CMC. The details of sewage generation, existing*

sewage treatment capacity, its utilization and gap thereof is presented in ***Table-1****.*

Table-1: Details of Existing Sewage Infrastructure in the 31 States/UTs

No.	*State*	*Sewage Generation (in MLD)*	*Existing STP (capacity in MLD and No.)*	*Capacity Utilization (In MLD)*	*Gap in Treatment at present (in MLD)*
1	***Andhra Pradesh***	*1384*	*515.45*	*-*	*868.55*
2	***Assam***	*703*	*0*	*0*	*703*
3	***Bihar***	*651.5*	*40 (2 STPs)*	*22 (55%)*	*611.5*
4	***Chhattisgarh***	*600*	*73.1 (3 STPs)*	*6 (8.2%)*	*526.9*
5	***Daman, Diu And Dadra Nagar Haveli***	*20.5*	*17.21 (2 STPs)*	*5.2 (30%)*	*3.29*
6	***Delhi***	*3273*	*2714 (35 STPs)*	*2455 (90%)*	*559*
7	***Goa***	*165*	*78.35 (9 STPs)*	*46.6 (59%)*	*86.65*
8	***Gujarat***	*3765*	*3378 (70 STPs)*	*2812 (83%)*	*387*
9	***Haryana***	*1454*	*1767*	*1466 (82%)*	*-*
10	***Himachal Pradesh***	*102.8*	*86.9*	*55.1 (63%)*	*15.9*
11	***Jammu & Kashmir***	*970*	*126.80 (11 STPs)*	*80.70 (63%)*	*843.2*
12	***Jharkhand***	*700*	*131 (19 STPs)*	*75 (57%)*	*569*
13	***Karnataka***	*3356.5*	*2561 (142 STPs)*	*1704 (66%)*	*795.5*
14	***Kerala***	*3759.28*	*124.135 (11 STPs)*	*81.325 (65%)*	*3634.935*
15	***Madhya Pradesh***	*2183.65*	*690.76 (25 STPs)*	*524.24 (75%)*	*1492.89*
16	***Maharashtra***	*9757*	*7746 (137 STPs)*	*4013 (51%)*	*2011*
17	***Manipur***	*114.054*	*27 (1 STP)*	*8 (29%)*	*87.05*
18	***Meghalaya***	*87.91*	*0*	*0*	*87.91*
19	***Mizoram***	*80*	*10 (1 STP)*	*0*	*70*
20	***Nagaland***	*44.3*	*25.4 (1 STP)*	*0*	*18.9*
21	***Odisha***	*439.49*	*91 (5 STPs)*	*70 (76%)*	*348.49*
22	***Puducherry***	*84*	*56*	*30 (52%)*	*28*
23	***Punjab***	*2111*	*1621.5 (115 STPs)*	*80%*	*456*

24	***Rajasthan***	*1712*	*966 (68 STPs)*	*43%*	*746*
25	***Sikkim***	*47.68*	*19.02 (6 STPs)*	*17 (89%)*	*28*
26	***Tamil Nadu***	*2070.855*	*1484.42 (56 STPs)*	*798.34 (53%)*	*586.435*
27	***Telangana***	*2453*	*920.1*	*810 (88%)*	*1532.9*
28	***Tripura***	*175*	*8 (1 STP)*	*-*	*167*
29	***Uttarakhand***	*329.33*	*355.13 (61 STPs)*	*203.9 (57%)*	*-*
30	***Uttar Pradesh***	*5500*	*3365.88 (105 STPs)*	*2566.55 (76%)*	*2134.11*
31	***West Bengal (as per CPCB Report 2018)***	*5303*	*557.64 (43 STPs)*	*-*	*4745.36*
	Total	***53,396.849***	***29,556.795***		***24,144.47***

In particular, ***poor capacity utilization of Rajasthan (43%), Manipur (29%), Daman Diu & Dadra Nagar Haveli (30%), Chhattisgarh (8%), Maharashtra (51%), Puducherry (53%), Tamil Nadu (53%) needs consideration and attention for which Chief Secretaries of the concerned States have been apprised through D.O. letters from Secretary, Department of Water Resources, River Development & Ganga Rejuvenation. The States of Assam and Meghalaya do not have any existing treatment capacity while Tripura & Manipur has only one STP each. The compliance of existing STPs in Telangana (88%), Madhya Pradesh (75%), Delhi (90%), Gujarat (83%), Haryana (82%), Odisha (76%), Punjab (80%), Sikkim (89%), UP (76%), remains good. This needs to be maintained and continuously improved. Utilization has not been reported by Andhra Pradesh, West Bengal, Tripura, for which these States have been reminded.***

Most of States do not have online system of monitoring the functioning of STPs, both in respect of quantity of sewage being treated and whether the treatment conforms to the environmental norms for STP outlet standards. Directions are required to be given to States to not only ensure that created capacity is optimally utilized by carrying out condition assessment of existing STPs/ sewage infrastructure in a fixed time frame, say another 3 months, but also putting in plans to upgrade STPs requiring upgradation so as to make them functional. In addition, it is also equally important that States must develop a modern technology based online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage

infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future*. Such a system will enable that health of sewage treatment facility is readily available, with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.*

So far as monitoring of water quality of rivers by CPCB is concerned, ***CPCB must continue to monitor all the parameters prescribed under »Primary Water Quality Criteria for Bathing Water" notified under Environment (Protection) Rules, 1986 (i.e. pH, DO, BOD, Faecal Coliform and Faecal Streptococci) as well as COD and other recalcitrant toxic pollutants having tendency for bio-magnification as prescribed under »Guidelines on Water Quality Monitoring - 2017" issued by MoEF&CC****. The monitoring will ensure that environmental standards are observed in respect of rivers and other water bodies."*

18. The report gives State-wise details of the projects which are ongoing, under tendering, awaiting sanction and where DPRs are yet to be prepared. Further mention has been made of the status of bio-remediation projects as follows:

"The status of in-situ bioremediation/ phyto-remediation in Polluted River Stretches being undertaken by the State was monitored. Most of the States have reported that they ***do not have technical expertise as well as competency to take up in-situ bio-remediation/ phyto-remediation measures****. Further, it has been reported that due to lack of availability of vendors, appropriate agencies with proven capability to implement such works and non-availability of standard rates, the progress in this activity has been slow.* ***Accordingly, Andhra Pradesh, Assam, Gujarat, Kerala, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Odisha, Rajasthan, Sikkim, Tamil Nadu, Tripura are yet to take up any such measures on the drains in the polluted river stretches.*** *Other States have taken up measures on pilot basis only which they propose to evaluate based on the results obtained before works in other reaches are taken. Uttar Pradesh, West Bengal have reported that works have been taken up in 42 drains and 10 drains respectively in their State.*

Further, Hon'ble NGT's vide its order dated 05.3.2020 (hearing on 18.2.2020) in the matter OA No. 06 of 2012 Manoj Mishra & ors while considering the report of Yamuna Monitoring Committee on "Approach to in-situ bio- remediation/ phyto-remediation of sewage in drains of Delhi", has observed and directed that CPCB report on "Alternate technologies for management of WW drains" be revised and circulated to MoUD, MoJS, NMCG and Govt. of Delhi, UP, Haryana for formulation of Policy for alternate technologies for waste water drain management. The same has already been informed to the States for their guidance to enable them to take decisions in implementation.

State wise status of bio-remediation/ phyto-remediation projects is given below.

19. The status of Industrial Pollution Management has been mentioned as follows:-

8. Industrial Pollution Management in the State/ UTs:

*"So far as measures for abatement of industrial pollution are concerned, the State-wise details about number of water polluting industries, industries having ETPs, quantity of effluent discharge, treatment capacity of ETPs and number of ETPs and CTPs is given in **Table-7**. It can be seen from the information provided by the States that only Delhi, Dadra and Nagar Haveli and Kerala have all the industries with functional ETPs. In respect of Andhra Pradesh, Kerala, Bihar, Jharkhand and Assam, data submitted by States has been observed to be inconsistent and needs to be further clarified by the States.*

All the industries located in catchment of Polluted River Stretches in State of Gujarat, Delhi, Odisha, Maharashtra, Sikkim, Meghalaya, Jharkhand and Bihar have been provided with functional ETPs. The compliance status of these ETPs is being reviewed and will be taken up in subsequent meetings of CMC."

20. Finally State specific issues have been mentioned. The report also gives the status of Solid Waste Management, Ground Water Augmentation Afforestation, Floodplain and E-flow Management and Scrutiny of Action Plans for P-II and P-IV.

Observations and recommendations in the CMC report:

21. The observations and recommendations in the report are as follows:

"States are regularly submitting Monthly Progress Reports, in the requisite formats, by the stipulated dates. However, ***quality of information provided in MPR in respect of a few States is wanting and needs to be improved.*** *As MPRs are one of an important document which provides requisite status in respect of various activities being undertaken as per approved Action Plans, the quality of information is important for meetings of CMC and further reporting to Hon"ble NGT. MPR before being submitted should therefore, necessarily be studied by senior officers in States and so certified.*

- *Most of States have informed that the progress of ongoing works has been severely affected due to COVID-19 pandemic which has impacted issues related to mobilization of skilled and unskilled manpower as well as supply of materials besides site works. Site works often reportedly get affected due to lockdown kind of situations whenever the same is under enforcement. The project completion timelines, therefore, are getting impacted due to these factors also.*

- *States have failed to report specific reasons for delay in grounding the projects as well identification of officials responsible for the delays. The necessary reporting from the States is being taken up and will be followed up in future review meetings.*

- *States have reported about financing difficulties being faced by them on account of resource crunch due to COVID-19 situation. States, reportedly are trying to arrange funding for priority projects and will be apprising the status in subsequent meetings of the CMC. The process of sanctioning of projects, being dependent on funding, is getting affected due to pandemic situation.*

- ***Considering financial limitations, States/ UTs may take up STP projects on Hybrid Annuity Model, which, as a business model, enables the Urban Local Body/ State Government to fund the development and operation of sewage treatment infrastructure taking into account the future flow of revenue.*** *It will help ULBs to tap the external market funding for development & operation of sewage infrastructure, apart from quality treatment services. NMCG has prepared model tender documents for development of STPs through HAM and recently these documents have also been approved by NITI Aayog.*

- ***One City- One Operator concepts offer integrating the rehabilitation and Operation & Maintenance of the existing treatment infrastructure along with development & operation of new STPs.*** *This concept can be integrated with HAM model, as is being done in many projects under Namami Gange.*

- *Government of India has also introduced **National Faecal Sludge & Septage Management (FSSM) Policy in 2017 to emphasize the importance of treating the faecal sludge from on-site sanitation system**. Some State Governments have also issued State level FSSM policies/ guidelines. Nearly 25 Faecal Sludge Treatment Plants (FSTPs) are operational and another 400 are in the offing in the country. Other States must consider adopting State level FSSM policies/ guidelines for regulating the handling, treatment and disposal of faecal sludge.*

- *Many of the States/ UTs have also been looking for alternatives beyond conventional STPs for treatment the sewage/ faecal sludge. States may consider implementation of FSTPs and/or co-treatment of faecal sludge in existing STPs, or may judiciously adopt any other alternate treatment technology, in towns wherever feasible.*

- *Many States/ UTs are constructing or have proposed to develop STPs in Polluted River Stretches with capacity less than 2 MLD. States, in such situations, may consider to adopt installation of **decentralized modular STPs; which offer advantages in form of lesser time involved in commissioning of systems, less land footprints, easy operations; instead of conventional centralized STPs based on techno-commercial considerations.** This will also enable them to comply to NGT stipulated timelines.*

- *States have created assets for treatment of sewage and capacity of **STPs so created is not being optimally utilised due to many reasons, including lack of availability of conveyance of sewage to treatment plants, technology issues requiring up-gradation of plants, or dysfunctionality etc.** A large number of STPs remain non-compliant to STPs outlet norms. States must ensure optimum utilization of the existing treatment infrastructure and also ensure compliance of the plants with regard to the environment norms. For this purpose, States may carry condition assessment studies of existing STPs/ sewage infrastructure in a fixed time frame, say another 3 months so as to identify the reasons of sub-optimum utilization and dysfunctionality of existing STPs. This will help them in finalizing plans to upgrade STPs requiring upgradation so as to make them functional.*

- *States do not have an online monitoring system in place to monitor (both quantity and quality of treated water) the health of existing sewerage infrastructure. States must consider to develop an online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future. Such a system will enable that health of sewage treatment facility is readily available,*

with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.

- ***53 projects*** *with capacity of about* ***867.46 MLD*** *in Polluted River Stretches are expected to be completed by December 2020. The concerned States must ensure that monthly monitoring and regular watch on the progress of these projects is to be maintained, so that the completion timelines are strictly complied and projects commissioned in time.*

- ***41 projects*** *are likely to be completed during time window of January 2021-March 2021. Progress of these projects is also required to be continuously monitored at State level so that lag, if any, in adhering to the timelines is avoided.*

- *State of Maharashtra, Telangana & Gujarat have to ensure that decision on tenders already called by State are finalized and the pending land acquisition issues for many STPs are sorted out urgently.****"***

Report of OC dated 16.09.2020 for the State of UP

22. In O.A. 673/2018, a separate report has been filed by the Oversight Committee constituted by this Tribunal for the State of UP making following recommendations:

"1. Only 45% of the total Sewage Generation of 4292 MLD in the catchment areas of these 12 Polluted River Stretches is being treated. To check this 2336 MLD untreated discharge from going in the rivers, all the 324 drains flowing in these rivers need to be tapped, the treatment capacity be increased by increasing the number of STPs, In situ remediation of untreated sewage be done as an interim measure and E Flow of these rivers need to be maintained above a prescribed level.

2. Out of total 324 drains in 12 polluted river stretches, 289 are untapped till date. Plan details along with timelines and corresponding physical and financial progress regarding tapping of these 289 drains be filed by the Govt. before NGT within a month.

3. Out of total 4292 MLD sewage generated in the catchment area of these 12 polluted rivers stretches, only 1956 MLD is treated in 79 STPs. That leaves a gap of 2336 MLD untreated sewage discharge. DPRs have been prepared/sanctioned for 47 new STPs for 1796 MLD. The

DPRs for remaining 540 MLD gap should be immediately prepared and sanctioned by the State. Out of 47 STPs sanctioned, only in 26 construction has started. The progress appears to be very slow. The State Govt. should file the physical and financial progress of STP capacity augmentation before NGT along with definite timelines within a month.

4. Progress of in situ remediation as an interim measure also is not satisfactory. ***In 37 untapped drains falling in Priority 1, only one drain was found under Phyto Remediation during inspection. CPCB has already given notice for EC for Rs 18 Crore.*** *The proposed timelines for in situ remediation along with details of project approval and financial approvals for these 289 untapped drains be filed by the Govt before NGT within a month.*

5. Though minimum E Flow is being maintained in River Ganga, no such study had taken place in these stretches. *Now IIT Delhi is doing a study in 8 perennial rivers out of these 12 Stretches and its report will come by December 2020.Irrigation Department needs to adhere to the timelines regarding study and post study action plan to maintain minimum E Flows in these river stretches.*

6. The State government should deposit the Performance Guarantee of Rs.15 crore as mandated by NGT.

7. Monitoring of Grossly Polluting Industries needs to be stepped up. ***Out of 386 identified GPIs, 87 were issued show cause notices. Total EC imposed was Rs 20.62 crore, out of which approx. Rs 10 crore has been realised. UPPCB should issue notices to all defaulters and also realize the balance EC. 1092 GPIs in Ganga Basin are connected 24x7 to Central Control Room at Lucknow through OCEMS. It yielded excellent results during Kumbh****. Same system needs to be followed in these stretches. This will increase transparency and accountability in the pollution reporting of these GPIs.*

8. Regarding demarcation of floodplain zones, identification survey is going on and after it the notification pillars will be set up. This entire exercise is expected to get completed by October, 2020. ***The Committee feels that Irrigation Department should closely monitor it to adhere to the timelines****.*

Regarding Gomti (0.A 24/2018)

1. The sewage treatment capacity of Gomti needs to be augmented at Lucknow. ***The present treatment capacity is 438 MLD against requirement of 784 MLD. The gap of 346 MLD is proposed to be filled up in 3 Phase-160 MLD in Phasel, 102 MLD in Phase2 and 85 MLD in Phase3.So far Phase 2 comprising of Bijnor STP (80 MLD) and Ghaila STP (22MLD) is pending for sanction with NMCG.DPR for Phase3 (Bharwara 85 MLD) is under preparation. The State Govt should immediately get these STPs sanctioned and ensure that work commences as per timelines prescribed by NGT****.*

2. *In the interim, NGT had directed that in situ remediation measures be taken up to check the discharge of untreated water in the river. Unfortunately, despite two pilots having been taken in the past, no in situ remediation has been initiated. CPCB/SPCB may impose and realize EC as directed by NGT on this count.*

3. ***There are many flaws in Waste Management Processing Plant in Lucknow managed by M/s Eco Green. During the inspection visits in June, 2020 it was found that in landfill site area along with the inert material, urban solid waste was also present. No 'waste to energy' work had been started in the treatment unit. ETP was non-operational and its O&M was unsatisfactory. The leachates was getting collected around it. Such negligence is unacceptable. SPCB must issue show cause notice within a fortnight to Nagar Nigam and impose EC for violations of Environmental norms with liberty to the Nagar Nigam to realize it from the Operator along with such penal action as they deem fit.***

General Recommendations:

1. ***Sewerage Network****: The Hon'ble NGT vide order dated 22.08.2019 had directed to complete ongoing sewerage network work by 1.07.2020 and after that it was directed that payment of environmental compensation of Rs. 10 lakhs per month would be deposited with CPCB for discharging untreated sewage in any drain connected to river Ganga or its tributaries. Accordingly, CPCB shall initiate imposition of EC and issue notices within 15 days. Principal Secretary Urban Development should personally monitor the progress of tapping of untapped drains.*

2. ***Phytoremediation/bioremediation****: The Hon'ble Tribunal directed phytoremediation/ bioremediation to be done as an interim measure until tapping of drains is complete. In case of non-compliance beyond 1.11.2019, penalty of 5 lakh per drain per month was to be imposed by CPCB. CPCB must submit report regarding how much EC has been realized out of total imposed EC of Rs 18 crore on 120 drains for non-compliance of this order for the period 1.11.2019 to 31.1.2020.*

3. ***STPs****: Vide order dated 22.08.2019 it was stated that with regard to sewerage works/STP under construction, after 01.07.2020, direction for payment of environmental compensation of Rs. 10 lakhs per STP per month to CPCB will apply. Accordingly, CPCB shall calculate EC and send notices to defaulters in the next 15 days. It shall also explain why notices have not been issued in this regard so far.*

4. ***Timelines****: The oversight committee is concerned that the progress on ground is minimal and timelines keep on getting shifted. The State government, while keeping in mind the NGT directions, must provide firm timelines for completion of work within one month to the Committee with reference to the following issues:*

   - *Tapping of untapped drains*

- *STP/CETPs installation in the State*
- *Action Plan for treated water*
- *Complete demarcation of Floodplain zones in Phase I*
- *Detailed mapping of legacy waste and standardization of process for remediation*
- *Completion of project for conserving and sustainably managing Floodplain Wetland*

5. ***OCEMS for STPs**: CPCB has installed 36 real time monitoring stations all across the country out of which 21 are in Uttar Pradesh as part of the Online Continuous Effluent Monitoring System (OCEMS). The number of stations in Ganga is 15, 5 on its tributaries and 1 is on a drain. A central control room has been established at UPPCB HQs to do 24x7 monitoring of pollution data relating to these stations. The system was very effective in monitoring pollution in Ganga river during Kumbh and was widely appreciated.* ***The Committee feels that these stations be established in all Polluted River Stretches so that all gap areas are covered and major polluting sources are monitored on 24x7 basis. UPPCB may be directed to ascertain the number of such stations required for ensuring monitoring of all such polluted river stretches in the State. A list regarding the location and tentative cost of setting up the stations alongwith likely sources of funding may be prepared by SPCB and submitted to the Committee within one month. The online monitoring stations will overcome the challenges of manual monitoring and prevent data fudging.***

6. ***OCEMS for industries: The State Pollution Control Board should ensure compulsory installation of Online Continuous Effluent Monitoring System (OCEMS) in all industrial units along these polluted river stretches along with Pan-tilt Zoom Web Camera with open access to the department.*** *Consent to operate shall be provided only after such compliance.*

7. Green Belts: The Irrigation Department should coordinate with Forest Department of the State to identify vacant areas /flood planes on the banks of these river stretches which may be developed as Green Belts. An action plan regarding this may be submitted by Irrigation Department to Department of Forest, Uttar Pradesh within two months. Moreover, the Plantation model of Gautam Budh Nagar developed under Public-Private Partnership can be replicated in other districts of the State (Refer Annexure VII).

8. Flood Plain Zones: The Irrigation Department, Uttar Pradesh and Central Water Commission need to expedite work related to identification and demarcation of floodplain zones. There is lack of coordination at the field level between Irrigation Department and Revenue Department for correction of records. Chief Secretary should ensure coordination between the two departments so that floodplains are jointly demarcated, revenue records corrected accordingly, encroachments removed and pillars are fixed. The progress in this

matter be monitored in Chief Secretary's monthly review meeting and informed to NGT regularly in the quarterly report.

9. ***Cleaning of Ghats****: The State government must ensure cleaning and maintenance of ghats by organizing local people, NGOs and professional agencies. The copy of the action taken with documentary evidences to be submitted to the Committee.*

10. ***Crematoria****: In order to prevent disposal of dead bodies into these rivers, provision of crematoria in rural areas is necessary. The existing scheme of construction of crematoria in villages handled by Panchayati Raj Department needs to be strengthened.*

11. ***Idol Immersion****:* ***The Committee recommends banning of idol immersion in all these rivers in Uttar Pradesh.*** *Chief Secretary may be asked to issue directions to concerned department for creation of artificial ponds, if found absolutely necessary (as done in NCR-Delhi region for preventing pollution in river Yamuna) for idol immersion during traditional festivals like Ganesh Chaturthi and Durga Puja specifying prior permission of District Administration and strict timelines pertaining to religious days only.*

12. ***Ground Water Recharge****: The Committee recommends steps to be taken for* ***ground water recharge by digging of ponds and establishing drain network to tap excess runoff during rainfall.*** *Such simple interventions have been taken up in district Mathura, Uttar Pradesh to increase groundwater level and rejuvenate water bodies (Refer Annexure VIII).*

13. ***Replication of Success stories****: The Committee also recommends replication of* ***successful waste management models such as that of Vengurla town in Sindhurdurg district, Maharashtra in small towns of Uttar Pradesh****. This town has converted a landfill into a waste management park, generates revenue from waste and has paved way for Sustainable Development.*

14. ***Floating Barriers****: In order to restrict and regulate waste into rivers, the committee recommends* ***use of floating barriers as being used on Cooum River in Chennai.***

15. ***Improvement in Capacity Utilisation of existing STPs****: The Committee feels that there is no point establishing new STPs/CETPs without reforming the operational performance of existing STPs/CETPs.* ***There is lot of scope for improving the efficacy and functioning of the current STPs/CETPs. They need to be continuously monitored on a 24x7basis.All the STPs in the State should be equipped with SCADA, connected with a central control room, continuously monitored 24x7 , their performance analysed on day to day basis, problem areas like maintenance issues be addressed without any delay and accountability be fixed for non performance/suboptimal performance. The Committee appreciates the One***

Operator One City scheme followed by UP, which will certainly help in focusing responsibility.

16. ***Phyto Remediation****: Phyto remediation measures have not been realistically tried.* ***The DPR of Rs 1796 crores for 459 drains sent to NMCG appears to be excessive. It needs to be reviewed. It appears that these estimates are prepared by engineers and not by environmentalists. If instead of civil construction, natural solutions are proposed, the project can be prepared at a fraction of the cost proposed currently and may be more efficacious****. A few demonstration projects regarding phyto remediation at a relatively much lower cost could be taken up with the help of environment experts so that these proposed projects could be realistically remodeled.*

17. ***Bio-Plastics****: Use of bio-plastics/bio-degradables in every sector viz. domestic and industrial sectors is a viable solution to prevent rivers from choking and warding off adverse implications on biodiversity. The State government may develop plans for switching to bio-plastics/bio-degradables at macro level within six months.*

18. ***Awareness Generation****: The residents of different districts are contended to see the clean water of all the rivers during the lockdown period. In view of this, the Committee suggests conducting mass awareness campaigns and media-based water consciousness campaigns that make people sensitive towards the environment as well as show that they are an integral part of the solution. Further, "One Drop project" can be followed to create awareness about environment.*

19. ***Floating barrier****: In the year 2015,* ***Alpha MERS developed an indigenous design of floating trash barrier for controlling hyacinth and trash from flowing in water****. The barrier made of steel and aluminium with a high tensile strength claims to have an ability to survive in both polluted water bodies and change in water levels. For the first time in November 2017 these barriers were deployed in Cooum river in Chennai. Currently, the barriers have been deployed at eight locations in Cooum river (NDTV,2018)*

20. ***CETPs****:* ***None of the polluting industries should be allowed to run without properly functioning CETP/ETP****. Regarding 7 CETPs in the State, it was reported that all were functional and achieving norms. UPPCB has to continuously monitor their performance and shut down the cluster if the CETP performance is not compliant with environment norms. Special focus to be kept on tanneries and textile industries. Moreover, the implementation of new CETPs at Jajmau and Unnao and upgradation of CETP at Mathura and Banthar is already quite delayed. Timelines for implementation be strictly followed and accountability be fixed for delay. All GPIs to compulsorily install OCEMS within 2 months with open access to UPPCB so that there are no gaps in monitoring. No consent to operate be issued by UPPCB without verifying compliance. All new distilleries to compulsorily have ZLD.*

21. ***FSSTPs**: There has been considerable delay in implementation of all FSSTP Plants underway in 60 AMRUT towns. The process needs to be expedited. **The procurement process with specifications be standardized. List of vendors be circulated and whole process should be put on GeM portal to ensure transparency and cut down delay.** Regarding faecal sludge management following steps to be undertaken:*

a) ***The percentage of households connected to main sewer is just 1015% in the State**. U.P Jal Nigam to be asked about the current status of sewer connections in the State and analyse the gaps.*

b) *At a number of places, toilets constructed under Swachh Bharat for ODF are not connected to sewerage network. . It is required that these toilets be connected to either the sewerage network or arrangements be made to periodically transfer there faecal sludge to nearby FSSTP plants.*

c) *It is required that **FSSTP Plants be built on priority at designated STPs and arrangements for transfer of Faecal sludge from non network areas be implemented at the earliest in order to have better and effective sewage management**. The State Govt should share the action plan for implementation of the FSTP Policy at the earliest with NGT.*

d) *It is recommended that in households wherein sewer connections are not present, the concerned authority must ensure that the households are connected to FSSTP plant.*

22. ***One city one operator model for sewage management**: The State government started "one city one operator" model wherein single company operates, maintains and manages sewage treatment and network infrastructure in the city. Implementation of such models has made operation and maintenance easy as there can be no shifting of responsibility and the entire process is under the command of one company. However, it is needed that proper monitoring of these operators and the plants managed by them is done in each city so as to assess the efficacy of STP plants. Urban Development Department must submit an evaluation report in this regard within three months.*

23. ***Encroachment along drains**: **At many places in the State there are encroachments in the flood plains of drains. For example more than 300-400 encroacher households are living in the flood plain of Kukrail drain in Lucknow city**. In the absence of any regular toilet facilities, their faecal matter/grey water is washed away directly in the river Gomti, which also supplies drinking water to Lucknow city.. The State government needs to take steps for removing such encroachments on priority by rehabilitating these households under the "Housing for All" programme.*

24. ***Floodplain Zones**: The process of demarcation of Floodplain zones is quite slow. There is lack of co-ordination at the field level between Irrigation Department and Revenue Department for correction of revenue records. Chief Secretary should ensure coordination between the Departments so that the floodplains are jointly demarcated, revenue records corrected*

accordingly, pillars are erected and encroachments are removed in these floodplains. The progress may be monitored in Chief Secretary's monthly review meeting and informed to NGT regularly in the quarterly report.

25. ***River side Mining**: **Reckless sand mining in river beds leads to erosion and environmental degradation**. There has to be compulsory demarcation of boundaries of all mineral leases before permission be given for mining. Mining should be as per EIA notification, 2006, MOEF notification dated 15.01.2016 and Sustainable Sand Mining Management Guidelines,2016. **DMs /SSPs be made fully accountable for ensuring compliance of the directions.** In case of illegal mining, besides seizure of vehicles and all mining equipment, exemplary penalty be levied. CPCB should work out SOPs for levying penalty which should include besides cost of material mined out, cost of ecological damage also. All mining sites should compulsorily install CCTV cameras. Regular patrolling by Police and night monitoring through Drones.*

26. ***Groundwater Recharge**: **Over drawal of groundwater adversely affects the E Flow of rivers. Out of 820 blocks, UP has 280 blocks in the OCS category** (82-overexploited, 47-critical and 151- semi critical). No consent to operate be given by UPPCB without taking NOC from CGWA. State has recently enacted its own State Ground Water Act, 2019 and set up its own State Ground Water Authority. One of the reasons for poor implementation of Ground Water Act is lack of manpower at field level. The State should provide enough manpower at field level for proper enforcement.*

27. ***Rejuvenation of water bodies**: Rejuvenated water bodies lead to constant recharge of ground water as also proper E Flow in the rivers. The State Government may prepare an action plan by 31.07.2020 as per NGT directives mentioning the number of identified water bodies, location details, water quality status, compliance status, prioritization and detailed action plans. All the ponds should be identified and geo-tagged. In case of non-compliance, CPCB would issue notice for compensation for Rs.1 lakh/month.*

28. ***Bio Diversity Parks**: **Development of Bio Diversity Parks in the vicinity of rivers lead to continuous recharge of aquifers and maintenance of E Flow of the rivers**. CPCB may circulate Guidelines for Biodiversity parks to the States to enable them to develop these Parks.*

29. ***Monsoon Discharge**: The Committee reiterates the direction of Hon'ble NGT vide order dated 14.07.2020 in O.A.985/2019 which states that CPCB has to issue strict directions to ensure that no authority allows discharge of polluted sewage or polluted effluents directly into a water channel or stream even during the monsoon season.*

30. Success story of river Tamsa in Ayodhya should be circulated among all the District Magistrates and they

should be asked to identify and take up similar activities, with the involvement of local public, that may help in improvising the water bodies/rivers / groundwater or environment in any manner that too with the minimum financial burden.

31. *All these rivers throughout have multitudes of temples on both banks. Floral offerings from the devotees of these temples invariably find their place in these rivers.* ***IIT Kanpur has come out with a low price model wherein they convert these flowers into incence sticks (Agarbattis) which can be used in these temples itself. This way the flowers are recycled and it saves expenditure on incence sticks as well****. This model is being used in Kashi Vishwanath temple at present. It could be used elsewhere to lessen river pollution.*

32. ***Monitoring Mechanism****: The Committee finds that a number of problems are coordination problems among various departments. Such issues can easily be resolved* ***if there is a regular monthly meeting at the CS level, which unfortunately is not happening. The Committee requests the CS to hold a monthly monitoring meeting as laid down in the monitoring framework submitted by the State Govt before NGT****."*

Consideration of CMC and OC reports

23. The CMC report states that it addressed communication to all the Chief Secretaries and explained Hybrid Annuity Model (**HAM**) based PPP projects, One City One Operator (**OCOO**) concept, as implemented for sewerage intervention projects under Namami Gange programme as well as Faecal Sludge and Septage Management (**FSSM**) concept. The business model for liquid waste management has in-built mitigation mechanism against time & cost overrun, improper design, sub-optimal operation and failure to meet the performance standards. As a business model, HAM enables the Urban Local Body/ State Government to fund the development and operation of sewage treatment infrastructure taking into account the future flow of revenue. States were also facilitated by holding a Webinar on "Mainstreaming Faecal Sludge & Septage Management in Ganga Basin", which was attended by officials from

almost all the States. The Webinar also included a session on experience of Odisha which has taken up FSSM extensively, besides initiatives taken by NMCG in these directions. States were urged to consider the implementation of FSTPs and/ or co-treatment of faecal sludge in existing STPs, in all towns wherever feasible, so that dumping of the faecal sludge in water bodies/ land and thereby polluting them, can be avoided. The States/UT Administrations were specifically requested to ensure that **at least one polluted river stretch in each category is restored to meet all water quality standards up to bathing level** as ordered by this Tribunal. This may serve as a "model" with a view to replicate the efforts for restoring the remaining stretches. **States have failed to report reasons for delay in grounding the projects as well identification of officials responsible for the delays**. The necessary reporting from the States is being taken up and will be followed up in future review meetings.

Going Forward

24. **We have duly considered the CPCB, CMC and OC reports as above and noted the gaps and recommendations. We accept the recommendations of the Committees already quoted above that the States should furnish quality information and comply with the directions of this Tribunal in terms of orders dated 06.12.2019 and 29.06.2020. The violation of mandate of 100% treatment of sewage may be visited with the assessment and recovery of compensation and violation of timelines for setting up of pollution control devices may also be likewise strictly enforced with the compensation regime in place. There is also need for fully utilizing and augmenting the existing infrastructure as already noted above.**

25. **The States/UTs may consider using HAM as a business model as well as OCOP concept, FSSM Policy, alternative models for treatment of sewage/faecal sludge, decentralized STPs and also strengthen the online monitoring system. We are also of the view that flood plain zones of all the rivers need to be mapped and demarcated and encroachments removed therefrom. The same be utilized for plantation, creation of bio-diversity parks and constructed wetlands or other recreational purposes, consistent with the environmental concern. We agree with the OC that river side mining needs to be regulated. To reduce the timelines for setting up of STPs, many States/UTs are consuming time in preparing DPRs whereas model DPRs can be prepared and used for shortening the timelines. Similarly, SOPs need to be prepared for the timeline to be taken in setting up of STPs as well as for maintenance and operation of existing STPs particularly those not meeting the norms. Number of monitoring stations also needs to be suitably increased. We are also of the view that the State RRCs must function effectively and the Chief Secretaries must hold monthly meetings as it is found from the report of the OC for the State of UP that the Chief Secretaries may not be doing so. Huge failures of the States/UTs may show poor governance as far as environment is concerned which may need to be remedied. As found by the CMC, neither delay is explained nor accountability is fixed for the failure of the concerned officers which is not a happy situation.**

26. While dealing with the control of pollution of River Ganga, the Tribunal noted that following action points for monitoring:

i. *Setting up of STPs, Interception and Division (I&D) of drains and preventing untreated sewage and effluents*
ii. *Use of treated water*
iii. *Use of sludge manure*
iv. *Status of septage management*
v. *Compliance in relation to industries*
vi. *Installation of STPs/treatment facilities in Hotels/Ashrams and Dharmshalas.*
vii. *Water quality monitoring of river Ganga and its tributaries.*
viii. *Maintenance of environmental flow in river Ganga.*
ix. *Disposal of Bio-medical waste.*
x. *Compliance of Solid Waste Management (SWM) Rules, 2016.*
xi. *Preparation of maps and zoning of flood plains.*
xii. *Mining activity under supervision of the concerned authorities.*
xiii. *Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.*

CMC/RRCs/ OC for UP may conduct further monitoring keeping in mind the above action points.

III. Original Application No. 829/2019, lt. Col. Sarvadaman Singh Oberoi v. Union of India & Ors.

Review of proceedings before the Tribunal

27. OA 829/2019 deals with remedial action against pollution of sea water along the Indian Coastal areas. The Tribunal, vide order dated 03.12.2019, noted the problem and sought a report from the Central Pollution Control Board (CPCB), after referring to the observations of the Hon'ble Supreme Court in *Indian Council for Enviro Legal Action v. UOI, (1996) 3 SCC 212* that degradation of coastal areas was a matter of serious concern and affected aesthetic and environment which required Environmental Management Plans to ensure that coastal water remains fit for human and aquatic life. It was observed that major source of pollution is municipal sewage and effluents in the same manner as polluted river stretches. The National Coastal Zone Management Authority (NCZMA) has been constituted but the problem of marine pollution continues. CPCB report dated 11.03.2020 was considered on **29.06.2020**. It was found that in most of the coastal areas there was

non-compliance with regard to the water quality parameters on account of untreated sewage and industrial effluents being discharged into the marine waters through river systems. Apart from untreated effluents/sewage, there was lack of management of hazardous waste, bio-medical waste, municipal solid waste, plastic waste, e-waste and C&D waste which also affected the marine water quality. Integrated Coastal Management Plans were required with the assistance of NCSCM and MoEF&CC. The Tribunal accordingly directed that concerned departments of all the concerned States/UTs may implement the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and ensure 100% treatment of sewage/effluents in the same manner in which the Tribunal has issued directions for preventing untreated sewage and effluents being discharged into the rivers in OA 673/2018. **The Tribunal directed the State PCBs/PCCs/Chief Secretaries to take remedial action and file their reports with the CPCB so that the CPCB could file a consolidated action taken report**.

Review of CPCB Report dated 10.09.2020

28. **Accordingly, CPCB has filed its action taken report dated 10.09.2020** mentioning the directions issued to the 13 Coastal State PCBs/PCCs as follows:

> ***"A. That the directions under Section 33 (A) of the Water (Prevention and Control of Pollution) Act, 1974 shall be issued to all the concerned local bodies /urban bodies/municipalities/authorities in the coastal States/UTs within 15 days from the date of issuance of these directions:***
>
> *i. To set up a sewerage system for sewage collection, conveyance, treatment and its disposals to cover the entire local/urban coastal area within the respective jurisdiction.*
>
> *ii. To develop adequate capacity of sewage treatment using conventional STPs or any other technology and ensure to*

comply with the discharge norms as prescribed by the coastal SPCBs/PCCs under consent mechanism prescribed under Water (Prevention & Control of Pollution) Act, 1974.

iii. *For ensuring treatment and use of treated sewage for non-potable purposes such as industrial process, railways & bus cleaning, flushing of toilets through dual piping, construction activities, horticulture and irrigation etc.*

iv. *To set up requisite facilities for collection, transportation, treatment and disposal of Municipal Solid Waste, Plastic Waste, Construction and Demolition Waste generated as well as bio-mining of the existing legacy dumpsites in accordance with the Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Construction & Demolition Waste Management Rules, 2016 as amended respectively, notified under the Environment (Protection) Act, 1986, in the coastal areas within the respective jurisdiction of the State/UT.*

v. *For periodic cleaning and removal of plastic waste/solid waste in coastal areas to prevent marine pollution and for ensuring its safe disposal in accordance with the provisions notified under the Environment (Protection) Act, 1986.*

vi. *To submit a time bound action plan for management of sewage, municipal solid waste, plastic waste, C & D waste generated in the respective jurisdiction of the local/urban bodies in coastal areas as mentioned in afore-said paras, within a period of two months from the date of issuance of the directions dated 31/8/2020.*

B. Directed all the 13 Coastal SPCBs/PCCs shall:

i. *Ensure proper treatment and disposal of industrial effluent generated from water polluting industries located in the coastal States/UTs by ensuring installation of captive ETPs or disposal of industrial effluent through CETPs by prescribing PETP Standards under consent mechanism and for safe disposal or utilization of treated effluents in accordance with the disposal modes permitted under Environment (Protection) Act, 1986.*

ii. *Ensure proper treatment and disposal of industrial hazardous waste generated from hazardous waste generating industries located in the coastal States/UTs and to ensure requisite infrastructure for environmentally sound management of generated hazardous waste in accordance with the Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2016 as amended notified under the Environment (Protection) Act, 1986.*

iii. *Associate with National Centre for Coastal Research (NCCR), Chennai under Ministry of Earth Sciences for monitoring and assessment of coastal waters within the jurisdiction of the coastal States/UTs up to 5 km from shore and to evolve*

strategies for protection of the coastal areas in association with Coastal Zone Management Authority in the State.

*iv. Prepare time bound comprehensive action plans along with implementing agencies in consultation with the respective Coastal Zone Management Authority for control of coastal Pollution in States/UTs, and submit to CPCB within three months from the date of issuance of these directions i.e. by 25th November 2020.***"**

Going Forward

29. While the CPCB report mentions the directions issued to 13 Costal State PCBs/PCCs but compliance of such directions needs to be monitored. We have dealt with *OA Nos. 593/2017* and *673/2018*, dealing with the setting up of ETPs/ STPs/CETPs and preventing discharge of untreated effluents/sewage into the rivers hereinabove. **The subject of coastal pollution needs to be dealt with in the same manner as polluted river stretches by preparing action plans of each States/UTs which may also be monitored by the Central Monitoring Committee (CMC) simultaneously with the 351 polluted river stretches and the said subject may also be covered in the next report of the CMC. As already mentioned, the CMC is to be headed by the Secretary, Ministry of Jal Shakti and assisted by the CPCB and NMCG and at the States/UTs level, the Chief Secretaries have to monitor the compliance status and give reports to and interact with the CMC.**

OA No. 829/2019 stands disposed of and further monitoring of the issue will henceforth be in *OA 593/2017* and *OA 673/2018*.

IV. Original Application No. 148/2016, Mahesh Chandra Saxena V. South Delhi Municipal Corporation & Ors.

Review of proceedings before the Tribunal

30. The issue of utilization of sewage treated water is incidental to setting up and operation of STPs. In view of shortage of clean water for drinking purposes, use of treated water for secondary purposes results in more clean water being available for drinking purposes. In absence of proper planning, fresh water is used for secondary purposes, which needs to be avoided. Vide order dated 11.09.2019, the Tribunal noted:

> *"1. … … **Delhi is an urbanized city state having a population of about 20 millions which is expected to increase to 23 million by the year 2021. Present total water requirement for domestic purposes for population of 20 million @ 60 GPCD works out to 1200 MGD. Present average potable water production by Delhi Jal Board is about 936 MGD and includes about 80-85 MGD of ground water. Thus, there is a gap of 204 MGD. Only 81.3 households have piped water supply. Reuse of water both in domestic and industrial sectors is essential. Around 150 billion liters of sewage water is produced in India annually. 70% of Singapore drinks treated sewage water.[3] There appears to be no satisfactory plan with any of the States/Union Territories (UTs) in the country. This Tribunal monitored the matter with reference to the NCT of Delhi for more than two years and passed several orders.***
>
> *2. Finally, on 27.11.2018, the Tribunal considered the report of the Delhi Jal Board (DJB) dated 16.11.2018 to the effect that **460 MGD waste water was being treated but reuse of such water was not being ensured.***
>
> *3. **As per CPCB's report 2016[4], 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. To remedy this situation orders have been passed by the Hon'ble Supreme Court[5] as well as this Tribunal[6] directing 100% treatment of the sewage and industrial effluents by installing requisite ETPs/CETPs/STPs. Proper utilization of treated water has implications not only to save*

---

[3] Second interim report dated 31.07.2019 of Monitoring Committee constituted under O.A. No. 496/2016.

[4] http://www.sulabhenvis.nic.in/Database/STST_wastewater_2090.aspx July 16, updated on December 6, 2016

[5] Paryavaran Suraksha Samiti Vs. Union of India, (2017) 5 SCC 326

[6] Paryavaran Suraksha Samiti Vs. Union of India, O.A No. 593/2017 order dated 28.08.2019

potable water but also to prevent illegal extraction of groundwater and conservation of water bodies. Timelines have been laid down for ensuring treatment of sewage and effluents for preventing pollution of river Ganga[7] *as well as other polluted river stretches which will result in more treated water being available.*

4. ***Having regard to the necessity to ensure utilization of treated waste water to reduce pressure on the ground water resources throughout the country, the Tribunal directed all the States/UTs in India to prepare and furnish their action plans within three months to the Central Pollution Control Board (CPCB) so that CPCB could review the same and issue further directions.***

5. Report dated 01.05.2019 furnished by the CPCB was considered by this Tribunal on 10.05.2019 and it was noted that some of the States did not furnish their action plans and the action plans furnished by some of the States needed improvements. The Tribunal directed that the States/UTs which had not yet furnished their action plans may do it by 30.06.2019 and such action plans may have monitoring mechanism for coordination with the local bodies which will be the responsibility of the Chief Secretaries of the States/UTs.

6. ……..

"7. ***It is well known that absence of plan for reuse of treated water affects recharge of ground water and also results in fresh water being used for purposes for which treated water can alternatively be used. Proper plans for reuse of waste water can add to availability of potable water which is many times denied this basic need or has to travel long distances to fetch clean water****. This being a substantial question of environment, direction is issued to the States/UTs which have not yet submitted their action plans to do so latest by 30.06.2019, failing which the Tribunal may have to consider coercive measures, including compensation for loss to the environment. The plans may include a monitoring mechanism in the States for coordination with the local bodies. This will be the responsibility of the Chief Secretaries of all the States/UTs.*

8 The issue is also connected with the rejuvenation of 351 river stretches. The States/UTs may include this subject in the deliberations with the Central Monitoring Committee constituted in terms of orders dated 08.04.2019 in O.A. No. 673/2018, News item published in The Hindu authored by Shri Jacob Koshy titled More river stretches are now critically polluted CPCB and order dated 24.04.2019 in O.A.606/2018, Compliance of Municipal Solid Waste Management Rules, 2016. ***The Chief Secretaries may also include this subject in their reports to this Tribunal in pursuance of orders passed in O.A. No. 606/2018 on 16.01.2019 and further orders in their presence."***

[7] O.A No. 200/2014

31. The report of the CPCB dated 15.05.2020 was considered on **21.05.2020,** wherein the gap analysis was given as follows:

> ***"3.0 GAP ANALYSIS***
>
> *As per Hon'ble NGT Directions dated 10.5.2019, suggestive measures for action plan for use of treated sewage was uploaded on CPCB's website. The same was also sent to all States/UTs vide letter dated 16.07.2019. CPCB had directed all States / UTs to cover the following action points in the Action Plan to be prepared for use of treated sewage:*
>
> *i. Estimation of quantity of present and projected sewage generation,*
> *ii. Estimation of Present and planned treatment capacity*
> *iii. Identification of Bulk users (Irrigation, horticulture, Industries, PWD and Railways etc) and to quantify the usage*
> *iv. Estimation of quantity of treated sewage to be used by the bulk users*
> *v. Specification time lines to meet the target.*
>
> *Accordingly, action plan submitted by 31 States / UTs were assessed based on its adequacy in addressing the above-mentioned points. The overview of the assessment is given in Table-1. Following are the major observations based on the assessment:*
>
> ***i. 06 States/ UTs (Andhra Pradesh, Delhi, Puducherry, Haryana, Tamil Nadu, Madhya Pradesh) have addressed all the five action points as listed above in their action plan.***
>
> ***ii. 10 States/UTs have partially addressed the above- listed action points in their action plan. 09 States / UTs (Gujrat, Chhattisgarh, Jharkhand, Goa, Daman & Diu, Dadar Nagar Havelli, Jammu and Kashmir, Maharashtra and Rajasthan) have identified bulk users However, quantity of treated sewage to be used by these bulk-users as well as timelines for meeting these targets have not been specified. Chandigarh has not estimated the presented / projected qty of Sewage generation and not specified timelines for meeting the target.***
>
> ***iii. 08 States / UTs (Assam, Bihar, Himachal Pradesh, Mizoram, Nagaland, Meghalaya, Orissa and West Bengal) have submitted very limited information in the action plan.***
>
> ***iv. Action plan received from 03 States (Kerala (Trivandrum), Karnataka (Bangalore), Telangana (Hyderabad) are city specific. Action plan for treated sewage reuse in the state not provided.***
>
> ***v. Apart from above, it has been informed 4 States / UTs that due to local terrain and technical issues and***

action plan could not be conceptualized., 02 UTs (Lakshadweep, Andaman and Nicobar Islands) do not have STPs and having only septic management. Fecal Sludge Treatment Plant has been planned in these UTs. 02 States (Sikkim, Tripura) have high water table and therefore plan to discharge treated water to rivers.

vi. 5 States/ UTs (Arunachal Pradesh, Manipur, Uttar Pradesh, Uttarakhand, Punjab) have not submitted any information.

CPCB's observations on the action plan submitted by the individual states/UTs have been enumerated in Table 1.
Additional observations on the action plan submitted by the States /UTs are as follows:

i. Only 14 States/UTs (Andhra Pradesh, Daman & Diu, Delhi, Gujarat, Haryana, Himachal Pradesh, J&K, Madhya Pradesh, Maharashtra, Nagaland, Rajasthan, Tripura, Puducherry, A&N) have estimated present quantity of Sewage generated in their States/UTs.

ii. Only 3 States/UTs (Haryana, Himachal Pradesh, Jammu & Kashmir) have adequate capacity of Sewage treatment w.r.t to present quantity of sewage generated.

iii. Major bulk users identified include- Irrigation, horticulture,, Rejuvenation of water bodies, Construction, Recreation, Railways, Vehicles and Coach washing, firefighting, recreation and industry.

iv. 13 States/UTs (Andhra Pradesh, Maharashtra, Chhattisgarh, Goa, Delhi, Rajasthan, Tamil Nadu, Puducherry, Odisha, Madhya Pradesh, Gujarat, Haryana, Jharkhand) plan to use treated sewage in industries which include Steel Plant, Thermal Power Plant, Refineries and Railways.

v. Percentage of reuse of treated sewage planned maximum in Haryana (80 %) followed by Puducherry (55 %), Delhi (50 %), Chandigarh (35 %), Tamil Nadu (25%), Madhya Pradesh (20 %), Andhra Pradesh (5 %).

vi. NCT of Delhi has set target to increase their re usage from 12.5 % to 60 %. In future, utilization of 341 MGD treated sewage are proposed for drinking purpose (197 MGD), Irrigation (112 MGD) and 10 MGD in rejuvenation of water bodies.

vii. Time-line specified by States/UTs for implementation of Action Plan varies between 2020 -2030."

(emphasis supplied)

32. The Tribunal issued following directions:

> ***"24. Accordingly, we direct that States which have not addressed all the action points may do so promptly latest before 30.06.2020, reducing the time lines in the action plans. The timelines must coincide with the timelines for setting up of STPs since both the issues are interconnected. All the States may take steps accordingly. The CPCB may compile further information on the subject. The compliance for action plans will be the responsibility of the Secretaries of Urban Development/other concerned, including Irrigation & Public Health, Local Bodies, Rural Development Departments of all the States/UTs and to be overseen by the Chief Secretaries. The Ministry of Jal Shakti and Ministry of Housing and Urban Affairs, Government of India may also monitor and coordinate the situation appropriately in the interest of water qualities of rivers, lakes, water bodies and protection of groundwater."***

Review of CPCB Report dated 16.09.2020

33. **Accordingly, the CPCB has filed its report dated 16.09.2020** detailing the compliance status as follows:

> "***3.1.1 Compliance status w.r.t. the directions under Para 24 and 26 (iv)***
>
> *i. CPCB requested all States/UTs vide email/letter dated 03.06.2020, 24.06.2020 and 24.08.2020 to submit action plans as per the format and compliance reports. Further, CPCB has also provided link of the report submitted to the Hon'ble NGT indicating observations/ shortcomings on action plans of reuse of treated sewage, to the SPCBs/PCCs. A copy of the correspondences is attached at* ***Annexure-II.***
>
> *ii. Accordingly, action plan was received from the State of Punjab and revised action plans were received from Jammu and Kashmir (UT), Lakshadweep, Rajasthan (specific to Ajmer district), and Sikkim. Information is awaited from other States.* ***The gap analysis of action plans is attached as Annexure-III.***
>
> *iii. 4 States/UTs (Arunachal Pradesh, Manipur, Uttar Pradesh, Uttarakhand) have not submitted any information till date.*
>
> ***3.1.2 Compliance w.r.t. directions under Para 26 (i)***
>
> *i. CPCB communicated to all SPCBs/PCCs to provide information on STPs inventory as per the format, vide letter dated 15/07/2020. A copy of letter is attached as Annexure-IV. Based on continuous follow-up, all*

SPCBs/PCCs have provided information on STPs and same is attached as Annexure-V.

ii. *CPCB vide letter dated 24.08.2020 has requested all States/UTs to submit action plans through online portal of CPCB."*

Going Forward

34. **In view of the above reports finding a huge gap in utilisation of sewage treated water, further action needs to be taken by all the States/UTs to ensure updating and enforcement of the action plans for 100% utilization of the treated water for secondary purposes.**

35. Since the above issue is interrelated to the issue of operation of STPs, it will be appropriate that **this aspect is also now monitored by the CMC headed by the Secretary, Ministry of Jal Shakti and assisted by the CPCB and NMCG. Ministry of Urban Development may also nominate an officer of not below the rank of Joint Secretary in the said Committee**. OA No. 148/2016 need not be kept pending separately which stands disposed of as the subject will be henceforth considered in OA 593/2017 and OA 673/2018.

V. Directions:

36. Accordingly, we issue following directions:

i. All the States/UTs may address gaps in generation and treatment of sewage/effluents **by ensuring setting up of requisite number of functional ETPs, CETPs and STPs**, as directed by the Hon'ble Supreme Court in (2017) 5 SCC 326.

ii. The timeline for commissioning of all STPs fixed by the Hon'ble Supreme Court, i.e., 31.03.2018, has long passed. The Hon'ble Supreme Court directed that the State PCBs must initiate prosecution of the erring Secretaries to the Governments, which

has also not happened. This Tribunal was directed to monitor compliance and in the course thereof, we direct that compensation may be recovered in the manner already directed in earlier orders (See, **Paras 5 and 6** herein), which may be deposited with the CPCB for restoration of the environment.

iii. The unutilized capacity of the existing STPs may be utilized expeditiously.

iv. The States/ UTs may ensure that the CETP, ETPs and STPs meet the laid down norms and remedial action be taken wherever norms are not met.

v. It must be ensured that no untreated sewage/effluent is discharged into any water body. Prompt remedial action may be taken by the State PCBs/PCCs against non-compliant ETPs/CETPs by closing down or restricting the effluents generating activity, recovering compensation and taking other coercive measures following due process of law.

vi. Directions outlined in **Paras 24-26** herein may be implemented by the States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level.

vii. Wherever action plans have not yet been finalized in respect of polluted river stretches or polluted coastal stretches, the same may be completed within one month from today. The execution of action plans may be overseen in the manner already directed in OA 673/2018 by River Rejuvenation Committees (RCCs). In the coastal areas, the said Committees may be known as 'River/Coastal Rejuvenation Committees'. The action plans must have provision for budgetary support in the manner laid

down by the Hon'ble Supreme Court or otherwise which aspect may also be monitored by the CMC.

viii. Directions outlined in **Para 29** herein may be implemented by the concerned coastal States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level. OA No. 829/2019 stands disposed of and further monitoring of the issue will henceforth be in OA 593/2017 and OA 673/2018.

ix. Directions outlined in **Para 34 and 35** herein may be implemented by the States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level. OA No. 148/2016 stands disposed of and further monitoring of the issue will henceforth be in OA 593/2017 and OA 673/2018.

x. CMC may consider development of an appropriate App to enable easy filing and redressal of grievances with regard to illegal discharge of sewage/effluents.

xi. The monitoring by the CMC may have the target of reduction of pollution loads and improvement of water quality of rivers and coastal areas.

xii. The CMC may also monitor the setting up of the bio-diversity parks, constructed wetlands and other alternative measures to reduce pollution load.

xiii. The CMC may also monitor demarcation of flood plain zones.

xiv. The treated sewage water may be duly utilized for secondary purposes by preparing appropriate action plans and reports in this regard be filed with the CPCB periodically.

xv. CMC may submit its consolidated update report incorporating all the above, before the next date. Each action point mentioned in Para 26 may be individually covered, and summarized in a tabular format.

37. A copy of this order may be forwarded to the Chief Secretaries of all the States/UTs, CPCB, NMCG, all PCBs/ PCCs, Secretaries, Ministry of Jal Shakti and Ministry of Housing and Urban Development, by email.

List for further consideration on February 16, 2021.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

September 21, 2020
Original Application No. 593/2017
Original Application No. 673/2018
Original Application No. 829/2019
Original Application No. 148/2016
SN & DV