

**[Rule 8(1) OF NATIONAL GREEN TRIBUNAL (PRACTICES  
& PROCEDURE) RULES, 2011]**

**MEMORANDUM OF UNDER SECTION 18(1) & 19(4) READ  
WITH SECTION 14,15,17 OF THE NATIONAL GREEN  
TRIBUNAL ACT,2010**

**BEFORE THE NATIONAL GREEN TRIBUNAL SOUTH ZONE  
AT CHENNAI**

**ORIGINAL APPLICATION NO: 17 OF 2026**

V.M.PRAKASH,  
S/o Mugundan,  
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E-Mail: srikrishnatransport7@gmail.com

...APPLICANT

-VS-

01. THE PRINCIPAL SECRETARY,  
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Fort St George,  
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05. THE PRINCIPAL SECRETARY,  
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Secretariat,  
Tamilnadu Government,  
Fort St George,  
Chennai - 600009.  
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E-Mail:hfsec@tn.gov.in
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07. THE DISTRICT COLLECTOR THIRUVALLUR,  
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District Collector Office,

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Thiruvallur District – 602001.  
Landline: 044-27661600  
E-Mail:collrtr@nic.in

08. THE CHAIRMAN,  
Tamilnadu Pollution Control Board,  
No.76, Mount Road,  
Guindy, Chennai – 600032.  
Landline:044-22353134  
E-Mail:chairman@tnpcb.gov.in

... 1<sup>st</sup> to 8<sup>th</sup> RESPONDENTS

Note: As per the Hon'ble Tribunal order dated 05.02.2026 on behalf of the applicant we gave up and deleted the previous 1<sup>st</sup>, 3<sup>rd</sup>, 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup> respondents and now filed the amended original application by re-arraying the above respondents.

**INDEX TO ADDITIONAL TYPED SET OF DOCUMENTS**

S.NO	DATE	DESCRIPTION	ANNEXURE	REMARKS
01.	18.02.2026	Copy of Photographs of untreated contaminated industrial effluents water directly released from industries through trenches from Gummidipoondi sipcot which leads to the thamarai lake	A-11	01-06
02.	18.02.2026	Copy of Photographs of untreated contaminated industrial effluents water illegally stored in natural pond located adjacent to the thamarai lake	A-12	07-08
03.	18.02.2026	Copy of Photographs of untreated contaminated	A-13	09-12

01-D

		industrial effluents water directly released in to the natural water paths of Thamarai lake		
04.	18.02.2026	Copy of Photographs of untreated contaminated industrial effluents water released from Gummidipoondi sipcot which clearly shows detoriated condition of the Thamarai lake	A-14	13-14
05.		Judgements		15-122

Certified that the above documents are true copy of the originals

Dated at Chennai on this <sup>th</sup>27 day of Feburary, 2026.

  
ms.2194/2019  
**COUNSEL FOR APPLICANTS**

(01)E

ANNEXURE II





 GPS Map Camera



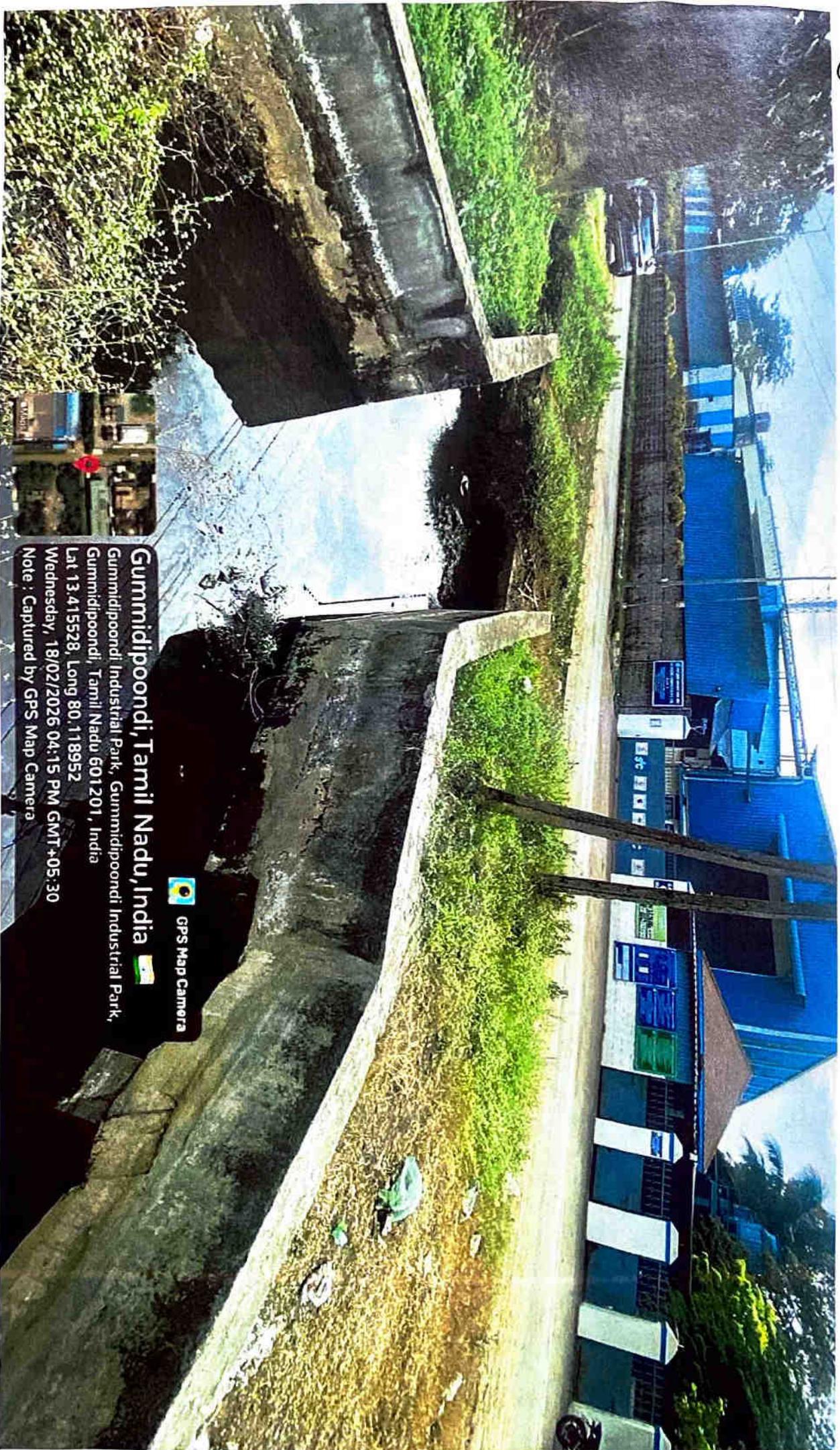
**- Gummidipoondi, Tamil Nadu, India** 

Gummidipoondi Industrial Park, Gummidipoondi Industrial Park,  
Gummidipoondi, Tamil Nadu 601201, India

Lat 13.415614, Long 80.118836

Wednesday, 18/02/2026 03:47 PM GMT+05:30

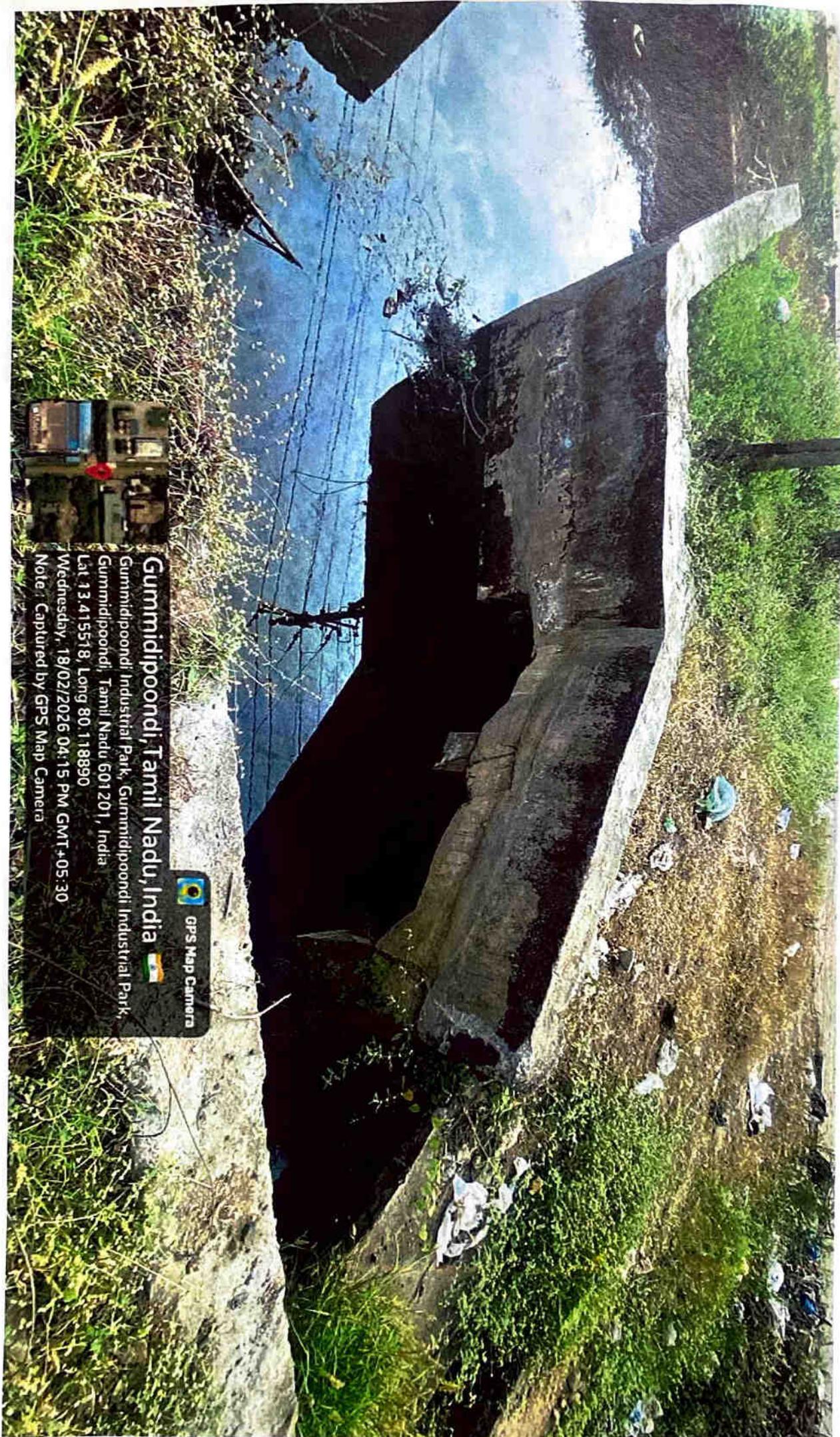
Note : Captured by GPS Map Camera



**Gummidipoondi, Tamil Nadu, India**  
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Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.415528, Long 80.118952  
Wednesday, 18/02/2026 04:15 PM GMT+05:30  
Note : Captured by GPS Map Camera

 GPS Map Camera





**Gummidipoondi, Tamil Nadu, India**  
Gummidipoondi Industrial Park, Gummidipoondi Industrial Park,  
Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.415518, Long 80.118890  
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Note: Captured by GPS Map Camera



05



 GPS Map Camera



**Gummidipoondi, Tamil Nadu, India**   
Gummidipoondi Industrial Park, Gummidipoondi Industrial Park,  
Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.415536, Long 80.119859  
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Note : Captured by GPS Map Camera



 GPS Map Camera



**Gummidipoondi, Tamil Nadu, India** 

Gummidipoondi Industrial Park, Gummidipoondi Industrial Park,  
Gummidipoondi, Tamil Nadu 601201, India

Lat 13.415532, Long 80.119869

Wednesday, 18/02/2026 04:13 PM GMT+05:30

Note : Captured by GPS Map Camera

07

ANNEXURE-12



**Gummidipoondi, Tamil Nadu, India**  
Gummidipoondi Industrial Park, Gummidipoondi Industrial Park,  
Gummidipoondi, Tamil Nadu 601201, India  
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GPS Map Camera

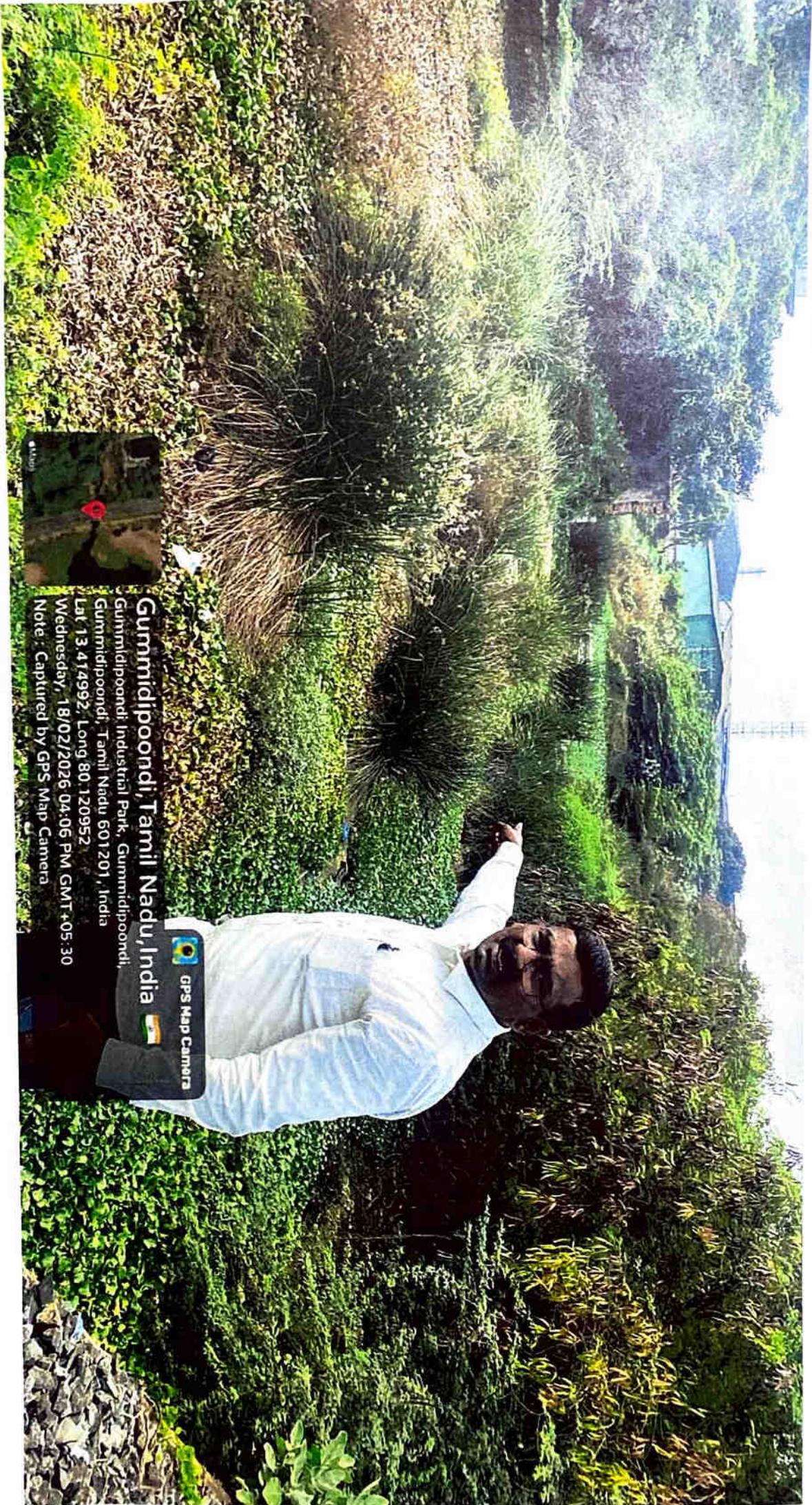


**Gummidipoondi, Tamil Nadu, India**  
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Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.415384, Long 80.120288  
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Note: Captured by GPS Map Camera



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ANNEXURE-13



**Gummidipoondi, Tamil Nadu, India**  
Gummidipoondi Industrial Park, Gummidipoondi,  
Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.414992, Long 80.120952  
Wednesday, 18/02/2026 04:06 PM GMT+05:30  
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**Gummidipoondi, Tamil Nadu, India** 🇮🇳

Gummidipoondi Industrial Park, Gummidipoondi Industrial Park,  
Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.415344, Long 80.120639  
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Note: Captured by GPS Map Camera

 GPS Map Camera

11



**Gummidipoondi, Tamil Nadu, India**  
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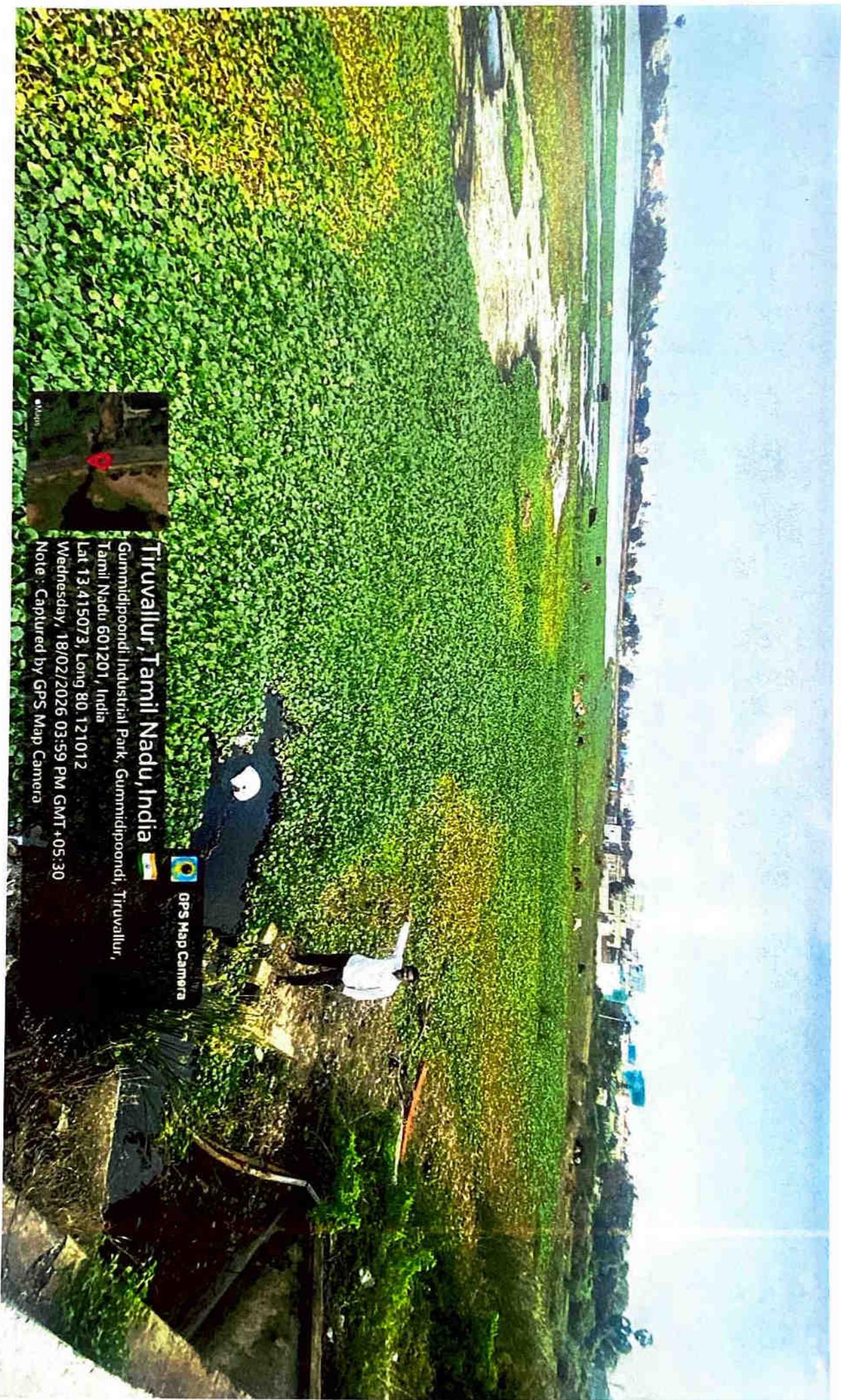


**Gummidipoondi, Tamil Nadu, India**  
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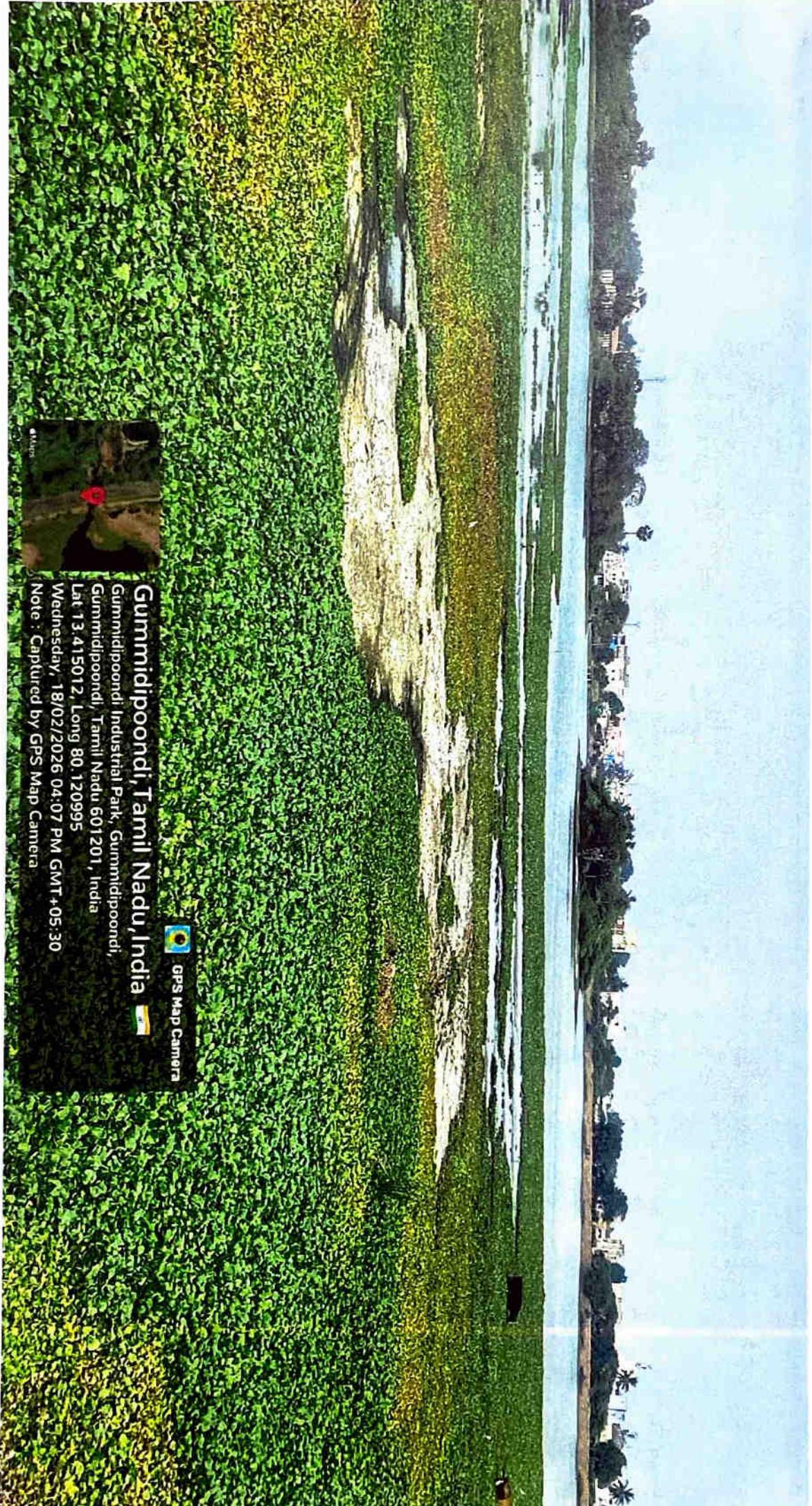
13

EXERCISE-14



**Tiruvallur, Tamil Nadu, India**  
Gummidipoondi Industrial Park, Gummidipoondi, Tiruvallur,  
Tamil Nadu 601201, India  
Lat 13.415073, Long 80.121012  
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GPS Map Camera



**Gummidipoondi, Tamil Nadu, India**  
Gummidipoondi Industrial Park, Gummidipoondi,  
Gummidipoondi, Tamil Nadu 601201, India  
Lat 13.415012, Long 80.120995  
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Note : Captured by GPS Map Camera



Item No. 04

Court No.1

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

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

Nitin Shankar Deshpande

Applicant(s)

Versus

Union of India &Ors.

Respondent(s)

Date of hearing: 30.04.2019

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

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

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

**ORDER**

1. The issue for consideration is effluent discharge standards for STPs as laid down vide Notification dated 13.10.2017 by way of Environment (Protection) Amendment Rules, 2017 against Serial No. 105 of Schedule-I to the Environment (Protection) Rules, 1986.
2. Vide order dated 21.12.2018, this Tribunal noted that untreated or partially treated sewage is a major source of pollution in the country.

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

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

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

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

<sup>1</sup>(2017) 5 SCC 326

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

5. Accordingly, the Tribunal constituted an Expert Committee comprising the nominees from IIT Kanpur, IIT Roorkee, NEERI and CPCB which was to give its report after examining the best available technologies and best practices and after referring to the Experts study on the subject particularly CPCB Report on "River Stretches for Restoration of Water Quality, 2014-15" and the order of this Tribunal on the subject of polluted river stretches dated 20.09.2018 in Original Application No. 673/2018 in the matter of News item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB". The Tribunal also directed stay of operation of the impugned Notification and application of pre-revised standards till further orders.
6. Accordingly, report has been received from CPCB vide e-mail dated 30.04.2019 forwarding the Expert Committee report. The report noted the current status of water quality of rivers which flows in India and the fact that 351 river stretches out of 323 rivers were polluted. There was need for revised standards for BOD and COD with a view to protect the water quality of the rivers/streams. There was also a need for revised standards for TSS, for Nitrogen (Ammonia & Nitrates) and Phosphorus and for Fecal Coliform.

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

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

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

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

Further the committee observed:

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

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

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

*Eutrophication arises from the oversupply of nutrients (N & P), which leads to overgrowth of plants and algae.*

*Degradation of dead algae and plants by microbes consumes dissolved oxygen in the water, thereby creating the state of hypoxie.*

*Eutrophication leads to many problems related to water quality:*

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

The Committee has also observed that:

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

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

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

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

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

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

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

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

Considering aforementioned analysis, the Chairman CPCB directed all State Pollution Control Boards to make it mandatory for local bodies to set up sewerage systems for treatment and disposal of sewage to meet the prescribed standards ie., pH 6.5-9, BOD (mg/L): Not more than 10, COD (mg/L ): Not more than 50, TSS (mg/L) : Not more than 20, NH<sub>4</sub>-N (mg/L): Not more than 5, N-total (mg/L) Not more than 10 ,Fecal Coliforms (MPN/100 ml) Less than 230. The details are provided in Annexure 1."

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

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

*"7.0 ECONOMIC VIABILITY & RESOURCE POSITION*

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

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

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

*4. Typical total unit costs for wastewater treatment based on experience gained in Western Europe and the USA is presented in Figure XX (WHO/ UNEP 1997), The total unit cost for secondary treatment (BOD < 20-30 mg/L, & TSS < 50-100 mg/L) varies between 1.5-2.0 US\$/m<sup>3</sup>, while for tertiary treatment (BOD, TSS & TN < 10 mg/L) it is 2.0-2.5 US\$/m<sup>3</sup>. The additional burden is approximately 25-33 % which matches with Indian experience as well.*

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

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

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

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

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

9. Accordingly, the Committee further observed that:

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

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

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

	<i>Number per 100 milliliter, MPN/100 ml</i>	230	1000	10,000	10,000	e-10,000
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*Note:*

- (i) Mega-Metropolitan Cities have population more than 1 crore, Metropolitan Cities-Population more than 10 Lakhs and Class-I Population more than 1 Lakh.*
- (ii) All value in mg/l except for pH and Fecal Coliform.*
- (iii) These standards will be applicable for discharge into water bodies as well as for land disposal/applications.*
- (iv) These Standards shall apply to all new STPs for which construction is yet to be initiated.*
- (v) The existing/under construction STPs shall achieve these standards within 07 years from the date of notification.*
- (vi) In case where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100m away from discharge point, then norms for deep sea marine discharge shall be applied.*
- (vii) Reuse/Recycling of treated effluent shall be encouraged.*
- (viii) State Pollution Control Boards/Pollution Control Committees may make these norms more stringent taking into account the local conditions.*

10. We have heard Learned Counsel for the parties.

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

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

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

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

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

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

The Application is disposed of.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

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

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Paryavaran Suraksha Samiti & Anr vs Union Of India on 22 February, 2021

# Paryavaran Suraksha Samiti & Anr vs Union Of India on 22 February, 2021

**Author: Adarsh Kumar Goel**

**Bench: Adarsh Kumar Goel**

Item Nos. 01&02

Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI

Original Application No. 593/2017

(With report of CMC dated 12.02.2021,  
reports of OC dated 12.02.21 & 13.02.21)

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

Date of hearing: 22.02.2021

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Respondent(s): Mr. D.P. Mathuria, Executive Director, NMCG  
Mr. Raj Kumar, Advocate for CPCB  
Mr. Pradeep Misra and Mr. Daleep Dhyani, Advocates for UPPCB  
Ms. Madhumita Bhattacharjee, Advocate for State of West Bengal  
Mr. Avijit Roy, Advocate for Assam PCB

ORDER

1. These two matters are being dealt with together in continuation of order dated 21.9.2020. The first matter is follow up of judgment of the Hon'ble Supreme Court dated 22.02.2017 in Paryavaran Suraksha Samiti Vs. Union of India<sup>1</sup>, which mandates establishment and functioning of requisite ETPs/CETPs/STPs by 31.3.2018 and in default, (2017) 5 SCC 326 to take coercive measures. The judgement also laid down rigid timelines, enforcement mechanism and sources of funding. Even in absence of the said judgement, doing so is the mandate of the Water (Prevention and Control of Pollution) Act, 1974. The said Act established Central and State Pollution Board for prevention, abatement and control of rivers and streams and to restore wholesomeness of watercourses and controlling discharge of domestic and industrial wastes. Penalties are provided for contravention of the provisions of the Act. The Constitution of India under Article 243 W read with 12th Schedule entrusts responsibility of "public health, sanitation conservancy and solid waste management" to Municipalities. The Hon'ble Supreme Court held that the States will provide necessary support to such local bodies. This is to be monitored by the PCBs and the Secretaries, Environment in States and thereafter by the NGT. This Tribunal has been accordingly monitoring compliance in the last four years but regrettably with little progress as will be shown by the statistics. We propose to direct further monitoring by the Executive authorities henceforth for the reasons in this order.

2. The second matter relates to remedial action for rejuvenation of 351 identified polluted river stretches in the country, for which major step is preventing discharge of industrial and domestic waste in rivers or drains connected thereto. On this aspect both the matter overlap.

Other steps include preventing dumping of solid waste, plastic, hazardous, bio-medical and electronic wastes, regulation of flood plain zones, by keeping catchment areas free from encroachments, maintaining environment flow by adopting appropriate water conservation practices and other steps, controlling extraction of ground water, afforestation etc. The Tribunal required setting of River Rejuvenation Committees (RRCs) in all States for the purpose. They were to prepare and execute action plans, with budgets and timelines to give effect to the mandate of law. The Chief Secretaries of all States/UTs are to monitor compliance at State level and the Central Monitoring Committee (CMC) headed by the Secretary Jal Shakti, GoI, with CPCB and NMCG is to monitor compliance at national level. The situation continues to be grim, as has been repeatedly observed by this Tribunal. The polluted river stretches include Ganga and Yamuna, which have been dealt with by separate orders, apart from some other rivers which have been dealt with by separate orders individually, to which reference will be made. This is affecting aquatic life, safety of food chain on account of contamination of water and resulting in drinking water crisis in the country. There are also large number of deaths and diseases due to water contamination. Further monitoring is proposed to be by the authorities themselves in terms of directions at the end of the order.

3. We now proceed to give the procedural history of the two matters, the status reports filed and directions for future compliance.

Original Application No. 593/2017

4. Since this matter is follow up of the judgement of the Hon'ble Supreme Court in Paryavaran Suraksha Samiti Vs. Union of India, supra, directions in the judgement are quoted below:

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

11. Just in the manner suggested hereinabove, for the purpose of setting up of "common effluent treatment plants", the State Governments concerned (including, the Union Territories concerned) will prioritise such cities, towns and villages, which

discharge industrial pollutants and sewer, directly into rivers and water bodies.

12. We are of the view that in the manner suggested above, the malady of sewer treatment, should also be dealt with simultaneously. We, therefore, hereby direct that "sewage treatment plants" shall also be set up and made functional, within the timelines and the format, expressed hereinabove.

13. We are of the view that mere directions are inconsequential, unless a rigid implementation mechanism is laid down. We, therefore, hereby provide that the directions pertaining to continuation of industrial activity only when there is in place a functional "primary effluent treatment plants", and the setting up of functional "common effluent treatment plants" within the timelines, expressed above, shall be of the Member Secretaries of the Pollution Control Boards concerned. The Secretary of the Department of Environment, of the State Government concerned (and the Union Territory concerned), shall be answerable in case of default. The Secretaries to the Government concerned shall be responsible for monitoring the progress and issuing necessary directions to the Pollution Control Board concerned, as may be required, for the implementation of the above directions. They shall be also responsible for collecting and maintaining records of data, in respect of the directions contained in this order. The said data shall be furnished to the Central Ground Water Authority, which shall evaluate the data and shall furnish the same to the Bench of the jurisdictional National Green Tribunal.

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

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

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

(emphasis supplied)

5. The Tribunal issued notice to all States/UTs, PCBs/ PCCs, and sought status reports. It considered the status reports about the gaps in waste generation and setting up of requisite number

of treatment plants.

The CPCB was directed to prepare an action plan for compliance of the order of the Hon'ble Supreme Court 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, 21.05.2020 and 21.09.2020.

6. By order of 28.08.2019 in OA 593/2017, 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 compensation regime discussed in the said order is quoted below:

"14. A report has also been prepared on the scale of environmental compensation to be recovered from individual/authorities for causing pollution or failure for preventing causing pollution, apart from illegal extraction of ground water, failure to implement Solid waste Management Rules, damage to environment by mining and steps taken to explore preparation of an annual environmental plan for the country. Extracts from the report which are considered significant for this order are:

"I. Environment Compensation to be levied on Industrial Units Recommendations  
The Committee made following recommendations: 1.5.1 To begin with, Environmental Compensation may be levied by CPCB only when CPCB has issued the directions under the Environment (Protection) Act, 1986. In case of a, band c, Environmental Compensation may be calculated based on the formula "EC= Pl x N x Rx S x LF", wherein, Pl may be taken as 80, 50 and 30 for red, orange and green category of industries, respectively, and R may be taken as

250. Sand LF may be taken as prescribed in the preceding paragraphs 1.5.2 In case of d, e and f, the Environmental Compensation may be levied based on the detailed investigations by Expert Institutions/Organizations.

1.5.3 The Hon'ble Supreme Court in its order dated 22.02.2017 in the matter of Paryavaran Suraksha Samiti and another v/s Union of India and others {Writ Petition {Civil} No. 375 of 2012), directed that all running industrial units which require "consent to operate" from concerned State Pollution Control Board, have a primary effluent treatment plant in place. Therefore, no industry requiring ETP, shall be allowed to operate without ETP.

1.5.4 EC is not a substitute for taking actions under EP Act, Water Act or Air Act. In fact, units found polluting should be closed/prosecuted as per the Acts and Rules.

II. Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in NCR.

Table No. 2.1: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in Delhi-NCR.

Activity	State Of Air Quality	Environmental Compensation ( )
Industrial Emissions	Severe +/-Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh

Vapour Recovery System (VRS) at Outlets of Oil Companies i. Not Target Date Rs 1.0 Crore installed ii. Non functional Very poor to Severe + Rs 50.0 Lakh Moderate to Poor Rs 25.0 Lakh Construction sites Severe +/-Emergency Rs 1.0 Crore (Offending plot more Severe Rs 50 Lakh than 20,000 Sq.m.) Very Poor Rs 25 Lakh Moderate to Poor Rs 10 Lakh Solid waste/ garbage Very poor to Severe + Rs 25.0 Lakh dumping in Industrial Estates Moderate to Poor Rs 10.0 Lakh Failure to water sprinkling on unpaved roads

a) Hot-spots Very poor to Severe + Rs 25.0 Lakh

b) Other than Hot-

spots	Very poor to Severe +	Rs 10.0 Lakh
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III. Environmental Compensation to be levied in

case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules:

Table No. 3.3: Minimum and Maximum EC to be levied for untreated/partially treated sewage discharge Class of the Mega-City Million- Class-I City/Town plus City City/Town and others Minimum and Min. 2000 Min. 1000 Min. 100 Maximum values of EC Max. 20000 Max. 10000 Max. 1000 (Total Capital Cost Component) recommended by the Committee (Lacs Rs.) Minimum and Min. 2 Min. 1 Min. 0.5 Maximum values of EC Max. 20 Max. 10 Max. 5 (O&M Cost Component) recommended by the Committee (Lacs Rs./day) Table No. 3.4: Minimum and Maximum EC to be levied for improper municipal solid waste management Class of the City/Town Mega-City Million-plus Class-I City/Town City and others Minimum and Maximum Min. 1000 Min. 500 Min. 100 values of EC (Capital Max. 10000 Max. 5000 Max. 1000 Cost Component) recommended by the Committee (Lacs Rs.) Minimum and Maximum Min. 1.0 Min. 0.5 Min. 0.1 values of EC (O&M Max. 10.0

Max. 5.0 Max. 1.0 Cost Component) recommended by the Committee (Lacs Rs./day)  
3.3 Environment Compensation for Discharge of Untreated/Partially Treated Sewage  
by Concerned Individual/ Authority:

BIS 15-1172:1993 suggests that for communities with population above 100,000, minimum of 150 to 200 lpcd of water demand is to be supplied. Further, 85% of return rate (CPHEEO Manual on Sewerage and Sewage Treatment Systems, 2013}, may be considered for calculation of total sewage generation in a city. CPCB Report on "Performance evaluation of sewage treatment plants under NRCD, 2013", describes that the capital cost for 1 MLD STP ranges from 0.63 Cr. to 3 Cr. and O&M cost is around Rs. 30,000 per month. After detail deliberations, the Committee suggested to assume capital cost for STPs as Rs. 1.75 Cr./MLD (marginal average cost). Further, expected cost for conveyance system is assumed as Rs. 5.55 Cr./MLD (marginal average cost) and annual O&M cost as 10% of the combined capital cost. Population of the city may be taken as per the latest Census of India. Based on these assumptions, Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC= Capital Cost Factor x [Marginal Average Capital Cost for Treatment Facility x (Total Generation-Installed Capacity) + Marginal Average Capital Cost for Conveyance Facility x (Total Generation -Operational Capacity)]+ O&M Cost Factor x Marginal Average O&M Cost x (Total Generation- Operational Capacity) x No. of Days for which facility was not available + Environmental Externality x No. of Days for which facility was not available Alternatively;

EC (Lacs Rs.)= [17.S{Total Sewage Generation - Installed Treatment Capacity)+ 55.S{Total Sewage Generation-Operational Capacity}] + 0.2(Sewage Generation-Operational Capacity) x N + Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) X N Where; N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority Quantity of Sewage is in MLD xxx ..... xxx .....xxx 3.4 Environment Compensation to be Levied on Concerned Individual/Authority for Improper Solid Waste Management:

Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC = Capital Cost Factor x Marginal Average Cost for Waste Management x (Per day waste generation-Per day waste disposed as per the Rules) + O&M Cost Factor x Marginal Average O&M Cost x (Per day waste generation-Per day waste disposed as per the Rules) x Number of days violation took place + Environmental Externality x N Where;

Waste Quantity in tons per day (TPD) N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority  
Simplifying;

EC (Lacs Rs.) = 2.4(Waste Generation - Waste Disposed as per the Rules) +0.02 (Waste Generation - Waste Disposed as per the Rules) x N + Marginal Cost of Environmental Externality x (Waste Generation - Waste Disposed as per the Rules) x N xxx ..... xxx .....xxx IV. Environmental Compensation in Case of Illegal Extraction of Ground Water 4.5 Formula for Environmental Compensation for illegal extraction of ground water The committee decided that the formula should be based on water consumption (Pump Yield & Time duration) and rates for imposing Environmental Compensation for violation of illegal abstraction of ground water. The committee has proposed following formula for calculation of Environmental Compensation (EC Gw):

ECGW = Water Consumption per Day x No. of Days x Environmental Compensation Rate for illegal extraction of ground water {ECRGw) Where water Consumption is in m<sup>3</sup> /day and ECRGw in Rs./m<sup>3</sup> Yield of the pump varies based on the capacity/power of pump, water head etc. For reference purpose, yield of the pump may be assumed as given in Annexure- VI.

Time duration will be the period from which pump is operated illegally.

In case of illegal extraction of ground water, quantity of discharge as per the meter reading or as calculated with assumptions of yield and time may be used for calculation of EC Gw.

4.6 Environmental Compensation Rate (ECRGw) for illegal use of Ground Water:

The committee decided that the Environmental Compensation Rate (ECR Gw) for illegal extraction of ground water should increase with increase in water consumption as well as water scarcity in the area. Further, ECR Gw are kept relaxed for drinking and domestic use as compared to other uses, considering the basic need of human being.

As per CGWB, safe, semi-critical, critical and over- exploited areas are categorized from the ground water resources point of view (CGWB, 2017). List of safe, semi-critical, critical and over-exploited areas are available on the website of CGWB and can be accessed from- <http://cgwa->

[noc.gov.in/LandingPage/NotifiedAreas/CategorizationofAssessmentUnits.pdf#ZOOM=150](http://cgwa-noc.gov.in/LandingPage/NotifiedAreas/CategorizationofAssessmentUnits.pdf#ZOOM=150).

Environmental Compensation Rates (ECR G w) for illegal use of ground water (ECR G w) for various purposes such as drinking/domestic use, packaging units, mining and industrial sectors as finalized by the committee are given in tables below:

4.6.1 ECRGw for Drinking and Domestic use:

Drinking and Domestic use means uses of ground water in households, institutional activity, hospitals, commercial complexes, townships etc. Water Consumption (m3/day) SI.

Area Category <2 2 to <5 5 to <25 25 & above No. Environmental Compensation Rate (ECRGw) in Rs./m3 Minimum ECGw=Rs 10,000/- (for households) and Rs. 50,000 (for institutional activity, commercial complexes, townships etc.) 4.6.2 ECRGw for Packaged drinking water units:

Water Consumption (m3/day) SI.

Area Category <200 200 to <1000 1000 to <5000 5000 & No. above Environmental Compensation Rate (ECRGw) in Rs./m3 Minimum ECGw=Rs 1,00,000/-

4.6.3 ECRGw for Mining, Infrastructure and Dewatering Projects Water Consumption (m3/day) SI.

No Area Category	<200	1000 to <5000	5000 &
		200 to <1000	above

Environmental Compensation Rate (ECRGw) in Rs./m3 2 Semi critical 30 45 60 75 3 Critical 45 60 85 115 4 Over-exploited 60 90 120 150 Minimum ECGw=Rs 1,00,000/-

4.6.4 ECRGw for Industrial Units:

SI. Area Category Water Consumption (m3/day) No. 200 to 5000 & <200 1000 to <5000 <1000 above Environmental Compensation Rate (ECRGw) in 2 Semi critical 40 60 80 100 3 Critical 60 80 110 150 Minimum ECGw = Rs 1,00,000/-

4.8 Recommendations

The committee has given following recommendations:

The minimum Environmental Compensation for illegal extraction of ground water for domestic purpose will be Rs. 10,000, for institutional/commercial use will be 50,000 and for other uses will be 1,00,000.

In case of fixation of liability, it always lies with current owner of the premises where illegal extraction is taking place.

Time duration may be assumed to be one year in case where no evidence for period of installation of bore well could be established.

For Drinking and Domestic use, where metering is not present but storage tank facility is available, minimum water consumption per day may be assumed as similar to the storage capacity of the tank.

For industrial ground water use, where metering is not available, water consumption may be assumed as per the consent conditions. Further, where in case industry is operating without consent, water consumption may be calculated based on the plant capacity (on the recommendation of SPCB/PCC, if required). SPCB/PCC may bring the issue of illegal extraction of ground water in industries in to the notice of CGWA for appropriate action by CGWA. Authorities assigned for levy EC and taking penal action are listed below:

S. No.	Actions	Authority
1.	To seal the illegal bore-well/tube-well to stop extraction of water and further closure of project	District Collector
2.	To levy ECGw as per prescribed method	District Collector,
3.	To levy EC on water pollution, as per the method prescribed in report of CPCB- "EC on industrial pollution"	CGWA CPCB/SPCB/PCC
4.	Prosecution of violator	CGWA under EP Act SPCB/PCC under Air and Water Act

CGWA may maintain a separate account for

collection and utilization of fund, collected through the prescribed methodology in this report."

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.

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)

7. Thereafter on 21.05.2020, 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."

8. The matter was last considered on 21.09.2020 in light of the CPCB report dated 16.09.2020 giving the river basin wise data and also the status of industrial and sewage pollution load. The consideration on this aspect in the order dated 21.09.2020 is as follows:-

"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 noncomplying. 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 noncompliance. 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	River	State/ UT	Total No.	Basin	CETP	Canal	Drain	Land/	River	Sewer	STP	ZLD	Other
1	Ganga	Delhi	817	1	571	0	0	26	1	3	0	1419	flowing & Diu rivers from Tapi to Tadri
3	Minor river	Mizoram	0	0	61	0	0	0	0	0	0	61	basins
4	2	Tripura	4	0	2	1	2	0	0	0	0	11	20 drainage to Bangladesh & Burma
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	River	State/UT	Total No.	Basin	Discharge Volume at the Particular discharge point (KLD)	CETP	Canal	Drain	Land/	River	Sewer	STP	ZLD	Other
1	Ganga	Delhi	6178	0	6721	0	0	177	195	6	0	13277	2	West Daman
0	0	24	400	0	0	1210	233	1867	flowing & Diu rivers from Tapi to Tadri	3	Minor river	basins	Mizoram	0
0	0	43	0	0	0	0	0	43	drainage to Banglad	2355	Tripura	545	0	2
Total			6178	0	6721	0	0	177	195	6	0	13277	2	

1320 0 0 0 470 esh & Burma 0 1720 Total 6723 6766 42 177 195 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 SI. River Basin State/UT  
Designed Daily Average Daily average Discharge of No. capacity of Volume of volume of untreated/  
ETPs (KLD) Effluent treated partially Generation effluent (KLD) treated effluent (KLD)

(i) (KLD)

(ii) (iii) (iv) = (ii) -- (iii) rivers from Tapi to Tari basins drainage to Bangladesh & Burma 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. Name of the Waste Landfill Dumpsite No. State Processing Sites

1. Delhi facilities

9. Tamil Nadu Not Provided Not Provided 136 Table No. 5: River basin-wise Distribution of Solid Waste Management Facilities Sl. No. River basin Name of the State Waste Landfill Dumpsite Processing Sl. River basin Name of the State Waste Landfill Dumpsite

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 Landfills Dumpsites facilities Himachal Pradesh 31 No sanitary landfill site 7

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 leachates; 80 out of 428 dumpsites and 376 out of 428 point of disposal of leachates.

#### 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."

#### Original Application No. 673/2018

9. The second matter being OA 673/2018 overlaps with the first on the subject of preventing water pollution. It relates to directions for abatement of pollution and rejuvenation of 351 polluted river stretches. The matter has been earlier dealt with mainly by orders dated 20.9.2018, 19.12.2018, 8.4.2019, 28.8.2019, 6.12.2019, 29.6.2020 and lastly on 21.9.2020. We may first refer to order dated 6.12.2019 which also makes reference to earlier orders:

"3. Present proceedings were initiated based on a news item dated 17.09.2018 in 'The Hindu' under the heading "More river stretches are now critically polluted: CPCB". According to the news item, 351 polluted river stretches have been identified by the Central Pollution Control Board (CPCB). 117 such stretches are in the States of Assam, Gujarat, and Maharashtra. The CPCB has apprised the concerned States of the extent of pollution in the rivers. Most polluted stretches are from Powai to Dharavi - with Biochemical Oxygen Demand (BOD) 250 mg/L; the Godavari - from Someshwar to Rahed

- with BOD of 5.0-80 mg/L; the Sabarmati - Kheroj to Vautha - with BOD from 4.0-147 mg/L; and the Hindon -

Saharanpur to Ghaziabad - with a BOD of 48-120 mg/L. The CPCB has a programme to monitor the quality of rivers by measuring BOD. BOD greater than or equal to 30mg/L is termed as 'Priority-I',

while that between 3.1- 6 mg/L is 'Priority-V'. The CPCB considers BOD less than 3mg/L an indicator of a healthy river. In its 2015 Report<sup>3</sup>, the CPCB had identified 302 polluted stretches on 275 rivers, spanning 28 States and six Union Territories. The number of such stretches had now increased to 351 in 2018.

4 to 5 xxx .....xxx.....xxx

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

"58. Rivers in India are drying up, groundwater is being rapidly depleted, and canals are polluted. Yamuna in Delhi looks like a black drain. Several perennial rivers like Ganga and Brahmaputra are rapidly becoming seasonal. Rivers are dying or declining, and aquifers are getting over pumped. Industries, hotels, etc. are pumping out groundwater at an alarming rate, causing sharp decline in the groundwater levels. Farmers are having a hard time finding groundwater for their crops e.g. in Punjab. In many places there are serpentine queues of exhausted housewives waiting for hours to fill their buckets of water. In this connection John Briscoe has authored a detailed World Bank Report, in which he has mentioned that despite this alarming situation there is widespread complacency on the part of the authorities in India.<sup>4</sup> "4. We see Yamuna river virtually turned into a sullage. We take judicial notice of this situation. Similar is the position with Ganges. As it proceeds, <sup>2</sup><https://www.thehindu.com/news/national/more-river-stretches-critically-polluted-cpcb/article24962440.ecce> <sup>3</sup><http://cpcb.nic.in/cpcb/RESTORATION-OF-POLLUTED-RIVER-STRETCHES.pdf> State of Orissa v. Govt. of India, (2009) 5 SCC 492 industrial effluents are being poured in rivers. Sewage is also being directly put in rivers contributing to the river water pollution. We direct the Pollution Control Boards of the various States as well as the Central Pollution Control Board and various Governments to place before us the data and material with respect to various rivers in the concerned States, and what steps they are taking to curb the pollution in such rivers and to management as to industrial effluents, sewage, garbage, waste and air pollution, including the water management. We club the ending case of water management with this matter.<sup>5</sup> xxx .....xxx.....xxx

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

12. It will be appropriate to note the crisis situation in the country on the subject of availability of potable water. The matter has been considered in the report of Niti Aayog on Composite Water Management Index (CWMI).<sup>6</sup> Following further information also needs to be noted:

(i) India is suffering from the worst water crisis in its history and millions of lives and livelihoods are under threat.

Currently, 600 million Indians face high to extreme water stress and about two lakh people die every year due to inadequate access to safe water<sup>7</sup>. The crisis is only going to get worse. By 2030, the country's water demand is projected to be twice the available supply, implying severe water scarcity for hundreds of millions of people and an eventual ~6% loss in the country's GDP<sup>8</sup>. As per the report of National Commission for Integrated Water Resource Development of MoWR, the water requirement by 2050 in high use scenario is likely to be a milder 1,180 BCM, whereas the present-day availability is 695 BCM. The total availability of water possible in country is still lower than this projected demand, at 1,137 BCM. Thus, there is an imminent need to deepen our M.C. Mehta Vs Union of India- W.P. (Civil) No. 13029/1985 dated 25.11.2019<sup>6</sup> Niti Ayog on "Composite Water Management Index", June 2018, [https://niti.gov.in/writereaddata/files/document\\_publication/2018-05-18-Water-Index-Report\\_vS8-compressed.pdf](https://niti.gov.in/writereaddata/files/document_publication/2018-05-18-Water-Index-Report_vS8-compressed.pdf).

<sup>7</sup>Source: WRI Aqueduct; WHO Global Health Observatory <sup>8</sup>Source: McKinsey & WRG, 'Charting our water future', 2009; World Bank; Times of India understanding of our water resources and usage and put in place interventions that make our water use efficient and sustainable.

(ii) India is undergoing the worst water crisis in its history.

Already, more than 600 million people<sup>9</sup> are facing acute water shortages. Critical groundwater resources - which account for 40% of our water supply - are being depleted at unsustainable rates.<sup>10</sup>

(iii) Most states have achieved less than 50% of the total score in the augmentation of groundwater resources, highlighting the growing national crisis--54% of India's groundwater wells are declining, and 21 major cities are expected to run out of groundwater as soon as 2020, affecting ~100 million people<sup>11</sup>.

(iv) With nearly 70% of water being contaminated, India is placed at 120th amongst 122 countries in the water quality index.

13. As per statistics mentioned before the Lok Sabha on April 6, 2018, waterborne diseases such as cholera, acute diarrhoeal diseases, typhoid and viral hepatitis continue to be prevalent in India and have caused 10,738 deaths, over the last five years since 2017. Of this, acute diarrhoeal diseases caused maximum deaths followed by viral hepatitis, typhoid and cholera.<sup>12</sup>

14. As per 'National Health Profile' published by Central Bureau of Health Investigation, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, a total of 1535 Deaths due to Acute Diarrhoeal Diseases was reported during the year 2013.13 Main Causes of Pollution of Rivers

15. As already noted, well known causes of pollution of rivers are dumping of untreated sewage and industrial waste, garbage, plastic waste, e-waste, bio-medical waste, municipal solid waste, diversion of river waters for various purposes affecting e-flow, encroachment of catchment areas and floodplains, over drawl of groundwater, river bank erosion on account of illegal sand mining. In spite of directions to install Effluent Treatment Plants (ETPs), Common Effluent Treatment Plants (CETPs), Sewage Treatment Plants (STPs), and adopting other anti-pollution measures, satisfactory situation has not been 9 Source: World Resource Institute 10 Source: World Resource Institute 11 Source: UN Water, 'Managing water under uncertainty and risk', 2010; World Bank (Hindustan Times, The Hindu).

<https://www.indiaspend.com/diarrhoea-took-more-lives-than-any-other-water-borne-disease-in-india-58143/> <http://pib.nic.in/newsite/PrintRelease.aspx?relid=106612> achieved. As per CPCB's report 201614, 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.

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18. Procedures for remedial action have to be shortened so that there is no delay to check pollution wherever found. The Tribunal vide Order dated 18.10.2019 in Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues- O.A. No. 606/2018 while dealing with the issue of procedures of DPRs and tendering process, observed:

"8. Expeditious compliance of directions for clearance of legacy waste sites as well as stopping of discharge of untreated sewage and directions on associated subjects require immediate implementation for protection of environment and public health by curtailing undue delay. As suggested, necessary technologies need to be standardized with cost breakups for operation and maintenance, including procurement. Besides this, the service providers need to be identified and empaneled. This exercise may also require the concerned authorities to explore business models."

The Tribunal has constituted a Committee headed by Niti Ayog on the subject to give a report within two months.

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21. In view of above, this Tribunal found it necessary to take up the matter and direct preparation and execution of river action plans to control pollution and restore water quality of the river as per

norms within reasonable time. Accordingly, vide order dated 20.09.2018 proceedings were initiated as already mentioned para 3 above. It may be noted that there have been successful river cleaning programmes in other countries such as relating to river Thames (England), Rhine (Germany) and Danube (France). There being no reason as to why our polluted river stretches also cannot be restored, the Tribunal issued following directions:

" i) All States and Union Territories are directed to prepare action plans within two months for bringing all the polluted river stretches to be fit at least for bathing purposes (i.e BOD 3 mg/L and FC 500 MPN/100 ml) [http://www.sulabhenvi.nic.in/Database/STST\\_wastewater\\_2090.aspx](http://www.sulabhenvi.nic.in/Database/STST_wastewater_2090.aspx) July 16, updated on December 6, 2016 within six months from the date of finalisation of the action plans.

ii) The action plans may be prepared by four-member Committee comprising, Director, Environment, Director, Urban Development., Director,

Industries., Member Secretary, State Pollution Control Board of concerned State. This Committee will also be the Monitoring Committee for execution of the action plan. The Committee may be called "River Rejuvenation Committee" (RRC). The RRC will function under the overall supervision and coordination of Principal Secretary, Environment of the concerned State/Union Territory.

iii) The action plan will include components like identification of polluting sources including functioning/ status of STPs/ETPs/CETP and solid waste management and processing facilities, quantification and characterisation of solid waste, trade and sewage generated in the catchment area of polluted river stretch. The action plan will address issues relating to; ground water extraction, adopting good irrigation practices, protection and management of Flood Plain Zones (FPZ), rain water harvesting, ground water charging, maintaining minimum environmental flow of river and plantation on both sides of the river. Setting up of biodiversity parks on flood plains by removing encroachment shall also be considered as an important component for river rejuvenation. The action plan should focus on proper interception and diversion of sewage carrying drains to the Sewage Treatment Plant (STP) and emphasis should be on utilization of treated sewage so as to minimize extraction of ground or surface water. The action plan should have speedy, definite or specific timelines for execution of steps. Provision may be made to pool the resources, utilizing funds from State budgets, local bodies, State Pollution Control Board/ Committee and out of Central Schemes.

iv) The Action Plans may be subjected to a random scrutiny by a task team of the CPCB.

Paryavaran Suraksha Samiti & Anr vs Union Of India on 22 February, 2021

v) The Chief Secretaries of the State and Administrators/ Advisors to Administrators of the Union Territories will be personally accountable for failure to formulate action plan, as directed.

vi) All States and Union Territories are required to send a copy of Action Plan to CPCB especially w.r.t Priority I & Priority II stretches for approval.

vii) The States and the Union Territories concern are directed to set up Special Environment Surveillance Task Force, comprising nominees of District Magistrate, Superintendent of Police, Regional Officer of State Pollution Control Board and one person to be nominated by District Judge in his capacity as Chairman of Legal Services Authority on the pattern of direction of this Tribunal dated 07.08.2018, in Original Application No. 138/2016 (TNHRC), "Stench Grips Mansa's Sacred Ghaggar River (Suo-Motu Case).

ix) The Task Force will also ensure that no illegal mining takes place in river beds of such polluted stretches.

x) The RRC will have a website inviting public participation from educational institutions, religious institutions and commercial establishments. Achievement and failure may also be published on such website. The Committee may consider suitably rewarding those contributing significantly to the success of the project."

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23. Table showing location and categories have been reproduced in the said order and reference to the same will also be made in the later part of this order. The action plans were directed to cover the following:-

A) Source Control Source control includes industrial pollution control and treatment and disposal of domestic sewage as detailed below:-

(a) Industrial pollution control

(i) Inventorisation of industries

(ii) Categories of industry and effluent quality

(iii) Treatment of effluents, compliance with standards and mode of disposal of effluents

(iv) Regulatory regime.

(b) Channelization, treatment, utilization and disposal of treated domestic sewage.

(i) Identification of towns in the catchment of river and estimation of quantity of sewage generated and existing sewage treatment capacities to arrive at the gap between the sewage generation and treatment capacities;

(ii) Storm water drains now carrying sewage and sullage joining river and interception and diversion of sewage to STPs,

(iii) Treatment and disposal of septage and controlling open defecation,

(iv) Identification of towns for installing sewerage system and sewage treatment plants.

(B) River catchment/Basin Management-Controlled ground water extraction and periodic quality assessment

(i) Periodic assessment of groundwater resources and regulation of ground water extraction by industries particularly in over exploited and critical zones/blocks.

(ii) Ground water re-charging /rain water harvesting

(iii) Periodic ground water quality assessment and remedial actions in case of contaminated groundwater tube wells/bore wells or hand pumps.

(iv) Assessment of the need for regulating use of ground water for irrigation purposes.

(C) Flood Plain Zone.

(i) Regulating activities in flood plain zone.

(ii) Management of Municipal, Plastic, Hazardous, Bio-medical and Electrical and Electronic wastes.

(iii) Greenery development- Plantation plan. (D) Ecological/Environmental Flow (E-Flow)

(a) Issues relating to E-Flow

(b) Irrigation practices (E) Such other issues which may be found relevant for restoring water quality to the prescribed standards.

Order dated 19.12.2018 reviewing the progress of execution of order dated 20.09.2018:

24. On review of the matter on 19.12.2018 to consider status of compliance of order dated 20.09.2018, we found that 16 States/UTs had prepared action plans, but the same were are not complete. Base line data was not been given. Preparation of action plans was assigned to third parties. Details of STPs etc. were not given. Timelines given were too long. Status of e- flow was not been given. Action plans were not proposed to be placed on websites to involve educational and other institutions and the public at large. The said States/ UTs were directed to give revised reports on or before 31.01.2019 to CPCB after complying with the deficiencies. The CPCB was to examine the action plans and, if they met the scientific and technical yardstick, to approve the same and convey it to the respective States/UTs. The States/ UTs, after approval were to place/host these action plans on the respective websites giving clear timelines for execution indicating the agencies responsible for execution along with the matching budgetary provisions. By way of last opportunity, we extended the time for preparation of action plans till 31.01.2019 with the stipulation that for delay thereafter, compensation for damage to the environment would be payable by each of the States/ UTs at the rate of Rs. One Crore per month for each of the Priority- I and Priority- II stretches, Rs. 50 lacs per month for stretches in Priority- III and Rs. 25 lacs per month each for Priority- IV and Priority- V stretches. The payment was to be the responsibility of the Chief Secretaries of the States/Administrators of the UTs and the amount could be recovered from the erring officers. The CPCB was to prominently place the names of the defaulting States and UTs and a notice to this effect on its website.

25. The SPCBs and Pollution Control Committees of UTs were to display the quality of the water of polluted river stretches on their respective websites within one month alongwith action taken, if any, which was to be revised every three months. The CPCB was also to display the water quality of the river stretches and action/inaction by such States on its websites. It was made clear that BOD will not be the sole criteria to determine whether a particular river stretch is a polluted river stretch but would also include Faecal Coliform (FC) bacteria as one of the criteria for such classification or otherwise. CPCB was to devise within two weeks a mechanism for classification wherein two criteria pollutants, that is BOD and FC, shall henceforth be basis of classification in Priority Classes besides pH, D.O. and COD. Further direction in the order dated 19.12.2018 was that any incomplete action plan would be treated as non-compliance. It was made necessary to furnish Performance Guarantees to ensure implementation of action plans within the above stipulated time to the satisfaction of Central Pollution Control Board in the sum of:

- (i) Rs. 15 crore for each of Priority I & II stretches
- (ii) Rs. 10 crore for each of Priority III stretches
- (iii) Rs. 5 crore for each of Priority IV & V stretches.

Order dated 16.01.2019 in O.A. No. 606/2018 requiring Chief Secretaries of all the States/UTs to appear before this Tribunal after fully acquainting themselves on the subject of Polluted River Stretches, apart from other significant environmental issues and subsequent directions:

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26. While noticing large scale violation of environmental norms particularly with regard to waste and sewage management in the country, this Tribunal directed the Chief Secretaries of all the States/UTs to appear before this Tribunal in person after acquainting themselves with the status of compliance of environmental laws on such issues and action plans for remedying the situation.

Accordingly, all the Chief Secretaries appeared on various dates and this Tribunal directed further remedial action including with regard to the restoration of polluted river stretches in terms of the action plans of the States/UTs within six months. The said period of six months is complete in respect of most of the States and Chief Secretaries are required to be present on the dates already fixed. Thus, all the States/UTs have had sufficient notice of their respective failures to comply with the statutory obligations and any further failure has to be viewed seriously and visited with requirement to pay compensation already stipulated.

Order dated 08.04.2019 extending time for execution of action plans till 31.03.2021 and requiring Central Monitoring Committee (CMC) to prepare a National Plan for Rejuvenation of Polluted River Stretches as per prescribed timeline:

27. The matter was thereafter taken up on 08.04.2019 in light of consolidated and updated report filed by the CPCB on 05.04.2019 to the effect that 28 States and 3 Union Territories had constituted River Rejuvenation Committees (RRCs). The CPCB constituted a 'Task Team' for scrutiny of the action plans under the Chairmanship of Member Secretary, CPCB. CPCB received 41 out of 45 action plans with reference to P-I, 14 out of 16 action plans with reference to P-II and total 182 action plans were received with reference to P-III to P-V polluted river stretches. 6 out of 61 action plans in respect of P-I and P-II were not received from the States of Assam (P-I: 3 viz., Bharalu, Borsola, Silsako) and P-II:1 (Sorusola)), Manipur (P-II: 1 viz., Nambu) and Uttar Pradesh (P-I: viz., river Hindon). It was submitted that the action plan in respect of River Hindon was required to be implemented by the Government of Uttar Pradesh in compliance of the NGT Orders in Original Application No. 231/2014 & Original Application No.66/2015.

28. The Tribunal further observed:-

"

34. As already noted, pollution of 351 river stretches has caused serious threat to safety of water and environment. On account of use of polluted water in irrigation, there is threat to food safety. On account of consumption of polluted water in absence of any other source of drinking water being available and partly on account of ignorance of the persons consuming such water, health of human being is threatened, apart from the aquatic flora and fauna, animals wild and domestic who may consume such water. It is therefore, necessary to have regular hygienic survey of the rivers particularly with reference to pathogenic organisms having impact on human health directly or indirectly. It is also important to note that biological health of the rivers is an important aspect.

Much of the important biodiversity is lost on account of severe pollution in the rivers. There has to be a regular study of the Indian rivers with regard to biological health and its diversity. We understand that bio-mapping of rivers and setting biological goals/criteria is part of River Rejuvenation Programmes in some countries. There is threat to the environmental rule of law of the country.

35. These are substantial questions relating to the environment. For enforcing legal right to clean environment, which is also a fundamental right, this Tribunal has to pass appropriate orders for relief to the victims of pollution and for restoration of the environment even in absence of an identified victim. All the States and UTs have been duly put to notice of the present case.

36. In this endeavor, this Tribunal directed constitution of RRCs by the concerned States/UTs by including Departments of Environment, Urban Development, Industries and the Pollution Control Boards/Pollution Control Committees and further directions to the Chief Secretaries of the States/UTs to monitor the progress. At the national level, CPCB has been required to assist the Tribunal by way of compiling the data and furnishing its views. A copy of order dated 29.09.2018 was directed to be forwarded to the Niti Ayog, Ministry of Water Resources, Ministry of Environment, Forest & Climate Change, Ministry of Housing and Urban Affairs, National Mission for Clean Ganga, apart from other authorities as the said authorities were represented in a chamber meeting before this Tribunal to consider the problem of pollution of rivers.

41. We accept the proposal of CPCB to revise the scale of performance guarantee with regard to timeline. We also accept the suggestions of CPCB to extend the timeline for execution of action plans to the extent that upper limit for execution of the action plans will be two years from 01.04.2019 and the monitoring of the action plans may be done not only at the level of the Chief Secretaries of the States/UTs but also by the CPCB.

42. We direct that CPCB with SPCBs and PCCs to launch nationwide programme on biodiversity monitoring and indexing of the rivers to assess the efficacy of river cleaning programme. Further, for safety of human health and maintaining sanctity of the rivers, regular hygienic surveys of the rivers should be carried out with reference to fecal coliform and fecal streptococci, as indicated in the primary water quality criteria for bathing waters. Nodal agency will be CPCB.

43. Having given due consideration to the serious issue and inadequacy of success achieved so far, we find it necessary to constitute a Central Monitoring Committee to undertake a national initiative by way of preparation and enforcement of a national plan to make river stretches pollution free comprising a senior representative of NITI Aayog, Secretaries Ministry of Water Resources, Ministry of Urban Development, Ministry of Environment, Forest and Climate Change, Director General, National Mission for Clean Ganga and Chairman CPCB. Chairman CPCB will be the nodal authority for coordination. Senior most among them will preside over the deliberations.

44. The Central Monitoring Committee will also co-

ordinate with the RRCs of the States and oversee the execution of the action plans, taking into account the timelines, budgetary mechanism and other factors. Chief Secretaries of States will be the nodal agency at State level. The Chief Secretaries of the States may undertake review of progress of RRCs by involving concerned Secretaries of Department of Urban Development, Environment, Industries, Irrigation and Public Health, Health etc.

45. We also direct the MoEF& CC to consider a policy for giving environmental awards to outstanding persons (natural and juristic) and Institutions/States and introducing dis-incentives for non compliant states. Such scheme may be framed preferably before 30.06.2019.

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

"26. Enactment of a law, but tolerating its infringement, is worse than not enacting a law at all. The continued infringement of law, over a period of time, is made possible by adoption of such means which are best known to the violators of law. Continued tolerance of such violations of law not only renders legal provisions nugatory but such tolerance by the enforcement authorities encourages lawlessness and adoption of means which cannot, or ought not to, be tolerated in any civilized society. Law should not only be meant for the law-abiding but is meant to be obeyed by all for whom it has been enacted. A law is usually enacted because the legislature feels that it is necessary. It is with a view to protect and preserve the environment and save it for the future generations and to ensure good quality of life that Parliament enacted the anti- pollution laws, namely, the Water Act, Air Act and the Environment (Protection) Act, 1986. These Acts and Rules framed and notification issued thereunder contain provisions which prohibit and/or regulate certain activities with a view to protect and preserve the environment. When a law is enacted containing some provisions which prohibit certain types of activities, then, it is of utmost importance that such legal provisions are effectively enforced. If a law is enacted but is not being voluntarily obeyed, then, it has to be enforced. Otherwise, infringement of law, which is actively or passively condoned for personal gain, will be encouraged which will in turn lead to a lawless society. Violation of anti-pollution laws not only adversely affects the existing quality of life but the non-enforcement of the legal provisions often results in ecological imbalance and degradation of environment, the adverse effect of which will have to be borne by the future generations.<sup>15</sup> "45..... The Government could not pass such orders of exemption having dangerous potential, unmindful of the fate of lakhs of citizens of the twin cities to whom drinking water is supplied from these lakes. Such an order of exemption carelessly passed, ignoring the "precautionary principle", could be catastrophic."<sup>16</sup> "61. .... If the laws are not enforced and the orders of the courts to enforce and implement the laws are ignored, the result can only be total lawlessness. It is, therefore, necessary to also identify and take appropriate action against officers responsible for this state of affairs. Such blatant misuse of properties at large-scale cannot take place without connivance of

the officers concerned. It is also a source of corruption. Therefore, action is also necessary to check corruption, nepotism and total apathy towards the rights of the citizens."17 "15. .... Time has come to require the State Governments to explain why they should not be asked to compensate the persons who are being affected by bad air quality. Obviously, the State is run by the administration, why liability should not be imposed for such a tort on the concerned machinery also of the various States which are failing to discharge their basic duties. This Court in Municipal Council, Ratlam Vs. Vardhichand & Ors., reported in (1980) 4 SCC 162 has held they have to take proper and positive action in this INDIAN COUNCIL FOR ENVIRO-LEGAL ACTION Vs. UNION OF INDIA AND OTHERS (1996) 5 SCC 281 A.P. Pollution Control Board II v. Prof. M.V. Nayudu, (2001) 2 SCC 62 M.C. Mehta v. Union of India, (2006) 3 SCC 399 - Public functionaries direction. It is their bounden duty to provide civic amenities, and also to see that self-created bankruptcy does not come in the discharge of the statutory obligation which are necessary for existence of human life. We have seen during the course of the arguments that one State is passing the burden upon the Centre and then it is stated on behalf of the Central Government that they have framed scheme and it for the State Governments to implement it. We expect not only the 'policy making' but also its 'implementation'. Let the States of Punjab, Haryana, Uttar Pradesh and the Government of NCT of Delhi respond, due to the air pollution, why the concerned Government and its concerned machinery, from top to bottom, should not be asked to compensate the citizens of Delhi and adjoining areas for various diseases which are being caused and sufferings and troubles which are being faced and the report indicates the life span is being shortened. Let show cause notice be issued to the various State Governments, and to the Chief Secretaries, to submit reply within six weeks. Let the matter be listed for consideration on 17.01.2020. The Chief Secretaries to the States of Punjab, Haryana, Uttar Pradesh and Government of NCT of Delhi be personally present on that date."18 xxx  
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35. Vide order dated 22.08.2019 in Original Application 200/2014, dealing with the pollution of river Ganga, the Tribunal issued directions and laid down coercive measures to be taken for discharge of untreated sewage in river Ganga:-

"16.....As already observed by this Tribunal including in the order dated 14.05.2019 that River Ganga being National River with distinct significance for the country, even a drop of pollution therein is a matter of concern. All the authorities have to be stringent and depict zero tolerance to the pollution of River Ganga. Wherever STPs are not operating, immediate bioremediation and/or phyto-remediation may be undertaken if feasible. To avoid procedural delay of tender processes, etc. specifications and norms for undertaking such activities may be specified in consultation with the CPCB as was earlier directed in our order dated 29.11.2018. Performance guarantees may be required to be furnished for ensuring timely performance. It needs to be ensured that setting up of STPs and sewerage network to be completed and carried out so as to avoid any idle capacities being created.

Performance guarantees may be taken for preventing such defaults.

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

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

18. With regard to works under construction, after 01.07.2020, direction for payment of environmental compensation of Rs. 10 lakhs per month to CPCB for discharging untreated sewage in any drain connected to river Ganga or its tributaries and Rs. 10 lakhs per month to CPCB per incomplete STP and its sewerage network will apply. Further with regard to the sectors where STP and sewerage network works have not yet started, the State has to pay an Environmental Compensation of Rs. 10 lakhs per month after 31.12.2020. The NMCG will also be equally liable for its failure to the extent of 50% of the amount to be paid. Till such compliance, bioremediation or any other appropriate interim measure may start from 01.11.2019."

Order dated 28.08.2019 in O.A. No. 593/2017, Paryavaran Suraksha Samiti Vs. Union of India, in pursuance of Hon'ble Supreme Court judgment in (2017) 5 SCC 326, for 100% treatment of sewage:

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

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15. It is clear from the order of the Hon'ble Supreme Court<sup>19</sup> that the responsibility of operating STPs under Article 243W and item 6 of Schedule XII to the Constitution is of local bodies who have to evolve norms to recover funds for the purpose which is to be supervised by the States/UTs. The norms were to be finalized upto 31.03.2017 to be implemented from the next year, i.e 01.04.2018. In absence thereof, the States/UTs Para 10-13 in Paryavaran Suraksha Samiti Vs. Union of India, Supra have to cater to the financial requirement from its own resources. The States/UTs are to prioritize the cities, towns, villages discharging effluents/sewage directly into the water bodies. Industrial activity without proper treatment plants (ETPs and CETPs) is not to be allowed by the State PCBs and the Secretaries, Environment of the States/UTs are to be answerable. Thus, the source for financial resources for the STPs, stands finalized under the binding judgment of the Hon'ble

Supreme Court. Authorities and persons accountable are identified. Rigid implementation has been laid down. This Tribunal has been required to monitor compliance of the directions and timelines.

16. It is in this background that the present report needs to be appraised and further directions given. As regards the Environmental compensation regime fixed for industrial units, GRAP, solid waste, sewage and ground water is accepted as an interim measure. With regard to setting up of STPs, while we appreciate the extensive work of the CPCB based on information furnished by States/UTs, the challenge remains about verification of the said data on the one hand and analysis of the steps taken and required on the other. There is already a database available with the CPCB with regard to ETPs, CETPs, STPs, MSW facilities, Legacy Waste sites. This needs to be collated and river basinwise macro picture needs to be prepared by the CPCB in terms of need for interventions, existing infrastructure and gaps therein. The States have given timelines which need to be effectively monitored both by the CPCB and the Chief Secretaries in terms of its execution.

17. As already noted, prevention of pollution of water is directly linked to access to potable water as well as food safety. Restoration of pristine glory of rivers is also of cultural and ecological significance. This necessitates effective steps to ensure that no pollution is discharged in water bodies. Doing so is a criminal offence under the Water Act and is harmful to the environment and public health. 'Precautionary' principle of environmental law is to be enforced. Thus, the mandate of law is that there must be 100% treatment of sewage as well as trade effluents. This Tribunal has already directed in the case of river Ganga that timelines laid down therein be adhered to for setting up of STPs and till then, interim measures be taken for treatment of sewage. There is no reason why this direction be not followed, so as to control pollution of all the river stretches in the country. The issue of ETPs/CETPs is being dealt with by an appropriate action against polluting industries. Setting up of STPs and MSW facilities is the responsibility of Local Bodies and in case of their default, of the States. Their failure on the subject has to be adequately monitored. Recovery of compensation on 'Polluter Pays' principle is a part of enforcement strategy but not a substitute for compliance. It is thus necessary to issue directions to all the States/UTs to enforce the compensation regime, latest with effect from 01.04.2020. We may not be taken to be condoning any past violations. The States/UTs have to enforce recovery of compensation from 01.04.2020 from the defaulting local bodies. On failure of the States/UTs, the States/UTs themselves have to pay the requisite amount of compensation to be deposited with the CPCB for restoration of environment. The Chief Secretaries of all the States may furnish their respective compliance reports as per directions already issued in O.A. No. 606/2018.

21. We may now sum up our directions:-

(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."

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Order dated 11.09.2019 - Directions in pursuance of orders of Hon'ble Supreme Court in (2012) 13 SCC 736 and dated 24.04.2017 in W.P. No. 725/1994 "And Quite Flows Maily Yamuna" and earlier orders of this Tribunal regarding control of pollution of river Yamuna:

37. Vide the order dated 11.09.2019, in Original Application No. 06/2012, dealing with river Yamuna, the Tribunal observed as follows:

"12. One of the major concerns of this Tribunal is that repeated directions remain un-complied and inspite of largescale failures, no accountability is fixed. There is huge loss to public exchequer for which no action is taken. Timelines are conveniently and unilaterally changed. Officers indulge in blame game in shifting responsibility from one to another. There is failure at higher levels in monitoring and taking actions. If this continues, it is difficult to expect any positive change for long. This requires paradigm shift in approach adopted so far. The approach to be adopted is to have clear time- bound plan with flexibility and due to accountability for failure by way of departmental action and monetary compensation. The rescheduled timelines have to be compressed so as to complete every action by December, 2020 except where shorter timelines are specified in this order or are otherwise possible. If any contract permits longer timeline, it is clearly in violation of binding orders of the Tribunal which has attained finality. Violation thereof is per se criminal offence. Such longer timeline has to be consistent with orders of the Tribunal and compressed within 31.12. 2020. Failing to do so may invite criminal prosecution NMCG may also monitor the compliance. The Chief Secretaries of Delhi, Haryana and U.P. have to personally see the compliance and have to set up Monitoring Cell directly under them. Vice Chairman, DDA can also monitor and coordinate with Chief Secretary, Delhi. All other departments can monitor subject to overall directions of the Chief Secretaries. This can avoid shifting of responsibilities once ownership is with highest authorities in the State. Monthly review reports may be shared with the Monitoring Committee and also placed on websites of concerned States. Failure and successes of the individual involved may be specifically recorded and reflected in service record of the concerned officer. Stock taking may be done by the Chief Secretaries of the failure and successes so far and appropriate actions be initiated against those who have been responsible for the failure. Nodal Officers may be identified in respect of different projects clearly defining the responsibilities. Wherever there is misappropriation of funds, criminal case has to be registered. Posting of Officers entrusted with the responsibility may be reviewed from time to time depending on their responsibility. Procedure for giving of contracts may be shortened and standardized at State level and if possible at National level by NMCG and CPCB. Giving of contracts should be based on successful credentials instead of mere lowest rates. Pollution load at entry and exist point of each concerned State may or at entry points of each drains need to be recorded periodically. The Chief Secretaries of Delhi, Haryana and U.P. may furnish action taken reports in this regard at the time of their personal appearance before this Tribunal in O.A. 606/2018.

13. Priorities need to be planned. The first step is to ensure that no pollutant is discharged into the river or drains connected thereto. Projects of setting up and upgradation of STPs including setting up of interceptors, laying of sewerage line network etc. have to be completed within strict timelines. Pending such action, immediate bioremediation and/or phytoremediation or any other alternative remediation measure may be undertaken as an interim measure. Pollution of river or water bodies is a criminal offence which needs to be checked by setting up ETPs/CETPs/STPs. The Hon'ble Supreme Court has directed<sup>20</sup> that establishment and proper functioning of ETPs/CETPs/STPs in the country be ensured. This is to enforce the right of access to water. It has been noted by the Hon'ble Supreme Court that water pollution is the cause of various diseases and also affects food safety apart from affecting the environment as such. Following the said judgment, this Tribunal has directed<sup>21</sup> that "All the local bodies 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." While dealing with the pollution of river Ganga, this Tribunal directed:

"Bioremediation and/or phytoremediation or any other remediation measures may start as an interim measure positively from 01.11.2019, failing which the State may be liable to pay compensation of Rs. 5 Lakhs per month per drain to be deposited with the CPCB. This however, is not to be taken as an excuse to delay the installation of STPs. For delay of the work, the Chief Secretary must identify the officers responsible and assign specific responsibilities. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers. For delay in setting up of STPs and sewerage network beyond prescribed timelines, State may be liable to pay Rs. 10 Lakhs per month per STP and its network. It will be open to the State to recover the said amount from the erring officers/contractors.

With regard to works under construction, after 01.07.2020, direction for payment of environmental compensation of Rs. 10 lakhs per month to CPCB for discharging untreated sewage in any drain connected to river Ganga or its tributaries and Rs. 10 lakhs per month to CPCB per incomplete STP and its sewerage network will apply. Further with regard to the sectors where STP and sewerage network works have not yet started, the State has to pay an Environmental Compensation of Rs.

(2017) 5 SCC 326 Order dated 28.08.2019 in Paryavaran Suraksha Samiti & Anr. Vs. Union of India & 10 lakhs per month after 31.12.2020. The NMCG will also be equally liable for its failure to the extent of 50% of the amount to be paid.

Till such compliance, bioremediation or any other appropriate interim measure may start from 01.11.2019."<sup>22</sup> 15. A. (iv):

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- e). DJB to complete the task of setting up of STPs by 31.12.2020.
- g) Bioremediation and/or phytoremediation or any other remediation measures may start as an interim measure positively from 01.01.2020, failing which the Govt. of NCT of Delhi may be liable to pay compensation of Rs. 5 Lakhs per month per drain to be deposited with the CPCB. This however, is not to be taken as an excuse to delay the installation of STPs, sewerage network and its connectivity. For delay of the work, the Chief Secretary, Govt. of NCT Delhi must identify the officers responsible and assign specific accountability. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers for delay in setting up of STPs, sewerage network and its connectivity by the concerned head of the department.
- h) The Govt. of NCT, Delhi will be liable to pay Environment Compensation if defaults take place as under:
- i. The operational deficiencies of the existing STPs must be rectified within three months failing which Environmental compensation of Rs. 5 Lacs per month for STP shall be deposited with CPCB.
  - ii. With regard to works under construction, after 01.07.2020, direction for payment of environmental compensation of Rs. 10 lakhs per month to CPCB for discharging untreated sewage in any drain connected to river Yamuna and Rs. 10 lakhs per month to CPCB per incomplete STP, sewerage network and its connectivity will apply.
  - iii. With regard to the situation where works with regard to STP, sewerage network and its connectivity have not yet started, the Govt. of NCT, Delhi has to pay an Environmental Compensation at the rate of Rs. 10 lakhs per month per STP, Sewerage network and its connectivity after 31.12.2020 for the delay in setting up of the same. It will be open to Govt. of NCT of Delhi O.A No. 200/2014 order dated 22.08.2019 to recover the said amount from erring officers/contractors."

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42. We may now refer to the report of the CPCB on the subject of 351 polluted river stretches. Extracts from the report are:

"i) Status on Approval of Action Plans for Restoration of Identified Polluted River Stretches: -

61 out of 61 total action plans were received as on 06.09.2019 and 60 action plans have been approved along with the conditions. Revised action plan for restoration of River Yamuna within Delhi State is awaited from Delhi State Government. Minutes of all the eight Task Team meetings were also uploaded in CPCB website at <https://cpco.nic.in/imcngt-restoration/>. Also, minutes of all the eight task team meetings were also communicated to the concerned authorities for further necessary

action at their end. State-wise status of action plans received, action plans approved with conditions by CPCB Task Team w.r.t Priority I & Priority II Polluted River Stretches are annexed at Annexure-V, Annexure-VI and Annexure-VII. All the action plans already approved by CPCB Task Team also uploaded by the concerned States/UTs and web links have been provided in CPCB website at <https://cpcb.nic.in/mncit-restoration/> for having access to the general public.

ii) Criteria for Prioritization of Polluted River Location In pursuance to Hon'ble NGT order dated 19.12.2018 and to devise a mechanism for classification of polluted river stretch by considering two criteria pollutants such as Bio- chemical Oxygen Demand (BOD) and Faecal Coliform (FC), CPCB has prepared "draft criteria for prioritization of polluted river location". The draft criteria was circulated to all the concerned stakeholders mainly State Pollution Control Boards (SPCBs) and the Pollution Control Committees (PCCs) vide CPCB letter dated 09.01.2019, for providing comments or views by January 2019. Based on the comments received from stakeholders, the draft criterion has been finalised and appraised to Hon'ble NGT on 29.7.2019 (Copy enclosed as Annexure-VIII). Afore-said finalised criteria also uploaded in CPCB website at <https://cpcb.nic.in/wqm/Guidelineswqm-23.07.2019>.

iii) Submission of Performance Guarantee by the States/UTs for ensuring timely implementation of approved action plans for rejuvenation of identified polluted river stretches: -

As per Hon'ble NGT order dated 8.4.2019, States/ UTs are required to submit performance guarantee as per revised scale i.e. No. of Polluted River Stretches in a State/UT > 10, 5 to 10 & < 5, the performance guarantee to be submitted in Rupees is 15 Crore, 10 Crore & 5 Crore respectively. Till date, 09 States (viz., Goa, Gujarat, Haryana, Jharkhand, Madhya Pradesh, Manipur, Odisha, Puducherry, West Bengal and 02 UTs (Viz., Daman, Diu and Dadra Nagar Haveli, Delhi) out of 31 States/UTs have submitted Performance/ Bank Guarantee to CPCB. State-wise details of performance guarantee or bank guarantees submitted is annexed at Annexure-IX.

iv) Review meeting with 11 States/UTs for review of action plans falling under Priority III to V classes As per Hon'ble NGT Order dated 20.09.2018, all States and Union Territories are required to send a copy of RRC approved action plan to CPCB especially w.r.to only Priority I & Priority II stretches for approval. The Action Plans may be subjected to a random scrutiny by a task team of the CPCB.

The States/UTs which are not required to submit action plans to CPCB seeking approval, CPCB convened a review meeting on 12.09.2019 in CPCB with such 11 States/UTs for reviewing the RRC approved action plans for restoration of polluted river stretches falling under Priority III to V classes in the respective States. 09 out of 11 States/UTs have attended the meeting. CPCB reviewed the action plans and suggested necessary improvements in light of the Hon'ble NGT order dated 20.09.2018. The minutes of the review meeting were also communicated to all the concerned States/UTs vide CPCB letter dated 14.10.2019 (Copy annexed as Annexure-X) with a request to take necessary actions.

Following general suggestions were made for incorporation in the prepared action plans and thereafter for taking approval of RRC constituted by the respective State Government or UT Administration for implementation of action plans in respect of P-III to P-V polluted river stretches:

- (i) Identification of polluting sources including drains contributing to river pollution
- (ii) Map showing Polluted River, its tributaries, drains, major towns, industrial estates, location of STPs/CETPs
- (iii) Functioning status of STPs/ETPs/CETPs and solid waste management and processing facilities in the catchment area of the identified polluted river stretch;
- (iv) Detailed gap analysis w.r.t town-wise water consumption (including ground water consumption), sewage generation, existing infrastructure in the catchment area and the gap analysis;
- (v) Detailed gap analysis w.r.t industrial water consumption, wastewater generation, existing infrastructure for treatment of industrial effluent (both captive ETPs/CETPs and their performance assessment), gap analysis;
- (vi) Quantification and characterisation of waste (such as solid waste, industrial hazardous waste, bio-medical waste, E- Waste), STP sludge management, existing infrastructure and detailed gap analysis;
- (vii) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;
- (viii) Aspects such as ground water extraction, adopting good irrigation practices, protection and management of Flood Plain Zones (FPZ), rain water harvesting, ground water charging, maintaining minimum environmental flow of river (by having watershed management provisions), plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment., proper interception and diversion of sewage carrying drains to Sewage Treatment Plant (STP), upgradation of existing sewage treatment plants if not in a position to comply with effluent discharge norms, emphasis on utilization of treated sewage so as to minimize extraction of ground or surface water be included,
- (ix) Speedy, definite or specific timelines for execution of action plans and the estimated budget including the monitoring agency
- (ix) Achievable goals with specific timelines for restoration of water quality of polluted rivers.

(x) Organisation-wise action plans with timelines and the estimated budget for implementation of action plans.

v) Format for obtaining status on implementation of Action plans for restoration of polluted River Stretches In order to assess the progress on implementation of action plans already approved by CPCB, a format seeking status on implementation of action plans for restoration of polluted river stretches has been communicated to the Chief Secretaries of concerned States/UTs and State Pollution Control Boards/ Pollution Control Committees, vide CPCB letter dated 26.9.2019. A copy of CPCB letter dated 26.09.2019 along with the format circulated is annexed at Annexure-XI. As on 06.11.2019, filled in formats have been received from 3 States/UTs viz Daman, Diu, Dadra & Nagar Haveli, Andhra Pradesh and Meghalaya.

State-wise Identified Polluted Rivers and the Status of Action Plans received by CPCB in compliance to Hon'ble NGT Orders dated 20.09.2018, 19.12.2018 and 08.04.2019 in OA No. 673 of 2018 (as on 07.11.2019) Priority I Priority II Priority -- Ill to V Identified Identified Identified Polluted River Polluted River Polluted River Total No. stretches stretches stretches of Total Name of Identified Action Action Action Action the State / Polluted Plans Plans Plans Plans UT River received received received stretches No. w.r.to No. of No. of w.r.to P-III to w.r.to Received (PRS) of P-I P-II PRS P-I PRS P-II V P-III to V Andhra Pradesh 7 1 1 1 1 5 5 Pradesh Madhya\* Pradesh West Bengal 17 1 1 1 1 15 15 17 Grand Total 351 45 45 16 16 290 290 351 Note:-

\* MP State have submitted one combined action plan for river Kolar & River Kaliasot  
\*\* Telangana State submitted one action plan for river Manjeera & River Nakkavagu  
State-wise status of action plans received and the action plans approved by CPCB Task Team w.r.to Priority I & Priority II Polluted Rivers (as on 07.11.2019) Total Identified Polluted River No. of Identified Identified Action Total Action NAME OF THE Stretches Action PS PRS Plans Not Plans STATE/UT (PRS) Priority- Priority-II Priority-II Plans Approved Approved I & Priority II Received DAMAN, DIU AND HAVELI HIMACHAL -

PRADESH JAMMU & -

KASHMIR

MADHYA

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UTTAR

PRADESH

State-wise & River-wise recommendations of Task Team - Action Plans for Restoration of Identified Polluted River Stretches- as per Hon'ble NGT Orders dated 20.09.2018, 19.12.2018 & 08.04.2019 ( Status as on 07.11.2019) STATE RIVER NAME Status BHARALU Recommended subjected to conditions BORSOLA Recommended subjected to conditions ASSAM SILSAKO Recommended subjected to conditions SORUSOLA Recommended subjected to conditions DAMAN, DIU AND DADRA NAGAR DAMANGANGA Recommended subjected to conditions HAVELI DELHI YAMUNA Not Recommended AMLAKHADI Recommended subjected to conditions BHADAR Recommended subjected to conditions BHOGAVO Recommended subjected to conditions GUJARAT KHARI Recommended subjected to conditions SABARMATI Recommended subjected to conditions VISHWAMITRI Recommended subjected to conditions GHAGGAR Recommended subjected to conditions HARYANA YAMUNA Recommended subjected to conditions SUKHANA Recommended subjected to conditions HIMACHAL PRADESH MARKANDA Recommended subjected to conditions JAMMU & KASHMIR DEVIKA Recommended subjected to conditions KERALA KARAMANA Recommended subjected to conditions CHAMBAL Recommended subjected to conditions KHAN Recommended subjected to conditions MADHYA PRADESH KSHIPRA Recommended subjected to conditions BETWA Recommended subjected to conditions MAHARASHTRA GODAVARI Recommended subjected to conditions KALU Recommended subjected to conditions KUNDALIKA Recommended subjected to conditions M ITH I Recommended subjected to conditions MORNA Recommended subjected to conditions MULA Recommended subjected to conditions MUTHA Recommended subjected to conditions NI RA Recommended subjected to conditions VEL Recommended subjected to conditions BHIMA Recommended subjected to conditions INDRAYANI Recommended subjected to conditions MULA-MUTHA Recommended subjected to conditions PAWANA Recommended subjected to conditions WAINGANGA Recommended subjected to conditions WARDHA Recommended subjected to conditions MANIPUR NAMBUL Recommended subjected to conditions MEGHALAYA UMKHRAH Recommended subjected to conditions UMSHYRPI Recommended subjected to conditions NAGALAND DHANSIRI Recommended subjected to conditions ODISHA GANGUA Recommended subjected to conditions PUNJAB GHAGGAR Recommended subjected to conditions SUTLEJ Recommended subjected to conditions CAUVERY Recommended subjected to conditions SARABANGA Recommended subjected to conditions TAMIL NADU THIRUMANIMUTHAR Recommended subjected to conditions VAS I STA Recommended subjected to conditions TELANGANA MUSI Recommended subjected to conditions MANJEERA Recommended subjected to conditions NAKKAVAGU Recommended subjected to conditions HINDON Recommended

subjected to conditions UTTAR PRADESH KALINADI Recommended subjected to conditions VARUNA Recommended subjected to conditions YAMUNA Recommended subjected to conditions BHELA Recommended subjected to conditions DHELA Recommended subjected to conditions UTTARAKHAND SUSWA Recommended subjected to conditions KICHHA Recommended subjected to conditions VINDHADHARI Recommended subjected to conditions WEST BENGAL MAHANANDA Recommended subjected to conditions CPCB has reviewed action plans w.r.t. Priority I and Priority II polluted river stretches. So far, 60 action plans out of 61 Priority I and Priority II polluted river stretches pertaining to 18 States & 1 UT have been approved by CPCB Task Team in 08 Task Team meetings conducted till date. Action Plan of River Yamuna in Delhi Stretch is not approved by CPCB Task Team till Date. Status along with date of approval of Action plans for Priority

-- I &II polluted river stretches is given in Table below .

Task Team Meeting	Date of Meeting	Action Plans approved	
		STATE	No of Action plans
		GUJARAT	
		KERALA	
III	11 - 12.02.2019		
VIII	06.09.2019		

With respect to Priority -- III to V polluted river stretches, action plans for 282 out of 290 polluted river stretches have been submitted to CPCB. Kerala (07) and Madhya Pradesh (01) have not submitted Action Plans under these priorities. State- wise status is given in Annexure I. A meeting is scheduled on 12.09.2019 in CPCB, inviting eleven SPCBs/PCCs for presentation to review the RRC approved action plans for polluted river stretches falling under Priority III to V classes. Only Priority III to V polluted river stretches exist in these States/ UTs.

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Name of the State / UT	Total No. of Identified Polluted River stretches (PRS)	Priority I Identified Polluted River stretches		Priority II Identified Polluted River stretches		P Iden No of to
		I PRS	Action Plans w.r.to	No. of P-II PRS	Action Plans w.r.to p-II	
Himachal Pradesh						
Madhya						

Grand Total	351	45	45	16	16
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XXX.....XXX.....XXX.....

45. It is observed that the report of the CPCB has focused only on BOD and FC. It has not taken other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of bio magnification. Further, monitoring gaps in terms of number of stations have to be identified, upgraded and upscaled so to cover upstream and downstream locations of major discharges to the river. In this view of the matter, CPCB may also ascertain whether there are any other rivers falling in the category of polluted river stretches.

46. The report of CPCB shows the status of compliance. As already noted, the action plans have been prepared with respect to 351 river stretches by the concerned States/UTs with regard to category P-I & P-II (the most polluted river stretches), the action plans have been duly recommended by CPCB with certain changes. The said action plans are reported to be complete with respect to necessary components for river rejuvenation including identification of drains, their interception, setting up of STPs, utilization of treated water, identification of flood plain zones, maintaining e-flow, etc. Let the same be executed by 31.03.2021 as already directed. No case is made out to extend the laid down timeline unconditionally. As noted earlier, situation of water pollution is grim in the country and there has been deterioration inspite of the Water Act which was enacted way back in 1974 which was intended to bring about any improvement. This Tribunal has repeatedly put all authorities to notice in the light of earlier orders of the Hon'ble Supreme Court on the subject. Directions were also issued for budgetary support as part of the action plans which has been done in indicative terms. There can be no plea of lack of funds on issue threatening the existence of human beings. We have thus no option except to be strict about the timelines already laid down. We are also of the view that adherence to the timelines must be monitored by the Chief Secretaries of all the States/UTs and should also be monitored at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB. For this 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 and may give its quarterly report to this Tribunal commencing from 01.04.2020. 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. 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. Monthly progress report may be furnished to Secretary, Ministry of Jal Shakti with a copy to CPCB. Steps for in situ remediation as an interim measure may be ensured as directed above as per laid down timeline. 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. As already mentioned, procedures for DPRs/tender process needs to be shortened and if found viable business model developed at central/state level. Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.

CPCB may after scrutiny finalize the action plans relating to P-III and P-IV also 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.

10. In the last order dated 21.9.2020, it was observed and directed as follows:-

"

I. 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](mailto: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-III 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) Total No. Priority V Total Action of Priority I & II PRS PRS\* Plans Identified Priority III PRS Priority IV PRS approved by approved polluted CPCB Task Name of the River CPCB Team State/UT stretches Task (PRS) Priority Priority Priority Total Priority Total IV I II Number III Number approved approved Andhra 5 0 0 2 2 3 2 Pradesh 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 7 1 1 1 1 4 3 Pradesh 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 22 3 1 1 1 3 3 14 8 Pradesh 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 1 Punjab 4 2 0 1 1 1 3 Rajasthan 2 0 0 1 1 1 1 Sikkim 4 0 0 4 0 0 Tamil Nadu 6 4 0 1 1 1 5 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 Gap in Sewage Existing STP Capacity Treatment at No. State Generation (capacity in MLD Utilization present ( in (in MLD) and No.) (In MLD) MLD) 1 Andhra Pradesh 1384 515.45 - 868.55 3 Bihar 651.5 40 (2 STPs) 22 (55%) 611.5 4 Chhattisgarh 600 73.1 (3 STPs) 6 (8.2%) 526.9 Daman, Diu And 5 Dadra Nagar 20.5 17.21 (2 STPs) 5.2 (30%) 3.29 Haveli 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%) -

Himachal 10 102.8 86.9 55.1 (63%) 15.9 Pradesh Jammu & 11 970 126.80 (11 STPs) 80.70 (63%) 843.2 Kashmir 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 Madhya 15 2183.65 690.76 (25 STPs) 524.24 (75%) 1492.89 Pradesh 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 20 Nagaland 44.3 25.4 (1 STP) 0 18.9 21 Odisha 439.49 91 (5 STPs) 70 (76%) 348.49 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 29 Uttarakhand 329.33 355.13 (61 STPs) 203.9 (57%) -

3365.88 30 Uttar Pradesh 5500 2566.55 (76%) 2134.11 (105 STPs) West Bengal 31 (as per CPCB 5303 557.64 (43 STPs) - 4745.36 Report 2018) 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."

### 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."

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."

CMC Report dated 12.02.2021

11. Accordingly, the Central Monitoring Committee has filed its report dated 12.02.2021 titled '3rd QUARTERLY REPORT OF THE CENTRAL MONITORING COMMITTEE (CMC) IN COMPLIANCE OF THE ORDER DATED 21.09.2020'. The report refers to the correspondence with the States for preventing and controlling pollution in rivers/ water bodies/ lakes and ensuring that no untreated effluent/ sewage (beyond the prescribed standards) is allowed to be discharged from the ETPs/ CETPs/ STPs. Further reference has been made to the webinar held on 06.11.2020 to discuss approaches and models for waste management. Reference has also been made to discussion with the Niti Aayog to discuss business models to be adopted in Fecal Sludge and Septage Management (FSSM).

Webinar held on 19.01.2021 for implementation of FSSM in cities and towns of Ganga basin has also been referred to. The report further mentions the meetings held by the CMC to monitor the progress on 30th September, 2020, 9th November, 2020 and 5th January, 2021 apart from other meetings with the Senior level Officials of the States/UTs to discuss States specific issues. It is further mentioned that the implementation of projects is being monitored in States which is reviewed at Central level.

Progress reports were obtained in respect of action plans of States/UTs to prevent pollution of rivers/water bodies and to take action against the violators. The CMC also sought information about coastal pollution from 13 States/UTs. Further, grievance module for addressing the issues of sewage/ effluent has been developed and made online on NMCG website, the States/ UTs have been directed to regularly monitor and update the status. Report also deals with use of treated water for secondary purposes.

12. The report thereafter gives the status as follows:

"Existing Sewage Infrastructure 48,004 MLD of sewage (from urban settlements) is being generated in 31 States/ UTs and 30,001 MLD capacity of STPs (1249 nos.) is existing which approximates to about 62% of sewage generation. Against the existing capacity, only 56% of the capacity is being utilized for treatment of municipal sewage. This leaves a gap of 17,027 MLD in treatment capacity. 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 Sewage Existing STP Capacity Gap in No. State Generation (capacity in Utilization Treatment at (in MLD) MLD and No.) (In MLD) present ( in MLD) 515.85 (43 1 Andhra Pradesh 1463.20 473.77 (91%) 947.35 STPs) 2 Assam 435.53 0 0 435.53 3 Bihar 651.5 230 (6 STPs) 100 (44%) 421.5 4 Chhattisgarh 600 73.1 (3 STPs) 6 (8%) 526.9 Daman, Diu And Dadra 5 Nagar Haveli 21.2 17.21 (2 STPs) 6.1 (35%) 3.9 6 Delhi 3273 2715 (35 STPs) 2432 (90%) 558 7 Goa 112.53 78.35 (9 STPs) 29 (37%) 34.18 8 Gujarat 4003 3485 (73 STPs) 2739 (78%) 518 9 Haryana 1267 1892 (155 STPs) 1189 (62%) -

10 Himachal 163.5 120.5 (65 STPs) 76.8 (64%) 43 Pradesh 11 Jammu & Kashmir 523 139 (15 STPs) 82.9 (60%) 383.08 12 Jharkhand 452 108 (14 STPs) 83% 343.8 13 Karnataka 3356.5 2242 (125 STPs) 1513.5 (67%) 1114 14 Kerala 317 124.15 (13 91.12 (73%) 192 STPs) 15 Madhya 2183.65 618.23 (23 472.6 (76%) 1565.4 Pradesh STPs) 16 Maharashtra 9758 7747 (142 STPs) 4207 (54%) 2011 17 Manipur 115 27 (1 STP) 9 (33%) 88 18 Meghalaya 75 1.85 (8 STPs) 1.82 (98%) 73 20 Nagaland 44.3 25.4 (1 STP) 0 18.9 21 Odisha 367 91 (5 STPs) 70 (76%) 276 22 Puducherry 88 56 (5 STPs) 35 (62%) 32 23 Punjab 2111 1628.5 (116 80% 482.5 STP) 24 Rajasthan 1551 999 (80 STPs) 694.5 (69%) 552 26 Tamil Nadu 3673.3 1616 (66 STPs) 919 (56%) 1320 27 Telangana 2613 888 (31 STPs) 735.8 (82%) 1724.45 28 Tripura 82.5 8 (1 STP) 3 (37%) 74.5 29 Uttarakhand 329.3 379 (63 STPs) 232.9 (61%) -

30	Uttar Pradesh	5500	3370 (106 STPs)	2630.6 (78%)	2130
31	West Bengal	2758	776.32 (47 STPs) + 910 MLD addl treatment through EKW	289.89 (37%)	1071.6
	Total	48,003.69	30,000.96 (1261 STPs)	55.9%	17,026.

\*State reported that 910 MLD of sewage is being treated by East Kolkata wetlands by natural process."

In particular, poor capacity utilization of Chhattisgarh (8%), Manipur (33%), Daman Diu & Dadra Nagar Haveli (35%), Goa (37%), West Bengal (37%), Maharashtra (54%) and Tamil Nadu (56%) needs consideration and attention for which Chief Secretaries of the concerned States have been apprised during the monthly review meetings as well as through D.O. letters from Secretary, Department of Water Resources, River Development & Ganga Rejuvenation. As many of the STPs are under-utilized due to pending house sewer connections, States have been requested to expedite the remaining works. The State of Assam does not have any existing treatment capacity while Tripura & Manipur has only one STP each. STPs at Nagaland and Mizoram are yet to be made

operational. The compliance of existing STPs in Andhra Pradesh (90%), Delhi (90%), Telangana (82%), Punjab (80%) Gujarat (78%), Uttar Pradesh (78%), Madhya Pradesh (76%), Haryana (62%) and Odisha (76%) remains good. This needs to be maintained and continuously improved.

Many of the States such as Haryana, Uttarakhand, Uttar Pradesh, Delhi, Madhya Pradesh, West Bengal, Tamil Nadu, Karnataka are installing online monitoring systems for capturing the real time data of the existing STPs. In November 2020, Madhya Pradesh has developed an "Env Alert app" and the same has been placed on Google play store and a WhatsApp group "M.R STP Cap. Utilization"

has also been framed for day-to-day monitoring of STPs by the senior officials of the State. As reported by the State, this has led to improvement in the utilization capacities of the existing STPs as well as regular monitoring of projects under construction. Other States have been requested to adopt such measures for monitoring the performance of the already developed sewerage infrastructure.

Further, many States such as Meghalaya, Mizoram, Nagaland, Tripura are opting for alternate sewage treatment such as Faecal Sludge Treatment Plants, bio-digester/ bio-remediation/ phyto- remediation over the conventional treatment technologies for treatment of sewage/ septage in their States. Details of the same are provided in para 7 and 8.

Water Quality in Polluted River Stretches The water quality data presented by the States during period since January 2020 up to December 2020 has been analyzed and the same has been summarized in Table-2.

It is seen from the above table that following river polluted stretches have now been reporting BoD levels which are conforming to bathing standard."

13. The details of on-going projects, projects under tendering, projects awaiting sanction of DPRs and at proposal stage are mentioned in Table-

3,4,5 and 6 as follows:-

"Table 3: Details of on-going projects Completion By No. State January 2021- April 2021- January 2022- Beyond June March 2021 December 2021 June 2022 2 STPs of 7 29 STPs of 328.4 1 STP of 123 1 Andhra Pradesh 15 MLD STP MLD MLD MLD 2 Bihar 12 projects of 355.5 MLD. Revised timeline to be provided 6 STPs of 238 3 Chhattisgarh - - -

MLD Daman, Diu And 4 Dadra Nagar - - - -

Haveli STPs of 950.8 1 STP of 318 5 Delhi - - MLD MLD (new) (Rehabilitation) 3 STPs of 43 5 STPs of 35.5 MLD - work 6 Goa MLD including not started due sewer

networks to issues by locals.

23 STPs of 44 STPs of 4 STPs of 116.6 10 STPs of 7 Gujarat 426.72 MLD 571.68 MLD  
 MLD 125.4 MLD 15 STPs of 19 STPs of 2 STPs of 45 2 STPs of 180 8 Haryana 59.45  
 MLD 168.75 MLD MLD MLD Himachal 5 STPs of 26 10 STPs of 7.9 6 STPs of 6.1 5  
 STPs of 8.26 9 Pradesh MLD MLD MLD MLD Jammu & 2 STPs of 61.2 4 STPs of 17.6  
 4 STPs of 13.21 10 -

	Kashmir	MLD	MLD	MLD	
			3 STPs of 89		
11	Jharkhand	-		-	-
			MLD		
12	Karnataka	21 STPs of	9 STPs of 197.3	21 STPs of	4 STPs
		427.17 MLD	MLD	115.67 MLD	16.07 ML
13	Kerala	STP/ETP/FSTP of 0.331 MLD	STP of 0.01 MLD		
	Madhya	15 STPs of 212	2 STPs of 22.25	19 STPs of 212.5	
	Pradesh	MLD	MLD	MLD	
15	Maharashtra	10 STPs of	5 STPs of 110.26	2 STPs of 13	-
		141.5 MLD	MLD	MLD	
16	Manipur	-	-	2 STPs of 17	-
				MLD	
17	Meghalaya	115 KLD Septage Treatment Plant Sewer			
18	Mizoram		-	-	-
19	Nagaland	connections in	sewer	-	-
20	Odisha	2 STPs of 56 MLD	connections in progress 48 MLD STP	-	-
22	Punjab	6 STPs of 27.5 MLD	12 STPs of 49.2 MLD	4 STPs of 67.5 MLD	8
23	Rajasthan	29 STPs of 126 MLD	15 STPs of 113.5 MLD	4 STPs of 59.5 MLD	12
24	Sikkim	2 STPs of 3			3.

86

		MLD			
25	Tamil Nadu	18 STPs of 244	8 STPs of 203.46	6 STPs of 450.53	1
26	Telangana	2 STPs of 16.45 MLD	12 STPs of 73.96	3 STPs of 120	
27	Tripura	-	-	8 MLD STP	
28	Uttarakhand	3 STPs of 8.9	3 STPs of 23.7	1 STP of 28	
29	Uttar Pradesh	6 STPs of 122.01 MLD	21 STPs of 523.55 MLD	7 STPs of 161.5	3
30	West Bengal	1 STP of 24	4 STPs of 47.75	6 STPs of 271.5	
	Total (except Bihar)	163 STPs of 1989.211 MLD	214 STPs of 3187.77 MLD	93 STPs of 1828.61 MLD	16

Table 4: Projects under Tendering and works to be awarded No. State STPs in Tendering 1 Andhra Pradesh 6 STPs of 52.4 MLD 2 Bihar 7 projects of 149.5 MLD 3 Chhattisgarh 5 STPs of 40.5 MLD 4 Daman, Diu And Dadra 1 STP of 7 MLD Nagar Haveli 5 Gujarat 59 STPs of 445 MLD 6 Himachal Pradesh 8 STPs of 33.31 MLD 7 Jharkhand 15 MLD STP - Sanctioned

14 STP, 1 UGD for STP, 144 MLD 8 Karnataka 15 STP, 57.366 MLD (work order given) 9 Kerala Projects for treatment of 55.8 MLD effluent 10 Madhya Pradesh STPs of 53.4 MLD 11 Puducherry 2 STPs of 6 MLD 12 Punjab 43 STPs of 388 MLD 13 Telangana 17 STPs of 376.5 MLD 14 Uttar Pradesh 24 STPs of 568.1 15 West Bengal 9 STPs of 122.36 MLD Total Projects of 2514.236 MLD

Table 5: Projects awaiting sanctioning of the DPR No. State STPs awaiting sanctioning of DPR 1 Assam 2 STPs of 4 MLD 2 Bihar 4 projects 3 Chhattisgarh 1 STP of 35 MLD 4 Delhi 14 STPs in Najafgarh zone (of which 7 STPs 5 Himachal Pradesh 2 STPs of 4 MLD 6 Jammu & Kashmir STPs of 59.9 MLD 7 Jharkhand STPs of 184 MLD 8 Karnataka 29 STP of 134.846 MLD 9 Kerala Treatment Plants of 0.71 MLD 10 Manipur STP of 49 MLD 11 Telangana 31 STPs of 1098.17 MLD 12 Sikkim 0.72 MLD STP 13 Uttarakhand STPs of 67 MLD Table 6: Projects in Proposal stage (DPR to be prepared) No. State STPs in proposal stage 1 Andhra Pradesh STPs of 1215 MLD in proposal stage 2 Assam 17 STPs of 163 MLD 3 Bihar 20 Projects of which 5 DPR prepared Daman, Diu And 4 Dadra Nagar Haveli 1 STP of 16 MLD 42 decentralized STPs and Mori Gate 5 Delhi STP 6 Gujarat 19 STPs of 472.3 MLD 7 Haryana 8 STPs of 64 MLD (for future) 8 Himachal Pradesh 22 STPs of 32 MLD 9 Jammu & Kashmir STPs of 47.9 MLD 10 Jharkhand STP of 43 MLD 23 STP of 72.136 MLD; 3 FSSM, 4.5 11 Karnataka cum 12 Kerala STP/ETP/FSTP of 2.776 MLD 13 Madhya Pradesh 1 scheme at DPR Stage 14 Maharashtra 58 STPs of 3569.82 MLD - Proposed 15 Meghalaya STP of 0.105 MLD 16 Punjab 53 STPs of 183.5 MLD 17 Sikkim 6 STPs of 10.61 MLD DPRs prepared and are being

prepared on 18 Tamil Nadu cluster basis 19 Telangana 13 STPs of 99.85 MLD 20 Uttarakhand STPs of 39.25 MLD 21 West Bengal 12 STPs of 228.89 MLD "

14. Status of bio-remediation/Phytoremediation has been given as follows:-

"Table-7: Status of bio-remediation/ Phytoremediation projects No. State Action Taken 1 Andhra No information provided in the MPR. Pradesh 2 Assam GMDA has taken up scheme for treatment of polluted water of Borsola Beel through Bioremediation. RFP document for „Treatment of Polluted Water of Borsola Beel through Bio-remediation' will be floated after approval of RFP document. GMDA has taken up a scheme for de-siltation and cleaning of Borsola Beel and the physical progress of the work as on 05.11.2020 is 100%. Govt. of has accorded Administrative approval for the scheme treatment of polluted water of Sarusola Beel and notice inviting RFP will be floated shortly. Tender Notice has been floated for the scheme „Cleaning of Sarusola Beel' in compliance with Hon'ble NGT order amounting to Rs. 47.61 Lakh. GMDA has taken up a scheme on Bioremediation measures for Silsako Beel. Govt. has accorded Administrative approval amounting to Rs. 921.00 Lakh (Rupees Nine Hundred Twenty One Lakh) for the scheme. Finalization of draft RFP document is under process. GMDA has taken up cleaning activities in Silsako Water body through removal of water - hyacinths and floating garbage along with de-siltation of the water body with the help of machineries. 3 Bihar Bio-mining/bioremediation work has been initiated at Bairiya, Patna and Muzaffarpur for disposal of legacy waste. UD&HD, GoB has issued Work Order dated-24.09.2020 to the successful bidder for In-situ treatment through bio-remediation of drains joining Ganga and other polluted rivers for 89 drains. Work has been started in all 89 drains. 4 Chhattisgarh All the households in polluted river stretches have on-

site sanitation systems, either twin pits or septic tanks. The State has implemented phytoid treatment in all ULBs.

5 Daman Diu & Phyto-remediation and Bioremediation proposal for Dadra Nagar the 13 identified drain has been received from NEERI Haveli and the same is under process. The drain near Rajiv Gandhi Setu, Daman is being taken up for in-situ treatment on pilot basis. Another drain near Kabra Industrial Estate, Kachigam, Daman is proposed for in-situ treatment.

6 Delhi Integrated Drain Management Cell (IDMC) has been formed for remediation and management of all drains in Delhi. Drain owing agencies have submitted their action plan and started its implementation. The waste water in Kushak Nala running through NDMC areas is under bio-remediation and the water quality parameters are being monitored. Delhi Cantonment Board has started implementation of bio-remediation plan w.e.f 11.06.2020.

7 Goa Conventional method of septic-tank / soak-pit is adopted by individual housing / complexes, wherever underground sewer network did not exist. In villages or hinterland-areas (i.e. pocket settlement areas), stand alone soak-pit / septic-tanks system ensures effective treatment of domestic-sewage.

8 Gujarat State has implied in-situ treatment towards legacy waste management (Pirana dumping site). Pilot project for in-situ remediation at Ankleshwar and Kheda municipalities are under implementation and after positive reviews, the same shall be replicated in 7 municipalities.

9 Haryana ULB Department has started bio/phyto remediation works in the drains in Municipal Corporation, Yamuna Nagar - Jagadhri, as a pilot project, which will be replicated at other places. Municipal Corporation of Sonapat has also invited tenders for the bio/phyto remediation of drains. Similarly, Municipal Corporations of Gurugram and Faridabad are in The process of preparing the proposals for bio/phyto remediation. Municipal Corporation of Panipat has already floated the tenders for the process in their jurisdiction. GMDA has also initiated a pilot project as an interim treatment for untreated discharge of Leg I via geo-synthetic dewatering tubes in consultation with CPCB. PHED has undertaken the in-situ phyto/bio remediation in its new STPs at Indri and Beri.

10 Himachal In-situ Phytoremediation technique is being applied in Pradesh nallahs for treatment of water. The work of in-situ remediation in Priority-I (Sukhna Nallah) has been started and civil work and plantation work is completed and construction of polishing tank is under progress. The tender work in-situ remediation in Jattan Wala Nallah (catchment of Priority-II river stretch) has been awarded and work is in progress.

11 Jammu & Kashmir Tenders for in-situ bio-remediation of drains floated, work yet to commence.

12 Jharkhand Preparation of DPR to adopt in-situ remediation at

drains at identified ULBs viz. Chas, Ranchi, Mango and Aditypur, involving CSIR-NEERI and tendering is under process from competent authority from approx. 120 MLD of waste water will be treated.

13 Karnataka Drains contributing to the pollution of the 17 Polluted River Stretches have been identified. Status of bioremediation or any other insitu remediation not provided.

14 Kerala In situ primary treatment were proposed for the river stretches Bharathapuzha and Pamba in the action plans.

15 Madhya In-situ bio-remediation for Nagda and Mandideep town Pradesh has been initiated as pilot project to be adopted a model for replication in other towns of the State. 16 Maharashtra Demonstration project has been started by MPCB for in-situ treatment of wastewater at Kotwali village drain on Vashisthi River to explore the possibilities and viability of the interim measures.

17 Manipur DPR submitted to NRCD for in-situ treatment through Bio-remediation of 16.75 MLD.

18 Meghalaya PMC of Smart City has prepared the feasibility report for Nallah in-situ treatment for the drain falling within the ADB and has been approved and accepted report by RRC for Umkhrah & Umshyrpi. Preparation of DPR for the bio-remediation of remaining drains has been communicated to the PMC for finalization of terms & conditions. DPR has been completed and for remaining rivers and the Water Resources Department is seeking fund for implementing the same.

19 Mizoram For the treatment of sewage, in-situ remediation such as onsite grey-water management systems in rural areas and setting up of improved septic tanks and Bio- digesters for black water management in the catchment areas of the polluted rivers are in process.

20 Nagaland Phytoremediation and Faecal Sludge and Septage Management Plants are proposed in all the ULBs. DPR to be completed by November 2020. Bioremediation is adopted for treatment of legacy waste along 1 km buffer stretch of river Dhansiri 21 Odisha H & UD Department has identified Drains contributing to river pollution.

22 Puducherry All the drains reaches the rivers Sankaraparani and Arasalar were identified and in-situ remediation of providing grills gratings and bar screen are provided to all the 172 drains.

23 Punjab The work for in-situ remediation of the Sirhind Choe (near Bhadson, District Patiala), with the demonstration of Constructing Wet Land Technology has been completed. The performance of the technology is under evaluation and will be replicated in rest of the drains in depending upon its success. In- situ remediation of Bhulana drain carried out by Punjab Pollution Control Board with installing bioremediation, phyto-remediation enhanced through Nano Bubble Technology on Pilot basis and is under evaluation. WSP based STP at Bhulath has been upgraded by adding Nano Bubble Technology. The performance of the technology is under evaluation and will be replicated in rest of the drains in depending upon its success. The work on piloting low cost ecofriendly on 500 KLDSTP for Banur, based on modified constructed wetland approach, is near completion 24 Rajasthan The State has implemented bioremediation treatment for legacy waste, for which tenders have been invited. Drain identified for contribution in River Chambal in Kota Region.

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25 Sikkim No tangible information is provided 26 Tamil Nadu No details have been provided. The State has proposed for incinerator installation to process plastic waste.

27 Telangana HMWSSB has entrusted for preparation of DPRs for In-situ remediation for 5 drains leading to lakes to NEERI, Hyderabad. NEERI has submitted DPR for Kokapet drain of 1.0 MLD Capacity. It is under implementation stage by NEERI. For balance 4 drains, DPRs are received from NEERI which are under sanction stage. In-Situ remediation is proposed only in priority I&II and in priority III to V stretches it is not feasible as Flat terrain is not available, Steep slope gradient leading to high velocity and Flow of greater than 5 MLD 28 Tripura As reported in the MPRs, the State has directed all ULBs to adopt in-situ bioremediation and phytoremediation of sewage in drains. 210 drains and land identified. Tender for Bio remediation of 5 drains as pilot basis in Agartala has been completed. 29 Uttar Pradesh Bio-remediation is being done in 42 drains of Prayagraj.

30 Uttarakhand DPR for treatment of 19 drains by bioremediation approved and is under tendering.

31 West Bengal Work started as pilot project for drains for Ganga & Churni river stretches. "

15. The report gives the details of alternate technology adopted or proposed to be adopted by the States/ UTs for treatment of sewage through the Septage Treatment Plants taking lesser time in commissioning compared to the conventional STPs as follows:-

"Faecal Sludge Treatment Plants States are taking up projects for treatment of sewage through Septage Treatment Plants, which takes up lesser time in construction as compared to conventional STPs or are implementing co-treatment facilities in the existing STPs. Chhattisgarh has reported that 100% septage management scheme has been achieved in all the cities under polluted river stretches. Maharashtra has installed 15 FSTPs with total capacity of 290 KLD along polluted river stretches. Similarly, Odisha is implementing Septage Management System in a phased manner in all its ULBs, 10 FSTPs in 10 ULBs of 440 KLD have been commissioned, 82 Nos. in 82 ULBs of 1367 KLD are under construction. Tamil Nadu also proposes to establish 49 FSTPs, of which 5 FSTPs have been completed and co-treatment facility at 38 STPs have been facilitated. In Telangana, co-treatment of septage from the Septic Tanks of individual and community septic tanks in the existing 6 STPs have been completed and about 26 million liters of septage has been treated so far at these cotreatment plants, thereby preventing the pollution of lakes to that extent. 2 FSTPs have been completed in Uttar Pradesh.

xxx xxx xxx a. Decentralized/ modular STPs Decentralized modular STPs are assets that can be created for sewage management of smaller capacity. These tailored systems, being pre-fabricated and involves minimal on-site civil construction and hydro-electro-mechanical installations, are easy to install, take significantly less time in commissioning (only few months) and easy to operate being compact systems. Accordingly, they are suited in situations where sewage generation is say less than 2 MLD, water quality profile permits tailoring the modular STP system specific to the requirements of site water quality and time available for commissioning the system is less. Many of States can therefore adopt such systems in situations instead of conventional STPs (which take much longer time, not less than 24 months, for construction) based on evaluation of techno-commercial merits. Many States/ UTs are constructing or have proposed to develop STPs in Polluted River Stretches with capacity less than 2 MLD.

xxx xxx xxx"

16. The details of Industrial Pollution Management is mentioned as follows:-

"Table-8: Statement on Industries and Treatment Capacity established in States/ UTs

State	Stretch	No. of Industries(Water Polluting)	Current Effluent Discharge (MLD)	No. o Indust having ETPs
Gujarat	State	12815	NA	12700
Tamil Nadu	State	11445	2835.7	11445
	PRS	1770	452.696	1770
Haryana	PRS	3729	126	3729

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Karnataka	State	3503	1339	3287	4523	Existing - 10 CETPs of MLD installed capacity; Operational Capacity = 3.445 KLD (59%); 733 units connec Under construction = 2 Bidar and Yad Expression of Int issued = 1
Delhi	UT	1516	36	1516 (100%)	-	Existing - 13 CETPs of capacity 212.3MLD of wh 2 are complying, 11 non complying. All CETPs ha OLMS installed. Upgradation of CETPs ha been proposed.
Goa	State			NIL		
Odisha	State	1031	886	1030	886	NIL
Tripura	PRS	179	0.0144	18 Installed	ETPs -	1 CETP of 500 KLD capac installed
Maharashtra	State	16597	2100	16597	NA	Existing CETPs: 26 nos. (244.85 MLD) Under Construction-2CET Proposed: 2 CETP at Nas and Kolhapur
Himachal Pradesh	State	2773			45.67	955 3
Jammu & Kashmir	State	450			17	239 -

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State	Stretch	No. of Industries (Water Polluting )	Current Effluent Discharge (MLD)	No. of Industries having ETPs	of	
Uttarakhand State		830	145	830	17	
Uttar Pradesh State		1648	850.5	1404		
Rajasthan State		1199	-	1167	3173.61	16 CETPs (14 Op under constructi closed) Capacity - 159.8
Assam State		2641	-	2134	-	-
Sikkim State		63	1.926	63	3.385	NIL
Meghalaya State		260	3.5	254	-	-
DDDNH	UT/PR S	262	6.54	262	11.39	NIL
Nagaland State		5	102 KLD	3	102 KLD	2 Units of 30KLD process
Manipur State		Non-polluting industries	-	-	-	5 industrial connected to functional CETP
Mizoram State		56	0.0438	56	0.099	NIL

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Punjab	State	4055	402	1760	398	Existing - 4 CETPs of 20.535 MLD. Under Construction - 3 CETPs: 50 MLD -91% work completed & 40 MLD at Ludhiana-completed , 0.15 MLD at Jalandhar- status quo against court orders, hearing date on 15.02.2021
Madhya Pradesh	State	1186	25100	1186	28000	Existing: 3 CETPs of 9.1 MLD
Jharkhand	State	190	-	187	-	Existing : 2 Nos. of 25.05 KLD Under Construction: 3.5 MLD at Ranchi, Tupadana Industrial Cluster.
Bihar	State	219	NA	212	-	Existing : NA Under Construction/ Proposed: There are 52 industrial areas under control of BIADA, 5 Industrial Areas were identified in first Phase for construction of CETPs - Fathua, Hajipur-Vaisali-Bela, Barai, Bhagalpur, Patliputra. DPR for all Industrial area except for Patliputra was finalized and in first three calls for Bid submission no bidder responded.
West Bengal	State	454	1360.60	454(400 SPIs & 54 GPIs)	1360.60	Existing: 20 MLD CETP, Under Construction: module of 20 MLD
Kerala	State	1401	156.3	5166	-	Existing- 8 CETPs of 12. MLD. 64 units connected.
Telangana	State	2178	603	1519	593.85	Existing- 4 Nos. of 7 ML capacity operational. Un Construction - 1 CETP of KLD
Andhra Pradesh	State	1069	4494.33	1069	-	Existing-7 CETP of (31 M total capacity having 33 units as members

Puducherry UT 96 4.75 95 4.75 NIL

VI. Status of Solid Waste Management, Ground Water

Augmentation, Afforestation, Floodplain and E-flow Management State-wise status of solid waste management, hazardous and plastic waste management, ground water management, good irrigation practices adopted by farmers, installation of rain water harvesting, protection and management of Floodplain Zones and maintenance of minimum E-flow in the river stretches as per the Action Plan and MPR submitted by the States is placed at Annexure- V. States of Andhra Pradesh, Goa, Haryana, Jammu & Kashmir, Maharashtra, Karnataka, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal have major gap in solid waste treatment facilities and have taken up projects for establishment of processing facilities, which are at various stages of implementation. These States need to ensure timely completion of the projects and ensure optimum utilization of their infrastructures. The status and progress will continue to be monitored in subsequent meetings of Central Monitoring Committee.

VII. Scrutiny of Action Plans for P-II and P-IV:

As reported by CPCB, all the Action Plans for Polluted river stretches in Priority I-IV have been approved with conditions.

VIII. Model River Stretch identified by the State As directed by NGT, States have identified Model River to be taken up for rejuvenation in the first phase. States of Andhra Pradesh, Chhattisgarh, Jammu & Kashmir, Kerala, Mizoram, Rajasthan, Telangana and Uttar Pradesh are yet to identify Model River to be rejuvenated, the model of which can be replicated in rejuvenation of other river stretches. The identification and implementation of various strategies for rejuvenation of model river stretch assumes particular significance as it can translate as best ground to test the efficacy of various interventions so that such approach and models can be taken for implementation in other reaches. The experience gained out of such implementation will also help in wider dissemination of good and successful practices amongst the States. Accordingly, the State of Andhra Pradesh, Chhattisgarh, Jammu & Kashmir, Kerala, Mizoram, Rajasthan, Telangana and Uttar Pradesh may complete identification of Model River for rejuvenation and direct the concerned State officials to implement various interventions in coordinated manner as per Action Plan for rejuvenation of the model river.

Details as reported in the MPRs are in Table-9 as below.

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Table-9: Status of Model Rivers Identified by State No. State Model River Identified 1 Andhra Pradesh -

2 Assam Digboi River 3 Bihar Harbaura River 4 Chhattisgarh -

5 Daman, Diu And Dadra Nagar Damanganga Haveli 6 Delhi Yamuna 7 Goa Sal River 8 Gujarat Sabarmati River Both Yamuna & 9 Haryana Ghaggar 10 Himachal Pradesh Beas River 11 Jammu & Kashmir -

12 Jharkhand Swarnrekha River 13 Karnataka Tungabhadra River 14 Kerala -

15 Madhya Pradesh Khan River 16 Maharashtra Chandrabhaga River 17 Manipur Nambul River 18 Meghalaya Nonbah River 19 Mizoram -

20 Nagaland Chathe River 21 Odisha Kathajodi river 22 Puducherry Sankarabarani River 23 Punjab Beas River 24 Rajasthan -

25 Sikkim Maney Khol River 26 Tamil Nadu Bhavani River 27 Telangana -

28 Tripura Haora River 29 Uttarakhand Ganga River 30 Uttar Pradesh -

31 West Bengal Karola River IX. Status of Preparation/Submission of Action Plan for Coastal Pollution Subsequent to the Hon ble NGT order dated 21.09.2020, CPCB has issued a reminder vide letter dated 10.12.2020 to all the concerned coastal States/ UTs (except Andhra Pradesh) to submit the Action Taken Report and Time Bound Comprehensive Action Plan to CPCB for control of coastal/ marine pollution within the jurisdiction of the State/UT. Also, reminder was issued to Andhra Pradesh State to submit the Action Taken Report for ensuring compliance to directions dated 31.08.2020 issued under section 18(1)(b) of Water (Prevention & Control of Pollution) Act, 1974 by CPCB. Till 28.01.2021, Andhra Pradesh and Kerala State have submitted Time Bound Comprehensive Action Plan whereas Goa and Kerala State have submitted only the Action Taken Report. Remaining coastal States/ UTs viz Lakshwadeep, Daman, Diu & Nagar Haveli, Andaman & Nicobar, West Bengal, Tamil Nadu, Maharashtra, Karnataka, Gujarat, Odisha and Puducherry have yet not submitted the requisite information. Status of submission of Action Plan by States is as given Table-10 below.

Table-10: Status of Submission of Action Plans for Coastal Pollution by States No. State Status Action Plan Submitted 1 Andhra Pradesh to CPCB and under consideration of CPCB 2 Daman, Diu & -

3	Dadra Nagar Haveli Goa
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4	Gujarat	-
5	Karnataka	-
6	Kerala	Action Plan Submitted to CPCB and under consideration of CPCB
7	Maharashtra	-
8	Odisha	-
9	Puducherry	-
10	Tamil Nadu	-
11	West Bengal	-
12	Andaman & Nicobar	-
13	Lakshadweep	-

X. Development of Grievance portal

As per directions of Hon'ble NGT, it was directed that CMC may consider development of an appropriate App to enable easy filing and redressal of grievances with regard to illegal discharge of sewage/ effluents. Accordingly, NMCG has developed an online module on its website for submission of grievances and redressal of grievances with regards to illegal discharge of sewage/ effluents. The url of portal is <https://nmcg.nic.in/ngtgrievance.aspx> and has been operational with effect from January 2021. Chief Secretaries of all the 31 States/UTs have been directed to regularly monitor and to address the issues within a stipulated time period. The status report in this regard shall be incorporated from next submission onwards.

XI. Reutilization of Treated water Acknowledging the importance of safe reuse of treated waste water (SRTW) in India as well as prioritizing the same in planning and management due to rapid urbanisation and increased wastewater generation and also with an aim towards increased water security, the action plan for Reuse of Treated Waste Water has been undertaken at national level in Ministry of Jal Shakti. The introduction of the concept of SRTW into water resource strategies and policies could provide additional resources for multiple uses and water security for fast growing cities, industry, agriculture and the environment. So far, India has no national policy regarding SRTW, except for a few State policies viz., Gujarat, Maharashtra, Tamil Nadu and Haryana.

Accordingly, National Mission for Clean Ganga Ministry of Jal Shakti in collaboration with the Indo-German „Support to Ganga Rejuvenation project (GIZ-SGR) and the India-EU Water Partnership (IEWP) has initiated formulation of National Policy on Safe Reuse of Treated Water (SRTW). The policy development is based on a comprehensive consultation process by engaging relevant stakeholders under a dedicated steering group. The stakeholders involved included MoEF&CC, MoHUA, industries, ULBs and representations from pioneering States (Maharashtra, Gujarat, Haryana, UP). The policy development process is supported by European and national experts bringing in best international practice. Based on extensive consultations during various Consultation meetings, 1st Draft Working document has been prepared. Further consultation for finalisation of National Policy is underway.

State-wise details of re-utilization of treated water as reported by the State is provided in Table-11 below.

Table-11: Status of Re-utilisation of Treated Water by States State Status Andhra 321.81 MLD of treated wastewater is being reused. Pradesh Assam Being done by P&RD Department for rural areas. No further details provided.

Bihar Treated sewage water of STP having capacity 100 MLD or above will be used by Water Resource Department and less than 100 MLD will be used by Minor Water Resource Department for agriculture purposes.

Chhattisgarh Treated waste water will be utilized after the completion of construction of STPs.

DDDNH Treated water is used daily for road washing, horticulture, soil compaction, irrigation etc. Delhi 90 MGD is being used for various purposes e.g. horticulture, irrigation, DTC depot etc. Goa Part utilization has been proposed for (i) release of STP-treated water at Colva into Sal-river so as to maintain the flow, (ii) flushing of St. Inez creek,

(ii) municipal gardening,

(iii) social forestry, (iv) private plantation, (v) dust- suppression measures etc. Gujarat Gujarat Government has framed Policy for Reuse of Treated Waste Water (TWW) wherein targets have been set for use of 70% of the treated wastewater by 2025 and 100% of treated wastewater by 2030. 643 MLD of treated waste water is used by MC and Municipalities.

Haryana State has prepared a draft policy for reuse of treated waste water and an action plan for reuse of treated sewage and as per the plan, approx. 80% of treated sewage will be reutilized by 2024-2025. Treated waste water will be used for the farming purpose.

Himachal  
Pradesh

JSV is providing facility for bulk water user at all the STPs to enable the effluent for reuse.

Jammu and Kashmir Reuse of Treated Water through Pumping Plant with Rising Main to Railway Station Katra for cleaning and washing purpose, Horticulture purpose at

Air force station, at Army Unit for cleaning and washing purpose have been proposed.

Jharkhand Water will be used for irrigation, fish farming, landscaping, cooling water for power plants and oil refineries, toilet flushing, public parks, dust control, artificial lakes, construction etc. Karnataka Quantity of treated water reused in Bengaluru = 427.5 MLD; other than Bengaluru = 106.65 MLD. It is to be used for recharge of lakes, use in industrial establishments, by horticulture departments, used in gardening etc. Kerala Utilization of the treated effluent for irrigation, gardening, industries, construction and recharge are being explored.

Madhya Pradesh At present 84.96 MLD of treated water is being used or irrigation/gardening Pradesh purpose (including STP of 35 MLD, Bhopal under AMRUT scheme) Maharashtra The Infrastructure Projects are mandated by MPCB to recycle 60% of treated sewage for secondary use by providing dual pipeline for different class of users like Thermal Power Plants, Industrial Units, Construction activities, non-potable municipal uses, Agriculture-Irrigation, etc. depending on its availability.

Manipur No information provided.

Meghalaya Stand-alone ETPs are operational in 260 number of

hotels/guesthouse/health care centers /Industries and treated wastewater are reuse for gardening/cleaning purpose.

Mizoram Action Plan for sewage treatment including recycle and reuse of treated waste water was submitted to the State Govt.

Nagaland Treated water is to be used for agricultural farms, sprinkling the road construction sites, flushing/cleaning of the sewage drains Orissa 806 MLD treated industrial wastewater are being recycled/ reused in the process or being utilized for plantation/ irrigation purposes. Bulk users have been identified for utilization of treated water for the STPs under commissioning.

Puducherry 15.3 MLD treated wastewater is been in use for Industrial usage, Silk cotton trees, Coconut Plantation, Construction activities, Watering the road side plantation Punjab The Government of Punjab has Notified "The State Treated Waste Water Policy 2017" to promote recycling and reuse of treated sewerage for non- potable applications. Till date, 47 number projects have been completed by Department of Soil & Water Conservation, Punjab for using 243.3 MLD treated wastewater of STPs. These projects have been implemented by laying underground pipeline system for irrigation water conveyance covering an area of 7652 hectares. The Department further proposes to utilize 1238.8 MLD of treated wastewater from 164 existing, under progress and proposed/new STPs for irrigation purposes for an agricultural area of 37,683 hectares. Others relevant Departments are also exploring various options to promote utilization of the treated

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wastewater of STPs for non-potable use such as domestic use, construction activities, industrial processes, urban landscaping & green belts, etc. Rajasthan No information provided.

Sikkim Treated effluent is to be utilized in cooling towers, irrigation of green belt, evaporation or flushing purposes.

Tamil Nadu Tamil Nadu Government has notified Promotion of Use of Treated Waste Water policy during December 2019 to maximize the collection & treatment of sewage generated and reuse of treated waste water on a sustainable basis, thereby reducing dependency on fresh water resources. At present Memorandum of Understanding (MoU) has been executed between the ULB and the user agency for the re-use of secondary treated effluent water (STEW). 80.5 MLD of treated wastewater is being reused for cooling purpose, Agricultural use to farmers association, MRF Industrial use, to maintain the TDS level of Tanners for Agro- forestry etc. Some of details are given in Table-11.1 below.

Table-11.1:

S. No	Status Name of the ULB	Quantity Identified by States (in MLD)	Usage/ Purpose
1	Nagapattinam	2.00	M/s KVK Power for cooling purpose
2	Dindugul	5.00	To maintain the TDS level of Tanners as w for Agro-forestry.
3	Tirunelveli	24.00	Nanguneri SEZ for Industries
4	Perambalur	3.00	MRF Industrial use
5	Ramanathapuram	3.00	NTC Infra
6	Coimbatore	15.00	Agricultural use to farmers association
7	Pollachi	11.50	Agricultural use to farmers association
8	Chinnamannur	3.00	Agricultural use
9	Karur	7.00	Agricultural use
10	Arakkonam	7.00	MRF Industrial use

As per the Policy, following is proposed.

The treated wastewater is to be utilized for eco-parking, greenery development and avenue plantation and the remaining will be disposed into the river after meeting the standards. Industries having ZLD system are reusing the treated wastewater in the process.

Domestic grey water has been recharged into the ground through Individual soak pit constructed at individual households and filtered grey water from community soak pits are being utilized for agricultural purpose in Rural areas.

Telangana Govt. of Telangana has released a policy for reuse of the treated water. 56 MLD has been reused.

Tripura AMC is using treated waste water from the Barjala (Near Lankamura) STP for watering of gardens & open space in Agartala city, road watering in dry seasons, irrigation of agricultural fields etc. Uttar No information provided.

Pradesh Uttarakhand Treated water of 95 MLD capacity at Jagjeetpur is used for irrigation through canal system.

West Bengal Treated Wastewater Re-use Policy of Urban West Bengal has been notified by Urban Development & Municipal Affairs Department of Government of West Bengal in June 2020. Department has identified Kalyani Town as a model for resue of the treated water generated at Kalyani STP under KMDA. "

DPR is under preparation.

17. The report concludes with the observations and recommendations as follows:-

XII. Observations and Recommendations Besides State specific issues highlighted under para-V of this report, following observations and recommendations are made.

States are regularly submitting Monthly Progress Reports, in the requisite formats, by the stipulated dates. However, information provided in MPR on water quality aspects in respect of a few States may need to be regularly provided base on the data being collected by State Pollution Control Boards. 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 during monthly meetings of CMC that the progress of ongoing works continues to be impacted due to COVID-19 pandemic on account of labour mobilization issues, financial resource availability besides site works. The project completion timelines, therefore, are getting impacted due to these

factors also The compliance of existing STPs in Andhra Pradesh (90%), Delhi (90%), Telangana (82%), Punjab (80%) Gujarat (78%), Uttar Pradesh (78%), Madhya Pradesh (76%), Haryana (62%) and Odisha (76%) remains good. This needs to be maintained and continuously improved.

Many of the States such as Haryana, Uttarakhand, Uttar Pradesh, Delhi, Madhya Pradesh, West Bengal, Tamil Nadu, Karnataka are installing online monitoring systems for capturing the real time data of the existing STPs. In November 2020, Madhya Pradesh has developed an "Env Alert app" and the same has been placed on Google play store and a WhatsApp group "M.R STP Cap. Utilization" has also been framed for day-to-day monitoring of STPs by the senior officials of the State. As reported by the State, this has led to improvement in the utilization capacities of the existing STPs as well as regular monitoring of projects under construction. Other States may consider adopting such measures for monitoring the performance of the already developed sewerage infrastructure. The river polluted stretches reporting BoD levels conforming to bathing standard have been given in para-3. The efforts need to be continued to ensure that these stretches which reportedly fall under cleaner category shall continue to remain clean and should not slip back to polluted stretches. Efforts made by State in this directions need to continue and propagated amongst other States through the framework of Central Monitoring Committee.

Similarly, river stretches having BoD levels which are slightly higher than limit of 3m/l and accordingly fall under Priority-V are low hanging fruits which can be easily transformed into clean stretches by concerted efforts and less investments. Focus of the States may remain on these stretches which can provided primary treatments to control the pollution levels. During the period w.e.f August to December 2020, States except Rajasthan have reported that 59 sewerage projects (STPs) have been completed and are under commissioning adding a total capacity of 1116.885 MLD. These sewerage infrastructure plants are under commissioning. Rajasthan has reported that 15 STPs of 45.5 MLD have been completed and made operational in the State in 2020 during January to December 2020.

STPs of around 8859 MLD treatment capacity are under- construction in the on-going projects in the States/ UTs. States of Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh and West Bengal will be able to complete 163 projects with capacity of about 1989.211 MLD in the States/ UTs by March 2021. The progress of these projects have to be regularly monitored using appropriate progress monitoring mechanism (eg., creation of Whatsapp group) similar to one established by Madhya Pradesh so that lag in completion of timeline is avoided.

Among on-going projects, States may have to review the project timelines in detail so as to assess if any further reduction in completion timelines schedule in respect of projects scheduled for completion during the period beyond April 2021 as indicated in par - 5 of this report is possible.

There are 242 projects under tendering in Andhra Pradesh, Bihar, Chhattisgarh, DDDNH, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Puducherry, Punjab, Uttar Pradesh and West Bengal, while a large no. of projects are awaiting sanction of the DPR or DPR is yet to be prepared. 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 this. Observations continued from 2nd Quarterly Report of Central Monitoring Committee:

- o Considering financial limitations, States/ UTs have been advised to 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. The documents have been made available to States as per their requests also.

- o "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.

- o 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. More than 30 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.

- o 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.

- o 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.

o 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 suboptimum utilization and dysfunctionality of existing STPs. This will help them in finalizing plans to upgrade STPs requiring upgradation so as to make them functional.

o Most of the 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.

There is need to have a separate paradigm in urban planning for river cities. As the urban system is key to impact the health of rivers and urbanization is likely to grow in future, this needs to be given due importance and urban river management plans need to be developed. Mainstreaming river and water body health into Master Plan is suggested to have long term perspective and enable legal support at municipal level for several of these activities."

Compliance Status with regard to directions of this Tribunal dated 21.9.2020 in OA 829/2019 (coastal pollution) and OA 148/2016 (use of treated sewage for secondary purposes)

18. It may be noted that the Tribunal has considered overlapping issues in above matters as follows:

O.A. 829/2019: issue of coastal pollution on account of discharge of untreated effluents/sewage. This matter was disposed of on 21.09.2020 with the following operative directions:-

"29. While the CPCB report mentions the directions issued to 13 Coastal 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."

O.A. 148/2016: management of sewage treated water is involved. This matter was also disposed of on 21.09.2020 with the following operative directions:-

"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."

19. Accordingly, the CMC has in its report dealt with the issue of coastal pollution and reutilization of treated water in Para IX and XI already quoted above.

Separate order in respect of some polluted rivers for further monitoring by the concerned Executive authorities

20. Apart from the said matter, the Tribunal is considering/has considered the remedial action for control of pollution of certain rivers separately, under Supreme Court directions, or otherwise<sup>23</sup>. Further reference to the orders in the said matters will be made later. After monitoring the remedial action, the Tribunal has directed the Chief Secretaries of the concerned States to take over further monitoring as will be shown from paras 32 to 35. Consistently with the said approach, this course of action needs to be followed for monitoring prevention of discharge of waste in rivers and water bodies as well as preventing pollution and rejuvenating the polluted river stretches.

Reports from some States/Oversight Committee for UP

21. Though some States have also filed their individual reports, it is not necessary to refer to the same as they are covered in the above report of CMC. However, report of an Oversight Committee

constituted by this 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 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) 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).

Tribunal for State of UP headed by Justice SVS Rathore, former Judge of Allahabad High Court at Lucknow have also filed two separate reports - in O.A. No. 593/2017 and O.A. No. 673/2018.

22. The report in O.A. No. 593/2017 filed on 13.02.2021 gives the status of compliance of the STPs, ETPs, CETPs, use of treated water and concludes with the following recommendations:-

"Recommendations:

In view of the above we recommend as follows:

1. Recovery position of EC is not good. Strict steps should be taken to accelerate the process of EC recovery.
2. Action plans for reuse of treated water have not been finalized yet. They may be prepared expeditiously and implemented with strict timelines.
3. There are many non-operational STPs under rehabilitation.

The process may be expedited. It is also suggested that wherever old STPs are under operation on UASB technology, they may be upgraded to latest technology like SBR technology.

4. Steps have been taken to address gaps in generation and treatment of sewage/effluents by setting up functional ETPs, CETPs and STPs in the state. However city wise evaluation of requirements of STPs/ETPs/CETPs has not been done so far

5. The capacity utilisation of existing STPs may be improved by identifying the bottlenecks and plugging them in each case.

6. The operation and maintenance of STPs/ETPs/CETPs and their respective distribution system should be improved for optimal results. The working of operators under One City One Operator Scheme needs to be continuously evaluated and this evaluation may be linked with their payment and renewal system."

23. The report in O.A. No. 673/2018 filed on 12.02.2021 concludes with the following recommendations:-

"RECOMMENDATIONS BY THE OVERSIGHT COMMITTEE

1. Out of total 339 drains in 12 polluted river stretches, 257 are untapped till date. Untreated sewage is flowing into the rivers and no interim measure has been taken to prevent this. Plan details along with timelines and corresponding physical and financial progress regarding tapping of these 257 drains be filed by the Govt before NGT within a month.

2. Out of total 5500 MLD sewage generated in the State of these 12 polluted river stretches, only 2630 MLD is treated in operational 100 STPs. There exist a gap of 2870 MLD. Currently, 38 STPs with capacity of 887.06 MLD are under construction while 24 STPs with capacity of 568.10 MLD are proposed. The progress in construction and project implementation appears to be slow. The State Govt should file the physical and financial progress of STP capacity augmentation before NGT along with definite timelines within a month. 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, UPPCB/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.

3. Progress of in situ remediation as an interim measure appears to be not satisfactory. In the meeting held by Oversight Committee on 5.2.2021 no information could be furnished by the concerned authorities which suggests that no action has been taken in this regard. CPCB had given notice for EC for inaction by authorities for ensuring bio/phytoremediation for Rs 18 Crore which has also been not deposited. 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. Further, the proposed timelines for in situ remediation along with details of project approval and financial approvals for these 257 untapped drains be filed by the Govt before NGT within a month.

4. It has been observed that e-flow is being maintained in River Ganga while study was in progress with reference to other perennial rivers. The report of the study was expected to be received by Dec, 2020 from IIT, Delhi. However, till date no report has been received by the Department. It is recommended that Irrigation Dept. must pursue the matter and ensure post study action.
5. Monitoring of Grossly Polluting Industries needs to be stepped up. UPPCB should issue notices to all defaulters and also realize the EC imposed earlier. GPIs in all polluted river stretches be connected to Central Control Room at Lucknow through OCEMS. This shall ensure accountability in the pollution reporting of the GPIs.
6. The State government has not yet deposited the Performance Guarantee of Rs.15 crore as mandated by NGT. Chief Secretary, UP must ensure compliance in this matter.
7. 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.
8. The work of floodplain demarcation is still under progress. It is suggested that pillars be fixed in all the stretches and notification be done within six months.
9. The residents of different districts were 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.
10. The Committee recommends Mining Dept., UP to submit a detailed report about status of illegal sand mining in all the 12 polluted stretches in the State. Information regarding enforcement and action taken by the Dept. to control illegal sand mining must be elaborated.
11. The sewage treatment capacity of Lucknow needs to be augmented for improving the water quality of river Gomti. 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 Phase1, 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.

12. 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.

13. There are many flaws in Waste Management Processing Plant in Lucknow managed by M/s Eco Green. During the inspection visits it was found that waste processing plant at Shiveri was non-operational. No 'waste to energy' work had been started in the treatment unit. 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."

#### Consideration of the Reports and further directions:

24. We have given careful consideration to the data furnished by way of above reports and found that the progress achieved is insubstantial. We note discrepancy in the data in the current report compared to the data in the last report dated 15.09.2020. In the last report, the data of sewage generation was mentioned to be 53,396.84 MLD while in the current report it is mentioned as 48,000 MLD. Explanation in the report is that the earlier information was incomplete and the current report gives the correct figure.

It is seen that huge gap in generation and treatment of sewage continues. Capacity is said to be only 62% but the entire capacity is not utilised. Utilised capacity is only 44% as per data furnished by the CPCB in OA 95/2018, Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors, to be referred later. As per last report, 1831 industries were working without any ETP in violation of law. 1123 ETPs were non functional. 62 CETPs and 530 STPs were non-

compliant. Several projects are still at tender/DPR stage with no interim remediation arrangement. This statistic relates to the urban areas of the entire country, including the towns on the banks of rivers in question. No statistics have been given about the gap in generation and treatment of the sewage in rural areas. While the report mentions that the National FSSM Policy has been introduced in 2017 and some States have also issued their State Level Policies, the FSTPs operational are said to be only about 30 and in the offing about 400 which are hardly sufficient to address the huge gap. Credible database needs to be compiled in this regard and comprehensive action plan prepared to ensure that there is no gap in the waste generation and treatment. Execution of the action plan has to be planned having in mind the requirements of the urban and rural areas separately. The policy must include utilization of biosolids for using as composting need to be duly ensured. The observations and recommendations in the report on issues not expressly dealt with need to be duly followed.

To address the huge gap in generation and treatment of waste, requisite number of treatment plants need to be in place at the earliest, including modular STPs wherever necessary. The plants already set up need to be functional and compliant. The ongoing projects have to be completed within the

stipulated timelines.

Pending such treatment interim measures for phyto/bio-remediation needs to be taken to ensure compliance of the provisions of the Water Act prohibiting discharge of any contaminant in water bodies.

Thus, huge water pollution is taking place as per official data with no effective adverse action against polluters, though it is crime under the law of land in the same way as homicide and assault.

Pollution is resulting in deaths and diseases but with no punishment and no protection to the victims posing serious threat to rule of law requiring protection of innocent and punishment of guilty by the State. Emergent and stringent measures are necessary for discharge of Constitutional duties by the States concerned otherwise it is tolerating and ignoring lawlessness. Repeated directions to shorten tendering/DPR procedures have remained uncomplished as also fixing accountability of officers responsible for the situation.

25. Thus, further action is required in mission-mode at all levels to discharge constitutional obligation of providing pollution free environment and also to protect public health. Scarce sources of drinking water and irrigation are required to be maintained free from contamination. This is basic constitutional obligation of the authorities under the Constitution being linked to 'Right to Life'. Without this being done in a meaningful manner, there can be no sustainable development. There is need for stringent enforcement by way of adverse measures, including recovery of compensation for continuing violation and adverse entries in the record of defaulting officers. Accountability for those who are entrusted the responsibility to comply with these directions must be fixed on the principle of good governance to enforce rule of law to protect rights of citizens.

26. We find that the river water quality has been analyzed without taking into account one of the major components of river pollution i.e. fecal coliform. The river water quality is declared 'fit for bathing' only with reference to BOD, without concern of the fecal coliform, which does not represent true picture and such course is thus against the law.

This may be duly remedied. There is need for compiling an annual progress report in terms of improvement of water quality by reducing pollution load. The progress should be evaluated depending on extent of reduction of pollution load, in comparison to the earlier period.

Such annual progress report must be put in public domain and appropriate action taken for inadequate progress after finding out the persons responsible for such failure and other causes, if any. Adequate number of monitoring stations need to be installed in a timebound manner for the purpose of monitoring water quality.

27. One major step for monitoring is compiling data in transparent manner. The Tribunal has already directed, vide order dated 05.02.2021 in OA 95/2018, Aryavart Foundation v. M/s Vapi Enviro Ltd. & Ors., that National/State/District Environment Data Grids be established which will go a great way in compiling data and monitoring compliance. There is also need to take further steps

(11)

for enhancing the utilization of treated waste water. The gap in generation of treated water and its utilization needs to be addressed expeditiously and monitored in terms of quantity and quality.

28. There is further need to re-engineer the administrative processes adopted and giving of the contracts, as earlier mentioned. The time consuming DPRs and approval processes in the administration needs to be avoided and speedy action taken based on model DPRs and laid down standards. It is a matter of regret that, as per official statistics, 56% of total generated sewage remains untreated and finds its way into the water bodies which is a crime under the law of the land for the last 47 years. This remains a constant threat to contamination of potable water.

Similar is the position with regard to the water pollution from other sources, including industries and dumping of solid and other waste.

29. Demarcation and protection of 'flood plain zones' keeping them free from encroachment is another challenge which needs to be tackled on war-footing by designating responsible and accountable officers to ensure that in the interregnum till requisite water treatment equipment are set up. Interim steps for sewage treatment need to be taken to reduce the pollution load.

Need for improved Monitoring Mechanism in the light of Notification dated 07.10.2016 issued by the Ministry of Water Resources, River Development, and Ganga Rejuvenation

30. The Ministry of Water Resources, River Development, and Ganga Rejuvenation has issued Notification dated 07.10.2016 in respect of management of River Ganga under the Environment (Protection) Act, 1986 called "River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016" (the Ganga Order) constituting authorities at National, State and District Levels called 'National Ganga Council', 'Empowered Task Force on River Ganga', 'State Ganga Rejuvenation, Protection and Management Committee' and 'District Ganga Committees'.

Further, 'National Mission for Clean Ganga' (NMCG) has been constituted.

The object of the said notification is to abate pollution and rejuvenate river Ganga, maintain e-flow, restrict activities on the river banks and other allied issues. Steps to be taken are exhaustively laid down, apart from providing safety audit and conferring statutory authority to issue directions on related matters, including in respect of tributaries of River Ganga. The National Ganga Council is headed by the Hon'ble Prime Minister and the 'Empowered Task Force' is headed by the Jal Shakti Minister. The 'State Ganga Committees' are headed by the Chief Secretaries of the States. The 'District Ganga Committees' are headed by the District Magistrates. The NMCG is headed by its Director General with representatives of Central Ministries and State Governments. There is also a provision for setting up monitoring centers. Powers of the NMCG include issuance of directions to State Ganga Committees and District Ganga Committees or Local Authorities for rejuvenation of River Ganga and connected issues. It can frame a policy and direct its implementation. The Ganga safety audit is to be conducted by the National Ganga Council. It is to publish an annual report. The functioning of District Ganga Committees can be overseen by the NMCG either directly or through the State Ganga Committees. Every District Ganga Committees is also to prepare plan for protection

of River Ganga and its tributaries and their river beds and District Ganga Committees also to prepare its own budget and give monthly and annual reports.

31. As noted earlier, protecting the rivers from pollution is a National necessity. Pollution of rivers has resulted in worst water crisis in the country. This requires control of domestic and industrial pollution, utilization of treated sewage for secondary purposes to prevent use of potable water for such purposes, protecting the catchment areas, regulating activities in flood plains zones, maintaining e-flow which includes conserving the ground water. All these steps are duly mentioned in the Notification dated 07.10.2016 as necessary for control of pollution and rejuvenation of Ganga. This Tribunal in its earlier orders, including orders dated 20.09.2018, 19.12.2018, 08.04.2019, 06.12.2019 29.06.2020 and 21.09.2020, dealt with preparation and execution of action plans for all the 351 polluted river stretches almost on same pattern. The compensation regime has been laid down not only for delay in finalizing action plans but also for delay in commencing and completing the projects on the pattern of regime applicable to Ganga.

Similarly, in connected matter (OA 593/2017) relating to setting up of requisite numbers of ETP, CETP and STPs (including modular STPs wherever necessary) as per mandate of law under the Water Act and the judgment of the Hon'ble Supreme Court in Paryavaran Suraksha, supra, also compensation regime has been laid down and compliance of direction of the Hon'ble Supreme Court for rigid implementation mechanism for ensuring compliance by 31.03.2018 has been overseen, as mentioned earlier. Finally, this aspect of monitoring for setting up of all requisite ETPs, CETPs and STPs (including modular STPs wherever necessary) within the timelines and for also taking other steps for control of pollution and rejuvenation of 351 polluted river stretches was left to the CMC to be headed by the Secretary, Ministry of Jal Shakti along with the NMCG and CPCB. At the State levels, directions have been issued for constituting River Rejuvenation Committee for preparation and execution of the action plans to be overseen by the Chief Secretaries of all the States by constituting 'environment cells' directly under them. The status reports given by the CMC constituted by this Tribunal have already been quoted above.

32. As mentioned earlier, apart from larger issues of control of pollution and rejuvenation of 351 river stretches, the Tribunal separately dealt with control and rejuvenation of some rivers separately including Yamuna, Hindon, Ganga and Satluj. River Yamuna which is tributary of Ganga was earlier subject matter of consideration before the Hon'ble Supreme Court and later the monitoring was entrusted to this Tribunal. The Tribunal gave detailed directions dated 13.01.2015 and 07.12.2017. The Tribunal also constituted an independent Monitoring Committee. The said matter was finally disposed of on 27.01.2021 wherein the status of compliance under each head of action plan was duly mentioned. It was further noted that clear roadmap already stands laid out and further success depended on the matter being taken seriously by the Administrative Authorities. Accordingly, the Chief Secretaries were directed to take over the monitoring as follows:

"23. Accordingly, we direct that in terms of directions of the Hon'ble Supreme Court and earlier orders of this Tribunal, henceforth the Chief Secretary, NCT of Delhi, in coordination with other authorities (such as, Additional Chief Secretary Urban Development, DDA, IDMC, DPCC, DJB) and the Chief Secretaries of Haryana and UP

may personally monitor the progress, by evolving effective administrative mechanism to handle grim situation caused by years of neglect. Causes of failure of existing mechanism and remedial measures required be addressed in the light of reports of the Committee. This needs to be further overseen at National level by the Central Monitoring Committee, headed by Secretary Jalshakti, which also includes NMCG and CPCB, in terms of earlier orders of this Tribunal. To give effect to the orders of the Hon'ble Supreme Court, the Tribunal has already directed constitution of River Rejuvenation Committees (RRCs) in all the States/UTs by order passed in OA No. 673 of 2018 in Re: News item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted : CPCB, to be headed by the Environment Secretaries of States/UTs, to prepare and execute action plans for restoration of the polluted river stretches, under the oversight of the Chief Secretaries of the States/UTs. Such action plans are already in place. The RRCs of Delhi, Haryana and UP may accordingly monitor execution of the action plans with proper inter-departmental coordination, to remedy the polluted stretches of river Yamuna in their respective jurisdiction, subject to oversight of the Chief Secretaries on quarterly basis, who may thereafter give their quarterly reports to the Central Monitoring Committee (CMC) headed by the Secretary, Jal Shakti in terms of order dated 21.09.2020 in O.A. No. 673/2018, supra."

33. In dealing with the river Satluj, vide order dated 22.01.2021 in O.A. No. 916/2018, Sobha Singh & Ors. v. State of Punjab & Ors., the Tribunal also constituted a Monitoring Committee which oversaw preparation and execution of action plan. The Tribunal finally concluded that once the roadmap was clear the ownership must be taken over by the Chief Secretary, Punjab. The direction is as follows:-

"17. Accordingly, as already directed earlier, the ownership of the issue may now be taken over by the Chief Secretary, Punjab who may, having regard to seriousness of the issue, affecting health and environment, personally monitor progress of compliance atleast once in a month and also evolve an appropriate administrative mechanism to handle the grim situation. We may also note that the RRCs headed by Environment Secretaries in all the States/UTs have already been directed to monitor execution of action plans for the polluted river stretches on continuous basis. The RRC Punjab may also accordingly monitor execution of action plans for Sutlej and Beas rivers in continuation of 5th report of the Monitoring Committee, referred to above, subject to overall oversight of the Chief Secretary. The Chief Secretary while reviewing the status of various issues may focus on timely completion of the ongoing works. Quarterly reports be sent by the Chief Secretary to the CMC in terms of the order dated 21.09.2020 in OA 673/2018 which deals with the subject of restoration of 351 polluted river stretches, including the rivers in question."

34. Similar course was adopted for river Hindon, vide final order dated 02.02.2021 in O.A. No. 231/2014, Doaba Paryavaran Samiti v. State of U.P & Ors., as follows:-

"14. Accordingly, as already directed earlier, the ownership of the issue may now be taken over by the Chief Secretary, UP, who may, having regard to seriousness of the issue, affecting health and environment, personally monitor progress of compliance atleast once in a month and also evolve an appropriate administrative mechanism to handle the grim situation. We may also note that the RRCs headed by Environment Secretaries in all the States/UTs have already been directed to monitor execution of action plans for the polluted river stretches on continuous basis. The RRC UP may also accordingly monitor execution of action plans for Hindon, subject to overall oversight of the Chief Secretary. The Chief Secretary while reviewing the status of various issues may focus on timely completion of the ongoing works. Quarterly reports be sent by the Chief Secretary to the CMC in terms of the order dated 21.09.2020 in OA 673/2018 which deals with the subject of restoration of 351 polluted river stretches, including the rivers in question."

35. While dealing with the issue of control of pollution and rejuvenation of river Ganga, vide order dated 08.02.2021 in O.A. No. 200/2014, M.C. Mehta v. Union of India & Ors., the Tribunal issued following direction on the subject of recovery of compensation after specified date for failure to take steps within the prescribed timelines:-

"14. At the cost of repetition, it may be mentioned that inspite of the fact that Water (Prevention and Control of Pollution) Act, 1974 was enacted 47 years back, to give effect to the decision in Stockholm Conference in the year 1972, the water pollution remains rampant. Though water pollution is a serious criminal offence under the law of the land, the authorities have failed to take stringent action against the violators. In a way the major violators remain State-authorities, who are constitutionally under obligation to ensure treatment of sewage before the same is discharged into the rivers and drains connected thereto which is not fully happening. The effect of water pollution on health and food safety is well known. Water is scarce and large population remains deprived of access to drinking water but still steps to prevent pollution of sources of drinking water are inadequate. The Hon'ble Supreme Court in its judgment in Paryavaran Suraksha vs. Union of India & Ors., (2017) 5 SCC 326 discussed the problem in detail and fixed a firm deadline of 31.03.2018 by which all necessary CETPs/STPs/ETPs should be in place failing which coercive action, including prosecution of State authorities was mandated. The States continue to violate the directions of the Hon'ble Supreme Court and give their own convenient deadlines which are thereafter further relaxed at will. This can hardly be held to be conducive to the environmental rule of law. The sewage treatment is less than 50% (the sewage generation from the urban population of the country is reported to be about 70000 MLD and treatment capacity about 27000 MLD)<sup>24</sup> which is a matter of serious concern. The Tribunal has issued repeated directions. Till it is remedied, the goal of sustainable development is far cry.

15. The environmental law principles, which this Tribunal is mandated to apply under sections 20 and 15 of the NGT Act, 2010, are - 'sustainable development',

'precautionary' and 'polluter pays'. These principles, accepted in Stockhome conference, have been held to be part of right to life under article 21 of the Constitution in Vellore Citizens' Welfare Forum v. Union of India, (1996) 5 SCC 647. In Hanuman Laxman, (2019) 15 SCC 401, (paras 142-156), significance of environmental rule of law has been highlighted to achieve sustainable development goals for prosperity, health and well being. This requires filling of gap between law and enforcement. In T.N. Godavarman Thirumulpad v. Union of India, (2002) 10 SCC 606, at page 621, it was observed that the State has to "forge in its policy to maintain ecological balance and hygienic environment. Article 21 protects right to life as a fundamental right. Enjoyment of life and its attainment including the right to life with human dignity encompasses within its ambit, the protection and preservation of environment, ecological balance free from pollution of air and water, sanitation without which life cannot be enjoyed. Any contra acts or actions would cause environmental pollution. Therefore, hygienic environment is an integral facet of right to healthy life and it would be impossible to live with human dignity without a humane and healthy environment. Environmental protection, therefore, has now become a matter of grave concern for human existence. Promoting environmental protection implies maintenance of the environment as a whole comprising the man-made and the natural environment. Therefore, there is constitutional imperative on the Central Government, State Governments and bodies like municipalities, not only to ensure and safeguard proper environment but also an imperative duty to take adequate measures to promote, protect and improve the man-made environment and natural environment."

As per report of the CPCB dated 30.09.2020 quoted in the order of this Tribunal dated 05.02.2021 in OA 95/2018, Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors.

XXX .....XXX .....XXX

19. In view of above, control of pollution of river Ganga needs to be taken seriously at all levels in Uttarakhand, UP, Bihar, Jharkhand and West Bengal. In absence thereof, the desired result of rejuvenation of river Ganga which is dream of every Indian will remain unfulfilled. As observed earlier, the Hon'ble Supreme Court has monitored the subject for 34 years (1985-2014) and finally transferred the matter to this Tribunal in the year 2014. Though certain steps have been taken, the tables and compliance summary filed by NMCG quoted above show that with respect to various projects, the matter is still at the tender/DPRs stage and progress in completing the ongoing projects in a timely manner remains a challenge, inspite of availability of funds, supported by the Government of India initiatives.

20. XXX .....XXX.....XXX.....

21. While removing already raised constructions from the floodplain zones may be dealt with separately, there is need to atleast identify and take protective measures. All remedial measures have already been outlined in the earlier orders of this Tribunal and need not be repeated. As earlier

observed, the desirable situation is that not a drop of pollution is discharged into the river Ganga, but in any case, every next report must show decreasing trend of pollution load which needs to be quantified by the NMCG in a tabular form giving the extent of pollution load on a particular date and reduction achieved in terms of gap after steps for treatment. Stopping pollution is as much necessary as stopping any other heinous crimes of homicides and assaults as pollution is acknowledged cause of deaths and diseases and deprivation of access to drinking water.

22. XXX .....XXX.....XXX.....

23. With regard to the recovery of laid down compensation, it is made clear that the compensation must be faithfully paid by the concerned States by way of deposit to the CPCB which can thereafter be spent for restoration in the same State, as per action plan prepared for the purpose by the State and approved by the NMCG, after due evaluation on the pattern of orders earlier passed by this Tribunal<sup>25</sup>. NMCG may monitor compliance. Control of pollution of river Ganga will be incomplete without controlling pollution of all the tributaries and drains connected thereto.

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27. Further progress reports may be furnished by the concerned five States to the NMCG on or before 30.06.2021 Vide order dated 22.01.2021 in OA 916/2018, Sobha Singh v. State of Punjab & Ors.

showing status as on 15.6.2021. NMCG may give its consolidated progress report with its recommendations to this Tribunal by 15.07.2021 by e-mail at judicial- ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF, with liberty to the States to file their response to such report. The NMCG report may inter alia specify reduction in pollution load, if any achieved during the interregnum, and if not, suggest further measures to achieve such reduction."

36. The Tribunal, vide order dated 05.02.2021 in O.A. No. 95/2018, Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors. dealt with pollution of River Daman Ganga in Gujrat on account of inadequately functional CETP at Vapi. While considering the said issue, the Tribunal obtained an audit-report on functioning of monitoring mechanism by State PCBs and found that the State PCBs were not as effective as required under the law. They lacked manpower as well as the equipment.

Till revamping of the State PCBs takes place, it is difficult to expect effective monitoring from them to comply with the direction of the Hon'ble Supreme Court in Paryavaran Suraksha, supra for effective measures against polluters. The Tribunal also directed considering setting up of environment data grids. Relevant observations from the said order are:-

"10. We have given due consideration to the report, which shows startling state of affairs tested on the touchstone of 'Sustainable Development' principle, accepted in Stockholm conference and which has been held to be part of right to life under article 21 of the Constitution in Vellore Citizens' Welfare Forum v. Union of India, (1996) 5

SCC 647.

11. Some of the significant observations include failure to fill up key positions, to acquire necessary equipment, to arrange continuous training, to prepare State Environment policy, to specify industries-siting criteria, making inventory of grossly polluting industries, not specifying standards of inlet to the CETPs and hazardous waste, inaction against identified polluters, taking steps for bridging gaps in law and enforcement with regard to liquid and solid waste (of different kinds), including non-functional and noncompliant ETSPs, STPs and CETPs, inadequate monitoring of environmental compliance in Class II towns and coastal areas, failure to compile and analyse data and filing annual reports, inefficiency shown by inaction against serious violations of environmental norms. Needless to say that such sorry state of affairs is reflection of poor governance, making environmental rule of law far from reality.

12. The environmental law principles, which this Tribunal is mandated to apply under sections 20 and 15 of the NGT Act, 2010, are - 'sustainable development', 'precautionary' and 'polluter pays'. In Hanuman Laxman, (2019) 15 SCC 401, (paras 142-156), significance of environmental rule of law has been highlighted to achieve sustainable development goals for prosperity, health and well being. This requires filling of gap between law and enforcement. In T.N. Godavarman Thirumulpad v. Union of India, (2002) 10 SCC 606, at page 621, it was observed that the State has to "forge in its policy to maintain ecological balance and hygienic environment. Article 21 protects right to life as a fundamental right. Enjoyment of life and its attainment including the right to life with human dignity encompasses within its ambit, the protection and preservation of environment, ecological balance free from pollution of air and water, sanitation without which life cannot be enjoyed. Any contra acts or actions would cause environmental pollution. Therefore, hygienic environment is an integral facet of right to healthy life and it would be impossible to live with human dignity without a humane and healthy environment. Environmental protection, therefore, has now become a matter of grave concern for human existence. Promoting environmental protection implies maintenance of the environment as a whole comprising the man-made and the natural environment. Therefore, there is constitutional imperative on the Central Government, State Governments and bodies like municipalities, not only to ensure and safeguard proper environment but also an imperative duty to take adequate measures to promote, protect and improve the man-made environment and natural environment."

13. In A.P. Pollution Control Board v. Prof. M.V. Nayudu, (1999) 2 SCC 718, at page 732, it was observed "...Good governance is an accepted principle of international and domestic laws. ....It includes the need for the State to take the necessary "legislative, administrative and other actions" to implement the duty of prevention of environmental harm...". In Techi Taga Tara, supra, the Hon'ble Supreme Court referred to several Committees on need for revamping the regulatory bodies by appointing persons of outstanding ability and high reputation to the State PCBs and equipping them with laboratories and other equipment for performing statutory functions. Apart from the Tribunal

being approached under sections 14 and 15 by aggrieved parties, pointing out degradation of environment and inaction of the statutory regulators, the Hon'ble Supreme Court has required this Tribunal to monitor compliance of such statutory obligations for protecting environment. This is not possible unless the statutory regulators are effective. Significant issues so referred by the Hon'ble Supreme Court include a) liquid waste management, (2017) 5 SCC 326, Paryavaran Suraksha vs. Union of India & Ors. wherein it was directed that requisite STPs, ETPs, CETPs must be set up by 31.3.2018, failing which coercive measures may be taken against concerned authorities, to enforce statutory mandate of the Water (Prevention and Control of Pollution) Act enacted in 1974, prohibiting any water pollution, making it a criminal offence. b) compliance of solid waste management rules. Vide order dated 2.9.2014 in WP 888/1996, Almitra H. Patel Vs. Union of India & Ors. on the file of the Supreme Court, the issue has been referred to this Tribunal for monitoring compliance of Solid Waste Management Rules. c) In (2015) 12 SCC 764, MC Mehta v. UOI, issue of rejuvenation of Ganga stands referred to this Tribunal. d) Vide order dated 24.7.2017 in WP 725/1994, 'And quite flows Yamuna', rejuvenation of Yamuna stands referred to this Tribunal. It is not necessary to refer to several other orders. Finding that statutory regulators were not effective and serious damage was continuing, the Tribunal has appointed independent monitoring Committees<sup>26</sup> on several issues.

In substance, monitoring of the enacted environmental laws including the Water Act, Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986 and Rules framed thereunder needs to be reviewed and made effective in the interest of protection of environment and public health. This is not possible unless the regulatory bodies are duly manned and equipped and function efficiently. The report shows that it is not happening and there are huge gaps. With such gaps, it is only a dream to expect clean environment - fresh water or fresh air. Irreversible degradation of environment is bound to result in avoidable deaths and diseases and loss of scarce and good quality water, air and soil and biodiversity.

XXX .....XXX.....XXX.....

To monitor compliances with regard to:

- (i) River Ghaggar in OA No. 138/2016 (TNHRC), Stench Grips Mansa's Sacred Ghaggar River
- (ii) River Sutlej in OA 916/2018, Sobha Singh v. State of Punjab & Ors.
- (iii) River Yamuna in OA 06/2012, Manoj Mishra v. UOI & Ors.
- (iv) River Musi in OA 426/2018, Mohammed Nayeem Pasha & Anr. v. State of Telangana & Ors.
- (v) River Ganga in OA 200/2014, M.C. Mehta v. Union of India & Ors.
- (vi) River Jojari in OA 329/2015, Gram Panchayat Araba v. State of Rajasthan & Ors.

(vii) CETP in Talaja District in OA 125/2018, Arvind Pundalik Mhatre v. Ministry of Environment, Forest and Climate Change & Ors.

(viii) District Environment Plan in OA 360/2018 Shree Nath Sharma v. Union of India & Ors.

(ix) 'Rat Hole' coal mining in OA 110(THC)/2012, Threat to Life Arising Out of Coal Mining in South Garo Hills District v. State of Meghalaya & Ors.

(x) Solid waste management rules in OA 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues.

17. As earlier observed, damage to environment is directly linked to the public health and neglecting compliance of environmental norms results in deaths and injuries. Violation of environmental norms needs to be taken as seriously as preventing crimes of homicides and assaults. It is more serious as the victims may be wide spread and unidentified. The consequences may even affect future generations. The compliance status is directly linked to effectiveness of monitoring which requires that the key office bearers of statutory regulators and oversight bodies are qualified, competent and reputed and exclusively dedicated to such work, instead of devoting part time, while simultaneously holding other positions. In this regard, the Tribunal has made observations vide order dated 02.02.2021 in OA 231/2014, Doaba Paryavarán Samiti v. State of U.P & Ors, finding that the Member Secretary of the PCB in UP was only devoting part- time, while holding several other positions. Adequate and well- equipped laboratories and effective machinery for implementation of "Polluter Pays" principle for assessment and collection of compensation is another important aspect of environmental governance.

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

20. Further, for improving monitoring and planning, authentic data needs to be compiled at all levels. Initiative will have to be taken consistent with Digital India initiatives by the MoEF/MoJS/MoUD/CPCB and based on such policy decisions, the Environment departments of all States/UTs will have to compile data in their respective jurisdiction, preferably Districtwise. On that basis District Environment Data Grid (DEDG), State Environment Data Grid (SEDG) and National Environment Data Grid (NEDG) can be set up and continuously updated. The Grid can be connected to online monitoring systems. Comprehensive Environment Pollution Index (CEPI) is being prepared limited to the Industrial Area but the Grid can cover larger areas and aspects and can be source of research and planning. It can also facilitate monitoring of and be in sync with other government initiatives such as National Mission for Clean Ganga, Swachh Bharat and Jalshakti Abhiyan etc. Based on such data, it may also be easier to study 'carrying capacity' of different areas to plan siting policy for various activities.

22. xxx .....xxx.....xxx.....

(i) to (vii). xxx .....xxx.....xxx

(viii) Consistent with Digital India initiatives, MoEF&CC/MoJS/CPCB may consider setting up and periodically updating National Environment Data Grid (NEDG) linked to the State Environment Data Grids (SEDGs) DEDGs and further linked to available portals like online air/water quality, Sameer and other monitoring stations to facilitate analysis, research and planning on the subject. It may be further interlinked to initiatives like NMCG/Swachh Bharat/Jal Jeevan Mission."

## Conclusion

37. In view of the above, we are of opinion that the monitoring by the Tribunal cannot be unending and must now be taken over by the concerned authorities. The roadmap stands laid out. Action plans have been prepared for remediation of all the 351 identified polluted river stretches. Gaps have been identified for ETPs/CETPs/STPs (including modular STPs wherever necessary). Timelines are clear.

Sources of funding are clear in the Supreme Court order. HAM model is also available as per Govt. of India Policy mentioned in the report of the CMC. Alternative conventional methods of bio/phytoremediation are also available as mentioned in the report of the CMC. Existing treatment capacity is not fully utilised. New projects, already ongoing or those yet to commence need to be expedited. Consequences for delay in terms of compensation and administrative measures have been clearly mentioned. The river rejuvenation committees in the States/UTs, as per directions of the Chief Secretaries may perform their obligations accordingly which may be monitored by the Central Monitoring Committee, headed by Secretary, Jal Shakti, as directed earlier.

38. We find that the monitoring mechanism introduced as per directions of this Tribunal in the form of RRCs at the States level and CMC at the Central level is to an extent identical to the monitoring mechanism laid down under the River Ganga Rejuvenation, Protection and Management Authorities Notification 2016. However, mechanism under the 2016 notification being statutory and exhaustive, it will be better that the same is adopted for all the river stretches as issues involved are common. The Empowered Task Force on river Ganga headed by Union Minister of Jal Shakti may exercise all powers and discharge all functions in relation to all the polluted river stretches in the same manner as the functions entrusted to it under the River Ganga 2016 order for control of pollution and rejuvenation of polluted river stretches. This is necessary so that the Nation/Central Monitoring Mechanism can be effective, in view of continuing failure of statutory mechanism under the Water Act for preventing pollution of water, resulting in pollution of almost all the rivers and water bodies in the country, posing serious threat to availability of potable water for drinking purposes as well as for safety of food chain. Hardly any accountability has been fixed for such serious failures. It will be open to the MoJS to issue any further appropriate statutory order to give effect to the above directions under the EP Act. The National/Central Mechanism may enforce the earlier directions of this Tribunal for collecting compensation for the failure to commence or complete the projects for setting up of sewage treatment equipments or taking steps for interim remediation measures. This is necessary for accountability for the failure to obey the law. The compensation so assessed may be deposited in a separate account to be used for rejuvenation of the polluted river stretches in the same manner as directed in the case of Ganga quoted above. As directed vide order dated 19.12.2018 in OA 673/2018, responsibility to pay compensation on behalf

of the States/UTs will be of the Chief Secretaries. As per scheme of the NGT Act, every order of NGT is executable as a decree of Civil Court<sup>27</sup>.

Section 25 of the NGT Act, 2010 read with Section 51 of the CPC providing for mode of execution which include civil imprisonment.

Further, failure to comply order of the NGT is an offence punishable with imprisonment upto three years or fine upto Rs. 10 crores with additional fine for continuing offence after conviction.<sup>28</sup> If the offence is by a Government Department, Head of the Department is deemed to be guilty.<sup>29</sup> Cognizance of the offence can be taken by a Court on a complaint of Central Government or any other person who has given notice to the Central Government or its authorized representative.

The complaint can be filed before a Court of Magistrate of first class.

It is, thus, necessary in view of continuing violation of NGT order, requiring payment of compensation to reiterate the direction of responsibility for payment of compensation, to be of the Chief Secretaries and in default, their liability to be proceeded against for coercive measures for execution or by way of prosecution as per NGT Act, 2010.

39. Our directions are summed up as follows:

(i) In the light of observations in Para 38 above, MoJS may devise an appropriate mechanism for more effective monitoring of steps for control of pollution and rejuvenation of all polluted river stretches in the country. The said mechanism may be called "National River Rejuvenation Mechanism" (NRRM) or given any other suitable name. NRRM may also consider the observations with regard to setting up of National/State/District Environment Data Grid at appropriate levels as an effective monitoring strategy.

(ii) Chief Secretaries of all States/UTs and PCBs/PCCs must work in mission mode for strict compliance of timelines for Section 26 Section 28 commencing new projects, completing ongoing projects and adopting interim phyto/bio-remediation measures, failing which compensation in terms of earlier orders be deposited with the MoJS, to be utilised in the respective States as per action plan to be approved by the NRRM. Other steps in terms of action plans for abatement of pollution and rejuvenation of rivers, including preventing discharge or dumping of liquid and solid waste, maintaining eflow, protecting floodplains, using treated sewage for secondary purposes, developing bio-

diversity parks, protecting water bodies, regulating ground water extraction, water conservation, maintaining water quality etc. be taken effectively. The process of rejuvenation of rivers need not be confined to only 351 stretches but may be applicable to all small, medium and big polluted rivers, including those dried up.

(iii) The Chief Secretaries of all States/UTs may personally monitor progress at least once every month and the NRRM every quarter.

(iv) Directions of this Tribunal in earlier order, the last being dated 21.9.2020 are reiterated.

(v) The NRRM and the Chief Secretaries of all the States/UTs may take into account the observations in Paras 24 to 38 above.

(vi) In view of discussion in para 38 above, it is made clear that accountability for failure to comply with the direction for payment of compensation will be of the concerned Chief Secretaries under Sections 25, 26, 28 and 30 of the NGT Act, 2010. The MoJS or any other aggrieved person will be free to take remedies by way of initiating prosecution or execution.

The applications are disposed of in above terms.

A copy of this order be forwarded to Secretary, MoJS, MoEF&CC, GoI, CPCB, Chief Secretaries and State PCBs/PCCs of all States/UTs by e-mail for compliance.

Adarsh Kumar Goel, CP S.K. Singh, JM Dr. Nagin Nanda, EM February 22, 2021 Original Application No. 593/2017 (W.P.(Civil) No. 375/2012) & Original Application No. 673/2018 SN

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**BEFORE THE NATIONAL GREEN  
TRIBUNAL SOUTH ZONE  
AT CHENNAI**

**O.A NO: 17 OF 2026**

V.M.PRAKASH,  
S/o Mugundan,  
Social Activist,  
No.1/19, G.N.T Road,Athipedu  
Panjayat,Azhinjivakkam,  
Chennai - 600067. ...APPLICANT

-VS-

01.THE PRINCIPAL  
SECRETARY,ENVIRONMENT &  
CLIMATE CHANGE DEPARTMENT,  
Tamilnadu Government and 7 others  
... 1<sup>st</sup> to 8<sup>th</sup> RESPONDENTS

**ADDITIONAL TYPED  
SET OF DOCUMENTS**

M/s. S.ROOBANKUMAR Ms.2194/2019  
S.VIDYA. Ms.3654/2018

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