BEFORE THE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH, KOLKATA

IN THE MATTER OF:

O.A No. 139 OF 2017

KANKANA DAS

-VERSUS-

UNION OF INDIA & ORS.

COMPLIANCE REPORT FILED BY RESPONDENT NOS. 3 and 6 AS PER ORDER DATED 29.09.2021 PASSED BY THIS HON'BLE TRIBUNAL.

1. That in pursuance to the order dated 29.09.2021 of this Hon'ble Tribunal in the instant original application, the compliance report is being filed on behalf of respondent no. 3 herein, i.e. Chief Secretary, State of Jharkhand and respondent no. 6 herein, i.e. Urban Development and Housing Department, Government of Jharkhand.

2. That in compliance of Solid Waste Management Rules, 2016, particularly Rule 11 the respondent no. 6 herein, i.e. Urban Development & Housing Department (UDHD), Government of Jharkhand has taken several actions for its implementation and regarding this affidavits have been filed before this Hon'ble Tribunal on 02.07.2018, 20.07.2021 and 17.08.2021.

22 JAN 2022

VIKASH KUMAR SINHA NOTARY PUBLIC Reg No 1191/2002 Ranchi (Jharkhand) India

3. That, the Hon'ble Tribunal vide its order dated 29.09.2021 has directed as follows:-

"...We, therefore, direct the Chief Secretary, State of Jharkhand to ensure that all STPs/ETPs are positively established by 1st June, 2022 in all 50 Urban Local Bodies (ULBs). An affidavit of compliance to that effect shall be filed within one week thereof. ..."

to which the said respondents most humbly submits that as per the direction given by the Principal Bench of this Hon'ble Tribunal in the O.A No. 673/2018 (Re: News item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted: CPCB), is disposed of on 22.01.2021 court order(which is annexed hereto as Annexure A3) and the Chairman of Jal Shakti, GoI is monitoring the case where UDHD, GOJ sends monthly progress report to State PCB and State PCB shares a consolidated report to CPCB (which is annexed hereto as Annexure A2). The monthly progress report submitted for the month of November, 2021 shows the present status of the STPs in the State of Jharkhand and the same is annexed hereto, and marked as "Annexure A1".

22 JAN 2022

4. That, the Hon'ble Tribunal vide its order dated 29.09.2021 has also directed as follows:-

"... We also direct the State Government to file an affidavit stating as to how solid waste is being disposed as of today during the interim period within two weeks. ..."

VIKASH KUMAR SINHA ★ NOTARY PUBLIC Reg No [illegible]/2002 ★ Ranchi (Jharkhand) India

to which the said respondents most humbly submits that the process of the disposal of the solid waste in all the 50 ULBs, as of today is as follows:-

Brief description of managing Solid Waste in the State of Jharkhand presently

State of Jharkhand has taken up solid waste management as per the guideline given in **SWM Rules 2016** and funded under the Swachh Bharat Mission (SBM). In the first phase 42 ULBs have been taken up for establishing scientific solid waste management.

As of now total 29 projects Detail Project Report (DPR)covering 35 ULBs have been prepared and out of that total 25 projects covering 31 ULBs have been approved under SBM with Central assistance and one project covering two ULBs (belongs to Ganga town) has approved by State fund. Fund has been allocated for these 26 projects.

DPR for remaining 15 ULBs are either under preparation or under the process of selection of consultant for the preparation of DPR.

All the DPR prepared based integrated waste management process to be executed on Public Private Partnership (PPP) mode. Technology has been adopted based on Waste to compost. However, in the tender process technology is kept open so that bidder may give better solution.

Till date total 23 projects have been awarded and out of that one (1) is fully functional, 4 projects are under the final stage of completion, 11 projects work is under progress. 6 projects are not yet started due to public protest on land & 1 project to be started after approval from GoI .

State of Jharkhand has already prepared State Sanitation plan, user charges by laws and ban on plastic carry bags. Collection and transportation system proposed for ULBs basically on the concept of bin less city as defined in Article 2.3.8.1 of CPHEEO manual.

22 JAN 2022

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Reg No 11-1/2002
Ranchi (Jharkhand) India

Primary / Door to door Collection of waste

- Door-to-door (D2D) collection in all wards of city with community participation on cost recovery basis and minimize the multiple handling of waste, improvement in the productivity of Labour and equipment.

- D2D collection is done either by appointed concessionaire or through ULBs safaimitras by using different capacity of covered Light Commercial Vehicles (LCV), E-rickshaw, cycle rickshaw etc.

- To minimize littering on road side litter bins and big bins in commercial area are installed in the cities.
- Street sweeping is being done on regular basis as per CPHEEO norms to make the cities clean.

- Presently out of 932 wards 923 wards have been covered with door to door collection of waste. However, 100% door-to-door collection will be achieved through people's participation. IEC activities are being done on regular basis to enhance more stakeholders participation.

Secondary Collection of waste

- Street sweepings including solid waste and silt from the drains to be collected by containerized handcarts and shall be transported separately through existing tractor.

- Separate collection system for C&D waste based on polluter pay principle.

- Existing dustbins waste will be lifted by tippers/ dumper placer etc.

- Phasing out of containerized secondary storage facilities in time bound manner to make city bin free.

22 JAN 2022

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Street and commercial cleaning

- Road sweeping is done either through mechanical sweeping or manual sweeping.

Segregation and storage of waste

- Promotion of the practice of segregation and storage of waste at source in three separate streams- First stream of biodegradable waste and another for recyclable waste and third stream shall be for domestic hazardous waste. First two streams to be stored in bins for daily lifting and third one will store as per guidelines of pollution control board and shall be deposited to PCB authorize center only.

- Large hotels/ restaurants/ commercial complexes, residential societies, vegetable markets to follow source segregation.

- Containerized and segregated storage at source by all waste generators.

- Immediate ban and fine provision upon open storage sites and road side waste dumping.

- Twin litter bin system to prevent littering on road and drains.

- Awareness creation for segregation, storage at source.

- Further segregation at the processing side is also being done where plant is established.

Transportation of waste

- Daily transportation of segregated waste to the processing plant/WPLFS

22 JAN 2022

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- Separate transportation of Domestic waste, commercial and institutional waste, C&D waste, drain and sweeping silt.

- Dedicated fleet for particular waste stream.

Processing and Disposal of waste

- Establishment of Integrated and Decentralized MRF Centre.

- Centralized and Decentralized waste processing unit for conversion of wet waste to compost (Windrows, Bio-methanation, pit composting garden composting, mechanical composting & waste to energy etc.).

- Dry wastes are disposed of through recyclers, sending high caloric valued waste to cement plants, production of RDF, etc.

- Disposal of residual inert/Processing rejects into eco-friendly designed scientific sanitary landfill.

- Monitoring system to increase the productivity & complaint resolution system.

Above approaches have been adopted after careful assessment of the following points:

- Generation of domestic and non-domestic waste in each ward.

- Available road width and transportation arteries.

- Optimization of transportation vehicle.

- Availability of land parcel available for SWM.

- Quantification and characterization of waste generation.

22 JAN 2022

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Reg No 113/2002
Ranchi (Jharkhand) India

- Geographical needs of city.
- Gaps in existing system.
- Views of officials, city managers and community leaders.
- Involving of rag pickers.
- Mechanized and digital monitoring system.

5. That it is humbly submitted to the Hon'ble Tribunal to consider and accept this compliance report filed on behalf of respondent nos. 3 and 6.

22 JAN 2022

VIKASH KUMAR SINHA NOTARY PUBLIC Regd. No. 11/1/2002 Ranchi (Jharkhand) India

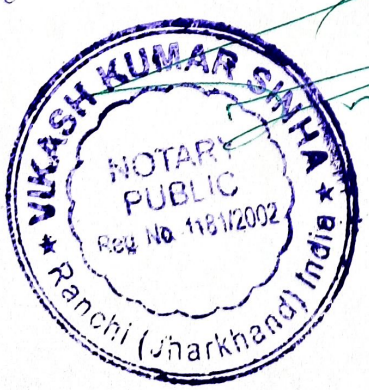
VERIFICATION

I, Manohar Marandi, son of late Manik Marandi, aged about 55 years, occupation - Deputy Director, residing at Morabadi, Ranchi, Jharkhand, Pincode - 834008 working for the gain of the office of Urban Development & Housing Dept. Jharkhand and that I am dealing with the connected records of the case in possession of the office of Urban Development & Housing Dept. Jharkhand.

Date:

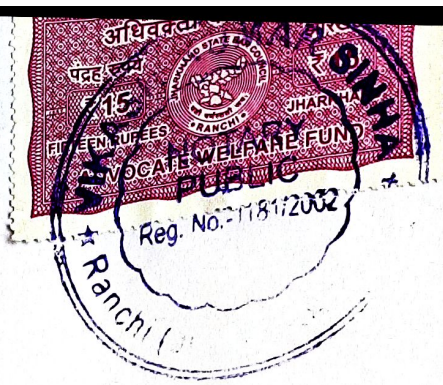
Place:

22 JAN 2022



Manohar Marandi

Signature



AFFIDAVIT

I, Manohar Marandi, son of Late Manik Marandi aged about 55 years, occupation - Deputy Director, residing at Morabadi Ranchi Jharkhand, Jharkhand, Pincode - 834008 do hereby solemnly affirm and state as follows:-

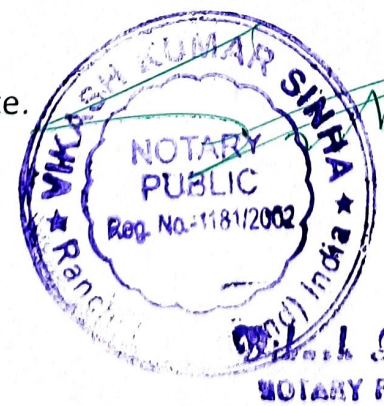
1. That I am the Deputy Director, VDHD, Govt. of Jharkhand and that I am dealing with the connected records of the case in possession of the office of respondent nos. 3 and 6 of the instant Original Application, and I am well acquainted with the facts and circumstances of the case and as such duly authorized by respondent nos. 3 and 6 to affirm this instant affidavit.
2. That the statements contained in Paragraph Nos. 1 to 2 is true to my knowledge, and those contained in paragraph Nos. 3 to 4 are derived from the official relevant records of the case which I verily believe to be true and rest of the paragraphs are my respectful submissions before this Hon'ble Tribunal.

Manohar Marandi

DEPONENT

Prepared in my Office

Advocate.



22/1/22

Signature Attested or Identification of Lawyer

Bimal Kumar Sinha
NOTARY PUBLIC, RANCHI

Notarised Under Income Act-1969 & Notaries Rules 1956 by Govt. of Jharkhand, Ranchi (India)

916 22 JAN 2022

T.P.No.---- Date.----

Letter No. SMCG/UD&HD/NGT/RRC/2019/12 (Part-1).....268.....

Government of Jharkhand
Urban Development and Housing Department
State Urban Development Agency

From,

Amit Kumar, IAS
Director.

To,

The Member Secretary,
JSPCB, T.A. Division Building (Ground Floor),
HEC, Dhurwa, Ranchi-834004.

Date:...10/12/2021.....

Sub: **Regarding submission of Monthly Progress report for the month of November 2021 of ULBs falling under identified Polluted River Stretches of Jharkhand.**

Ref: **(i) Hon'ble NGT Case O.A. No. 673/2018 (M.A. No. 1777/2018) in the matter of** 'News item published in the Hindu authored by Shri Jacob Koshy titled "More river stretches are now critically polluted: CPCB' with Dr. Tudi Indrasena Reddy & Ors. Versus Union of India & Ors, order dated **06.12.2019,**
(ii) NMCG MoJS O.M. Dated 15.11.2021.
(iii) 10th MoM of Central Monitoring Committee held on 09.07.2021,
(iv) JSPCB office e-mail dated 25.10.2020

Sir,

With reference to the above, the monthly progress report for the month of November 2021, related to Wastewater and Solid Waste of the Urban Local Bodies (ULBs) falling under the identified polluted river stretches of Jharkhand and other details in the format as shared by JSPCB is hereby enclosed for your kind necessary action.

Enclosure: A/A

Yours Faithfully,

10.12.21
(Amit Kumar)
Director

Memo No. SMCG/UD&HD/NGT/RRC/2019/12 (Part-1).....268..... Ranchi/Date:...10/12/2021

Copy to- Additional Chief Secretary, Forest, Environment & Climate Change Dept., Govt. of Jharkhand | PPS to Secretary, UD&HD Govt. of Jharkhand for kind information.

10.12.21
Director

457

National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

For the State of Jharkhand (Month of November' 2021)

Overall status of the State:

I. Total Population: **Urban Population 58,42,555 (as per 2011 Census)**

II. Estimated Sewage Generation (MLD): **452 MLD**

III. **Details of Sewage Treatment Plant:**

- Existing no. of STPs and Treatment Capacity (in MLD):

S.No.	Location	No. of STP	Capacity in MLD	Total A
1	Ranchi	10	10 MLD	22 MLD
2	Sahibganj	2	12 MLD	
3	*Jamshedpur	1	50 MLD	81.55 MLD
4	*Bokaro	1	31.5.MLD	
5	*Dhanbad	1	0.05 MLD (50 KLD)	
Total B		**15**	103.55 MLD	**103.55 MLD**

- Capacity Utilization of existing STPs: **77%** (Ranchi: 100%, Sahibganj: 74%, *Jamshedpur: 51%, *Bokaro: 80%, *Dhanbad: 80%)
- MLD of sewage being treated through Alternate technology: **10 MLD**
- Gap in Treatment Capacity in MLD: **348.45 MLD**
- No. of Operational STPs: **15**
- No. of Complying STPs: **15**
- No. of Non-complying STPs: **0**

* *As per MPR Sept'2021, JSPCB in the matter of Hon'ble NGT OA 673/2018.*

1455

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Ranchi Municipal Corporation	10 MLD	100%	Yes	Yes
2	Sahibganj Nagar Parishad	12 MLD	74%	Yes	Yes

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1	Adityapur MC	36 MLD	74%	-	March 2023
2	Rajmahal NP	3.5 MLD	96%	• Trial run started with sewerage from I&D and house connection. • 1320 Nos. of House Service connection have been completed till date.	December 2021
3	Ranchi MC	37 MLD	50%	-	February 2023
4	Ranchi Smart City Mission	16 MLD	85%	-	December 2021
5	Phusro	15 MLD	-	-	Tender Process ongoing; i) NIT published on website on 19.03.21, ii) Total 10 Bids have been received and are under evaluation.

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1	Dhanbad	144 MLD	DPR prepared and sent to NMCG for approval under Namami Gange Scheme. At present DPR sent by NMCG to IIT Roorkee.	

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
2	Ramgarh	40 MLD	Draft DPR of I & D Scheme sent to NMCG for approval under Namami Gange Scheme by 15.08.2020.	
3	Mango	43 MLD	DPR under preparation. DPR will be finalized after finalization of funding agency.	

IV. **Details of Industrial Pollution: NA**

- No. of industries in the State: **NA**
- No. of water polluting industries in the State: **NA**
- Quantity of effluent generated from the industries in MLD: **NA**
- Quantity of Hazardous Sludge generated from the Industries in TPD: **NA**
- Number of industrial units having ETPs: **NA**
- Number of industrial units connected to CETP: **NA**
- Number and total capacity of ETPs (details of existing/ under construction / proposed)
- Compliance status of the ETPs: **NA**
- Number and total capacity of CETPs (details of existing/ under construction / proposed): **NA**
- Status of compliance and operation of the CETPs: **NA**

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
NA				

V. **Solid Waste Management:**

- Total number of Urban Local Bodies- **50** and their Population-58,42,555 **(as per Census 2011)**
- Current Municipal Solid Waste Generation- **2228 MTPD**
- Number, Installed Capacity and utilization of Existing MSW facilities;

S. No.	Type of processing	No. of facility/ULB	Installed Capacity	Utilization Capacity	Gap (%)
1	Waste to Energy (Tonnage-Power Output)	Decentralized-01 ULB.	0.5 MTPD	100%	Nil
2	Compost Plants	Windrow Vermi decentralized pit composting-42 ULBs.	130 MTPD 670 MTPD	100%	Nil
3	Bio-methanation	Setup-05 ULBs. Operational-01 ULB. Under Trial- 02 ULBs. Under Installation/ Planned-02 ULBs.	334.98 MTPD 13 MTPD 12.5 MTPD 309.48 MTPD	100%	Nil
4	MRF	42 ULBs.	589 MTPD	100%	Nil

- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%): **NA**
- No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction): **2 nos. - Proposed at Ranchi (To be re-tendered) & Dhanbad (Under Tendering Process).**
- Total no. of wards- **932**, no. of wards having door to door collection service- **883**, no. of wards practicing segregation at source- **798**

- Details of MSW treatment facilities;

Existing MSW processing facilities in MTPD

Number	Capacity	Technology
1	50	Bio methanation & Windrow

Under construction MSW processing facilities in MTPD

Number	Capacity	Technology
10	172.5	Windrow & Bio methanation

Proposed MSW processing facilities in MTPD

Number	Capacity	Technology
25	1000.35	Windrow & Bio methanation

- No. and area (in acres) of uncontrolled garbage dumpsites-**41** and Sanitary Landfills is under construction-**02**.
- No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers. - **Nil**
- No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers: **47** no of drains in **8 ULBs** identified in O.A.673/2018. **(Annexure 3)**

Status of ULB wise Management of Solid Waste

ULB	Total MSW generation in MTPD	Total MSW being processed in MTPD	Existing MSW facilities	Utilization Capacity of the existing MSW facilities	Total Proposed MSW Facilities & Completion Timeline
42	2228	1181	1	50 TPD	36 Nos, March 2024

VI. **Bio-medical Waste Management: (Domestic)-N.A.**

VII. **Hazardous Waste Management: (Domestic) -N.A.**

VIII. **Plastic Waste Management:**

- Total Plastic Waste generation: **43332 TPA**
- Treatment/ Measures adopted for reduction or management of plastic waste: **violations were registered, plastic carry bags were seized from traders and fine has been imposed on them; In Chas & Jamshedpur Road construction has been done by using plastic waste and reused by M/s ACC Limited Chaibasa Cement Works (registered with JSPCB) having facility of Co-processing plastic wastes. The State**

1459

Govt. has decided to declare the entire area of the State of Jharkhand as the "Plastic Carry Bags Free Area". (Annexure-4)

IX. Details of Alternate Treatment Technology being adopted by the State/UT: **Approximately 120 MLD.**

Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment: **Approximately 120 MLD.**

X. Details of Nodal Officer appointed by Chief Secretary in the State/UT: **NA**

XI. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT: **NA**

XII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted rive: **NA**

XIII. Ground water regulation: **NA**

XIV. Good irrigation practices being adopted by the State: **NA**

XV. Rain Water Harvesting: Policy made by the department of UD&HD Jharkhand has been attached with the report as **Annexure1**.

XVI. Demarcation of Floodplain and removal of illegal encroachments: **NA**

XVII. Maintaining minimum e-flow of river: **NA**

XVIII. Plantation activities along the rivers: **NA**

XIX. Development of biodiversity park: **NA**

XX. Reuse of Treated Water: Policy made by the department has been attached with the report as **Annexure 2**.

XXI. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards: **NA**

XXII. Status of Preparation of Action Plan by the 13 Coastal States: **NA**

XXIII. Regulation of Mining Activities in the State/UT: **NA**

XXIV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring: **NA**

XXV. Status of Grievances redressal portal in the on-going NGT OA No. 673 of 2018: **5 (five)-grievances have been disposed off and 1 (one)-grievance is under review.**

Government of Jharkhand

Urban Development & Housing Department

Notification

File no. -06/TC PO/Vividh-05/2016/ न०वि०...644 Ranchi, dated -...23/01/17

JHARKHAND RAIN WATER HARVESTING REGULATION, 2017.

Increasing urbanization has resulted in greater pressure on the infrastructure needs of urban areas. The supply of adequate quantity of potable water on one hand and managing the flooding of streets during monsoon on the other, has become Herculean tasks for the ULBs. Urban areas, including major cities, are becoming increasingly dependent on ground water as Surface Water supply is inadequate and unable to cater to the needs of the entire urban population. Freshwater sources are being heavily exploited to meet the demand of the urban population. Considering this issue seriously, Government have decided to take effective measures for collection of rain water from roof tops, paved / unpaved surfaces etc. and to use it either for recharging ground water or storing it in storage tanks. For this, it has been decided that, no building permission be granted unless provision is made for Rain Water Harvesting System. Rain water harvesting is the activity of direct collection of rain water. The rain water collected can be stored for direct use or can be recharged into the ground water. Water harvested can be used for domestic use, livestock, plant production or flood control.

Accordingly, in exercise of powers conferred by Section 592 of the Jharkhand Municipal Act, 2011, the Governor of Jharkhand hereby makes the following regulation:-

1. Short Title, Extent and Jurisdiction, Applicability of Regulations

1.1 **Title**-This regulation shall be called as ***Jharkhand Rain Water HarvestingRegulation,2017.***

1.2 **Extent and Jurisdiction:** It shall apply to all public, private, government institutions/buildings in the whole state of Jharkhand.

1.3 **Date of coming into force:** This regulation shall come into force from the date of publication of notification in Official Gazette.

1.4 **Applicability of Regulations:** Jharkhand Rain Water Harvesting Regulation, 2017shall be applicable for installation of Rain Water Harvesting Structures in allbuilding falling within the jurisdiction of-

1.4.1. All Regional Development Authorities.

1.4.2. All Urban Local Bodies.

1.5 All existing rules, regulations, byelaws, orders that are in conflict or inconsistent with these bye laws shall stand modified to the extent of the provision of these bye laws.

2. Definitions

In this Regulation, unless the context otherwise requires: -

2.1 **'Act'** means Jharkhand Municipal Act-2011;

2.2 **'Aquifer'** is a geological formation that stores and transmits water;

2.3 **'Artificial'** means any man made scheme or facility that adds water to an aquifer;

2.4 **'Amenity'** means roads, street, open spaces, parks, recreational grounds, play grounds, gardens, water supply, electric supply, street lighting, sewerage, drainage, public works and other utilities, services and conveniences.

2.5 **'Applicant'** means the person, who is the owner of the land or building or has title to a land or building and includes;

2.5.1 A trustee who is entrusted with or is concerned with any building;

2.5.2 A receiver, executor or administrator or a manager appointed by any Court of competent jurisdiction to have the charge of or to exercise the rights of the owner; and

2.5.3 A mortgagee in possession;

2.6 **'Authority'**means Regional Development Authority/Urban Local Bodies (ULBs).

2.7 **'Bore well'** means small diameter well which are generally deeper than open wells.

2.8 **'Dug well'** means traditionally made long diameter wells, pits excavated in the ground until the water reached, supported at the sides by RCC/Brick/Stone walls.

644
23/01/17

2.9 **'Ground water'**means the water retained in the inter- granular pores of soil or fissures of rock below the water table.

2.10 **'Open Space'** means an area forming an integral part of the plot, left open to the sky.

2.11 **'Rain Water Harvesting'**-The harvesting of rainwater is the collection of water from surfaces on which rain falls, and subsequently storing this water for later use. Normally water is collected from the roofs of buildings and stored in rainwater tanks. Water can also be collected in dams from rain falling on the ground and producing runoff;

2.12 **'Run off'**- Run off is the term applied to the water that flows away from a surface after falling onthe surface in the form of rain;

2.13 **'Recharge' means** the process of surface water (from rain or reservoirs) joining the ground water aquifer;

2.14 **'State government'**- means the government of Jharkhand;

2.15 **'Stakeholders means'-**

2.15.1 All households and residents of urban areas,

2.15.2 Educational institutions including research and development (private & public),

2.15.3 All Government agencies and private agencies,

2.15.4 Industrial establishments,

2.15.5 Community Based Organizations,

2.16 **'Water tables' means** the level of water within inter-granular pores of soil or fissures of rock, below which the pores of the host are saturated;

2.17 Anything not defined in this regulation but is defined in the Act shall have the same meaning as defined in the Act.

3. Objectives

3.1 The objective of the Jharkhand rainwater harvesting regulation-2017 is to ensure the (best) possible beneficial use of rainwater endowment on the entire urban areas of Jharkhand.

3.2 To ensure that the maximum utilization of rainfall as possible through water harvesting, either by recharging it into the groundwater aquifers or storing it for direct use.

4. Expected outcome of the regulation

4.1 Recharge ground water.

4.2 Preserve and enhance surface water bodies in urban areas.

4.3 Provide back-up supplies during dry spell, draughts or periods of main supply break down.

4.4 Mitigate urban floods.

4.5 Improve quality of groundwater.

4.6 Provide environmental and ecological benefits to the urban area including fostering bio diversity.

4.7 Augment soil moisture for urban greenery.

4.8 Use of rainwater for urban aquaculture and vegetable production.

5. The following provisions shall be applicable for installation of Rain Water Harvesting structures

5.1 Provision of Rain Water Harvesting shall be mandatory for plot of size 300 sq.mt and above .

5.2 The building construction could be broadly classified as per the following:

5.2.1 Category –(A) Building on plot size less than 300 sq.mt.

5.2.2 Category- (B) buildings up to G-2 on the plot size more than 300 sq.mt.

5.2.3 Category- (C) buildings G+3 and above on plot size more than 300 sq.mt

5.3 The Rain Water Harvesting arrangement is not mandatory for buildings with a plot size less than 300 sq.mt. However the owners of buildings are advised to construct Rain Water Harvesting structure for conservation and protection of ground water. Either they adopt traditional method or any upgrade method.

5.4 All the layout open spaces / amenity spaces of housing societies and new constructions / reconstruction's/ additions on plots having area not less than 300 sq. mt provided that the Authority may approve the Rain Water Harvesting structures of specifications different from those specified here with, subject to the minimum capacity of rain water harvesting being ensured in each case.

5.5 The owner / society of every building mentioned in the para 5.4 aboveshall ensure that the Rain Water Harvesting structure is maintained in good condition for storage of water for non potable purposes or recharge of groundwater at all times.

5.6 The Authority may impose a levy for the failure of the owner of any building mentioned in the para 5.4 above to provide or to maintain Rain Water Harvesting structures as and when required.

5.7 Rain Water Harvesting shall be made mandatory for every Urban Local Bodies/Planning Authority to identify, demarcate, protect and maintain the water bodies that come under their jurisdiction will prepare a list.

5.8 If Rain water harvesting system has not been installed in the apartments/houses having area less than 300 sq.m , constructed before 2010 and there is no space available for installation of the same , the issue will be heard and resolved by the concerned ULBs and suitable order shall be passed from case to case by the CEO/ Executive officer/special officer of the ULBs.

694
23/01/17

5.9 It is the responsibility of the builders of the apartments to install rain water harvesting structure, if the building is constructed on or after 2010 and occupancy certificate from the respective Municipal corporation has not been procured. In case of construction on or after 2010 and the occupancy certificate has been procured from the municipal corporation than the owner of the flats will have combined responsibility to install rain water harvesting in the building.

6. Rain Water Harvesting in a building site

Includes storage or recharging into ground the rain water falling on the terrace or on any paved or unpaved surface within the building site.

6.1 The following systems may be adopted for harvesting the rain water drawn from terrace and the paved surface

6.1.1 Open well of a minimum of 1.00 mt.dia and 6 mt. in depth into which rain water may be channeled and allowed after filtration for removing silt and floating material. The well shall be provided with ventilating covers. The water from the open well may be used for non potable

domestic purposes such as washing, flushing and for watering the garden etc.

6.1.2 Rain Water Harvesting for recharge of ground water may be done through a bore well around which a pit may be excavated up to a depth of atleast3.00mtand refilled with stone aggregate and sand. The filtered rain water may be channeled to the refilled pit for recharging the borewell.

6.1.3 An impervious surface / underground storage tank of required capacity may be constructed in the setback or other open space and the rain water may be channeled to the storage tank. The storage tank shall always be provided with ventilating covers and shall have draw-off taps suitably placed so that the rain water may be drawn off for domestic, washing gardening and such other purpose s. The storage tanks shall be provided with an overflow.

6.1.4 The surplus rain water after storage may be recharged into ground through percolation pits or trenches or combination of pits and trenches. Depending on the geographical and topographical condition, the pits may be of the size of 1.20 mt. width × 1.20 mt. length × 2.00 mt. to 2.50 mt. depth. The trenches can be or 0.60 mt width × 2.00 to 6.00 mt. length × 1.50 to 2.00 mt. depth. **The capacity/ volume *and number of pits and trenches should depend upon* the catchment area and quantity of peak rain fall of the area. It can vary from place to place.** Terrace water shall be channeled to pits or trenches. Such pits or trenches shall be back filled with filter media comprising the following materials.

644
23/01/17

6.1.4.1 40 mm stone aggregate as bottom layer upto 25% of the depth;

6.1.4.2 20 mm stone aggregate as lower middle layer upto 25% of the depth;

6.1.4.3 Coarse sand as upper middle layer upto 40% of the depth;

6.1.4.4 A thin layer of fine sand as top layer.

6.1.5 Top 10% of the pits / trenches will be empty and a splash is to be provided in this portion in such a way that roof top water falls on the splash pad.

6.1.6 Brick masonry wall is to be constructed on the exposed surface of pits / trenches and the cement mortar plastered.

6.1.7 The depth of wall below ground shall be such that the wall prevents lose soil entering into pits / trenches. The projection of the wall above ground shall at least be 15 cms.

6.1.8 Perforated concrete slabs shall be provided on the pits / trenches. Bund should be created to minimize the run off.

6.1.9 If the open space surrounding the building is not paved, the top layer upto a sufficient depth shall be removed and refilled with coarse sand to allow percolation of rain water into ground.

6.1.10 Any other system developed, which is technically suitable and feasible under the local circumstances and conditions, which may vary from place to place.

6.2 <u>In case the plots where the water table is high i.e 10 feet or less, it is not mandatory to follow the above provisions.</u>

6.2.1 The terrace shall be connected to the open well / borewell / storage tank / recharge pit / trench by means of PVC pipes though filter media. A valve system shall be provided to enable the first washings from roof or terrace catchment, as they would contain undesirable dirt. The mouths of all pipes and opening shall be covered with mosquito (insect) proof wire net. For the efficient discharge of rain water, there shall be at least two rain water of 100 mm diameter for a roof area of 100 sq.mt.

6.2.2 Rain water harvesting structures shall be installed as not to endanger the stability of building or earthwork. The structures shall be designed such that no dampness is caused in any part of the walls or foundation of the building or those of an adjacent building.

6.2.3 The water so collected / recharged shall as far as possible be used for non-drinking and non-cooking purpose.

6.2.4 Provided that when the rain water in exceptional circumstances will be utilized for drinking and / or cooking purpose, it shall be ensured that proper filter arrangement and the separate outlet for by passing the first rain-water has been provided.

6.2.5 Provided further that it will be ensured that for such use, proper disinfectants and the water purification arrangements have been made.

7. <u>Community Rain Water Harvesting</u>

A common rain water harvesting structure shall be installed for a cluster of houses/buildings where there is no space for making a rain water harvesting structure. It shall be the duty of each and every owner/occupier to participate in the installation and maintenance of community rain water harvesting.

8. <u>Rain Gardens</u>

A rain garden is a functional landscaping technique that can beautify our property as well as help to filter and slow the flow of storm water. Rain gardens allow about 30% more rainwater to soak into the ground than traditional lawns.

8.1 Rain gardens are saucer shaped gardens that water flows into that are planted with grasses, flowers, shrubs, and sometimes small trees. They soak up water while providing wildlife habitat. The soils and basin fills with water for a short amount of time before soaking back into the surrounding soil. Plants used in

these gardens are adapted to survive in short periods of flooding as well as dry soils in between storms.

8.2 They are strategically located to capture runoff from hard surfaces such as a driveway, parking area, sidewalk of streets. Rain gardens fill with a few inches of water after a storm and then water filters into the surrounding soil, rather than running off to the street or storm culvert.

8.3 Rain gardens are a very good option to help lower the impact of impervious surfaces and polluted runoff because they are low-tech, inexpensive, sustainable and aesthetically pleasing.

8.4. There are multiple benefits of rain garden to the community and the local environment which include:

8.4.1 Reduced polluted stormwater runoff from yards into local streams,
8.4.2 Reduced localized flooding,
8.4.3 Reduced erosion,
8.4.4 Pollution prevention,
8.4.5 Groundwater recharge,
8.4.6 Enhanced wildlife habitat,
8.4.7 Aesthetics.

9. Awareness of stakeholders:

9.1 Publication of Rain Water Harvesting guidelines and conduct awareness campaigns,Orientationprogrammes, etc. for various stakeholders (Bulk consumers, residents, etc).

644 23/01/17

9.2 To construct model demonstration project for public building, educational institutions, parks, open spaces, etc on rain water harvesting to disseminate the idea to various stakeholders.

10. Formation of Monitoring committee at State and District level

10.1 **State level Advisory Committee** will monitor the entire process of Rain Water Harvesting implementation at the State level. This committee will also comprise of a technical cell, which will provide the necessary technical support for implementation of Rain Water Harvesting. This Committee shall be chaired by the Principal Secretary, Urban Development &Housing Department and shall meet at least once in three months to review the status of implementation of Rain Water Harvesting.

10.2 **District level Advisory Committee**will monitor the implementation of Rain Water Harvesting at district level. The Committee shall comprise of representatives from all the concerned Government Departments involved in urban water management like Lake Development Authority, Central Ground Water Board, Mines and Geology Department, Town Planning Department and NGOs (working in water conservation), Academic institutions and field experts. This committee shall be chaired by the concerned Deputy Commissioner of the district. The committee shall be responsible to prepare, implement and monitor

the town / city wise RWH Action Plans. The Committee shall meet regularly at least once in three months to review the status of implementation.

10.3 **Roles and responsibilities of the committees**

10.3.1 State Level Advisory Committee – Frame the State Policy, prepare Technical Guidelines,Manuals and monitor the overall implementation of RWH.

10.3.2 Technical Cell – Provide the necessary technical inputs for the installation of Rain water harvesting current practices, drawings, legislations, etc

10.3.3 District Rain Water Harvesting Committee – Formulation and implementation of RWH Action plans.

10.3.4 Agencies/NGOS – provide the necessary technical inputs to the District Committees and ULBs for implementation of RWH Action Plans.

10.3.5 Physical verification of structures would be carried out before the onset of monsoon each year. Penalty shall be charged if not properly maintained.

11. **Prohibition** on digging of new tube wells/bore wells. Proper enforcement of such prohibition is required to be monitored at higher level and permission may only be given in exceptional circumstances.

11.1 Power of Municipalities to use any discarded or dead tube well as recharge pit or percolation pit. The municipality may provide or cause to be used any discarded or dead tube well for use as percolation pit for any locality or for use as community Rain water harvesting system.

644 23/01/17

11.2 The department will prepare a list of all government buildings, which do not have rain water harvesting facilities. Such buildings will be served notices and they will be directed to implement the new structural designs at the earliest.

12. **Incentives and disincentives mechanism** shall be designed to facilitate the implementation of Rain Water Harvesting like rebate/fine in property tax etc.

13. **Responsibility of the household**- It shall be ensured by every household responsible for construction of Rain Water Harvesting structure that in no case polluted or waste water is let into the recharge pit as it will lead to pollution of the ground water.

14. **Penalty:**

14.1 Any person found violating clause no. 13 shall be punishable as per section 340 of the Jharkhand Municipal Act 2011.

14.2 Occupancy certificates will not be issued to the owners of the buildings unless they produce satisfactory proof of compliance of installation of rain water harvesting.

14.3 The Authority shall impose fine for the failure of the owner/builders of any building to install or to maintain Rain Water Harvesting structures depending on the residential area.

14.4 The state government may levy incremental penalty on erring property owners/builder. The rain water harvesting unit is must in houses built on sites of 300sq.mt or more. The rule applies to properties built in the year 2010 or earlier. The penalty for the first three months is 25% of the water bill. From the

fourth month the penalty becomes 50% of the water bill, which after six months becomes equivalent to water bill.

15. Power of the State Government

15.1 Notwithstanding anything contained in the foregoing paragraphs of the **Jharkhand Rainwater Harvesting Regulation-2017** the State Government by issuance of notification in the official gazette may amend or withdraw any of the provisions and / or the schemes mentioned herein above.

15.2 **Interpretation** - Should any doubt arise as to the interpretation of any of the provisions of these Rules, the matter shall be referred to the Urban Development and Housing Department, whose decision thereon shall be final.

By the order of the Governor of Jharkhand,

21.1.17

(Arun Kumar Singh)
Principal Secretary to Government
Urban Development and Housing Department

Memo No. **File no. -06/TC PO/Vividh-05/2016/** न०वि०.....644..... *Ranchi, Dated* 23/01/17

Copy to : *Copy forwarded to the Superintendent, Government Press, Jharkhand, Ranchi for publication in the forthcoming issue of Government Gazette/Nodal officer, E-Gazette, Urban Development and Housing Department, Government of Jharkhand for information and necessary action.*

21.1.17

Principal Secretary to Government,

Memo No **File no. -06/TC PO/Vividh-05/2016/** न०वि०.....644..... *Ranchi, Dated* 23/01/17

Copy to :*P.S to Minister, Urban Development and Housing Department/ All Additional Chief Secretary/ Principal Secretary/Secretary, Govt of Jharkhand/All Divisional Commissioners, Jharkhand/Director, SUDA / Director DMA/Town Planner, Town Planning Organization/ All Deputy Commissioners, Jharkhand / All Officers, UD&HD/ Municipal Commissioners/ Executive Officers/ Special Officers, urban local bodies for information and necessary action.*

21.1.17

Principal Secretary to Government

K Kala

Government of Jharkhand
Urban Development & Housing Department

RESOLUTION

No.- SUDA/AMRUT/Wastewater Policy/38/2017/2899 Ranchi, Dated 27/4/17

Subject:- Jharkhand Waste Water policy, 2017

1. BACKGROUND

Water recycling is reusing treated wastewater for beneficial purposes such as agricultural and landscape irrigation, industrial processes, toilet flushing, and replenishing a ground water basin (referred to as ground water recharge). Water recycling offers resource and financial savings. Wastewater treatment can be tailored to meet the water quality requirements of a planned reuse. Recycled water for landscape irrigation requires less treatment than recycled water for drinking water. A common type of recycled water is water that has been reclaimed from municipal wastewater, or sewage. The term water recycling is generally used synonymously with water reclamation and water reuse. Gray water is reusable wastewater from residential, commercial and industrial bathroom sinks, bath tub shower drains, and clothes washing equipment drains. Gray water is reused onsite, typically for landscape irrigation.

Through the natural water cycle, the earth has recycled and reused water for millions of years. Water recycling, though, generally refers to projects that use technology to speed up these natural processes. Water recycling is often characterized as "unplanned" or "planned."

2. WHY WATER RECYCLING

Recycled water can satisfy most water demands, as long as it is adequately treated to ensure water quality appropriate for the use. Recycled water can satisfy most water demands, as long as it is adequately treated to ensure water quality appropriate for the use.

2.1 Uses for Recycled Water

2.1.1 Landscaping

2.1.2 Public parks

2.1.3 Cooling water for power plants and oil refineries

2.1.4 Processing water for mills, plants

2.1.5 Toilet flushing

2.1.6 Dust control

2.1.7 Construction activities

2.1.8 Concrete mixing

2.1.9 Artificial lakes

2.1.10 Car, Cloth & floor washing

2.1.11 Garden and irrigation using a hose spray or drip irrigation.

2.1.12 Construction.

2.1.13 Artificial lakes

Although most water recycling projects have been developed to meet nonpotable water demands, a number of projects use recycled water indirectly for potable purposes. These projects include recharging ground water aquifers and augmenting surface water reservoirs with recycled water. In ground water recharge projects, recycled water can be spread or injected into ground water aquifers to augment ground water supplies, and to prevent salt water intrusion.

2.2 What are the Environmental Benefits of Water Recycling?

In addition to providing a dependable, locally-controlled water supply, water recycling provides tremendous environmental benefits. By providing an additional source of water, water recycling can help us find ways to decrease the diversion of water from sensitive ecosystems. Other benefits include decreasing wastewater discharges and reducing and preventing pollution. Recycled water can also be used to create or enhance wetlands and riparian habitats.

2.3 Recycling Water Can Save Energy

As the demand for water grows, more water is extracted, treated, and transported sometimes over great distances which can require a lot of energy. If the local source of water is ground water, the level of ground water becomes lower as more water is removed and this increases the energy required to pump the water to the surface. Recycling water on site or nearby reduces the energy needed to move water longer distances or pump water from deep within an aquifer. Tailoring water quality to a specific water use also reduces the energy needed to treat water. The water quality required to flush a toilet is less stringent than the water quality needed for drinking water and requires less energy to achieve. Using recycled water that is of lower quality for uses that don't require high quality water saves energy and money by reducing treatment requirements.

3. TITLE

This policy shall be called as **Jharkhand Waste WaterPolicy, 2017**

4. VISION

"All Jharkhand cities and towns achieve the water recycling capability from STPs, household, commercial and industrial areas in a sustainable manner and reduce the fresh water demand to a sizeable extent".

5. GOAL

Jharkhand Waste Water Policy, 2017 is to ensure increase use of recycled water for other purposes apart from drinking, through the provision of appropriate technologies for water recycling and protection of environment.

The policy specifically endorses the following core principles:

5.1 To protect the environment and the State's water resources.

5.2 To promote proper functioning of network based sewerage systems and ensure connections of household so as to prevent dry weather flow in drains & streets.

5.3 Treatment of sewage, sludge andgrey water and recycle it for other uses.

5.4 Promoting recycle & reuse of household, commercial and industrial grey water

5.5 To make waste water project economical and environmentally sustainable.

5.6 Inclusive and participatory decision making in waste water recycling.

5.7 Transparent decision making processes to achieve socio-environmental as well as economic financial objectives.

5.8 Capacity building for enhanced institutional ability to govern the sector effectively.

5.9 Ensuring, protecting and optimizing investments.

5.10 Public Private Partnership (PPP) in the most appropriate manner.

5.11 Public outreach for environmental and health related outcomes.

5.12 Establishment of an efficient, effective, affordable and accountable system for managing the water recycling form urban sewerage and septage management

6. OBJECTIVES

To overcome the shortage of water by recycling it and putting them for different purpose, so that the use of potable water should mostly be for drinking purposes. The re-use of water in a sizeable quantity up to a certain quality after proper treatment of water for non-drinking purpose and last but not the least scientifically disposal of the remaining waste is the object behind formulating this policy.

6.1 To ensure 100 percent wastewater recycling in cities/towns

6.2 To improve waste water supply service focusing on customer satisfaction, coverage, frequency and reliability

6.3 Supply of potable water that incurs large amount of money to be reduced and waste water to be used in non-drinking purposes.

6.4 Promoting and augmenting wastewater reuse for ensuring environmental sustainability by reducing burden on already stressed basin and aquifers and preventing their depletion.

6.5 Promoting wastewater reuse from sewage discharge leading to reduction in environmental costs and health hazards.

6.6 Wastewater reuse by ensuring resource conservation & preservation of sensitive eco-system and reducing pollutant loading.

All cities and towns of Jharkhand become totally sanitized, healthy and liveable and ensure sustain good public health and environmental outcomes for all their citizens with a special focus on hygienic and affordable sewerage facilities for the urban poor and women. All urban dwellers will have access to and use safe and hygienic sewerage or sludge facilities and arrangements.

7. COMPOSITION OF GREYWATER

7.1 Greywater from Bathroom

Water used in hand washing and bathing generates around 50 60% of total greywater and is considered to be the least contaminated type of greywater. Common chemical contaminants include soap, shampoo, hair dye, toothpaste and cleaning products.

7.2 Greywater from Cloth Washing Water

It is used in cloth washing generates around 25 - 35% of total greywater. Wastewater from the cloth washing varies in quality from wash water to rinse water to second rinse water. Greywater generated due to cloth washing can have faecal contamination with the associated pathogens and parasites such as bacteria.

7.3 Greywater from Kitchen

Kitchen greywater contributes about 10% of the total greywater volume. It is contaminated with food particles, oils, fats and other wastes. It readily promotes and supports the growth of microorganisms. Kitchen greywater also contains chemical pollutants such as detergents and cleaning agents which are alkaline in nature and contain various chemicals. Therefore kitchen wastewater may not be well suited for reuse in all types of greywater systems.

8. LEGISLATION AND GUIDANCE DOCUMENTS

The Waste water Policy should be read in accordance with the most current versions of the following: Legislation and document

8.1 Environmental (Protection) Act, 1986

8.2 The Environment (Protection) rules,1986

8.3 The water (Prevention and Control of Pollution) Act,1974

8.4 The water (Prevention and Control of Pollution) cess, Act,1974

8.5 The water (Prevention and Control of Pollution) Amended rules, 2011

8.6 The water (Prevention and Control of Pollution) Cess rules, 1978

8.7 The water (Prevention and Control of Pollution) Rules, 1975

8.8 National Urban sanitation Policy 2008

8.9 National Water Policy 2012

8.10 Quality standards suggested by Central Pollution Control Board and Jharkhand State Pollution Control Board.

8.11 Standards set by Bureau of Indian Standards (BIS)

9. WHAT NEEDS TO BE DONE

9.1 A Separate System: STPs water reuse and grey water reuse to encourage.

9.2 Water reclamation centers to reclaim water after treatment of domestic sewage and greywater.

9.3 Where water Reclamation centers are situated in the midst of residential area, these can be built under ground to avoid the problem odour and parks can be maintained on the roof of treatment facility.

9.4 One of the Scheme of treatment may be Grit chamber, Primary sedimentation tank, Reaction Tank, Secondary sedimentation tank, Chlorination Tank followed by sand filtration.

9.5 Reverse osmosis filtration may be used for tertiary treatment.

9.6 100% households, commercial area and industrial area to be covered for wastewater recycling

9.7 Sewerage and water supply activity should be coordinated.

9.8 Water tariff should be such as to discourage the people from wasteful use of water.

9.9 Provision of adequate wastewater collection and treatment facilities for all the cities and towns in Jharkhand.

9.10 Protection of the environment and public health in the areas affected by the proposed systems, especially, surface water and ground water.

9.11 Consideration of treated effluents as a source for reuse (irrigation/ industrial).

10. THE POLICY

10.1 On Resource Development

Wastewater is a perennial water source and shall form an integral part of renewable water resources and the State water budget. Each local body will consider it as a resource and make the plan for reuse as per the site conditions with the help of experts. All local bodies will make city wastewater reuse plan (CWP) for a period of 20 years considering future development and city development in line with city Master plan to avoid any conflicts in developing the city in the future.

Existing levels of wastewater services shall be maintained and upgraded where necessary to enhance public health and the environment and separate plan is to be prepared by local body as per their requirement. Treatment of wastewater shall be targeted towards producing an effluent fit for reuse in irrigation in accordance with WHO guidelines as a minimum. Reuse of treated wastewater in other purposes shall be subject to appropriate specifications. Coordination shall be maintained with the official bodies in charge of urban development to account for the treatment and disposal of their liquid wastes. Central treatment plants shall be built to serve semi-urban areas, and collection of wastewater can be made initially through trucking until collection systems are justified. Specifications and minimum standards as stipulated by CPHEEO shall be applicable for the use of septic tanks in urban areas. Particular attention shall be paid to the protection of underlying aquifers.

10.2 On Resource Management

It is highly imperative that Urban Local Body shall develop and manage wastewater systems as well as the treatment and reuse of the effluent.

A basin management approach shall be adopted where possible. The use of treated wastewater from sewerage, households, commercial and from industrial application shall be given the highest priority and shall be pursued with care. Effluent quality standards shall be defined based on the best attainable treatment technologies, and calibrated to support or improve ambient receiving conditions, and to meet public health standards for end users. Key factors will include the location of the discharge, its

proximity to wells, the type of receiving water, and the nature and extent of end uses. Industries shall be encouraged to recycle part of its wastewater and to treat the remainder to meet standards set for ultimate wastewater reuse or to meet the regulations set for its disposal through the collection systems and/or into the receiving environment. Wastewater from industries with significant pollution should be treated separately to standards allowing its reuse for purposes identified by the city or to allow its safe disposal or water recharging. Consideration shall be given to isolating treated wastewater from surface and ground waters used for drinking purposes, and to the blending of treated effluent with relatively fresher water for suitable reuse. Urban Local Bodies can engage Experts from Government Engineering Colleges of Jharkhand NITs/Engineering colleges.

10.3 On Wastewater Collection and Treatment

10.3.1 **City Plan :**A proper and updated city plan is an essential pre-requisite for proper planning and design of all utilities and more so for the Sewerage Systems and water recycled from houses. The State shall endeavor to have proper digital city maps showing the levels prepared through modern available technology. The digital city maps should clearly show the city feature over ground and underground including all utilities. Geographical Information System (GIS), Ground Penetrating Radar (GPR), Total station etc. tools may be used for preparation of city map. The city maps should be updated for every 5 years. An effective and comprehensive GIS based data base and Management Information System correctly mapping the assets, user base and status of operations shall be established.

10.3.2 **Design Period:** Every city has to prepare a City Wastewater Recycling Plan (CWP) for next 20 years along with 5 year short term plan. The CWP for the city should take into account the likely changes in the city in next 20 years and plan for them and will be according to city Master plan. The Detailed Project Report (DPR) for recycling should be in accordance to CWP. The design of the sewers and planning of space should be for the 30 year projection requirements and for recycling from households and commercial establishments. However, the units which can be developed in modules (e.g. Sewage Treatment Facility, sewerage Pumping machinery, on site treatment facilities, etc.) can be designed for appropriate shorter period. Earmark of land for Sewage Pumping Station (SPS) and Sewage Treatment Plant (STP) should be done for all Urban Local Bodies (ULBs) and appropriate land allotment shall be done by Development Authority/Urban Improvement Trust/State Govt. on priority.

10.4 On Reuse of Treated Effluent and Sludge

10.4.1 Treated wastewater effluent is considered a water resource and is added to the water stock for reuse.

10.4.2 Blending of treated wastewater with fresh water shall be made to improve quality where possible.

10.4.3 Crop nutrient requirements shall be determined taking into consideration the prevailing effluent quality. Overuse of nutrients shall be avoided.

10.4.4 Accumulation of heavy metals and salinity shall be monitored, managed and mitigated. Leaching of soils shall be advocated by the irrigation authorities.

10.4.5 Treated effluent quality should be monitored and users alerted to any emergency causing deterioration of the quality so that they will not use such water unless corrective measures are taken.

10.4.6 Studies should be conducted and projects designed and implemented to store the excess treated wastewater in surface reservoirs but artificial recharge is not permitted. Due attention shall be given to the quality of treated and groundwater and the characteristics of the strata.

10.5 Industry:

Industrial reuse of reclaimed wastewater represents major reuse next only to irrigation in both developed and developing countries. Reclaimed wastewater is ideal for many industrial purposes. Where effluent is to be used in the industrial processes, it should be the responsibility of the industry to treat it to the quality standards required. Wastewater is to achieve adequate quality for reuse as cooling water.

The membrane filtration system can remove all suspended solids, faecalcoli forms, and giardia cysts. It could also significantly reduce human enteric viruses such as *reovirus*and *enterovirus*.

10.6 Industrial uses for reclaimed water include:

10.6.1 Evaporative cooling water:

10.6.1.1 once-Through cooling system

10.6.1.2 Re-circulating cooling system

10.6.1.3 cooling water quality requirements

10.6.2 Boiler –Feed water- The use of reclaimed water differs little from use of conventional public supplies for boiler-feed water,as both require extensive additional treatment quality requirement for boiler feed make up water are dependent upon pressure at which boiler is operated.

10.6.3 Industrial process water- Suitability of reclaimed water for use in industrial process depends upon particular use like-

10.6.3.1 Pulp and paper

10.6.3.2 chemical industry

10.6.3.3 Textile industry

10.6.3.4 Petroleum and coal

10.7 Re-use Options:

The following options or re-use of effluent have been identified: In general, public health concern is the major issue in any type of reuse of wastewater, be it for irrigation or non-irrigation utilization, especially long term impact of reuse practices. It is difficult

to delineate acceptable health risks and is a matter that is still hotly debated. Potential reuse of wastewater depends on the hydraulic and biochemical characteristics of wastewater, which determine the methods and degree of treatment required. While agricultural irrigation reuses, in general, require lower quality levels of treatment, domestic reuse options (direct or indirect potable and non-potable) reuses need the highest treatment level. Level of treatment for other reuse options lie between these two extremes. The reuse options may be (artificial recharge of aquifers is not permitted):

10.7.1 Irrigation

10.7.1.1 Agriculture and forestry

10.7.1.2 Landscaping

10.7.2 Fish – farming

10.7.3 Industry

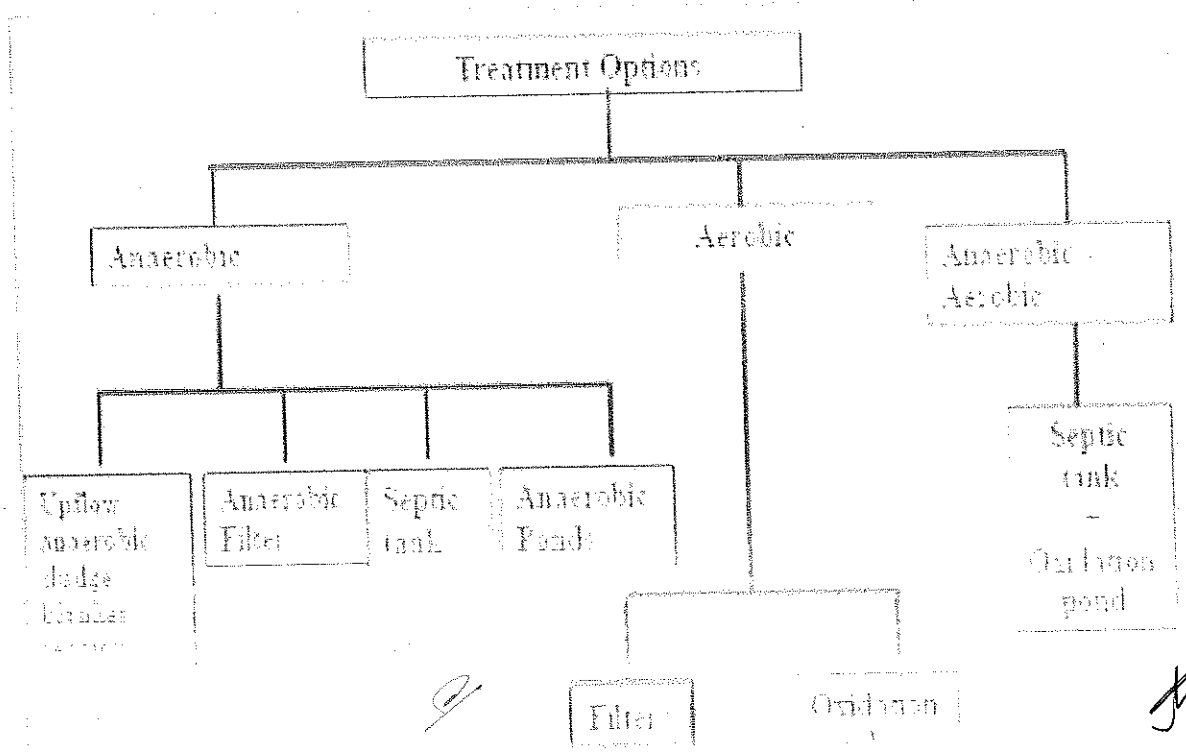
10.7.4 Non-potable Domestic Reuse:

The detailed project report should clearly define the best reuse option particular to town and strategy to obtain it. Action plan with clarity should be the part of Detailed Project Report (DPR), while preparing sewerage Projects. Before deciding the reuse of treated waste water authority must full fill the water quality norms and its legal implications.

Governing local body can sell the treated waste water and digested sludge to generate the revenue.

11. GREYWATER TREATMENT OPTIONS

Greywaterreuse methods can range from low cost methods such as the manual bucketing of greywater from theoutlet of bathroom, to primary treatment methods thatcoarsely screen oils, greases and solids from the greywater before other uses, to more expensive secondary treatment systems that treat and disinfect the greywater to a high standard before using it further. The choice of system will depend on a number of factors including whether a new



system is being installed or a disused wastewater system is being converted because the household is connected to sewer.

11.1 Components of Greywater Treatment Systems

A number of technologies have been applied for greywater treatment worldwide varyingin both complexity and performance. The following in general greywater systems considered :-

11.1.1 Primary treatment pre-treatment to secondary treatment:

11.1.1.1 Screening

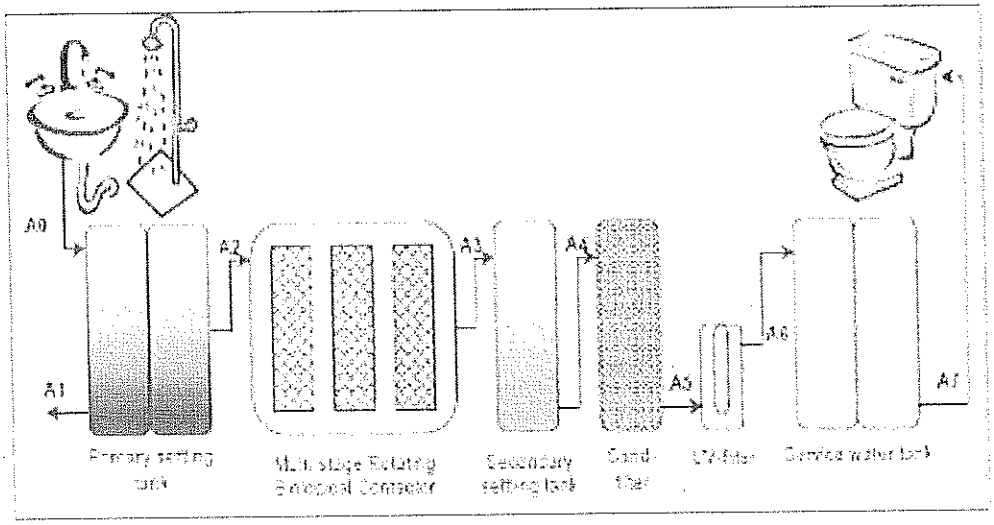
11.1.1.2 Equalization

11.1.2 Secondary treatment -1

11.1.2.1 Gravel filtration

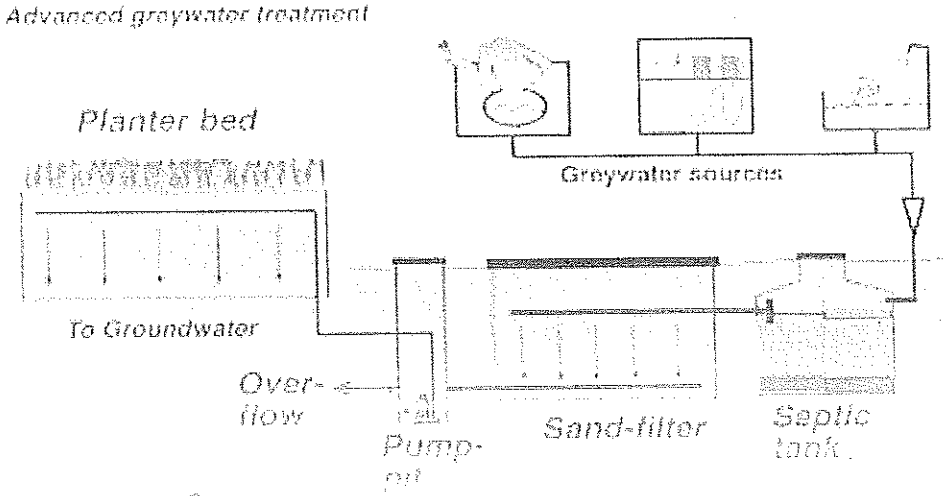
11.1.2.2 Sand filtration

11.1.2.3 Chlorination

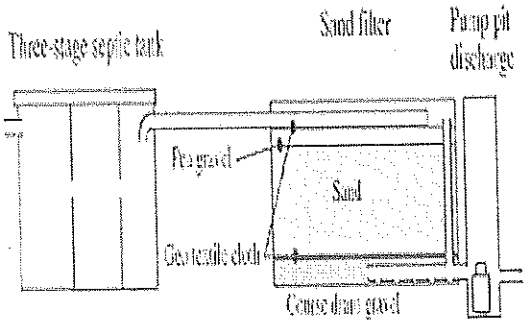


11.1.3 Secondary treatment -II.

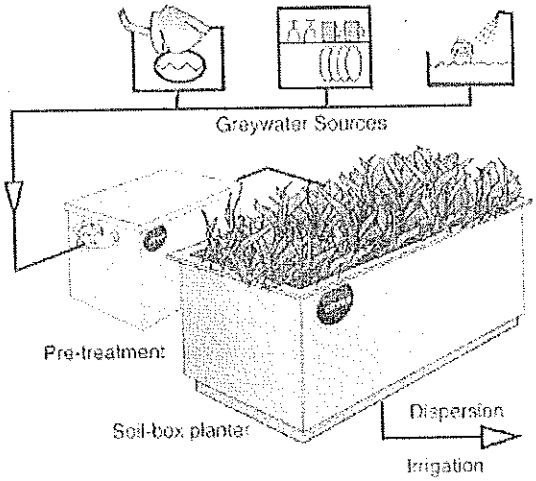
Broken brick, Charcoal, Chlorination, Treated greywater



Anaerobic to aerobic treatment



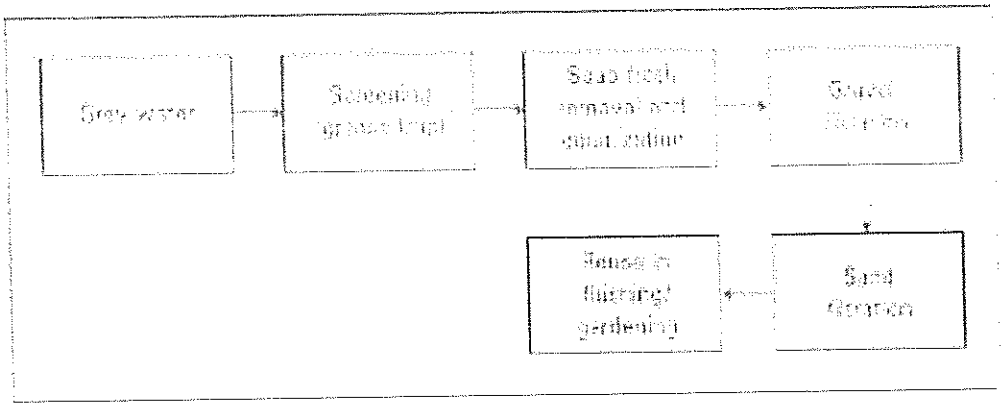
Aerobic Pre-treatment -- suitable for showers, hand-washing and laundry* water treatment.



11.2 Household level Greywater Treatment and Reuse System

In water scarce areas, with specific treatment the greywatercan be cleaned and reused not only for gardening but for other use also.

Technological processGreywater treatment process at the household level mainly involves screening (grease and silt removal), soap froth removal, equalization and filtration. Flow diagram of household based greywater treatment system is shown below



Greywater treatment for reuse in household

Advantages:

11.2.1 Reduces fresh water requirement

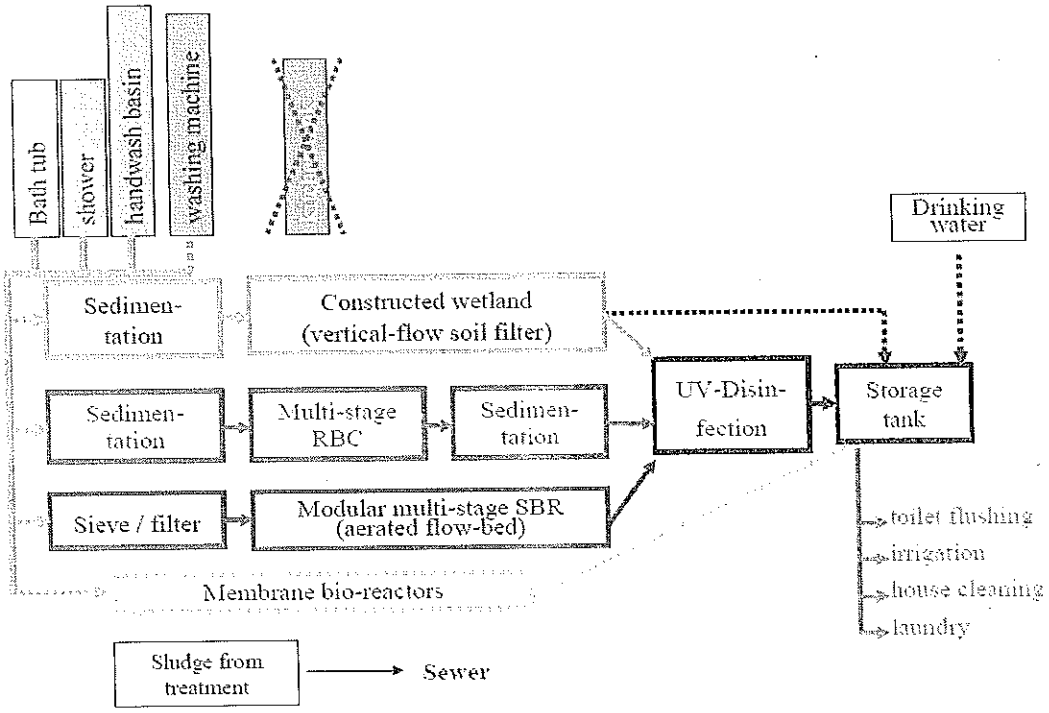
11.2.2 Prevents greywater stagnation

11.2.3 Prevents vector breeding

11.2.4 Use in flushing toilets to make toilets functional

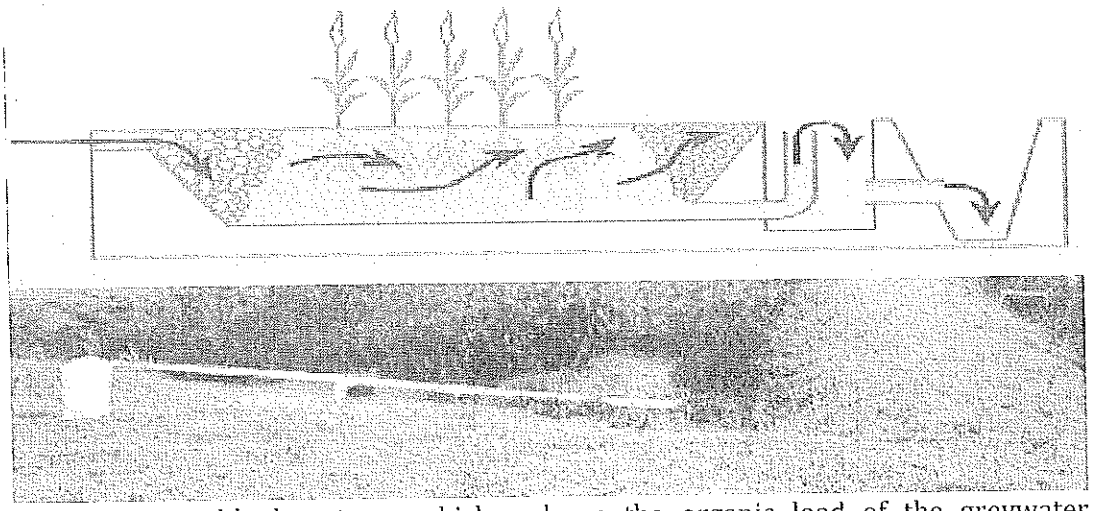
11.2.5 Use of greywater in gardening

11.2.6 Minimal risk to users of greywater as it incorporates principles of water safety.



11.3 Constructed wetlands:

Constructed wetlands have been used successfully in the past for the treatment of wastewaters. Physical, chemical, and biological processes combine in wetlands to remove contaminants from wastewater. Greywater treatment is achieved by soil



filtration in reed-bed systems which reduces the organic load of the greywater considerably, in addition to decreasing the concentrations of faecal bacteria. If properly designed, these systems would produce a clear and odourless effluent, which can be stored for several days without the need for disinfection.

12. ON PRICING FINANCING AND INVESTMENT

12.1 In view of increasing marginal cost of wastewater collection and treatment, wastewater charges, connection fees, sewerage taxes and treatment fees shall be set to cover at least the operation and maintenance costs. It is also highly desirable that part of the capital cost of the services shall be recovered. The ultimate aim is for a full cost recovery.

12.2 Appropriate criteria in order to apply the "polluter pays" principle shall be established.

12.3 Different charges for different areas may be applied. This shall be assessed for each geographical area as a function of end uses and effluent quality and will be subject to economic and social considerations.

12.4 Because of the limited financial resources available to Government of Jharkhand, setting investment priorities in wastewater will be compatible with government investment plans.

12.5 Criteria for prioritizing investments in the wastewater sector shall take into account the current and future needs of the state, needs to expand wastewater systems in urban areas and to provide wastewater systems to smaller towns and villages.

12.6 Priorities of wastewater projects shall not be disconnected from water supply projects and urbanization in general. Decisions will be made concerning them to attain optimum solutions to the need for services, availability of finance and availability of trained manpower.

12.7 Treated effluent shall be priced and sold to end users at a price covering at least the operation and maintenance costs of delivery.

12.8 It is the intention of the Government, through private sector participation, to transfer management of infrastructure and services from the public to the private sector, in order to improve performance and upgrade the level of service.

12.9 The role of the private sector will expand with management contracts, concessions and other forms of private sector participation in wastewater management.

12.10 The concepts of Built Operate Own/Built Operate Transfer shall be entertained, and the impact of such concepts on the consumers shall be continually addressed and negative impacts mitigated.

12.11 The private sector role in reuse of treated effluent shall be encouraged and expanded.

12.11.1 The costs will depend on the system/technology adopted for collection of sewerage and treatment and the administration costs. It is important that the full cost of the service is assessed for each urban area instead of adopting a typical cost assessment. The full cost shall cover the following:

12.11.1.1 Institutional aspect of the sanitation service e.g. the management information systems, accountancy and finance management, billing and collection, customer services, etc. and oversight activities.

12.11.1.2 Operating, maintaining (on a planned maintenance basis), repairing replacing and extending sanitation service physical infrastructure.

12.11.1.3 Keeping updated infrastructure and customer data on a GIS base.

12.11.1.4 Managers, staff, vehicles, equipment and consumables associated with above.

12.11.1.5 Consumable like chemicals etc.

12.11.1.6 Power charges.

12.11.1.7 Spare Parts.

12.11.1.8 Any other O&M contract amount

12.11.2 The urban local bodies are proposed to have following sources funds for O&M :-

12.11.2.1 The O&M cost will be met from the Government grants and contribution of the beneficiaries.

12.11.2.2 Revenue from sale of treated waste water.

The government in town policy shall include the provision of the recovery of full capital cost of lying sewerage system and prorate cost of STP for new colonies. It shall be mandatory for the ULBs to adhere to minimum 20% reuse and recycling of treated waste water. The treated waste water may be sold at a rate as decided by adopting transparent procedure as decided by State Government.

12.12 Public Private Partnership (PPP)/Engineering Procure Construct (EPC) and Operational &Maintenance (O&M) Contract

As there is budget constraint from the Central and the state side the option of the Sewerage Project through Public Private Partnership (PPP) will be explored. In case the PPP mechanism is not workable then the EPC mechanism will be explored and long term O&M Contract will be done.

13. ON STANDARDS,REGULATIONS AND QUALITY ASSURANCE

13.1 Particular attention shall be focused on adopting and enforcing effluent and sludge standards for municipal and industrial wastewater treatment plants and for discharges from industries, laboratories, hospitals, slaughterhouses and other businesses.

13.2 Extensive and comprehensive monitoring programs shall be developed. Influent to and effluent from the plants and throughout watercourses shall be measured and monitored against all appropriate parameters to ensure that public health objectives and treatment efficiency goals are attained.

13.3 Observation wells shall be installed near the treatment plants to monitor groundwater quality where necessary, and to mitigate adverse impacts where and when needed.

13.4 Data collected from the monitoring process shall be entered and stored, processed and analyzed through computer software, and results published periodically.

13.5 Roof and storm water connections to public sewers shall be prohibited. Collection of storm water shall be done separately and will be the subject of water harvesting.

13.6 Effluent and sludge standards for the disposal of hazardous liquid wastes shall be defined to ensure the safe disposal of such wastes.

13.7 State Pollution Control Board/ Central Pollution Control Board regulations for disposal norms shall be mandatory.

13.8 Industrial waste water is not allowed to disposed off in the sewer line. ULB can issue notification for penalties to be imposed on the such industrial units.

13.9 Laboratories shall be maintained and properly equipped to provide services and reliable data needed to ensure enforcement of and adherence to standards and regulations.

14. ON LEGISLATION AND INSTITUTIONAL ARRANGEMENTS

14.1 Legislation and institutional arrangements for the development and management of wastewater shall be periodically reviewed. Gaps shall be filled, and updating of the institutional arrangements with parallel legislation shall be made periodically to cope with varying circumstances and for this government shall notify an agency giving full power to take necessary action in this matter.

14.2 The role of the Government shall be fine-tuned and its involvement reduced to be regulatory and supervisory. Involvement of the stakeholders in wastewater management and support shall be introduced and expanded.

14.3 On Public Awareness

14.3.1 The public shall be educated through various means about the risks associated with the exposure to untreated wastewater and the value of treated effluents for the different end uses.

14.3.2 Programs on public awareness shall be designed and conducted to promote the reuse of treated wastewater.

14.3.3 Public awareness campaigns shall also be waged to educate the public on the importance of domestic hygiene, wastewater collection, treatment and disposal.

14.3.4 It is observed that the system is dependent on the appreciation of the beneficiaries to the advantages and importance of the system to them and thereby working together towards making it successful. The co-operation is vital for following areas:

14.3.4.1 Protecting the system from getting choked due to entry of extraneous material in the sewer system. A vigilant public will help prevent this.

14.3.4.2 The sewerage system yield full benefits or disease protection when there is 100% connectivity.

14.3.4.3 It is important that the beneficiaries appreciate the benefits and pay for their upkeep. The systems require proper upkeep and the cost associated with maintenance and upkeep should at least be recovered from the beneficiaries. The principal of the polluter pays will be adopted only by an enlightened and participating public.

14.3.5 A conscious campaign has to precede the planning and implementation of the sewerage Systems. ULB, Non Government Organizations and local neighborhood committees could give the process a thrust.

14.3.6 A public participation process will not only aid in identifying potential consumers but also serve as a public education program. Potential users will be mainly concerned with the quality of reclaimed water and reliability of its delivery and the constraints in using reclaimed water. Also, connection costs or additional sewerage treatment cost might affect their ability to use the product. Consultations with various stake holders will aid in structuring of tariff and discounts for adopting reuse technologies, awareness on dual piping system, water conservation and safety issues.

14.3.7 Municipal Bodies should decide and pass resolution regarding sewer connection charges. The provision should be widely publicized

14.3.8 Series of 'Sewer connection camps' may be organized. The time and venue should be publicized widely to inform residents. The days, time and venue should be to suit the convenience of public.

14.3.9 Ensure that all Government offices and schools are connected.

14.4 On the Human Resources Development & On Research and Development:

14.4.1 Capabilities of human resources in the management of wastewater shall be enhanced through training and continuous education. Work environment shall be improved and incentives provided.

14.4.2 Establishment of State Water & Waste water Training Center at state level. It will help in training of human resources in this sector.

14.4.3 Human resources performance will be continually appraised in order to upgrade capabilities, sustain excellence and provide job security and incentives to qualified individuals with excellent performance.

14.4.4 Applied research on relevant wastewater management topics shall be adopted and promoted. Topics such as the transfer of wastewater treatment technologies, low cost wastewater treatment technologies, reduction of energy consumption and others will receive adequate support.

14.4.5 Cooperation with specialized centers in the country and abroad shall be advanced, and raising of funds for this purpose shall be supported.

14.4.6 Transfer of appropriate technology suited for local conditions will be a primary target for the development activities and for adaptive research.

14.5 On Selected Priority Issues

14.5.1 To the extent that design capacities of wastewater treatment plants permit, priority of collection and house connections shall be accorded to expansion of urban areas served by treatment facilities. Users willing to contribute to the cost of the services in addition to fees and charges set by laws and regulations shall also be given priority.

14.5.2 Where design capacities of treatment facilities and of conveyance systems are approached or exceeded, priority shall be given to the expansion of such capacities.

14.5.3 Priority shall be accorded to situations and locations where waste-water disposal practices threaten the environmental integrity of freshwater resources, and where performance of cesspools and percolation pits pollute underground water aquifers.

More awareness campaigns will help to spread the work. The civic body should make it mandatory for new constructions to have a separate system to collect grey water.

15. OPERATION AND MAINTENANCE

There are several important factors that need to be considered when planning wastewater plants and options which will have a direct impact on O&M and monitoring. Since O&M aspects are important for the overall long-term success of the programme, O&M planning, including the financial provision of funds, should be included in the termsof references for the design of each plant. Furthermore, the O&M plan should be reviewed and approved alongwith engineering designs and specifications, including the operation and maintenance cost:

15.1 location of the wastewater treatment plants and its proximity to residential areas;

15.2 volumes and schedules of wastewater collection;

15.3 degree of mechanisation of technologies; and

15.4 final enduse or disposal of reuse

15.5 running it on PPP mechanism and charging the different users

16. STATE-LEVEL IMPLEMENTATION STRATEGY

16.1 State Urban Development Agency will develop and issue aWastewater Implementation Strategy and Plan Guidelines. These Guidelines will provide an overall state-level framework, objectives, *timelines and implementation plans to the ULBs. The Implementation Strategy will cover* aspects such as implementation targets, framework for engagement of the private sector, training and capacity building, behavior change and social communication, M&E framework, specific roles and responsibilities of various entities, guidelines to develop ULB-level plans, and funding mechanisms.

16.2 ULB-specific Wastewater Strategy and Action Plan conforming to the State Policy will be developed by each ULB based on the State Faecal Sludge & Septage Management Implementation Strategy and Plan Guidelines.

16.3 How the policy will be executed in the in the cities/towns.Three phase approach will be designed to implement the policy.

16.3.1 In the financial year 2017-18 it will be implemented in all the notified Nagar Nigam.

16.3.2 In the financial year 2018-19 it will be implemented in all the notified Nagar Parisad.

16.3.3 In the financial year 2019-20 it will be implemented in in all the notified Nagar Panchayat.

All efforts will be done to follow the execution method outlined above for the cities towns, however, depending upon the centre/state programme and budget availability the cities/towns might be chosen from any category in any financial year. Due to environmental factors the cities/towns may also be chosen out of these to implement the plan.

17. MONITORING & EVALUATION

17.1 At the state level, State Urban Development Agency (SUDA)/ Jharkhand Urban Infrastructure Development Corporation (JUIDCO) will adopt San-Benchmark framework for revised service level benchmark for sanitation that assess performance of citywide waste water recycling and sewage water treatment.

17.2 State Urban Development Agency (SUDA) / or JUIDCO will develop an M&E framework to measure cities' performance, and also devise data collection and reporting systems using indicator framework developed for San-Benchmark. This will be aligned with the 14th Finance Commission condition of publishing the service level benchmark to avail performance grant. ULBs will develop robust reporting format to track compliance of the various stakeholders with outcomes and process standards.

17.3 A cell will be created inside JUIDCO to monitor and evaluate the wastewater management operation. The cell will be created by funds from external agency funding or from the funds of 14th finance commission or through the state budget.

17.4 A Management Information System (MIS) will be developed accordingly to monitor the progress.

18. TAX INCENTIVE

The tax incentive will apply in following conditions:

18.1 All the Individual Households of RWAs will treat their waste water in a decentralised manner and reuse it inside their coloniesas permissible will get a rebate of 10% in the property tax.

18.2 All the new apartments which will be constructed and compulsory treat and reuse the treated waste water in their apartment, will get a 10% rebate of 10%of theconstruction permit fee, or Rs. 2,00,000/- (Two lakhs) whichever is less.

18.3 All the new malls, big hotels, industries, clubs, colleges, universities, hospitals, sports stadiums etc. which will be constructed will compulsory treat and reuse the treated water. In doing so they will get a rebate of 10 % of the construction permit fee, or Rs. 2,00,000/- (Two lakhs) whichever is less.

18.4 A separate head of the tax namely called 'Waste Water Tax' will be created which may be levied in the property tax for the operation and maintenance of the sepatge.

19. POLICY EVALUATION:

19.1 Policy may be reviewed as and when required for assessing its effectiveness and making changes if necessary.

19.2 This policy shall come into force from the date of issue of this resolution.

20. POWER OF THE STATE GOVERNMENT

20.1 Notwithstanding anything contained in the foregoing paragraphs of the Jharkhand WasteWater Policy, 2017 the State Government by issuance of notification in the official gazette may amend or withdraw any of the provisions and / or the schemes mentioned herein above.

20.2 Interpretation - Should any doubt arise as to the interpretation of any of the provisions of these Rules, the matter shall be referred to the Urban Development and Housing Department, whose decision thereon shall be final.

Order: It is hereby ordered that the copy of this resolution be published in the Special Gazette and wide publicity be given and circulated among all Department/ Head of the Department.

By the order of the Governor of Jharkhand,

(Arun Kumar Singh)
Principal Secretary to Government

Memo No-Suda/Amrut/ WasteWater-Policy/38/2017/2899 Ranchi, Dated 27/4/17

Copy to : Copy of the resolution forwarded to the Superintendent, Government Press, Jharkhand, Ranchi for publication in the forthcoming issue of Government Gazette/Nodal officer, E-Gazette, Urban Development and Housing Department, Government of Jharkhand for information and necessary action.

Principal Secretary to Government

Memo No-Suda/Amrut/ Waste Water-Policy/38/2017/2899 Ranchi, Dated 27/4/17

Copy to :P.S to Minister, Urban Development and Housing Department/ All Additional Chief Secretary/ Principal Secretary/Secretary, Govt of Jharkhand/All Divisional Commissioners, Jharkhand/Director, SUDA / Director DMA/All Deputy Commissioners, Jharkhand / All Officers, UD&HD/ Municipal Commissioners/ Executive Officers/ Special Officers, urban local bodies for information and necessary action.

Principal Secretary to Government

Sr. No.	Name of River	Name of ULBs	Name of Drains visited through which sewage directly discharged into the river	Approx. flow in drains (in MLD)
1	Damodar	Ramgarh Nagar Parishad	Drain near Argada village.	2
			Parsotia Nallah at Gola road Ramgarh	5
			Sahoo nallah Ramgarh	6
			Total Flow	**13**
2	Damodar	Dhanbad Municipal Corporation	Jeetpur Nallah	30
			Jodiya Nallah	100
			Chas Nallah	15
			Domgarh Nallah	3
			ACC Jamdoba Nallah	1.5
			Sudamadih Nallah	2
			Matkuriya checkpost Nallah (in city area ultimately discharged into Jodiya nallah)	60
			Wasseypur Nallah (in city area ultimately discharged into Jodiya nallah)	30
			Total Flow	**63.5 (for 4 drains)**
3	Damodar	Phusro Nagar Parishad	Bermosi nallah	4
			Ghutiyatad nallah	1
			Dhorikhas nallah	2
			Joriya Pull nallah	12
			Total Flow	**5 (for 2 drains)**

4	Garga	Chas Municipal Corporation	Drains near Gai ghat on the banks of Garga River.	3
			Drain at Medicine Gali near bridge on Garga river	2.5
			Drains at Bhojpur colony near bridge	6
			Drains at Bharra colony near bridge	2
			Drain at Bharra colony (Niche muhalla)	0.7
			Drain at Chira Chas near Pandey bridge	2
			Singar joriya nallah	12
			Total Flow	**28.2**
5	Subernarekha	Adityapur Municipal Corporation	JRDCL Drain	4
			Nagina Puri Drain	6
			Ram Madaiya nallah	7
			Road No. 32 Drain	7
			Saldih Drain	2
			Baba Kuti Drain	2
			Total Flow	**28**
6	Subernarekha	Jamshedpur NAC	Drain near Chhaya nagar bus stand (near WTP):	10
			East Plant Basti Drain	30
			510 Number Basti/ Sithgoda Drain (near CSIR-NML)	5

			Drain near old Baridih Colony	3
			Kumariya Nallah	25
			Jublie Park drain	5
			Sonari drain near Domuhani	2
			Asiana drain opposite Mandakini enclave	2
			Total Flow	**82**
7	Subernarekha	Mango Municipal Corporation	Daiguttu Nallah	8
			Dimna Nallah	10
			Mooncity Nallah	7
			Paras Nagar Nallah	6
			Gurudwara Basti Nallah	2
			Total Flow	**33 (for 5 nos. of drains)**
8	Subernarekha	Ranchi Municipal Corporation	Drain at Tupudana Industrial area in Hatia	6
			Drain at Hatia town	1.5
			Drain at Dhurwa	4
			Drain at Patel Nagar (Ward no. 52)	8
			Drain at Hetu	6
			Ghaghra nallah	10
			Total Flow	**35.5**

सत्यमेव जयते

THE
JHARKHAND GAZETTE
EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 777 **25 Aashwin, 1938 (S)**
Ranchi, Tuesday, 17th October, 2017

Department of Forest, Environment and Climate Change

NOTIFICATION

15 September, 2017

Notification No.- 3/PrayaPradu-52/2007/3900-- Whereas, plastic carry bags cause short-term and long-term environmental damage and health hazard;

And whereas, Article 48-A of the Constitution of India, inter alia, envisages that the State shall endeavour to protect and improve the environment;

And whereas, the Government of Jharkhand is of the opinion that, the use of plastic carry bags is causing grave and irreparable injury to the environment and the health of human beings as well as animals;

And whereas, it is observed that plastic carry bags are also causing blockage of gutters, sewers and drains resulting in serious environmental problems;

And whereas, with a view to prevent the occurrence of such problems, the State Government has decided to declare the entire area of the State of Jharkhand as the **"Plastic Carry Bags Free Area"**;

Now therefore, in exercise of the powers conferred under Section 5 of the Environment (Protection) Act, 1986 (No. 29 of 1986) as delegated under Section 23 of the said Act by the Central Government vide Notification No. S.O. 352 (E) New Delhi, dated 18.04.2001, the State Government, by this notification, issues the following directions for the complete Ban of manufacture, import, storage, tranportation, sale and usage of Plastic Carry bags in all parts of the state; namely,

1. No industry shall manufacture plastic carry bags and no person including a shopkeeper, vendor, wholesaler or retailer, trader, hawker or rehriwala etc., shall use

plastic carry bags for supply of goods and no person shall manufacture, store, import, sell or transport plastic carry bags in the State of Jharkhand with effect from the date of final publication of this Notification.

Provided that plastic carry bags manufactured exclusively for export purposes against any export order shall be exempted in terms of Rule 2(2) of the Plastic Waste Management Rules, 2016 from the application of this notification.

Explanation :- For the purpose of this Notification the words 'plastic' and 'carry bags' shall have the same meaning as defined under the Plastic Waste Management Rules, 2016. Containers used for packaging food material, milk and milk products and raising plants in nurseries shall not be deemed as carry bags.

2. Jharkhand State Pollution Control Board shall be responsible for enforcement in respect of the functions relevant to this notification and specified in clause (1) of Rule 12 of the Plastic Waste Management Rules, 2016, whereas the Urban Local Bodies and Gram Panchayats shall be responsible for enforcement under their jurisdictions in respect of the functions relevant to this notification and specified in clause (2) and (3) respectively of Rule 12 of the said Rules.

3. Officers as mentioned in Government of India's Notification No. S.O. 394 (E) dated 16 April, 1987 issued under Section 19 of the Environment (Protection) Act, 1986 shall be authorized to file complaints in the jurisdictional court of law againstviolation of directions contained in this notification.

4. From the date of final publication of this Notification, Notification No. 3/Parya.Pradush.-62/2007-3691 Van Parya., dated 11 September, 2013 shall be superseded except in respect of things done or omitted to be done before such supersession, to the extent that complaint cases filed under previous the Notification are pending.

By order of the Governor of Jharkhand,

Sunil Kumar,
Deputy Secretary to the Government.

Printed & Published by the Superintendent of Jharkhand Government Press, Doranda, Ranchi.
Jharkhand Gazette (Extraordinary) 777-- 50.

Legal/OA673/2018/NMCG/2019
National Mission for Clean Ganga
Department of Water Resources, River Development
& Ganga Rejuvenation, Ministry of Jal Shakti

1st Floor,
Major Dhyan Chand National Stadium
India Gate, New Delhi-110002
Dated: 3rd November, 2021

OFFICE MEMORANDUM

Subject: **11th Meeting of Central Monitoring Committee in the NGT Matter OA No. 673 of 2018.**

11th Meeting of Central Monitoring Committee in the NGT matter of O.A. No. 673 of 2018 has been re-scheduled on **15.11.2021** under the Chairmanship of Secretary, Ministry of Jal Shakti.

1. Detailed agenda for the meeting is as follows (based on the inputs provided in the MPRs):

I. Status of implementation of Action Plan by States:

a. STP/ CETP wise status of projects grounded to-date, status of projects awaiting sanction or in DPR stages (incremental progress in respect of projects) etc.

b. Status of existing STPs as regards their functioning as well as compliance, action taken to restore the functioning of existing STPs, where ever required.

c. Solid waste management interventions

d. Other issues are also proposed to be discussed viz., related to ground water management, e-flows, floodplain regulation, bio-diversity parks etc would also be taken up for discussion. Information in respect of these issues is being provided in monthly MPR by the States, at large.

II. Status of submission of action plan for management of pollution in coastal areas/ States

III. Besides above, the issue raised by CPCB as below will be also discussed:

a. Forfeiting of Bank Guarantee submitted by the States/UTs to CPCB or submission of Performance Guarantee amount to CPCB in case of non-compliance to Hon'ble NGT directions within stipulated time frame.

b. Payment of compensation amount for no-action/ delay in bio-remediation of drains and also commissioning of STPs on or before 31.03.2021.

2. The meeting is proposed to be taken through Video Conferencing (VC) as per the following details:

a. The meeting shall be convened through Google Meet App. **State-wise time slot is enclosed at Annexure -1.**

b. **1st slot: 10.00 AM to 12.00 PM and 2nd slot: 12.00 PM to 02.00 PM. Link for the meeting – https://meet.google.com/ygm-dipa-djq**

c. **3rd Slot from 3.30 PM onwards. Link for the meeting – https://meet.google.com/jkd-gwnn-jeb**

3. Chief Secretary of the State/UTs are requested to attend the meeting along with Principal Secretary, Environment or concerned nodal officer.

A line of confirmation along with name and designation of the official attending the meeting may be communicated at **ruby.raju@nmcg.nic.in**, latest by **12.11.2021** for consideration and necessary action.

(D. P. Mathuria)
Executive Director –Technical, NMCG
ed-technical@nmcg.nic.in

Annexure-1

Tentative Schedule for the 11th meeting of CMC on 15.11.2021 through VC

No.	STATE
1st Slot 10.00 AM – 12.00 PM. Link for the meeting https://meet.google.com/ygm-dipa-djq	
1.	KARNATAKA
2.	TAMIL NADU
3.	GUJARAT
4.	ANDAMAN AND NICOBAR
5.	LAKSHADWEEP
6.	ANDHRA PRADESH
7.	KERALA
8.	PUDUCHERRY
9.	TELANGANA
10	PUNJAB
11.	JAMMU & KASHMIR
2nd Slot 12.00 PM – 02.00 PM. Link for the meeting https://meet.google.com/ygm-dipa-djq	
12.	ASSAM
13.	SIKKIM
14.	TRIPURA
15.	MAHARASHTRA
16	ODISHA
17	GOA
18	DAMAN, DIU AND DADRA NAGAR HAVELI
19	MANIPUR
20	MEGHALAYA
21	NAGALAND
22	MIZORAM
3rd Slot from 3.30 PM onwards. Link for the meeting https://meet.google.com/jkd-gwnn-jeb	
23	BIHAR
24	JHARKHAND
25	CHHATTISGARH
26	UTTAR PRADESH
27	RAJASTHAN
28	UTTARAKHAND
29	WEST BENGAL
30	DELHI
31	HARYANA
32	HIMACHAL PRADESH
33	MADHYA PRADESH

03.11.21

To,

1. Chief Secretary, Government of Andhra Pradesh, 1st Block, A.P Secretariat Office, Velagapudi – 522503
2. Chief Secretary, Government of Assam, Block- C, 3rd Floor, Assam Sachivalaya, Dispur - 781006, Guwahati
3. Chief Secretary, Government of Bihar, Main Secretariat, Patna – 800015
4. Chief Secretary, Government of Chhattisgarh, Mahanadi Bhawan, Mantralaya, Naya, Raipur – 492002
5. Chief Secretary, Government of Goa, Secretariat, Porvroim, Bardez, Goa – 403521
6. Chief Secretary, Government of Gujarat, 1st Block, 5th Floor, Sachivalaya, Gandhinagar – 382010
7. Chief Secretary, Government of Haryana, 4th Floor, Haryana Civil Secretariat, Sector-1, Chandigarh – 160019
8. Chief Secretary, Government of Himachal Pradesh, H P Secretariat, Shimla –171002
9. Chief Secretary, Government of Jammu & Kashmir, R. No. 2/7, 2nd Floor, Main Building, Civil Secretariat, Jammu -180001
10. Chief Secretary, Government of Jharkhand, 1st Floor, Project Building, Dhurwa, Ranchi-834004
11. Chief Secretary, Government of Karnataka, Room No. 320, 3rd Floor, Vidhana Soudha, Bengaluru - 560001
12. Chief Secretary, Government of Kerala, Secretariat, Thiruvananthapuram -695001
13. Chief Secretary, Government of Madhya Pradesh, MP Mantralaya, Vallabh Bhavan, Bhopal – 462004
14. Chief Secretary, Government of Maharashtra, CS office main Building, Mantralaya, 6th floor, Madame Cama Road, Mumbai – 400032
15. Chief Secretary, Government of Manipur, South Block, Old Secretariat, Imphal – 795001
16. Chief Secretary, Government of Meghalaya, Main Secretariat Building, Room no 316, Shillong – 793001
17. Chief Secretary, Government of Mizoram, New Secretariat Complex, Aizwal – 796001
18. Chief Secretary, Government of Nagaland, Civil Secretariat, Kohima – 797004
19. Chief Secretary, Government of Odisha, General Administration Department, Odisha Secretariat, Bhubaneswar – 751001
20. Chief Secretary, Government of Punjab, Chandigarh – 160001
21. Chief Secretary, Government of Rajasthan, Secretariat, Jaipur – 302005
22. Chief Secretary, Government of Sikkim, New Secretariat, Gangtok – 737101
23. Chief Secretary, Government of Tamil Nadu, Secretariat, Chennai-600009
24. Chief Secretary, Government of Telangana, Block C, 3rd floor, Telangana Secretariat Khairatabad, Hyderabad, Telangana
25. Chief Secretary, Government of Tripura, New Secretariat Complex Secretariat – 799010, Agartala, West Tripura
26. Chief Secretary, Government of Uttar Pradesh, 1st floor, Room No. 110, Lal bahadur Sastri Bhawan, Uttar Pradesh Secretariat, Lucknow – 226001
27. Chief Secretary, Government of Uttarakhand, 4 Subhash Road, Uttarakhand, Secretariat Dehradun – 248001
28. Chief Secretary, Government of West Bengal, Nabanna, 13th Floor, 325, Sarat Chatterjee Road, Mandirtala, Shibpur, Howrah – 711102
29. Administrator, Daman & Diu and Dadra and Nagar Haveli, Secretariat, Moti, Daman -396220
30. Chief Secretary, Govt. of NCT of Delhi, Delhi Secretariat, IP Estate, New Delhi – 110002
31. Chief Secretary, Govt. of Puducherry, Main Building, Chief Secretariat, Puducherry-605001
32. Chief Secretary, Andaman & Nicobar, Secretariat, Port Blair
33. Administrator, Lakshadweep

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1. Secretary, Department of Forest, Ecology & Environment, J&K, Room no. 2/33-34, Main Building, Civil Secretariat, J&K, Jammu.
2. Secretary, Department of Environment, Science and Technology Paryavaran Bhawan, Near US Club, Shimla, Himachal Pradesh-171001
3. Principal Secretary, MGSIPA Complex, Sector-26, adjacent Sacred Heart School, Chandigarh, 160019
4. Additional Chief Secretary to Govt. of Haryana, Environment Department of Environment & Climate Change, R.No. 108, 7th Floor, Main Secretariat Sec16, Chandigarh 160017
5. Principal Secretary, Department of Environment, U.P., Room No. 601, Bapu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.
6. Special Chief Secretary, Department of Environment, Forest, Science & technology, 4th Block, Ground Floor,Room No:268, A.P Secretariat Office, Velagapudi
7. Secretary, Department of Environment and Forest, H-Block, 2nd Floor Janata Bhawan, Dispur, Guwahati 781006, Assam
8. Principal Secretary, Department of Environment, Forest and Climate Change, Van Vibhag Rd, Nehru Nagar, Patliputra Colony, Patna, Bihar 800013
9. Additional Chief Secretary (Forests & Environment), Forests & Environment Department, Block 14, 8 th floor, Sachivalaya, Gandhinagar - 382 010 Gujarat.
10. Principal Secretary, Department of Environment, Room No. S-2/23, Mahanadi bhawan, Mantralaya, Nava Raipur, Atal Nagar, Raipur - 492001
11. Additional Chief Secretary to Government, Forest, Environment and Ecology, Department, Karnataka Government Secretariat, Room No. 447, 4th Floor, Gate no. 2, Multi-storey Building, Bangalore-560001.
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14. Principal Secretary, Environment Department, Maharashtra 15th Floor, New Administrative Building, Madam Cama Road, Mantralaya, Mumbai – 400032
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19. Principal Secretary, Forest and Environment Department, Rajasthan 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur, Rajasthan 302004
20. Principal Secretary, Chief Project Director (SBFP-JICA), Forests, Environment & Wildlife Management Department, Government of Sikkim
21. Principal Secretary, Namakkal Kavignar Maaligai, Fort St. George, Chennai 600 009
22. Secretary, Department of Science, Technology & Environment, Vigyan Prajukti O Paribesh Bhawan, P.N. Complex, Gorkhabasti, Agartala,West Tripura, PIN-799006
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24. Deputy Conservator of Forests, (Territorial Division), Department of Environment & Forest Office of the Deputy Conservator of Forest, Daman, Fort Area, Post Office Moti Daman Daman & Diu (U.T.)
25. Deputy Conservator of Forests, (Territorial Division), Van Bhavan, Dadra and Nagar Haveli
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27. Secretary, Environment & Forest, Govt. of Uttarakhand, 4 Subhash Road, Secretariat, Forth Floor, New Building Dehradun, Pin code-248001
28. Joint Secretary, Department of Science, Technology & Environment, 1st Floor, Pandit Deendayal Upadhay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez - Goa
29. Secretary, Environment, Office of Environment, Chief Secretariat, Goubert Avenue, Puducherry 605001
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33. The Member Secretary, Assam Pollution Control Board, Bamunimaidam, Guwahati – 781021
34. The Member Secretary, Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada – 520 010
35. The Member Secretary, Bihar State Pollution Control Board, Parivesh Bhawan, Plot No. NS-B/2 Paliputra Industrial Area, Patliputra, Patna (Bihar) - 800 010
36. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19, Atal Nagar Dist- Raipur (C.G.) 492002
37. The Member Secretary, Delhi Pollution Control Committee, Government of N.C.T. Delhi 4th Floor, ISBT Building, Kashmere Gate, Delhi-110006
38. The Member Secretary, Daman, Diu & Dadra Nagar Haveli Pollution Control Committee, Office of the Deputy Conservator of Forests, Fort Area, Court Compound, Moti Daman, Daman – 396220
39. The Member Secretary, Goa State Pollution Control Board, 1st Floor, Dempo Tower, EDC Patto Plaza, Panaji, Goa-403 001
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43. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Parivesh Bhawan, Forest Complex, Gladni, Narwal, transport Nagar, Jammu, Jammu and Kashmir 180004
44. The Member Secretary, Jammu & Kashmir State Pollution Control Board, Shiekh-ul-Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar (J&K)
45. The Member Secretary, Jharkhand Pollution Control Board, T.A Building, HEC, P.O. Dhurwa, Ranchi – 834004
46. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, 4th & 5th Floor, # 49, Church St., Bengaluru-560 001

47. The Member Secretary, Kerala State Pollution Control Board, Plamoodu Jn., Pattom Palace P.O. Thiruvananthapuram - 695 004
48. The Member Secretary, Manipur Pollution Control Board, Lamphelpat, Imphal West D.C. Office Complex Imphal– 795004
49. The Member Secretary, Meghalaya Pollution Control Board Arden- Lumpyngngad Shillong: 793014
50. The Member Secretary, Nagaland Pollution Control Board, Signal Point, Dimapur Nagaland – 797112
51. The Member Secretary, Madhya Pradesh Pollution Control Board, E-5, Arera Colony, Paryavaran Parisar, Bhopal - 462 016, Madhya Pradesh
52. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 2nd – 4th Floor Opp. Cine Planet Cinema, Nr. Sion Circle, Sion (E) Mumbai – 400 022
53. The Member Secretary, Mizoram Pollution Control Board, New Secretariat Complex, Khatla Thlanmual Peng, Khatla, Aizawl, Mizoram: 796001
54. The Member Secretary, Puducherry Pollution Control Committee, Housing Board Complex, Anna Nagar, Puducherry -600 005
55. The Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, Punjab 147001
56. The Member Secretary, Odisha Pollution Control Board, A-118, Nilakanta Nagar, Unit –VIII, Bhubaneshwar – 751012
57. The Member Secretary, Rajasthan Pollution Control Board, 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur (Rajasthan) - 302 004
58. The Member Secretary, Sikkim State Pollution Control Board, Department of Forest, Environment & Wildlife Management Government of Sikkim, Deorali, Gangtok, -737102
59. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3, I.E. Sanath Nagar, Hyderabad-500 018
60. The Member Secretary, Tripura Pollution Control Board, Vigyan Bhawan, Pandit Nehru Complex, Gorkhabasti, PO: Kunjaban Agartala – 799006
61. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032
62. The Member Secretary, Uttarakhand Environmental Protection & Pollution Control Board, 29/20, Nemi Road, Dehradun, Uttarakhand – 248001
63. The Member Secretary, Uttar Pradesh Pollution Control Board, Building.No. TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226 010
64. The Member Secretary, West Bengal Pollution Control Board, Paribesh Bhavan, 10A, Block-L.A., Sector III, Salt Lake City, Kolkata - 700 106
65. The Member Secretary, Andaman & Nicobar Islands Pollution Control Committee, Department of Science & Technology, Dollygunj Van Sadan, Haddo P.O., Port Blair – 744102
66. The Member Secretary, Lakshadweep Pollution Control Committee, Department of Science, Technology & Environment, Kavarati-682555

Copy for kind information:

1. PPS to Secretary, Ministry of Jal Shakti, Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi- 110001
2. PS to Director General, NMCG cum Project Director, NRCD

3. PS to Additional Secretary, Ministry of Housing and Urban Affairs, Nirman Bhawan, Maulana Azad Road, New Delhi – 110011. (It is kindly requested to depute concerned official to attend the meeting)
4. Joint Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi – 110003
5. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
6. PS to ED (Project/ Finance), NMCG
7. Adviser, NRCD
8. Shri.S.K.Srivastava, Director, NRCD
9. Shri Avshesh Chauhan, Assistant System Analyst, NMCG
10. Shri Ishwer Singh, Legal Consultant, NMCG
11. Shri Kumar Ajitabh, Project Officer (Legal), NMCG

Legal/OA673/2018/NMCG/2019
National Mission for Clean Ganga
Department of Water Resources, River Development
& Ganga Rejuvenation, Ministry of Jal Shakti

1st Floor,
Major Dhyan Chand National Stadium
India Gate, New Delhi-110002
Dated: 4th August 2021

OFFICE MEMORANDUM

Subject: **Minutes of the 10th meeting of Central Monitoring Committee in the NGT Matter OA No.673 of 2018 held on 09.07.2021 from 10.30 AM on-wards**

A copy of Minutes of the 10th Meeting of Central Monitoring Committee in the NGT matter O.A. No. 673 of 2018 held through Video Conferencing on 09.07.2021 from 10.30 AM on-wards, under the Chairmanship of Secretary, Ministry of Jal Shakti is forwarded herewith for information/ necessary action.

(D. P. Mathuria) 4.8.21
Executive Director-Technical, NMCG
ed-technical@nmcg.nic.in

Encl: As above.

To,

1. Chief Secretary, Government of Andhra Pradesh, Ist Block, A.P Secretariat Office, Velagapudi – 522503
2. Chief Secretary, Government of Assam, Block- C, 3rd Floor, Assam Sachivalaya, Dispur - 781006, Guwahati
3. Chief Secretary, Government of Bihar, Main Secretariat, Patna – 800015
4. Chief Secretary, Government of Chhattisgarh, Mahanadi Bhawan, Mantralaya, Naya, Raipur – 492002
5. Chief Secretary, Government of Goa, Secretariat, Porvroim, Bardez, Goa – 403521
6. Chief Secretary, Government of Gujarat, 1st Block, 5th Floor, Sachivalaya, Gandhinagar – 382010
7. Chief Secretary, Government of Haryana, 4th Floor, Haryana Civil Secretariat, Sector-1, Chandigarh – 160019
8. Chief Secretary, Government of Himachal Pradesh, H P Secretariat, Shimla –171002
9. Chief Secretary, Government of Jammu & Kashmir, R. No. 2/7, 2nd Floor, Main Building, Civil Secretariat, Jammu -180001
10. Chief Secretary, Government of Jharkhand, 1st Floor, Project Building, Dhurwa, Ranchi-834004

11. Chief Secretary, Government of Karnataka, Room No. 320, 3rd Floor, Vidhana Soudha, Bengaluru -560001
12. Chief Secretary, Government of Kerala, Secretariat, Thiruvananthapuram -695001
13. Chief Secretary, Government of Madhya Pradesh, MP Mantralaya, Vallabh Bhavan, Bhopal – 462004
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15. Chief Secretary, Government of Manipur, South Block, Old Secretariat, Imphal – 795001
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24. Chief Secretary, Government of Telangana, Block C, 3rd floor, Telangana Secretariat Khairatabad, Hyderabad, Telangana
25. Chief Secretary, Government of Tripura, New Secretariat Complex Secretariat – 799010, Agartala, West Tripura
26. Chief Secretary, Government of Uttar Pradesh, 1st floor, Room No. 110, Lal bahadur Sastri Bhawan, Uttar Pradesh Secretariat, Lucknow – 226001
27. Chief Secretary, Government of Uttarakhand, 4 Subhash Road, Uttarakhand, Secretariat Dehradun – 248001
28. Chief Secretary, Government of West Bengal, Nabanna, 13th Floor, 325, Sarat Chatterjee Road, Mandirtala, Shibpur, Howrah – 711102
29. Administrator, Daman & Diu and Dadra and Nagar Haveli, Secretariat, Moti, Daman -396220
30. Chief Secretary, Govt. of NCT of Delhi, Delhi Secretariat, IP Estate, New Delhi – 110002
31. Chief Secretary, Govt. of Puducherry, Main Building, Chief Secretariat, Puducherry-605001
32. Chief Secretary, Andaman & Nicobar, Secretariat, Port Blair
33. Administrator, Lakshadweep

Copy To:

1. Secretary, Department of Forest, Ecology & Environment, J&K, Room no. 2/33-34, Main Building, Civil Secretariat, J&K, Jammu.
2. Secretary, Department of Environment, Science and Technology Paryavaran Bhawan, Near US Club, Shimla, Himachal Pradesh-171001
3. Principal Secretary, MGSIPA Complex, Sector-26, adjacent Sacred Heart School, Chandigarh, 160019

4. Additional Chief Secretary to Govt. of Haryana, Environment Department of Environment & Climate Change, R.No. 108, 7th Floor, Main Secretariat Sec16, Chandigarh 160017
5. Principal Secretary, Department of Environment, U.P., Room No. 601, Bapu Bhawan Secretariat, Vidhan Sabha Marg, Lucknow – 226001.
6. Special Chief Secretary, Department of Environment, Forest, Science & technology, 4th Block, Ground Floor,Room No:268, A.P Secretariat Office, Velagapudi
7. Secretary, Department of Environment and Forest, H-Block, 2nd Floor Janata Bhawan, Dispur, Guwahati 781006, Assam
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9. Additional Chief Secretary (Forests & Environment), Forests & Environment Department, Block 14, 8 th floor, Sachivalaya, Gandhinagar - 382 010 Gujarat.
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17. Principal Secretary, Department of Environment, Forest & Climate Change, New Secretariat, Kohima, Nagaland Tel.- 0370-2243025
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19. Principal Secretary, Forest and Environment Department, Rajasthan 4, Jhalana Institutional Area, Jhalana Doongri, Jaipur, Rajasthan 302004
20. Principal Secretary, Chief Project Director (SBFP-JICA), Forests, Environment & Wildlife Management Department, Government of Sikkim
21. Principal Secretary, Namakkal Kavignar Maaligai, Fort St. George, Chennai 600 009
22. Secretary, Department of Science, Technology & Environment, Vigyan Prajukti O Paribesh Bhawan, P.N. Complex, Gorkhabasti, Agartala,West Tripura, PIN-799006
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25. Deputy Conservator of Forests, (Territorial Division), Van Bhavan, Dadra and Nagar Haveli
26. Secretary, Department of Environment, Govt. of NCT of Delhi, 6th Floor, Delhi Secretariat, IP Estate, New Delhi 110002
27. Secretary, Environment & Forest, Govt. of Uttarakhand, 4 Subhash Road, Secretariat, Forth Floor, New Building Dehradun, Pin code-248001
28. Joint Secretary, Department of Science, Technology & Environment, 1st Floor, Pandit Deendayal Upadhay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez - Goa
29. Secretary, Environment, Office of Environment, Chief Secretariat, Goubert Avenue, Puducherry 605001
30. Principal Secretary, Department of Environment, 5th Floor, Pranisampad Bhawan, Block LB-II, Salt Lake, Sector III, Bidhannagar, Kolkata – 700 106
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32. Additional Chief Secretary, Forest and Environment Department, Government of Manipur, Secretariat, Imphal- 705001
33. The Member Secretary, Assam Pollution Control Board, Bamunimaidam, Guwahati – 781021
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65. The Member Secretary, Andaman & Nicobar Islands Pollution Control Committee, Department of Science & Technology, Dollygunj Van Sadan, Haddo P.O., Port Blair – 744102

66. The Member Secretary, Lakshadweep Pollution Control Committee, Department of Science, Technology & Environment, Kavarati-682555

Copy for kind information:

1. PPS to Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti, Shram Shakti Bhavan, Rafi Marg, Sansad Marg Area, New Delhi- 110001
2. PS to Director General, NMCG cum Project Director NRCD
3. PS to Additional Secretary, Ministry of Housing and Urban Affairs, Nirman Bhawan, Maulana Azad Road, New Delhi – 110011.
4. Joint Secretary, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi – 110003
5. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032
6. PS to ED (Project/ Finance), NMCG
7. Adviser, NRCD

Minutes of the 10th meeting of the Central Monitoring Committee held on 09.07.2021 through Video Conferencing regarding 351 polluted river stretches based on the directions of Hon'ble NGT in the matter OA No. 673 of 2018

The 10th meeting of the Central Monitoring Committee (CMC) constituted by Hon'ble NGT in the matter OA No. 673 of 2018 was held through video conferencing with the States on 09.07.2021 from 10.30 AM onwards in Conference Room, NMCG under the chairmanship of Secretary, Ministry of Jal Shakti (MoJS). The list of participants of NMCG, NRCD, MoHUA and CPCB present at the meeting is at ***Annexure-I.***

II. Director General, NMCG welcomed all the participants. It was highlighted that although the NGT orders covers various aspects, in the CMC meetings the focus primarily remains on sewage infrastructure, solid waste management and industrial pollution abatement measures taken by the States. However, measures to tackle various other issues also need to be adopted as they play a very important role in conservation and rejuvenation of rivers. State should take steps to maintain e-flow in the rivers, in order to ensure sustenance of river ecology. Similarly, in compliance to the directions of NGT in the matter OA No 325 of 2015, States should take steps in inventorizing the existing water bodies and efforts should be made in maintaining/improving the water quality and conserving of the water bodies. Further, it was informed that NMCG along with MoHUA have come up with a document regarding rivers and Cities Master plan titled *'Strategic Guidelines for Mainstreaming Urban River Sensitive Master Plans'*. The document is available on NMCG website, which the States and its agencies may like to go through.

ED (Tech), NMCG informed that most of the States had submitted MPRs for the month of May 2021, and a few of the States had also submitted MPR for June 2021. States were requested to ensure regular and timely submission of MPRs. Due to rise in number of COVID-19 cases and restrictions imposed by the States/UTs, progress with regard to sewerage infrastructure projects in the past few months has been insignificant. For monitoring the capacity utilization of the existing STPs, few States have installed online monitoring systems and have developed online portals/ Apps/ WhatsApp groups. Other States may also adopt such a mechanism. States also need to take necessary steps to make non-operational STPs functional at the earliest. As per the water quality monitoring data submitted by the States, improvement in BOD levels can be seen in some stretches. Many of the States have installed or are in process of installation of FSTPs for treatment of sewage as

an alternative to STPs. However, bioremediation measures are yet to be adopted by most of the States.

Director General, NMCG highlighted that the timeline of NGT for completion of STPs is already over and the States need to take fresh permission from NGT for extension of the timelines. As the progress in Assam has been very slow since the start of monitoring by CMC, Assam needs to understand the sense of urgency and urgently expedite the progress in the proposed projects.

III. Subsequently, State-wise discussions held are as follows:

Through a presentation, progress made by the States was highlighted and the issues related to sewage, industrial and solid waste management in the States, based on the information submitted in MPRs, were brought out for review.

1. **<u>Punjab</u>**

Director, NRCD informed that 4 polluted river stretches have been identified in the State. As reported by the State in the MPR, there is a sewage generation of 2108 MLD and 124 STPs of 1785 MLD are existing. As 1 STP is not operational, there is a gap of 371 MLD in sewage treatment capacity. Out of 103 STPs monitored, 27 STPs of 552.3 MLD are reported to be non-complying. State Government needs to ascertain whether non-compliance of STPs has been reported by the agency responsible for O&M or the regulators, and the actions taken by the regulators against the non-complying units. Out of 47 STPs of 605.3 MLD under construction, 11 STPs have been completed and are under stabilization, State Government needs to ensure these STPs are made operational at the earliest. No bio-remediation works have been initiated in Punjab. With regards to pollution due to Buddha Nallah, it was informed that State is implementing the Buddha Nallah Rejuvenation Project with an estimated budget of Rs. 840 crore (Rs. 519 crore – Capital cost and Rs. 321 crore - O&M cost for 10 years), which includes establishment of 2 new STPs and refurbishment of 4 existing STPs. 3 CETPs were envisaged in Ludhiana, of which works have been completed for 40 MLD and 50 MLD CETPs and works of 0.15 MLD STP have been halted due to Court stay.

ED (Tech), NMCG informed that a meeting was held under the Chairmanship of Hon'ble Minister of Jal Shakti on 17.06.2021 regarding pollution from Buddha Nallah. Based on the discussions held in the meeting, a joint inspection team under the supervision of CPCB

inspected the catchment area of Buddha Nallah. Results of the random inspection were received by NMCG on 08.07.2021 and as per the results, out of 4 CETPs inspected, 2 CETPs were found to be non-complying, out of 29 industrial units inspected, 15 units were found to be non-complying and out of 14 STPs inspected, 12 STPs were found to be non-complying.

Chief Secretary, Punjab attended the meeting along with Principal Secretary (LG), Principal Secretary (ST&E) and Chairman, Punjab Pollution Control Board (PPCB). Principal Secretary (LG), Punjab informed that while previously 43 STPs were reported to be non-complying, now the number has reduced to 27 STPs. Of the 27 STPs reported to be non-compliant, 8 STPs (2 STPs are SBR and 6 STPs are WSP) are not complying with the BOD standards and remaining 19 STPs are not complying with the Fecal Coliform standards. Efforts are being put in by the State to resolve these issues by constructing chlorination tank etc. and it is expected that in 1-2 months the compliance status of the STPs in Punjab shall drastically improve. Out of 500 MLD STPs reported to be non-compliant, 3 STPs of 350 MLD in Ludhiana are being refurbished under the Buddha Nallah Rejuvenation Project and are expected to be completed by December 2021. The compliance status of the STPs are being monitored by PPCB. With regards to the on-going and proposed STP projects, it was informed that finances for the projects have been arranged. Work is in progress for 41 STPs of 598 MLD and the State Government is rigorously monitoring the progress and most of the STPs are expected to be completed by March 2022, except for bigger projects such as Buddha Nallah, which shall be completed by end of 2022. With regard to bioremediation, it was informed that works have started at 3 locations and are providing satisfactory results. Most of the drains are to be tapped and treated in the existing/ proposed STPs. With regard to the shifting of diaries, it was informed that proposal was considered by the High Level Committee, but land for shifting is yet to be finalized and procured. Further, till shifting diaries take place, State Government has included provision for establishment of ETPs/ CETPs in the area under the Buddha Nallah Project.

Director General, NMCG highlighted that considering the issues relating to Buddha Nallah, the ongoing STP projects need to be monitored closely and the CETPs should be made functional and operated optimally at the earliest.

Principal Secretary (ST&E), Punjab informed that release of electric connections has been requested from Electricity Department for the 2 CETPs of 40 and 50 MLD. These CETPs are expected to be operational by August 2021. Previously, 2 CETPs were reported to be non-

complying, of which 15 MLD CETP at Ludhiana has been stabilized and is now complying with the standards and the 5 MLD CETP at Jalandar is non-complying due to high BOD of 45 mg/l. Some maintenance works are in progress and this CETP shall be complying shortly. Of the 1400 industrial units inspected during one year, due to non-compliance 25 units have been closed down, environmental compensation of Rs. 3.5 crore have been imposed on 78 units and advisory has been issued to 150 units.

Chief Secretary, Punjab informed that CMD, PSPCL is aware of the request for electrical connections for the two newly constructed CETPs of 40 & 50 MLD and after due strengthening, these shall be made operational shortly.

Shri A. Sudhakar, Additional Director, CPCB informed that CPCB has completed the inspection in the catchment area of river Satluj by June 2021. Industries non-complying to the norms have been identified and action is being taken against the defaulting units. 12 STPs, 2 CETPs and 15 industrial units have been identified as non-complying to the norms.

Secretary, Ministry of Jal Shakti directed CPCB to keep a close watch on the industries and to initiate appropriate action against the defaulters.

2. <u>Assam</u>

Director, NRCD informed that 44 polluted river stretches have been identified in the State. 436 MLD of sewage is generated in the State whereas the treatment capacity available is NIL. Previously, the State had informed that for the area in and around Guwahati region (covering 5 polluted river stretches), 14 decentralized STPs of 157 MLD capacity were proposed with financial assistance of JICA. However, in the latest MPR of May 2021 submitted by the State, it has been reported that DPR for 4 STPs of total 202 MLD capacity (including 8 FSTPs) for Guwahati has been forwarded to CPHEEO, Ministry of Housing & Urban Affairs. Previously it was reported that DPRs for STPs at Mangaldoi, Tejpur, Nagaon, Jorhat and Silichar are awaiting sanction, however now it is reported that the DPRs for these towns are under preparation. As per MPR, total Municipal Solid Waste processing facility available for 95 ULBs is about 983.5 TPD and capacity utilization is only 404 TPD. Capacity utilization of the existing solid waste processing units is very low. Latest status of setting up of Integrated Solid Waste Management Plant at Sonaguli and removal of legacy waste at Boragaon dumping site in the catchment area of Deepor Beel (Ramsar Site) needs to be provided.

Principal Secretary (Environment), Assam informed that there are no sewage treatment plants existing in the State. The site for development of Integrated Solid Waste Management Plant has been shifted to Chandrapur and the issue of legacy waste at Boragaon shall be addressed. 15-20% of the legacy waste has been treated, and in another 6 months it is expected that the entire legacy waste shall be treated. It was informed that previously, it was planned to have 14 STPs of 157 MLD for Guwahati. However, after detailed assessment it is now proposed to have 4 STPs of 187 MLD at Guwahati.

Secretary (GDD), Assam informed that the JICA had appointed NJS Consultants for carrying out detailed survey and preparation of DPR for areas around Guwahati and based on the survey, it was suggested that instead of 14 decentralized STPs, 4 STPS of 187 MLD should be established. Further, the proposal/ DPR was submitted to CPHEEO in April 2021 for approval. Deputy Adviser, CPHEEO in a meeting held with State Government, JICA and DEA in June 2021 raised the issue with regard to specification of pipes and the response has been submitted. The meeting is again fixed for July 2021 and it is expected that approval for proposal/ DPR shall be obtained shortly thereafter.

Director General, NMCG highlighted that the timeline of NGT for completion of STPs is over and the States may take fresh permission from NGT for extension of timelines. Progress in Assam has been slow since the beginning of monitoring by CMC and the State Government needs to expedite the progress of the proposed projects.

Deputy Adviser, CPHEEO informed that the issues of designs of pipes and clear NOC of the land parcels for 4 STPs & intermediate pumping stations are required to be urgently finalized, as the earlier proposed 14 STP projects could not be initiated due to non-availability of land.

Principal Secretary (Environment), Assam informed that NOCs are in place and after approval of DPRs, tender shall be floated. Further, with regard to number of polluted river stretches, it was informed that Assam has provided details to CPCB and has requested reduction in number of polluted stretches.

Shri A. Sudhakar, Additional Director, CPCB informed that as per the directions of NGT, all the river stretches should achieve the MoEF&CC notified bathing standards and unless these rivers achieve the standards as per the 5 parameters (including BOD & fecal coliform), the polluted river stretches cannot be removed or considered as not polluted. Submission for de-listing made by States should have 2 years' continuous water quality monitoring data with 8

sets of reading for each year. This data will be verified by CPCB and recommendations of the CPCB shall be submitted to Hon'ble NGT for approval. This has already been communicated to all the States/UTs.

3. Jammu & Kashmir

Director, NRCD informed that there are 9 polluted river stretches identified in the State. The State has sewage generation of 523 MLD and there are 15 STPs of 139 MLD capacity, but only 11 STPs are operational. There is gap in sewage generation of 384 MLD. 10 STPs of 92.01 MLD are under construction and 28 STPs of 153 MLD are proposed. Even after these STPs are put in place, the gap of 138 MLD in sewage treatment shall still remain. State Government needs to inform the action proposed for bridging the remaining gap. Bio-remediation on identified polluted river stretches has not yet been taken up. 2 CETPs of 1.05 MLD are functional, 9 CETPs of 7.5 MLD are under construction and 10 CETPs of 5.1 MLD are proposed. Against the total municipal solid waste generation of 1526 TPD, 244 TPD of waste is being processed and work for 125 TPD and 270 TPD plants was to start from March, 2021. Progress of Devika river project is very slow, and work on construction of remaining 2 STPs has still not started. HUDD and UEED need to expedite finalisation of design and start the construction work. Out of 130 kms. of sewer lines to be laid, only 48 kms. has been laid till date since award of contract in January, 2019. Govt. of UT of J&K needs to expedite implementation of the project.

Principal Secretary (Housing & Urban), J&K informed that out of 139 MLD existing sewage treatment capacity, only 63% is being utilized. Efforts are being put in to utilize 100% of the existing STPs by increasing the household connections and interception and diversion of 13 Nallahs. 11 STPs of 96 MLD are under construction and plan has been approved for 13 STPs of 168 MLD and these shall roll out in the next month. Of the existing 15 STPs, 10 MLD STP at Bhagwati Nagar is under refurbishment and shall be operationalized by August 2021, after which all the 15 existing STPs in J&K shall be fully functional and compliant.

Director General, NMCG highlighted that the foundation stone for Devika project was laid by Hon'ble PM and the State should closely monitor the progress of the project. It was directed that NRCD officials should visit J&K and review the project on the ground.

Principal Secretary (Housing & Urban), J&K informed that project is being regularly monitored and penalties are being imposed on the contractors for delay. There were issues due to migration of labourers, the site was turned into micro-containment zone, land acquisition and utility shifting, which have been recently resolved. Issues in design and drawings have also been resolved. Laying of sewer network has progressed and the STPs under Devika Project are expected to be commissioned by March 2022. Development of Ghat in Package II is almost ready and will be completed by August 2021.

Secretary, Ministry of Jal Shakti also highlighted that the Devika project should be handled with utmost priority and be completed in a defined time frame.

4. <u>Sikkim</u>

Director, NRCD informed that there are 4 polluted river stretches (in Priority V) identified in the State. State has sewage generation of 47.7 MLD and there are 9 STPs of 22.5 MLD capacity having utilization capacity of 54.3%. State Government needs to put in efforts to increase the utilization capacity. Gap in sewage treatment capacity is 25.18 MLD (including rural areas). 1 STP of 3.25 MLD is under construction and 7 STPs of 11.33 MLD are proposed. The status of proposed STPs remains the same for the last few months.

ED (Tech), NMCG informed that the completion timeline for the proposed 7 STPs varies between December 2022 – 2028, which is not acceptable. Further, MPR from Sikkim was last received for the month of March 2021 and the State Governments needs to ensure timely submission of MPRs.

Chief Conservator (Forest), Sikkim attended the meeting with the concerned State Department officers. The State PHED official informed that 6 STPs are operational and complying with the norms, 3 new STPs have been commissioned, but the household connections are yet to be completed due to recent lockdown in the State. With regard to Zone II sewerage system, part of main trunk line got affected due to landslide. Land acquisition is in process for STP proposed at Namchi and as land identified for STP at Jorthang was objected by public, new land has been identified and process of acquisition is in progress. With regard to new STPs, funding avenues are being explored by the State and NRCD has been approached for STP at Chungthang.

Secretary, Ministry of Jal Shakti indicated that in absence of Chief Secretary of the State, respective Principal Secretaries should attend the CMC meetings.

5. <u>Daman, Diu and Dadra Nagar Haveli (DD & DNH)</u>

Scientist B, NRCD informed that out of 2 STPs operational in UT, one STP of 13 MLD capacity at Dadra Nagar Haveli is highly underutilized (2.8 MLD). This is mainly due to non-completion of household connections as reported in May 2021 MPR. 4870 households connections have been made out of proposed 24105 connections, which implies only 2% progress have been made since February 2021. Status of proposed 16 MLD STP at Daman (at DPR stage) remains same. With regard to 7 MLD STP at Diu, technical sanction has been accorded and NIT is to be published soon. Status with regard to phyto-remediation and bioremediation for 13 drains and the status of standalone modular STPs for Damanwada, Magarwada, Pariyari and Patlara panchayats remains the same as reported previously. Status with regard to industrial pollution management and solid waste management also remains the same. The UT needs to submit more information with regard to groundwater regulation and management of e-flow of rivers (including details of assessment of e-flow, notification of minimum e-flow to be maintained in the rivers and mechanism adopted for monitoring the e-flow in the rivers). Action Plan for management of coastal pollution is yet to be submitted by the UT to CPCB.

Chief Conservator of Forest cum Member Secretary, Pollution Control Committee, DD & DNH informed that only one river i.e. Damanganga has been identified as the polluted river stretch in the UT. The river is being regularly monitored by PCC at 9 locations and since past 2 years while BOD levels in the river are observed to be within the limit of less than 3 mg/l, Fecal Coliform levels are yet to achieve the desired limit at 2 locations. This issue is to be addressed by deploying phytoremediation measures. However, due to recent rise in COVID cases and the impact of cyclone Tauktae, not much progress could be achieved in this regard. Further, it was informed that out of 24105 proposed households connections, 4870 households have been connected to the 13 MLD STP at Dadra Nagar Haveli and the STP is now receiving 4 MLD of sewage. All ETPs are functional. With regard to the Action Plan for Management of Pollution in Coastal Plain, it was informed that National Centre for Coastal Research (NCCR), Chennai has been engaged for preparation of DPRs. Further, Zoological Survey of India has also been approached for the same. NIO has conducted a study across the

UT and had reported that no major pollution issues relates to marine and coastal areas of the UT. For construction of 7 MLD STP at Diu, tenders will be invited shortly. DPR for 16 MLD STP at Daman was submitted to MoEF&CC for financial assistance, and alternate funding sources are to be explored in case of non-responsiveness from MoEF&CC. All drains in the UT have been cleared before monsoon and all encroachments have been removed. Massive plantation has been carried out in mangroves and other forest lands for protection of coastal areas at Diu.

6. Manipur

ED Tech, NMCG highlighted that the on-going STP projects of 16 MLD and 1 MLD for Nambul river project have shown significant progress from February 2021 onwards. State needs to closely monitor the progress in order to keep up the pace. Status of proposed 49 MLD STP remains the same and no completion timeline has been provided in the MPR. 1 CETP of 400 KLD existing in the State is yet to be made operational. The MPRs for the months of March, April and May were submitted along with the MPR of June 2021 on 1st July 2021. State should ensure timely submission of MPRs in future. Status of Multi Segregation Shed at Chothe Village of 630.75 cum capacity mentioned in the earlier MPR of February, 2021 has not been reflected in the June, 2021 MPR.

Scientist B, NRCD highlighted that in the 9th meeting of CMC held on 4th March 2021, State Govt was directed to provide details regarding effluent quality of the 5 industrial units connected to CETPs and their compliance in the MPR. This has still not been provided in the subsequent MPRs. Further, previously it was reported that 269.5 TPD of solid waste management facilities are existing in the State, but in the updated MPRs it is mentioned that 116.5 TPD of processing facilities are existing. State needs to provide justification for the same.

Additional Chief Secretary (Environment & Forest), Manipur attended the meeting physically and informed that works of the on-going 16 MLD (62%) and 1 MLD (30%) STPs are being closely monitored by the State. Efforts are being made to complete the projects before the expected completion timeline of March 2022. It was informed that out of proposed 12000 household connections, 4600 household connections have been made and the 27 MLD existing STP is presently operational at 10.35 MLD. The works were greatly affected by the rise in COVID-19 cases and recent lockdown imposed in the State. The household

connections are expected to be complete by December 2021. 49 MLD STP proposed has been cleared by DEA for external funding opportunities and vetted by IIT Guwahati. Further, DPR has been submitted to NRCD for treatment of 16.75 MLD of sewage through bio-remediation and 50 KLD Faecal Sludge and Septage Management (FSSM). With regard to the DPRs for 7 polluted stretches (in Priority V), it was informed that these are under preparation and shall be submitted shortly to the Ministry of Jal Shakti for sanction. With regard to the non-functional CETP, it was informed that Manipur Industrial Development Corporation is preparing DPR with an estimated cost of Rs. 1.77 crore and after sanctioning of the DPR, implementation will take 3 months to complete and connect the industries to CETP. Health Department, Manipur is taking action for treatment of biomedical waste and is establishing Biomedical Waste Treatment Plant, which is proposed to become operational by end of 2021. Further, it was informed that the Multi Segregation Shed at Chothe Village has been completed and shall be inaugurated shortly by the Chief Minister. With regard to the incomplete information and discrepancies in the data submitted, it was assured that shortcomings in the MPR will be rectified in next submission and State shall ensure timely submissions of MPRs to the Ministry.

Secretary, Ministry of Jal Shakti directed NRCD to look into the proposal submitted by the State and to provide appropriate response to the State.

7. Meghalaya

Scientist B, NRCD informed that there is gap in sewage treatment of 73 MLD. 8 STPs of 1.85 MLD are existing in the State. 1 Septage Treatment Plant of 0.115 MLD at Shillong (90%) is under construction and works got delayed due recent lockdown in State. 0.04 MLD Faecal Sludge Treatment Plant at Khliehriat is at 70% progress. FSSM of 0.35 MLD at Shillong is having 10% physical progress. With regard to 5 number of Onsite treatment plants proposed at Shillong, land for 4 have been cleared while negotiation is in process for the remaining one which got delayed due to lockdown. Status with regard to 0.105 STP at Eastern Air Command, Shillong has not been provided in the MPR. There are 260 water polluting industries having discharge of 3.5 MLD. 254 industries are having functional ETPs. It has been reported that 10 ETPs of 0.002 MLD each at Tura are under progress, but their status and completion timeline has not been provided. The State generates 245 TPD of municipal solid waste and processing plant of 8 TPD is functional. 65 MLD processing plant

has been completed, but it is yet to be operationalized. Processing facility of 170 TPD is under trial and plant of 0.1 TPD at Khliehriat is under progress. Further, 10 processing plants of 166 TPD are proposed. The State Government needs to provide latest status.

Additional PCCF, Meghalaya informed that 90% works have been completed of the 0.115 MLD FSTP at Shillong. Machinery for the plant is yet to be procured, after which the plant shall be made functional. Regarding scheduled date of completion for 0.04 MLD FSTP at Khliehriat and status of 0.105 MLD STP at Shillong, it was told that information will be submitted in the next MPR. 0.04 MLD FSTP at Khliehriat is 70% completed. FSSM of 0.35 MLD having 10% physical progress is expected to be completed by March 2023. With regard to the 5 onsite STPs of total 13.42 MLD capacity at Shillong and STP at Eastern Air Command, State shall be submitting the status separately. With regard to the FSSM at Jowai town, it was informed that the Meghalaya Government has approached Government of Odisha for providing technical assistance for the FSSM project and the Odisha Government has agreed to provide assistance. Some of the solid waste processing plants are under trial and some are yet to be made operational due to which the capacity utilization of the solid waste processing facilities is low. It was informed that NIT has been floated for in-situ bioremediation of 5 drains (out of 32 drains) falling to Umkhrah and Umshyrpi rivers at Shillong. Also, bioremediation works for Kyrhuhkhla and Lukha Rivers (of Priority IV & V respectively) are being implemented by District Administration under Meghalaya Environment Protection & Restoration fund.

State Government was directed to update information in their MPR submissions.

8. Nagaland

Scientist B, NRCD informed that 25.43 MLD STP at Dimapur is yet to be made operational and 79% of the related sewer network works have been completed. Previously it was reported that 2 FSTPs of 20 KLD and 90 KLD are existing at Dimapur and Kohima respectively, however in the latest MPRs details of these 2 FSTPs have not been provided. There are 5 water polluting industries in the State, generating 102 KLD of industrial discharge. 3 ETPs of 102 KLD capacity are operational and complying, and 2 ETPs of 30 KLD are reported to be under process. Their status and completion timeline needs to be provided. The State generates 304.3 TPD of municipal solid waste, of which 132.05 TPD is being processed. However,

there exists only 50 TPD capacity processing plant and a plastic recycling unit. Action plan to bridge the gap in solid waste processing is to be provided by the State Government.

The official from PHED, Nagaland informed the project at Dimapur got delayed due to non-availability of land for sewer laying. The issue has been resolved and the project is now making good progress and is expected to be complete within its revised timeline. With regard to the shortcomings in the MPR, the State Representative stated that the matter will be looked into and rectified.

9. Mizoram

ED Tech, NMCG highlighted that the low utilization of the existing 10 MLD STP at Aizawl is a concern, which is due to pending house service connections. After augmentation in the flow reaching the STP, State Government needs to ensure that treated water from the STP is optimally reused.

Secretary, IWRD, Mizoram along with concerned official from State Department attended the meeting. He informed that the STP is receiving only 0.3 MLD of sewage, as only 3125 of 19,000 households have been connected to the STP. The progress of work was halted in the last 2 months due to complete lockdown imposed in the State, and the work is now being resumed.

10. Tripura

Director, NRCD informed that out of total sewage generation of 82.4 MLD in the State, sewage treatment capacity exists only for 8.72 MLD (8 MLD STP & 720 KLD FSTP at Agartala), thus leaving a huge gap of 73.68 MLD in sewage treatment which needs to be addressed urgently. Low capacity utilization of existing 8 MLD STP due to incomplete laterals/house service connections and slow progress on STP of 8 MLD (under construction) were also highlighted.

Due to connectivity issues, response from the State could not be properly heard and State was directed to submit written information. As per the information provided by the State Government, progress on different conservation measures taken up and/or implemented vis-à-vis the approved action plan is as under:-

(i) As per the directions of NGT, Haora river has been identified for rejuvenation, which would serve as a model for other polluted stretches.

(ii) To increase capacity utilization of STP of 8 MLD at Agartala, expansion of sewer network and house service connections are in progress and are likely to be completed in 18 months. Also, works for STP of 8 MLD proposed at Akhuaura ICP, Agartala are under progress.

(iii) As many as 210 drains discharging into polluted river stretches have been identified by ULBs for in-situ bio-remediation. Presently, survey work is going on to collect baseline information of these drains. Tender evaluation for bio-remediation on 5 drains on pilot basis at Agartala has been completed.

(iv) In case of proposed 15 nos. of Faecal Sludge Treatment Plants of total capacity 600 KLD for all ULBs in the State approved under Swachh Bharat Mission (SBM), technical specifications/tender documents have been finalized and uploaded on the website of Urban Development Department, Govt of Tripura. Also, land has been identified and tendering process has been initiated by the ULBs.

(v) Solid waste processing facility exists for 256 TPD (250 TPD composting plant at Agartala & 6 TPD at Kamalpur Nagar Pachayat of District Dhalai) out of total municipal waste generation of 411.32 TPD in the State.

The State Government is required to expedite progress of the proposed FSTPs and the STP under construction to meet the timelines stipulated by NGT. For the existing STP of 8 MLD at Agartala town, capacity utilization is to be increased. The State Government was also asked to expedite in-situ bio-remediation for all identified drains discharging into polluted river stretches as per the directions of NGT.

11. <u>Maharashtra</u>

Director, NRCD informed that total sewage generation in the State is estimated as 9757 MLD, which includes nearly 2500 MLD of sewage from Mumbai city. 142 STPs of 7747 MLD are installed with utilization capacity of 4123 MLD. Out of 142 STPs, 7 STPs of 227.56 MLD capacity were reported to be non-operational. State Government needs to take necessary action on priority to expedite commissioning of these STPs. In case of 34 non-compliant STPs which includes 2 STPs of 757 MLD & 240 MLD in Mumbai, MPCB was requested to ensure proper functioning of all STPs in the State to meet the prescribed norms.

In case of 53 polluted river stretches, there is a gap of 1023.26 MLD between sewage generation and treatment. To address the said gap, present status of the proposed STPs was informed as below:

Status	STPs	Capacity (in MLD)
DPR preparation under progress	14	97.30
Awaiting sanction of DPR	15	235.00
Under tendering and/or works to be awarded	20	528.00
Under construction	29	437.86
Total	**78**	**1298.16**

With regard to industrial effluent management in polluted river stretches, it was informed that CETPs of total capacity 83.3 MLD are operational in different industrial estates/areas. To meet the gap of effluent treatment, three CETPs of capacity 2.84 MLD (1 MLD at Satpur in District Nashik, 0.64 MLD at Sangli and 1.2 MLD at Ichalkaranji in District Kolhapur) are proposed, which are still in the initial stages of implementation. MPCB needs to expedite implementation of the proposed CETPs, and also ensure proper functioning of all the CETPs in the State to meet the prescribed norms. In case of solid waste management in the State, it was informed that processing facilities exist for 16037 TPD of municipal solid waste against total generation of 22945 TPD. These include 337 composting plants, 82 vermi-composting facilities, 62 bio-methanization plants, one waste to energy (W to E) plant and 26 RDF plants. Also, 18 landfill sites are presently under development out of 320 sites proposed to cater to solid waste generation from 394 ULBs in the State. For C&D wastes, processing facilities for 5 major ULBs (MCGM, Navi Mumbai MC, Thane MC, Pimpri-Chinchwad MC and Pune MC) are proposed to cater to 2050 TPD of such waste. In case of the project for pollution abatement of river Mula Mutha at Pune under NRCP, concerns were raised on negligible progress. In case of land acquisition for 11 STPs under the project, it was informed that the State Government has allowed construction of STPs in the flood line and thus facilitating land acquisition for 3 STPs at Botanical Garden, Dhanori and Warje. However, land parcels for 4 of the STPs are yet to be acquired by the project implementing agency Pune Municipal Corporation (PMC). In view of tenders invited for the project by PMC on 24th February, 2021, the State Government was asked to ensure immediate possession of land for all the STPs by PMC.

It was also informed that penalty of Rs.29.75 crore was imposed by NGT on BMC for letting untreated sewage into the sea through 85 major outfalls, and to pay Rs.4.25 crore as compensation for environmental damage to CPCB till remedial measures are taken.

In this regard, Chief Engineer, BMC stated that compliance of Hon'ble NGT order is in progress. Colaba STP of 37 MLD has been commissioned in 2020. For other 7 STPs of 2464 MLD, tenders have been invited. Review committee has been appointed for scrutiny of the bids.

Joint Director (WPC), MPCB informed that as Maharashtra was again badly hit by COVID-19, the progress is slow for the ongoing projects since February 2021. The number of ongoing STPs has increased from 21 to 29. Similarly, number of STPs in tendering stage have increased from 12 to 14 of 472 MLD capacity. DPRs for 16 STPs are yet to be approved. Large number of STPs are reported to non-complying with the new standards of BOD 10 mg/l. State has directed to upgrade the existing STPs to achieve the new norms. With regard to action plan for coastal areas in the State, it was informed that District Environment Plan for 21 coastal towns were submitted to CPCB in December, 2019 and the plan is being implemented and being monitored. The State Government was directed to provide update status in the MPRs.

Joint Secretary, Urban Development Department, Maharashtra informed that State had planned implementation of works for bridging the gap of 2000 MLD in sewage treatment. However, due to COVID-19 pandemic and the subsequent financial constraints, the same could not be taken up. Further, projects for additional capacity are being proposed to be sanctioned either under Jal Jeevan Mission or under State scheme within 2022 and they shall be commissioned in 2 years thereafter. State Government is constantly reviewing the on-going projects and 50 STPs of around 900 MLD shall be completed within a year.

On a query from DG, NMCG, the Joint Adviser, CPHEEO informed that guidelines are under consideration for Jal Jeevan Mission (Urban) and are expected to be finalized in the near future.

12. <u>Odisha</u>

Director, NRCD informed that as per CPCB report, sewage generation in the State is estimated at 1273 MLD, whereas the same is reported to be 4200 MLD in the State dossier

forwarded to this Ministry earlier. In case of six major towns in the State (Bhubaneswar, Cuttack, Puri, Sambalpur, Rourkela and Talcher), it was earlier informed as 367 MLD, but now it is reported to be 298.55 MLD. The State Government was requested to reconcile and firm up the data for further discussions. It was further informed that against total sewage generation of 367 MLD from six major towns, sewage treatment capacity created so far is 266.5 MLD with 10 STPs installed in these towns. Meanwhile, with more sewage treatment of 104 MLD and the FSTPs planned for these towns, there would be no gap between sewage generation and treatment. However, the same would not hold good for the State as a whole. Three STPs of total capacity 104 MLD were under construction from the resources mobilized by the State. One STP of 48 MLD at Rokat is scheduled for completion by June, 2021. STPs of 40 MLD at Dhanupalli, Sambalpur and 16 MLD at Mattagajpur, Cuttack were reported to be 93% & 82% complete. The State Government to expedite networking and/or house service connections to ensure adequate inflow to these STPs for their optimal utilization. In case of industrial effluent management, it was informed that the no CETP exists in the State. There are 1030 water polluting industries in the State generating 803 MLD of effluent, and all these units are equipped with ETPs. The State Government needs to ensure compliance of industrial units with the environmental norms and not contribute to pollution load to any of polluted river stretches and/or the recipient water bodies. Regarding municipal solid waste management, it was informed that out of total municipal waste generation of 1772 TPD in the State, waste processing facility (Open dumping, Micro-composting) is available and operational for 853 TPD. For Bhubaneswar and Cuttack, agreement has been signed for setting up 550 TPD centralized Waste to Energy Plant. The State Government was asked to expedite the same in order to ensure compliance to the Solid Waste Management Rules, 2018. Regarding action plans for coastal areas/towns (4 nos) and rejuvenation of Kathajodi river (in its Cuttack stretch) to serve as a model, the State Government was asked to provide/update status in the MPRs.

Member Secretary, Odisha Water Supply & Sewerage Board informed that 5 new STPs are partially commissioned and their related I&D and household connections work is still in progress. STP at Rokat is to be completed by December 2021, STP at Mattagajpur by December 2021 (partially by August 2021) and STP at Dhanupalli by March 2022 (partially by September 2021). It was informed that 53 Septage Treatment Plants have been completed and 65 Septage Treatment Plants are in construction stage.

Secretary, Ministry of Jal Shakti highlighted that from next meeting onwards, in absence of Chief Secretary, the State should be represented by Principal Secretaries of respective State Departments.

13. <u>Goa</u>

Director, NRCD informed that 9 STPs of 78.35 MLD are existing in the State against total sewage generation of 112.53 MLD (based on actual assessment of waste water generation mainly in urban areas, including census towns). Remaining areas including the rural ones, are covered through septic/soak pit arrangement, and thus not requiring designed treatment facilities/plants. Utilization capacity of the STPs remains only 29 MLD and the State needs to expedite house connections. 5 STPs of 35.5 MLD are under construction. 3 STPs of 43 MLD are proposed, but works related to STPs have not yet started due to local issues and only sewer networking is in progress. The State Government was directed to expedite implementation of the ongoing and proposed STPs to meet the timelines set by NGT.

Secretary (Science, Technology & Environment), Goa informed that low capacity utilization (29 MLD) of the existing 78.35 MLD is partly due to 30 years' design period of the STPs and full capacity utilization would be achieved at a later stage only. However, almost all the sewage inflow received at the STPs is being treated fully. STPs under construction at Colva (7.5 MLD), Calangute (5.6 MLD) and Kavlem (15 MLD) were reported to be nearing completion in terms of civil works along with installation of electrical and mechanical equipments. However, their commissioning is delayed for want of house service connections, electrical connections, pumping arrangements and these are expected to be complete by December, 2021 only. With regard to proposed STPs, locals are being persuaded by the State in order to overcome the local issues and to initiate the STP works. In compliance of the directions of NGT, polluted stretch of Sal river (Priority-III) has been identified to be developed as a model to showcase for other identified river stretches. Different conservation works on the said river stretch have been taken up for implementation with the target date of completion as March, 2022. With regard to solid waste management, integrated processing facilities exist only for 150 TPD at Saligao out of total 766 TPD municipal waste generated in the State. The same is proposed to be increased by 200 TPD (100 TPD at Saligao & 100 TPD at Cacora) by December, 2021. State has engaged TERI for further strengthening of EPR policy and has also enacted Plastic Waste Management Act to reduce plastic pollution.

Secretary, Ministry of Jal Shakti stressed that the facilities for integrated solid waste management proposed at Bainguinim (250 TPD) and Verna (250 TPD) need to be expedited to meet the respective timelines.

14. <u>Andhra Pradesh</u>

Scientist E, NRCD informed that there are 43 STPs of 515.85 MLD capacity existing in State. All are reported to be operational and complying with norms. However, 20 MLD STP at Kadapa and 6.5 MLD STP at Pulivendula have been reported to be partially operational**.** There exists a gap of 987 MLD in sewage treatment capacity and 474.07 MLD capacity STPs are under construction, however no significant progress is observed in the ongoing projects. Many of the projects in which works is yet to begin are being reported to be completed by December 2021, which may be verified and realistic timelines may be provided in the MPRs. Details of on-going/ proposed ETPs such as capacity, progress, expected date of completion, etc., need to be reported. Utilization capacity of the existing solid waste management facilities is very low (39%). Tenders have been called for 10 integrated solid waste management plants under PPP Model. Details on other action plans such as ground water regulation, RHW, floodplain & e-flow management, plantation, biodiversity, mining activity regulation, adoption of Model River and action against defaulters have not been provided in the MPRs.

Commissioner cum Director of Municipal Administration informed that for bridging the gap of 987 MLD in sewage treatment, work is under progress for 32 STPs of 474 MLD, which were expected to be completed by December 2021. However, due to financial constraints, work got delayed at few locations. 51.4 MLD STPs are under tendering and for remaining proposals, funding avenues are being explored. Further, it was informed that 64 FSTPs are proposed. Except for 11 FSTPs which are in re-tendering, works are under progress for remaining 53 FSTPs and are expected to be completed by December, 2021. It was informed that 6850 TPD of solid waste is generated in the State and 49 Compost plants are effectively functioning. State is considering adopting the Indore solid waste management model and is proposing to initiate 100% door to door solid waste collection from all households from August, 2021 onwards and is in the process of establishment of garbage transfer stations. 2 Waste to Energy plants have been completed, one at Guntur shall be functional in July 2021 and another one also at Guntur to be made operational within 2-3 months. 72 Integrated

SWM plants are under tendering. It was assured that information from remaining points shall be made part of the MPRs from next submission onwards.

Director General, NMCG pointed out that the State needs to expedite the ongoing projects as the completion timeline of June, 2021 for ongoing STP works has already been exhausted. The delay in commissioning the plants would result in the State being a defaulter for which fines may be levied on the State by NGT.

15. <u>Kerala</u>

Scientist E, NRCD highlighted about the delay in completion of the ongoing projects and that a large number of the projects in the State are also either at proposal/ tendering/ DPR stage and are yet to be grounded. State generates 3472 TPD of waste and there is a gap of 970 TPD in solid waste treatment. To address this issue, 10 Waste to Energy Plants have been proposed by the State, of which 2 plants are under construction, 3 plants are in DPR stage, 3 plants are in tendering stage and 2 plants are in initial stage. State needs to expedite the works of on-going and proposed projects.

Additional Chief Secretary (Environment), Kerala informed that delay in implementation of the STP projects is due to rise in COVID-19 cases. The matter of solid and liquid waste management is being reviewed regularly by Chief Secretary, Kerala.

Additional Chief Secretary (LSG), Kerala informed that delays in project were attributed to local government elections held in December 2020, then assembly elections held in April, 2021 and imposition of lockdown in the State during May-June 2021 due to rise in number of COVID-19 cases. However, during this period, the State Town and Country Planning Department has completed an assessment of the municipalities to identify the scope of requirement of FSTPs/ STPs. Technical assistance was provided by Sanitation Mission to the Local Governments. The assessment was done on the basis of groundwater table, land availability, distance of source from the proposed land, taking up projects and estimation of fund requirements. During this period, initiatives were taken to fast track the projects by bringing in the urban agglomerations and CFC funds into play. It was informed that there would not be any issue of funds, as the Local Governments have fairly good amount of funds and also funds are being covered under World Bank Project for Re-Build Kerala initiative. With regard to the solid waste management projects, it was informed that clearances,

including from coastal zone, are being taken due to which progress seems to be slow. Further, identification of suitable land is an issue, which is being taken up with different State Government Departments. However, a lot of progress has been achieved in segregation of waste and a systematic mechanism has been developed. Around 20,000 decentralized entrepreneur collections units have been engaged for the work. Material collection facilities have also come up in each Local Government. Clean Kerala Company has been engaged and a calendar of action has been prepared, on the basis of which the segregated waste is collected and the recyclables are being recycled through tying up with the recyclers. Result of this systematization will be visible within a month's time. Waste management is a top priority of the State at present.

Member Secretary, Kerala State Pollution Control Board (KSPCB) informed that Board along with State Urban Development Department is preparing updated dossier with regard to sewage management in the State, which shall help in addressing the issue of gap in sewage treatment capacity. As per the water quality monitoring data of the year 2020 (Jan-Dec), 8 rivers seem to have achieved the bathing quality standards and water quality has also improved in other rivers, including River Karamana, which is identified as Priority I river. It was reported that the under construction STP at Medical College, Thiruvananthapuram has been completed. Kerala Water Authority is proposing additional STPs in 28 ULBs and DPRs for the same have been prepared. Regular meetings of RRC are being held to monitor the progress of implementation of the Action Plans. KSPCB is regularly inspecting the industries and appropriate action is being taken against the defaulters. Similarly, other departments of the State are taking necessary actions as per the Action Plans and the direction of Hon'ble NGT.

16. Puducherry

Director General, NMCG directed the UT to provide details on the issue of non- compliance of the existing oxidation pond of 12.5 MLD and status of DPRs with regard to the 2 new proposed STPs of 3 MLD each at Puducherry and Karaikal.

Scientist E, NRCD informed that as reported by UT officials, the oxidation pond is non-complying with respect to the new standards of BOD 10 mg/l but is complying with the earlier norm of BOD of 30 mg/l.

Secretary (Science, Technology & Environment), Puducherry informed that due to increase in household connections the gap in sewage treatment has been reduced. PWD has initiated tenders for installation of online monitoring systems for the existing STPs.

Tenders have been finalized for treatment of legacy waste in the UT and, therefore, the issue of solid waste management in the UT shall be resolved in the near future. UT has submitted Action Plan for Coastal Pollution Management to CPCB. It was informed that out of 98 water polluting industries, 10 industries are found to be non-complying, PCC is regularly following up with them and most of the industries are on the verge of closing down. Steps are being taken for management of floodplain and e-flow and to prevent illegal sand mining in the UT.

Secretary (PWD), Puducherry informed that the oxidation ponds were commissioned in 1980 and were designed as per the old discharge standards (BOD of 30 mg/l). Efforts shall be put in to complying with the new norms of BOD 10 mg/l. Work order for preparation of DPRs for 2 STPs of 3 MLD each have been awarded to WAPCOS, site inspection has been conducted by the team, and efforts are being put in to comply with the timelines.

17. Telangana

Scientist E, NRCD informed that as per State MPR, 17 STPs with a total capacity of 210.4 MLD are under different stages of implementation, of which work is yet to start at 2 locations. Of the 17 STPs, 13 STPs of 80.41 MLD are proposed to be completed before December 2021 and remaining 4 STPs of 130 MLD are expected to be complete by March, 2022. Further, 111 STPs with total capacity of 1915 MLD are proposed.

Director General, NMCG highlighted that there exists a huge gap in sewage treatment capacity of 1861.45 MLD in the State. As informed by the State, the Action Plan for pollution management in Hyderabad is already available, while management of untreated sewage in other ULBs need to be addressed. The non-complying industries need to be closely monitored for ensuring compliance and State Pollution Control Board needs to take strict action against the defaulters. State Government needs to have a plan for monitoring the e-flow in the rivers. E-flow assessment may also be carried out by engaging experienced institutions. It was suggested that a separate session may be organized wherein experts in the field may be engaged, wherein methods for assessment of e-flows in perennial and non-perennial rivers may be discussed upon.

Chairman, HWSSB informed that out of 2750 MLD of sewage generated in the State, 2229 MLD sewage alone is generated in Hyderabad. STPs of 770 MLD are operational and are complying with the norms. Online continuous monitoring systems are in place in all STPs. With regard to the proposed 31 STPs of 1215 MLD (under HAM), it was informed that one package has been successfully tendered and works for 17 STPs have started. This shall address the Hussain Sagar Catchment area and is expected to be completed within 2 years.

With regard to the other 2 packages under HAM, it was informed that a meeting was held in the morning with Minister of Urban Development, wherein it was agreed to sanction projects for 14 STPs of approx. 800 MLD. This shall take care of the River Musi stretch-I. Co-treatment of septage with STP is being taken up and in places not having STPs and sewer network, State is planning to construct FSTPs.

Director General, NMCG appreciated the State's efforts in adopting HAM model for developing sewerage infrastructure and directed the State to document the information and share it with Ministry of Jal Shakti, so that the best practices can be circulated to all the States across India.

With regard to other parts of Telangana, Member Secretary, Telangana State Pollution Control Board (TSPCB) informed that 72 STPs of 315 MLD capacity are proposed, of which DPRs have been prepared for 42 STPs and DPRs are under preparation for 30 STPs. Due to paucity of funds, not much progress has been made. It was also informed that Chief Secretary, Telangana has also requested State Departments to sanction some projects, but due to rise in COVID-19 cases not much progress could be made. Utilization of 6 existing STPs of 116 MLD (along PRS of III, IV & V) is only 36 MLD. There is huge gap in sewage treatment at Dubba Nizamabad, for which funds are being arranged. It was informed that considerable progress has been made in the ongoing 17 STPs, including initiation of works in a number of projects. Further, 374 industries are being monitored online and 84 industries are on ZLD. 47 industries are found to be non-compliant, of which 9 industries were closed and directions were issued to 38 industries. It was informed that sites have been inspected and maps have been prepared for management of flood plains. With regard to e-flow management, State Irrigation Department had informed that due to non-perennial nature of the rivers, assessment could not be taken up. However as suggested by DG, NMCG the State shall look into the technical aspects of the issue. With regard to solid waste management, it was informed that processing facilities shall be established in all 141 municipalities: Works

have been completed in 52 municipalities and works are going on in 75 municipalities. Further, solid waste is being managed in all 12,700 gram-panchayats in the State by creation of compost shed, 100% door to door collections, deployment of tractors for collection of waste and installation of recyclers for management of plastic waste. It was also informed that 71 municipalities are adopting FSSM of total 1565 KLD, out of which works have been completed in 18 ULBs and work in 17 ULBs is in progress.

Director General, NMCG directed the State to go through the document "Urban River Development Plan" prepared by NMCG in collaboration with MoHUA and another document regarding 'Strategic Guidelines for Mainstreaming Urban River-sensitive Master Plans", which are available on the NMCG website.

18. <u>Lakshadweep</u>

Scientist E, NRCD highlighted that the UT should submit Monthly Progress Reports in a timely manner, and Action Plan for Coastal Pollution Management is yet to be submitted to CPCB.

Secretary (Environment & Forest), Lakshadweep informed that MPRs shall be submitted on time by the UT. Draft Action Plan for Coastal Pollution Management has been prepared, but considering the proposed expansion of tourism services in the UT, after consultation with scientific institutions such as NCSCM & NIO, the final Action Plan shall be submitted accordingly within the next 15-20 days. At present, there is only one STP of 24 KLD in the UT. It is now proposed that all commercial tourist establishment in the islands should mandatory install STPs. With regard to marine conservation, UT has already declared 685 sq.km area of lagoons as marine conservation reserves to protect marine biodiversity such as corals. 7 more similar conservation reserves shall be notified and are under approval process. This shall lead to 35-37% of the lagoon area under protected area management. 100% door to door collection and segregation of municipal solid waste is being done and the non-biodegradable waste is sent to mainland for treatment. As of July 2021, this year 358 metric tonnes of waste has been transported for treatment.

19. <u>Gujarat</u>

Joint Director, NRCD highlighted that in the past 6 months, construction of 7 STPs have been completed and 3 news STPs of 98 MLD are proposed to be taken up in addition to the 60 already proposed STPs. Pilot project for treatment through insitu bio- remediation have been taken up at 3 municipalities, and after successful results the same shall be replicated at other locations. Out of 73 existing STPs in the State, 27 STPs are reported to be non-complying and out of 34 operational CETPs, 18 CETPs are reported to be non-complying. State needs to provide status with regard to the action taken to resolve the land acquisition issues for Tapi rejuvenation project. State also needs to expedite the deep sea disposal project, as while the Jetpur tender has been finalized, but for Ahmedabad region decision is still pending. Completion timelines of the under construction STPs need to re-looked and revised timelines are to be provided. State is yet to submit Action Plan for Coastal Pollution Management to CPCB.

Commissioner, Municipalities Administration & Additional Chief Executive Officer-GUDM; Commissioner, Surat Municipal Corporation; Additional Secretary, Forest & Environment Department, senior officers from Ahmedabad Municipal Corporation, Vadodara Municipal Corporation, Gujarat Water Supply & Sewerage Board (GWSSB) as well as other concerned Departments attended the meeting along with Member Secretary, Gujarat Pollution Control Board.

Member Secretary, Gujarat Pollution Control Board informed that out of 27 STPs found to be non-complying, action have been taken against 13 units and show-cause notices have been issued to 14 STPs. With regard to the 18 non-complying CETPs, 2 CETPs are now found to be complying. Show-cause notices have been issued to 13 CETPs. 5 CETPs of the State are under trial run after closure order of the Board. It was also informed that Environmental Compensation of Rs. 21.87 crores has been imposed on the non-complying CETPs and Rs. 13.72 crores has been recovered so far. With regard to Deep Sea Effluent Disposal Pipeline, tender is finalized in case of Jetpur region & work order has been issued. In case of Ahmedabad region, as the final disposal point falls on the upstream of the proposed Kalpsar Reservoir, the matter is under active consideration of Government of Gujarat. Two meetings convened under the Chairmanship of Chief Secretary, Gujarat to find an alternative for disposal of effluent and to discuss the issues in implementation of deep sea effluent disposal pipeline project for industrial areas of Ahmedabad region.

Commissioner, Municipalities Administration & Additional Chief Executive Officer-GUDM informed that some land acquisition issues are pending at Collector office & Revenue Department levels in case of STPs of rural area under Tapi Shuddhikaran project. Same will be taken on priority basis and GWSSB shall start work as soon as the land acquisition issues are resolved. He further added that the STPs are planned in such a way that each & every Municipality will have its own STP to cater to its sewage generation. To improve the sustenance of these STPs, State is implementing solar power provisions in these STPs. In big cities such as Ahmedabad, Vadodara, Rajkot and Surat, considering the future expansion, upgradation of existing STPs and commissioning of new STPs are being taken up.

Commissioner, Surat Municipal Corporation submitted that out of 15 STPs planned in Surat under Tapi Shuddhikaran, 3 STPs have been made operational, work is in progress for 4 STPs and land has been taken possession of and soil investigation is in progress for 6 STPs. Land possession in case of 1st STP is pending and for 2nd STP final approval is pending.

Director General, NMCG appreciated that the Gujarat is a leading State as far as reuse of treated sewage is concerned. He suggested that priority should be given to the Tapi Shuddhikaran which is a project of concern and to sort out the issues as early as possible. Further, it was suggested that State can adopt combination of FSTP + STP models for treatment of sewage.

20. <u>Karnataka</u>

Joint Director, NRCD highlighted the issue of low capacity utilization of the existing STPs (69%). In the past 6 months, slow physical progress has been observed in the ongoing STP projects and progress of almost 23 STPs appears to be stagnant. Out of 141 STPs, 13 STPs have been reported to be non-operational in the State. 251 ETPs have been reported as non-compliant. Physical progress of 55 under construction STPs have not been provided. State needs to provide details of action taken with regard to e-flow management of the rivers and floodplain management.

Principal Secretary (Environment), Karnataka cum Chairman, KPCB responded that legal notices have been issued as per Water Act to the non-complying industries. With regard to the 2 under construction CETPs of 7.2 MLD, it was informed that marginal progress has been achieved, 1.2 MLD CETP at Bidar is nearly 100 % complete and 5 MLD CETP at Yadgir has

achieved 80% progress and shall be made operational in the next few months. With regard to Expression of Interest of 3 proposed CETPs, land and capital issues are yet to be resolved. There is an increase in processing of solid waste in the State from 5800 TPD to 6200 TPD. State has submitted Action Plan for Coastal Pollution Management to CPCB in the first week of July, 2021. With regard to the low utilization capacity of the existing STPs, it was informed that houses are not connected to the main sewer line and sufficient tools are not available to take coercive action against the defaulting houses. Out of the 13 STPs which were reported to non-operational, 3 STPs have been made operational. With regard to the 251 non-complying ETPs, an expenditure of Rs. 5.6 crore has been made to resolve the issues and improvement in compliance status are expected to be reported soon. Out of 55 under construction STPs, physical progress has improved in 40 STPs.

ED (Tech) NMCG pointed out that completion timeline for the ongoing projects needs to be reviewed as many of the STPs in progress still shows completion timeline of February/ March 2021.

Director General, NMCG directed State to provide adequate information in the MPRs and re-iterated that completion timeline of NGT has been exhausted, State may request NGT for any relaxation in timeline.

21. <u>Tamil Nadu</u>

Joint Director, NRCD highlighted that data for sewage generation increased from 3729.16 MLD to 3786.16 MLD as per the latest MPR. 4 CETPs are reported to be non-complying. 37 STPs in the proposal stage are observed to be progressing very slowly despite the gap in treatment capacity of 1400 MLD. Out of 45 under construction STPs, incremental progress of 17 STPs is held up from past 6 months and work for 1 STP has yet not started. State needs to ensure timely submissions of MPRs and compliance status with regard to the decisions taken in the meeting. 28 STPs are still in DPR stage along PRS, which need to be expedited. Action Plan for Coastal Pollution Management is yet not submitted by the State to CPCB.

Principal Secretary (Environment, Climate Change and Forests), Tamil Nadu stated that due to rise in COVID-19 cases and recent lockdown imposed in the State, slow progress of under-construction STPs have been reported. Further, it was informed that Action Plan for Coastal

Pollution Management has been already submitted to CPCB and approval on the same has been received from CPCB.

Representative from Municipal Corporation, Chennai informed that due to Covid-19 pandemic, there is delay in progress of the ongoing STPs. In case of Solid Waste Management, out of total 135 TPD of solid waste generated in Chennai, 28 TPD of waste is processed and by October 2021, remaining waste shall also be processed.

ED (Tech), NMCG highlighted that industries happen to be the major concern for the State. 10 CETPs of 41 MLD are proposed and DPRs for these have been forwarded to GoI for funding. In absence of these CETPs, regulation and compliance of the industries is questionable, hence this issue needs to be looked into at the State level and status may be reported.

Director General, NMCG raised serious concern over little progress with regard to the 10 proposed CETPs and the major challenge of compliance of the industrial units.

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22. <u>Andaman & Nicobar</u>

Joint Director, NRCD highlighted that MPRs are not being received regularly and incremental progress of the under construction STPs is not provided. UT needs to take necessary action against 27 non-complying STPs and 15 non-complying ETPs. UT is yet to submit Action Plan for Coastal Pollution Management to CPCB.

Secretary (Department of Science & Technology), Andaman & Nicobar informed that number of operational STPs has increased by 8 in last few months and number of complying STPs has also increased to 32 and number of non-compliance STPs has reduced from 51 to 25. With regards the remaining 24 STPs, notices have been issued to 9 STPs and these are expected to comply within 10 to 15 days, and notices will be issued to rest of the 15 STPs within 7 days. Inspections have been completed and by end of July/August captive STPs will be complying. FSTP in Port Blair is 90% complete and only installation of machinery is required, which got delayed due to rise in Covid-19 cases. In case of decentralized STPs, tendering process has been completed and will be awarded soon. These STPs shall be completed within next two years. With regard to the industrial pollution management, it was informed that there are around 700 industrial units of which only 36 units require ETPs. 21

units have ETPs installed, 6 units have closed down and show cause notices have been issued to the remaining 9 units. It was informed that there is little confusion with regard to solid waste management data. It is estimated that 121 TPD of solid waste is generated and around 50 TPD of waste processed. However, as per the Municipal Corporation, 90 TPD of waste is generated and the entire waste generated is being treated. Action Plan for Coastal Pollution Management will be submitted by mid-July 2021. National Institute of Ocean Technology has already conducted survey and study in and around Port Blair. The remedial measures will be decided in the meeting to finalize the coastal rejuvenation plan in July itself.

DG, NMCG appreciated the efforts being put in by the UT Administration and suggested that proposed and on-going projects should be closely monitored to avoid any delay in the works. It was suggested that details of the marine parks can be shared along with the MPRs so that the same can be made part of the quarterly submissions to NGT.

23. <u>Bihar</u>

Senior Environmental Specialist, NMCG informed that 2 mission visits have been done in December 2020 and March 2021. It was informed that along polluted river stretches other than river Ganga, DPRs for towns of Raxaul, Jogbani, Harinagar & Nakatiaganj are yet to be sanctioned and funds to be tied up by the State Government. Along river Ganga, revised DPRs for Manihari, Teghra, Dighwara & Jamalpur are awaited. With regard to network projects, permissions from RCD, PMC, NHAI & Railways are pending. For removal of pipes from Beur & Saidpur, permission from PMC is also pending for a long time. Land NOC is pending for IPSs at Maner, Sultanganj & Digha. It was further informed that land NOC for Bakhtiyarpur has been received. For under tendering projects, it was informed that 6 projects were under tendering out of which work has been awarded for Hajipur, financial bids have been opened for Kahalgaon project. For Khagaria project, necessary guidance has been given by NMCG and financial bid is expected to be opened soon.

Managing Director, BUIDCO informed that DPRs for Dighwara, Manihari, Teghra, Dehri & Arval towns have been submitted to NMCG. DPRs for Narkatiaganj, Jogbani & Ramnagar have been received from NEERI, which is under examination at BUIDCO and shall be sent to NMCG within a week. The DPR for Harinagar shall also be sent to NMCG by next week. The DPR for Raxaul has not been prepared by NEERI as field survey could not be done due to COVID restrictions. The land NOC for Maner & Fatuah is under progress. However, land

NOC for Digha has been received and work has commenced. With respect to land issue for Sultanganj, it was informed that site visit was carried out along with officials of NMCG and it was observed that the project can be completed without construction of IPS.

Director General, NMCG requested State officials that after site verification, the component of IPS may be removed and the Sultanganj project should be completed early. State was directed to expedite the ongoing projects sanctioned under Namami Gange and was directed to avoid delays in completion of the projects. State was also suggested to look for alternate funding options for newly proposed projects and to go for FSTPs for smaller towns rather than constructing STPs. The issue of utilization of assets created under RFD, Patna was also raised and State was requested to develop the same.

ED (Projects), NMCG indicated that critical issues pertaining to ongoing projects needs to resolved for timely completion of projects.

ED (Tech), NMCG highlighted that State had informed that floodplain demarcation is not possible along rivers. Engineer-in-chief, WR Department informed that a scientific study has been initiated and a report shall be submitted soon to NMCG.

24. <u>Jharkhand</u>

Senior Environmental Specialist, NMCG highlighted that 452 MLD sewage is generated in the State for which 15 STPs of 103.55 MLD exist. Further projects of 92.5 MLD capacity are under construction. Slow progress has been observed in the ongoing STP project of 36 MLD at Aditypur. With respect to Rajmahal project, it was informed that the STP works have been completed, but the last mile sewer connections are in progress. Trial run for the STP has commenced by connecting 1 SPS. With regard to proposed projects, Phusro project is under tendering and bids have been received. Dhanbad, Ramgarh & Mango are yet to be awarded.

Director (SUDA), Jharkhand informed that due to land disputes not much progress has been made at Adityapur STP and 37 MLD STP at Ranchi has been re-awarded. Rajmahal STP is under trial run. It was further informed that 10 bids have been received for Phusro and works will be awarded within a week. Regarding Dhanbad & Ramgarh project, it was informed that CSR funding is sought from DVC & BCCL but response is awaited. With regard to bioremediation/ in-situ remediation proposed at Chas, Ranchi and Mango, DPRs are yet to be received from NEERI. State has developed Integrated Liquid Waste Management Plan, as a

part of which FSTPs are being installed in 26 ULBs having population less than 50,000. Works are in progress for 4 FSTPs, 4 FSTPs are under tendering and DPRs are being prepared for 15 FSTPs as per the guidelines of Jal Jeevan Mission and Swach Bharat Mission 2. With regard to solid waste management, it was informed that out of 36 MSW processing plants proposed, works for 31 plants have been sanctioned and 5 plants are yet to be sanctioned. Floodplain maps for River Ganga has been prepared by State Water Resources Department and for remaining stretches, Consultants have been hired. Feasibility Report has been prepared for development of a Bio-diversity park at Sahibganj.

Director General, NMCG directed State to operationalize the Rajmahal STP at the earliest and requested State to share copy of Integrated Liquid Waste Management Plan.

25. <u>Chhattisgarh</u>

Senior Environmental Specialist, NMCG informed that total sewage generation in the State is 600 MLD. 3 STPs of 73 MLD capacity have been completed, but the capacity utilization is around 6 MLD only. 6 STPs of 238 MLD capacity are under construction. However, very less progress has been achieved since last review meeting due to pandemic. It was further informed that for better capacity utilization, focus should be on house service connections. Work has been awarded for Kanker, Dhamtiri, Simga, Nawapara & Rajim. However, further details has not been provided with regard to these STPs. With regard to the 35 MLD STP proposed at Korba, the issue of treated water by NTPC is pending since 1.5 years and needs to be resolved urgently by State. It was further indicated that all FSTPs in the State have been constructed and working.

Chief Secretary, Chhattisgarh informed that all efforts are being made for improving capacity utilization and ensuring timely completion of ongoing projects. It was further clarified that for the proposed 6 projects, the works have been awarded to the contractors. Delay in these projects is mainly due to recent lockdown that was imposed in State and owing to heavy rainfalls during monsoon. However, some progress in these 6 STP projects have been achieved.

Additional Chief Secretary (Housing & Environment) informed that NTPC is agreeing to reuse the treated water, but the issue with regard to cost of purchase of treated water is yet to be resolved and requested NMCG to intervene for resolving the issue at the earliest.

Director General, NMCG informed that the matter shall be pursued with Ministry of Power and further requested the State to formulate a policy for reuse of treated waste water.

ED (Technical), NMCG raised the issue of recent fly ash breach incident reported from the NTPC Power Plant and ACB India power plant in Korba causing environmental damages. As the site is in the catchment of Priority IV River Hasedo, State Government was requested to submit a report in the matter. Member Secretary, Chhattisgarh Environment Conservation Board informed that action was taken by the Board immediately after the incident was reported and agreed to provide the report.

26. <u>Uttar Pradesh</u>

Senior Waste Management Specialist, NMCG informed that out of 106 existing STPs, 3 are non-operational. 37 STPs are under construction out of which 3 STPs (Ramana, Ramnagar & Chunar) have been completed and are under trial run. In addition, 25 STPs are proposed out of which (i) concession agreement has been signed for STPs at Ghazipur & Mirzapur and (ii) the financial bids for Bareily STP have been opened & likely to be awarded soon followed by execution of concession agreement. The gap in sewage treatment of about 677 MLD is proposed to be met by construction of FSTPs. No DPR has yet been finalized/ proposed by the State on one of the major town on Ganga main stem (Pandit Deen Dayal Upadhyay Nagar). With respect to progress of on-going STPs, it was informed that all projects are progressing and progress needs to be expedited. 2 projects at Moradabad & Lucknow are still sub-judice. The DPR for GH Canal project at Lucknow is pending for approval from AMRUT. The contracts for 2 on-going projects at Balia & Pratapgarh were terminated. For Balia project, the State is yet to take further follow up action, while for Pratapgarh project NMCG has communicated its observations to State for DPR revision. In addition, NMCG has provided its NOC for Farrukhabad project, but the State has not yet awarded the work.

With respect to industrial pollution, there has not been any significant change. Out of 7 existing CETPs, 5 are complying whereas 2 CETPs of Mathura & Jajmau are still non-complying. 2 CETPs at Unnao & Banther are under rehabilitation whereas another CETP at Jajmau is under construction.

In respect of Municipal solid waste, there has been very minimal improvement. The deadline for operationalization of plant at Fatehpur has been shifted to March 2022 from June 2021. In

addition, the deadline for operationalization of 7 plants at Sambhal, Badaun, Mirzapur, Ballia, Rampur, Jhansi & Rampur have also been revised to March 2022 from October 2021. The land issues for 8 SWM plants at Bareily, Firozabad, Loni, Nazibabad, Bhadoi, Basti, Gorakhpur & Akbarpur are still unresolved. 37 new proposed plants are expected to be operational by March 2022.

It was further informed that State Govt. has notified Ground Water (Management & Regulation) Act. Further, State has taken up rejuvenation of small rivers & ponds. Work is in progress for 20 small rivers. Work related to flood plain notification for Hindon, Yamuna, Varuna & Gomti rivers is in progress. Sites have been identified for Bio-diversity parks and project proposals are under preparation. E-flow for Kannauj-Unnao stretch is being maintained as per CWC directions. E-flow for Ghagra, Rapti, Ramganga & Saryu rivers have been decided, however the requisite notifications are yet to be issued. E-flow for Yamuna, Ganga (Unnao- UP border) & Betwa is yet to be decided.

Managing Director, UPJN informed that out of 6 non-complying STPs, 3 projects at Mathura are under rehabilitation and 2 projects are expected to be completed by August 2021. The permission from Railway for Banda project has been received in June 2021 and the project is expected to completed by December 2021. The capacity of non-functional STP at Sultanpur is augmented to 10 MLD (existing 5 MLD) and work is expected to be completed by November 2021. Regarding excess flow in Ramana STP, it was informed that flow from storm water drain and newly developed areas is reaching the STP which is under audit and a report shall be shared at the earliest. For Moradabad project, the matter is pending in High Court. It was informed that the matter is being followed up by Senior advocate and at local level also it is being pursued. Regarding Lucknow project, the next date for hearing has been scheduled in 3rd week of July.

DG, NMCG requested to involve a senior advocate and get the matter resolved.

Regarding GH Canal project at Lucknow, it was informed that the project has been awarded and work has commenced. For Balia project, the comments of UPJN has been communicated to SMCG on 6th July 2021. The LoA for Bareily project is expected to be issued within next 15 days. The technical evaluation for Kairana project is under process. It was further informed that the land for Pandit Deen Dayal Upadhyay Nagar has been made available and DPR shall be prepared/ submitted shortly.

Director General, NMCG requested to ensure timely completion of 7 STP projects which are in advanced stages of construction.

ED (Tech), NMCG raised the issue of waiver of penalty imposed by UPSIDC for development of park in Farrukhabad textile CETP and requested State to look in to the matter for early resolution.

27. <u>Rajasthan</u>

Senior Waste Management Specialist, NMCG informed that since the last review meeting, 3 additional STPs have become operational taking the total to 94 functional STPs. However, the capacity utilization has not changed significantly and remains at approximately 65%. There has been significant improvement in performance compliance of STPs. Previously, 45 STPs were reported non-complying, but now only 17 STPs are non-complying, out of which 7 are under upgradation. 11 CETPs out of 14 are still non-complying. No progress had been reported on 31 STPs under construction since last review meeting. Municipal solid waste processing remains at 41% and no progress has been reported on under construction/ tendering projects. Land issues for 2 STPs in Jaipur and Bhiwadi were indicated and no progress for 2 STPs at Hanumangarh has been reported. STP at Nokha has been completed, but it has not been made operational. The progress of Nawalgarh STP has not been indicated in the MPR. It was further informed that there are large number of STPs which have achieved a progress of more than 90% and the completion timelines are being increased by 2-3 months. State was requested to look in to the matter for early and timely completion of these projects.

Chief Engineer, Rajasthan informed that since last review meeting, 4 new STPs (Fategarh, Sanwar, Jhunjhunu & Suratgarh) have been made operational. Out of 65 ongoing projects, 16 projects are expected to be completed by September 2021, another 16 projects by March 2022 and remaining projects are scheduled for completion in a phased manner by 2025. The capacity utilization has reduced from 69% to 65% due to dismantling of existing STP at Delawas and it is under upgradation. Regarding non-complying STPs, it was informed that out of 39 non-complying STPs, 15 STPs are now complying and out of remaining 24 STPs, 7 are under upgradation under various schemes which will be completed by December 2022. 8 STPs at Salawa, Jaisalmer, Jhalor, Churu, Jhalawar, Pali, Rajsamand & Bikaner are on old technology and need upgradation. The funding for these STPs is yet to finalized either under

SBM II, any new scheme of 15th Finance Commission or any other scheme. The Consent to Operate for 8 non-complying STPs at Ajmer, Bhalotra, Didwana, Fatehpur, Jaysinghpore, Makwana, Nimbada & Kushalgarh has been applied. The STP at Nokha, which is not functional, is proposed for refurbishment under RUIDP Phase IV by adding 2 STPs of 4 MLD and 7 MLD capacity to cover the complete town. Regarding monitoring mechanism of STPs, the work has been awarded to the consultants and it is expected that the portal & application will be developed for trial run by 15th August 2021. Regarding legal issues of Hanumangarh STP, it was informed that it has gone into arbitration and any further decision shall be taken after conclusion of arbitration. Regarding Bhiwadi STP, it was informed that the project is held up due to public agitation and next date for hearing has been sought. Regarding house service connections, it was informed that a progress of 1.22% has been achieved since last meeting. Municipal SW processing has increased from 38.5% to 41.36% as 2 new processing plants and 6 new MRF have been commissioned.

ED (Tech), NMCG raised the issue of non-complying CETPs and requested State to make them compliant. Chief Engineer, RSPCB informed that presently there are 15 CETPs. 3 CETPs do only primary treatment and feed to Pali CETP, hence there are only 12 CETPs operational. Out of these, 6 are complying whereas 5 are non-complying. 6 complying CETPs are working on ZLD and remaining 5 CETPs are being upgraded to ZLD. State was requested to furnish details of monthly progress of CETPs.

28. <u>Uttarakhand</u>

Member Secretary, Uttarakhand Pollution Control Board informed that with completion of 2 new STPs, the number of existing STPs in the State has increased to 66. All the STPs are found to be complying with the norms. For 5 under-construction STPs, the agency has been directed to complete the construction works by December 2021 and upon completion of these additional 52 MLD will be added to the existing capacity. 3 CETPs existing in the State are complying. 24 industries are yet to be connected to CETP at Pantnagar and shall be connected by December, 2021. These 24 industries are found to be complying with the norms. Stricter norms are being finalized for 3 CETPs in designing phase. DPR has been prepared and submitted for co-treatment of septage in STPs at Haridwar, Rishikesh, Devprayag and Srinagar. State is preparing Byelaws for Septate Management. With regard to solid waste management, it was informed that out of 91 ULBs in State, DPRs have been

approved for 88 ULBs and sent to Government of India. 550 tonnes of SLF is operational at Haridwar and Dehradun. State is exploring possibilities of establishing Waste to Energy plants. It was informed that in 400 kms along the Ganga river stretch in floodplain zone has been notified. Some encroachment in floodplain has already been removed and some more is being removed. Afforestation works and wetland conservation along the floodplain is being taken up. Further, it was informed that out of 52 hydro projects in the State, in most of the projects e-flows are being maintained.

Director General, NMCG highlighted that NMCG receives a number of representations on solid waste being dumped in Uttarkashi, which is an eco-sensitive zone. Therefore, State may develop solid waste management facilities in consultation with experts in the field.

29. <u>Delhi</u>

Director (Technical), NMCG informed that the estimated sewage generation in the Delhi is 3,273 MLD, for which 35 STPs of 2715 MLD are in operation. The utilization capacity is reported to be 2,444 MLD (90%). The status of sewage generation and existing STPs remains the same. No samples have been taken from STPs due to lockdown, but earlier only 9 STPs out of 35 STPs were reported to be complying. For CETPs, no samples could be taken for monitoring due to lockdown, but earlier all 13 CETPs were reported to be non-complying.

Director General, NMCG directed the State to provide information on the status of ongoing projects such as Coronation Pillar, STP Projects under YAP-III, issue of tree cutting, non-compliance of CETPs, other bottlenecks in implementation of the on-going projects. It was highlighted that benefits of the completed projects cannot be achieved without completing the entire project. Further, it was suggested that works at STP sites should continue during the monsoon period in order to avoid delay in execution of the project.

CEO, Delhi Jal Board informed that the obstacles with regard to the on-going projects are being overcome, every month detailed review is being taken by Delhi Government, which has resulted in considerable progress in the projects. 9 STPs are meeting the new parameters of BOD-10mg/l and TSS -10 mg/l. 21 STPs are complying with the design parameters of the respective STPs (BOD-20mg/l, TSS- 30mg/l) and (BOD-30mg/l, TSS- 50mg/l). DJB has planned for upgradation of these STPs at design parameters of BOD-10 mg/l and TSS -10 mg/l by adding chemical dosing, more aeration and addition of filters, etc. Earlier 5 STPs

were not meeting the design parameters due to poor O&M. Now in these STPs, works such as repairs of aerators, disc filters etc are being completed and these plants (Keshopur, Kondli etc) will be rectified through dosing and enhanced aeration to meet the design parameters by December 2021. Further, it was informed that a significant progress has been achieved in the on-going STP projects despite tough conditions due to rise in Covid-19 cases and efforts are being made to complete the projects as per the committed timelines. Presently, there are no issues remaining with regard to tree cutting permission, and the permission only for Kondli Phase II is under process and is expected by next month. However, Phase II project at Kondli will be commence after October 2021. The physical progress in Kondli, Rithala and Okhla are 62%, 47% and 34%. With regard to 318 MLD Coronation Pillar STP, 50% capacity has been made operational in March 2021 and 50 MGD flow has been taken in for optimization of different parameters and the STP is scheduled to be 100% complete by September, 2021. It was ensured that there is no hindrance regarding any type of statutory permissions in construction of STP projects and all committed timelines will be achieved. All payments have been done to all vendors on weekly basis and separate accounts for separate projects have been set up. Further, efforts are being put in to complete the 3 STP projects at Kondli, Rithala and Okhla by December, 2022.

Special Commissioner (Industries), Delhi informed that there is no plan for closure of CETPs and NEERI has been engaged for improvement of performance of CETPs. NEERI has proposed two types of plans - Short term plan and Long term plan. Short term plan is for removal of large amounts of sludge deposited. The TSDF site for hazardous waste is going to start soon and accordingly all sludge will be moved to TSDF site and performance of CETPs will improve. Long term plan is for upgradation of CETPs. Recently NEERI has given options for upgradation of 3 CETPs, which is under examination. Accordingly, instructions will be given to the all CETP societies for upgradation of CETPs at the earliest. It is also suggested that DPCC has to notify the outlet parameters for industries which are permissible as per inlet norms for CETP. Further, as some of the effluents are being discharged into the storm water drains, therefore on pilot basis it was proposed to treat wastewater in a drain from Wazirabad in the CETP. However, NOC from DJB is awaited in this regard.

ED (Tech), NMCG stated that NEERI has taken too much time in technical appraisal for upgradation of CETPs. Recently DPCC has given directions to all 13 CETPs for ensuring compliance to the norms, else these CETPs need to be closed down.

Director General, NMCG highlighted that since the beginning of monitoring by CMC in January 2020, same status has been reported with regard to upgradation of the CETPs. Industries have to follow the norms. Unless the closing down of the member industrial units of the CETPs takes place, no improvement of CETP performance is possible. It was suggested that NEERI should complete the study in a time bound manner.

ED (Tech), NMCG further highlighted that the flow of approx. 1000 MLD of untreated sewage from Maharani Bagh Pumping station through Kalindi Biodiversity park is being discharged into Yamuna River. DJB needs to review and take action in this matter and submit report to NMCG.

CEO, DJB informed that 13 out of 18 drains have been trapped. The discharge may have been reaching the river through un-sewered areas. DJB has plan to lay the sewer lines in un-sewered areas. However, to address the issue of pollution, STPs at the mouth of drains were proposed for Barapullah Drain as well. But due to unavailability of land, the project could not be taken up. DJB has made a plan to pump the flow of Barapullah drain to Okhla STP. ISP is also commissioned which will take care of Najafgarh, Supplementary and Sahadara drains after completion of STP projects in Dec 2022.

Due to connectivity issues, response from Member Secretary, DPCC could not be properly heard and he was directed to submit written information. As per the information submitted by DPCC, following Action has been taken by DPCC against the CETPs and water polluting industries/ units in the 17 Industrial Areas connected to 13 CETPs:

(i) Action against CETPs

DPCC had issued Show Cause Notices on 05.04.2021 to 10 CETP Societies and 2 Operators of CETPs at Narela & Bawana for Imposition of Environmental Compensation (Total EC amount is Rs. 12.05 Crores) for not meeting the prescribed standards in the period February, 2019 to February, 2021. Replies were received w.r.t said Show Cause Notices and after considering the replies, Environmental Compensations (Total EC amount of Rs. 12.05 Crores) has been imposed by DPCC on the 10 CETP Societies and 2 Operators of CETPs at Narela & Bawana on 07.07.2021.

(ii) Action against Water Polluting Industries/ units

DPCC has issued directions for closure to 1065 water polluting industries/ units in the 17 industrial areas connected to the 13 CETPs in first week of July, 2021.

30. Haryana

Director (Technical), NMCG informed that the State generates approximately 1,375 MLD of sewage, against which 152 STPs of 1803 MLD exist, which are being utilized at 1081.9 MLD capacity. Out of these 18 STPs are reported to be non-complying (9 in Yamuna catchment and 9 in others).

ED (Tech), NMCG highlighted that even though Haryana has adequate sewage treatment capacity, even then the drains in the State have high BOD. There is deficiency in sewage treatment capacity in Faridabad and STPs are under-construction. Two big drains - Gauchi and Buddia carry large quantity of sewage and discharge into River Yamuna. Further it has been reported that all CETPs are compliant, but based on site visit by NMCG team, CETPs were found to be non-complying. There have been repeatedly large number of cases related to unauthorized sand-mining in Yamuna Nagar.

Member Secretary, Haryana State Pollution Control Board (HSPCB) informed that with completion of 3 STPs, Haryana now has 155 STPs of 1823 MLD. There is deficiency in sewage treatment capacity in Faridabad but construction of new STPs is under progress and there is no issue of fund availability for these projects. All STPs in Ghaggar are complying and 18 STPs are non-complying in Yamuna and other areas. HSPCB has issued directions to all STPs to adopt new norms of BOD 10mg/l. HSPCB will take the action against the non-complying STPs. Centralized online monitoring systems have been installed in STPs, CETPs and industries for compliance monitoring. Most of non-complying STPs are defaulters as they are not meeting Fecal coliform norms. Chief Secretary, Haryana recently directed to upgrade all STPs to meet FC norms. Most of the ongoing STP projects are scheduled to be completed by Dec 2022. It is confirmed that performance of CETPs is a serious problem. Integrated Drain Monitoring Committee (IDMC) is monitoring CETPs independently. Ground Water Authority in Haryana has been constituted for groundwater regulation. Treated Waste Water Policy has been notified by the State, wherein it is proposed that 50% of the treated water shall be reused by 2025 and 100% reutilization by 2030. Septage Management Policy is being implemented by the ULBs and through tankers the septage is being treated in nearby STPs. Further, it was informed that the matters are being seriously

looked in by the State Government and Chief Secretary, Haryana is closely monitoring the issues. Sonepat STP is under- utilized due to non-completion of household connections, which are under-progress.

31. Himachal Pradesh

Director (Technical), NMCG informed that as per the data submitted by the State, water quality in 7 polluted river stretches is seen to be improved. Out of 65 existing STPs, 7 are reported to be non-compliant. Baddi CETP is now reported to be compliant. Kala Amb CETP was to be completed by December 2020, and the progress of the same is to be reported. Timeline of the 2 MLD CETP at Paonta Sahib is to be provided. Further, it was highlighted that River Kanan, after confluence with River Sirisa, reaches River Satluj and is carrying pollution load downstream to other States. Therefore, the State needs to have a rejuvenation plan for this river.

Member Secretary, Himachal Pradesh Pollution Control Board (HPPCB) informed that Kala Amb CETP is expected to be completed by August, 2021. With regard to gap in sewage treatment, 29 STPs are under-construction and 31 STPs are proposed, which are expected to be completed by 2022. With regard to CETP at Paonta Sahib, funding arrangement is yet to be tied up. It was also informed that the stretch with regard to river Sirsia is being addressed by CETP Baddi and HPPCB is closely monitoring the industries and the CETP in order to prevent pollution of river.

32. West Bengal

Director (Technical), NMCG informed that there are 17 polluted river stretches, of which 12 rivers stretches falls on priority IV (Damodar, Kansi, Jalangi & Mathabhanga) & V (river Barakar, Silabati, Rupnarayan, Dwarkeswar, Mayurakshi, Kaljani, Karola & Teesta). State has informed that 70%-80% pollution abatement work of these rivers (Kansi, Jalangi, Silabati, Rupnarayan, Dwarkeswar & Kaljani) have been completed and in the subsequent months 100% work will be completed. Due to these interventions, quality of water will be improved in particular stretches. In the ongoing projects, State has made significant progress except in Ghusighata STP work wherein 170 MLD STP is proposed. Work for Churni project was awarded, but it is yet to start. With regard to industrial pollution, CETP Module no. 5 has

been stabilised and operation started in Jun 2021. Module no. 6 is in the stage of stabilisation and is expected to start functioning by Aug. 2021. Civil construction of Module no. 7 & 8 is complete and trial run will be started within Aug. 2021. Thus all the CETPs will be completed in Aug 2021 and after completion of these CETPs, water quality of River Vidyadhari which is in priority –I is expected to improve.

Principal Secretary (Urban Development), West Bengal informed that it was proposed to install a 170 MLD STP at Ghusighata earlier. However, State Environment Department did a study on low cost treatment technology which is being used in the East Kolkata Wetland (EKW), wherein around 910 MLD of sewage is naturally treated. Ghusighata is in the downstream of EKW and simultaneously UDD engaged IIT, Kharagpur for condition assessment. IIT prepared a feasibility study report and suggested that improvement in water quality of the proposed STP in Ghusighata shall be insignificant and instead suggested to control the pollution at the source itself. With regard to River Vidyadhari, which is surrounding to Kolkata, it was informed that the river comprises of 3 small rivers basically - Kestopur Khal, Noyai Khal & Bagjola Khal. IIT suggested to install STPs in the ULBs that are polluting the river. Therefore, State has planned one 41 MLD STP for Kestopur Khal amounting to Rs. 247 crore. Apart from this, second major source of pollution in Vidyadhari river is from Bagjola Khal and to intercept the flow of Bagjola Khal, 10 STPs of total capacity 246 MLD are at DPR stage. The funding of the project is planned under State sector. For Noai Khal, Feasibility Study is being done by IIT-Kharagpur and the preliminary report has been submitted. STPs are proposed at Barasat, Dumdum, Madhyamgram, North Dumdum, Rajarhat –Gopalpur, New Barrackpore. Land identification is going on to address the discharge to Vidyadhari through Noai Khal from above mentioned ULBs. Similarly, the part of Vidyadhari chain is New town of Kolkata, wherein another 24 MLD STP capacity has already operationalized. State is also constructing solid waste collection facility on all the major drains and outfalls falling into Kestopur, Bagjola & Noai Khals. So rather than making one STP at Ghusighat, State now plans to make 18 STPs in different localities so as to catch the pollution at the source. Further, it was informed that State has operationalized 3 new Electric Crematoriums and 7 Ghats during the month of April 2021 and May 2021. State also has started constructing 24 new crematoriums and another 6 are in pipe line. CPCB has developed a Mobile App namely 'STP Monitoring App,' where the static and dynamic data of all the STPs are getting digitized. So far, 12 STPs of West Bengal have been digitized

through this App and rest will be connected in next 3 months. West Bengal has taken up Karola river as a Model river having 47 number of outfalls and 100% works completed. The proposed works with regard to the river Kansi and Jalangi have been completed and works are proposed to be completed soon in 3 rivers. Further, State shall be sending documents to CPCB for de-listing of rivers from the polluted river categorization. With regard to low cost treatment technology, State plans to install one FSTP in each district of West Bengal by next one year. Works related to Solid Waste Management in 12 model towns are to be completed within one year. No legacy waste is found dumped within 1 kms of rivers. Scientific solid waste processing has started in 21 ULBs. Massive planation of trees started in 7 non-attainment cities by State Forest Department. With regard to issues in projects proposed at Asanol and Durgapur, DPRs have been submitted and land acquisition is also being pursued. NMCG was also requested to provide assistance in obtaining land from ECL and DBC. With regard to issues in Bardwan project, a meeting was held with District Magistrate and local district authorities for resolving the issues and a comprehensive study is being carried out to understand if the project can be completed with minimum cost. With regard to Tolly Nallah, it was informed that all documents have been submitted. With regard to Churni river, it was informed that bio-remediation works have started and the work of STP is yet to start as there have been some queries by the Finance Department. This is expected to be resolved within 10 days. Further, it was informed that DPRs for Garden Reach-Keorapukur were submitted in April 2021 to NMCG and response is awaited.

Director (Technical), NMCG informed that Final Technical Bid Evaluation Report for Tolly's Nullah Project has been submitted to the World Bank along with the observation of NMCG on 23.06.2021 for approval. Bid validity has been extended up to 31.08.2021 by World Bank. It was requested that State may replicate the mechanism adopted by the State to rejuvenate the model river - Karola, in other rivers as well. With regard to the DPRs for Garden Reach-Keorapukur, it was informed that certain observations with regard to upgradation of recently upgraded STPs were highlighted to the State officials in the previous review meeting of the State.

Director General, NMCG informed that a separate review meeting shall be held with the State to review the progress of the projects and for discussion on the issues in the proposed projects.

33. <u>Madhya Pradesh</u>

Director (Technical), NMCG informed that State has made good progress and 11 new STPs (including big STP at Gwalior, Bhopal) have been completed and now there are 37 STPs of 1030 MLD existing in the State. There is increase in capacity utilization of STPs (629.16 MLD). As the projects are sewer network with STP projects, State may also report about the status and progress made in house-sewers connections in the MPR. River Khan has been adopted as Model River and recently a lot of appreciations has been received in media with regard to improvement in ecology and biodiversity of the river. As per the data provided in the MPR, water quality in rivers, except at Nagda, appears to be good. Compliance status of STPs and CETPs may also be provided by the State.

Director General, NMCG appreciated the progress made by the State and enquired about the household connections.

Deputy Secretary (Urban Development Department), Madhya Pradesh informed that out of 16 lakh house hold connections proposed for all the STPs, 6.5 lakh household connections have been made. The household connections are part of the contracts with the contractor and later on residents shall be charged accordingly.

Director General, NMCG concluded the meeting and suggested NMCG to organize a Webinar before the next meeting of CMC, wherein best practices can be shared with the States.

The meeting ended with thanks to the Chair.

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Annexure-I

List of participants:

1. Shri Pankaj Kumar, Secretary, Ministry of Jal Shakti – *in Chair*
2. Shri Rajiv Ranjan Mishra, Director General, NMCG cum Project Director, NRCD
3. Shri Ashok Kumar Singh, Executive Director (Projects), NMCG
4. Shri D.P.Mathuria, Executive Director (Technical), NMCG
5. Shri Brijesh Sikka, Senior Consultant, NMCG
6. Dr. Pravin Kumar, Director Technical, NMCG
7. Shri A.Sudhakar, Additional Director, CPCB
8. Shri J.C. Babu, Additional Director, CPCB
9. Shri V.K.Chaurasia, Joint Adviser, MoHUA
10. Shri J.B.Ravinder, Deputy Adviser, MoHUA
11. Shri Ishwer Singh, Consultant (Legal) NMCG
12. Shri S.K. Srivastava, Director, NRCD
13. Shri A.P. Singh, Scientist E, NRCD
14. Dr. Sabita Madhvi Singh, Joint Director, NRCD
15. Shri Rajat Gupta, Senior Waste Management Specialist, NMCG
16. Shri Saumya Mukhopadhyay, Senior Environmental Specialist, NMCG
17. Dr. P.N.Rymbai, Scientist B, NRCD
18. Shri Vijay Kumar, Assistant Civil Engineer, NMCG
19. Shri Rachit Andley, Project Manager, NMCG
20. Shri Avshesh Chauhan, Assistant System Analyst, NMCG
21. Shri Kumar Ajitabh, Project Officer Legal, NMCG
22. Mrs. Ruby Raju, Project Engineer, NMCG
23. Shri Abhiyantesh Verma, Support Engineer, NMCG
24. Ms. Preeti, Research Associate, NRCD
25. Shri Debarshi, Research Associate, NRCD

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National Mission for Clean Ganga
Format for submission of Monthly Progress Report in the NGT Matter OA No. 673 of 2018 (in compliance to NGT order dated 24.09.2020)

For the State of Jharkhand (Month of September' 2021)

Overall status of the State:

I. Total Population: **Urban Population 58,42,555 (as per 2011 Census)**

II. Estimated Sewage Generation (MLD): **452 MLD**

III. **Details of Sewage Treatment Plant:**

- Existing no. of STPs and Treatment Capacity (in MLD):

S.No.	Location	No. of STP	Capacity in MLD	Total A
1	Ranchi	10	10 MLD	22 MLD
2	Sahibganj	2	12 MLD	
3	*Jamshedpur	1	50 MLD	81.55 MLD
4	*Bokaro	1	31.5.MLD	
5	*Dhanbad	1	0.05 MLD (50 KLD)	
Total B		**15**	103.55 MLD	**103.55 MLD**

- Capacity Utilization of existing STPs: **77%** (Ranchi: 100%, Sahibganj: 74%, Jamshedpur: 51%, Bokaro: 80%, Dhanbad: 80%)
- MLD of sewage being treated through Alternate technology: **10 MLD**
- Gap in Treatment Capacity in MLD: **348.45 MLD**
- No. of Operational STPs: **15**
- No. of Complying STPs: **15**
- No. of Non-complying STPs: **0**

Details of each existing STP in the State

No.	Location	Existing STP Capacity	Capacity Being Utilized	Operational Status of STP	Compliance Status of STP
1	Ranchi Municipal Corporation	10 MLD	100%	Yes	Yes
2	Sahibganj Nagar Parishad	12 MLD	74%	Yes	Yes
3.	JUSCO, Jamshedpur	50 MLD	51 %	Functional	Yes
4.	BSL, Bokaro	31.5 MLD	80%	Functional	Yes

5.	Dhanbad	50 KLD	80%	Functional	Yes

Details of under construction STPs in the State

No.	Location	Capacity of the plant in MLD	Physical Progress in %	Status of I&D or House sewer connections	Completion Timeline
1	Adityapur MC	36 MLD	73%	-	December 2021
2	Rajmahal NP	3.5 MLD	95%	• Trial run started with sewerage from I&D and house connection. • 1100 Nos. of House Service connection have been completed till date.	December 2021
3	Ranchi MC	37 MLD	47%	-	February 2023
4	Ranchi Smart City Mission	16 MLD	78%	-	December 2021
5	Phusro	15 MLD	-	-	Tender Process ongoing; i) NIT published on website on 19.03.21, ii) Total 10 Bids have been received and are under evaluation.

Details of proposed STPs in the State

No.	Location	Capacity of the STP proposed in MLD	Status of Project (at DPR Stage/ Under Tendering/ Work to be Awarded)	Likely Date of Completion
1	Dhanbad	144 MLD	DPR prepared and sent to NMCG for approval under Namami Gange Scheme. At present DPR sent by NMCG to IIT Roorkee.	
2	Ramgarh	40 MLD	Draft DPR of I & D Scheme sent to NMCG for approval under Namami Gange Scheme by 15.08.2020.	
3	Mango	43 MLD	DPR under preparation. DPR will be finalized after finalization of funding agency.	

IV. **Details of Industrial Pollution:**

- No. of water polluting industries in the State: **266**
- Quantity of effluent generated from the industries in MLD: 128.087 MLD and **Under Evaluation**
- Number of industrial units having ETPs: **165**
- Number of industrial units connected to CETP: **Primary treatment of effluent is being done by 96 units which is sent to final treatment in CETP, Gamharia, Saraikela Kharsawn**
- Number and total capacity of ETPs (details of existing/ under construction / proposed): 05
- Compliance status of the ETPs: **Complied**
- Number and total capacity of CETPs (details of existing/ under construction / proposed):
  - ***i. Adityapur Auto Cluser – 1200 KLD (Existing)***
  - ***ii. Silk Park Irba Area – 0.5 KLD (Existing)***
  - ***iii. Tupudana Industrial Cluster- 3.5 MLD (Under Construction)***
- Status of compliance and operation of the CETPs:

Town	No. of industries	Industrial discharge	Status of ETPs	Status of CETPs (existing, under construction & proposed)
Dhanbad Region	**42**	**Under Evaluation**	**ETPs Complied – 42 nos.**	
Jamshedpur Region	**141**	**92.743 MLD**	**1. ETPs Complied -52 nos. 2. CETPs Complied - 96 nos. 3. ETP Under Construction- 01 nos.**	**Adityapur Auto Cluster, Gamharia, Saraikela Kharsawa – 1200 KLD**
Ranchi Region	**37**	**5500 KLD**	**1. ETPs Complied – 37 nos. 2. ETP Under Construction- 04 nos.**	**1. Silk Park Irba – 0.5 KLD 2. Tupudana Industrial Cluster – 3.5 MLD under construction**
Hazaribagh Region	**38**	**29.844 MLD**	**ETPs Complied – 38 nos.**	

V. **Solid Waste Management:**

- Total number of Urban Local Bodies- **50** and their Population-58,42,555 **(as per Census 2011)**
- Current Municipal Solid Waste Generation- **2228 MTPD**
- Number, Installed Capacity and utilization of Existing MSW facilities;

S. No.	Type of processing	No. of facility/ULB	Installed Capacity	Utilization Capacity	Gap (%)
1	Waste to Energy (Tonnage-Power Output)	Decentralized-01 ULB.	0.5 MTPD	100%	Nil
2	Compost Plants	Windrow Vermi decentralized pit composting-42 ULBs.	130 MTPD 670 MTPD	100%	Nil
3	Bio-methanation	Setup-05 ULBs. Operational-01 ULB. Under Trial- 02 ULBs. Under Installation/ Planned-02 ULBs.	334.98 MTPD 13 MTPD 12.5 MTPD 309.48 MTPD	100%	Nil
4	MRF	42 ULBs.	589 MTPD	100%	Nil

- Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap > 20%): **NA**
- No. and capacity of C&D waste processing plants in TPD (existing, proposed and under construction): **2 nos. - Proposed at Ranchi (To be re-tendered) & Dhanbad (Under DPR Stage).**
- Total no. of wards- **932**, no. of wards having door to door collection service- **883**, no. of wards practicing segregation at source- **798**

- Details of MSW treatment facilities;

Existing MSW processing facilities in MTPD

Number	Capacity	Technology
1	50	Bio methanation & Windrow

Under construction MSW processing facilities in MTPD

Number	Capacity	Technology
10	172.5	Windrow & Bio methanation

Proposed MSW processing facilities in MTPD

Number	Capacity	Technology
25	1000.35	Windrow & Bio methanation

- No. and area (in acres) of uncontrolled garbage dumpsites-**41** and Sanitary Landfills is under construction-**02**.
- No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers. - **Nil**
- No. of drains falling into rivers and no. of drains having floating racks/screens installed to prevent solid waste from falling into the rivers: **47** no of drains in **8 ULBs** identified in O.A.673/2018. **(Annexure 3)**

Status of ULB wise Management of Solid Waste

ULB	Total MSW generation in MTPD	Total MSW being processed in MTPD	Existing MSW facilities	Utilization Capacity of the existing MSW facilities	Total Proposed MSW Facilities & Completion Timeline
42	2228	1181	1	50 TPD	36 Nos, March 2024

VI. **Bio-medical Waste Management: (Domestic)-**

- Total Bio-medical generation: 8316.7281 Kg/day
- No. of Hospitals and Health Care Facilities:
    a. **Bedded: 1073**
    b. **Non- Bedded:733**
- **Status of Treatment Facility/ CBWTF: Four CBWTF at Lohardaga, Ramgarh, Dhanbad & Dugni, Saraikela is functioning.**
- **Total Quantity of Bio-Medical Waste treated: 5893.79 Kg/day**

i. **Captive Facility: 1358.6 Kg/day**

ii. **CBWTF : 4535.19 Kg/day**

- **CBWTF Treatment Capacity:**
  - i. **M/s Bio-Genetic Laboratories Pvt. Ltd., Ramgarh: BMW Disposal Capacity- 600 Kg/day**
  - ii. **M/s Bio-Genetic Laboratories Pvt. Ltd., Dhanbad: Incineration of BMW- 25.2 TPM**
  - iii. **M/s Medicare Environment Management Pvt. Ltd., Lohardaga: Incineration of BMW- 200 Kg/hr**
  - iv. **Adityapur Waste Management Pvt. Ltd. (CBWTF) – 200 Kg/hr**
- **Action taken against: 323 (HCFs)**

VII. **<u>Hazardous Waste Management: (Domestic) (As per Annual Report)</u> –**

- Total Hazardous Waste generation: 202813.83 **MT/Yr.**
- No. of Industries generating Hazardous waste: **550**
- Treatment Capacity of all TSDFs:
  1. ***M/s Adityapur Waste Management Pvt. Ltd. located in Saraikela Kharsawan- Land Fill: 40000 MT/A and capacity of 500 kg/hr (Incineration)***
  2. ***Captive Facility Capacity***
     - i. ***WWR Div. Usha Martin Limited Ranchi- Landfill: 13500 X 2 MT/A***
     - ii. ***M/s Mangalum Lubricant Pvt. Ltd., Ranchi – Incineration: 960 MT/H***
     - iii. ***M/s Tin Plate Co. of India Ltd, Saraikela Kharsawan: Landfill: 753 MT/A***
     - iv. ***M/s Tata Motors Ltd, Jamshedpur, East Singhbhum- Incineration: 0.25 MT/H***
     - v. ***M/s. Bokaro Steel Ltd. B.S. City, Bokaro- Landfill: SLF Dimension 125 m X 30 m X 3 m***
  3. ***ACC Cement, Chaibasa for Co-processing – 23500 MT***
- Avg. Quantity of Hazardous waste reaching the TSDFs and Treated: Land fill – 25056.74 MT and Incineration - 839.199 MT.

1. ***M/s Adityapur Waste Management Pvt. Ltd., Dugni, Saraikela Kharsawan (HW disposed by the end of financial year) -SLF – 35363.5 MT/Yr and*** **Incineration- 1258.8** ***MT/Yr.***

- Details of on-going or proposed TSDF: Nil
- Details of on-going or proposed TSDF: Nil

VIII. **<u>Plastic Waste Management:</u>**

- Total Plastic Waste generation: **43332 TPA**
- Treatment/ Measures adopted for reduction or management of plastic waste: **violations were registered, plastic carry bags were seized from traders and fine has been imposed on them; In Chas & Jamshedpur Road construction has been done by using plastic waste and reused by M/s ACC Limited Chaibasa Cement Works (registered with JSPCB) having facility of Co-processing plastic wastes. The State Govt. has decided to declare the entire area of the State of Jharkhand as the "Plastic Carry Bags Free Area". (Annexure-4)**

IX. Details of Alternate Treatment Technology being adopted by the State/UT: **Approximately 120 MLD.**

Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment: **Approximately 120 MLD.**

X. Details of Nodal Officer appointed by Chief Secretary in the State/UT: **Urban Development & Housing Department**

XI. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT: **The following review meeting held on 21.10.2020, 24.06.2020, 12.07.2019 under the Chairmanship of the Chief Secretary, Govt. of Jharkhand.**

XII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted rive: **Annexure 5**

XIII. Ground water regulation: **Drinking water & Sanitation Dept. have identified the contaminated hand pumps and sealed those hand pumps whose water is not fit for drinking. The contamination of the ground water is caused mainly due to the presence of Arsenic (Sahebganj, Rajmahal and Udhwa) and Fluoride (Ranchi, Gumla, Garwha, Khunti, Plamu, Dhanbad, Bokaro etc.) in excess in few of the regions of Jhakhand.**

Portable water is supplied to the Communities in the identified critical blocks through water tanker owned by local bodies and log book is maintained.

Periodic assessment of 24 districts and 260 blocks of Jharkhand for ground water resources was conducted by Jharkhand in 2009, 2011, 2013 & 2017 which also covers the area related to 7 polluted stretches and based on which a comparative statement of dynamic ground water resource. As per report of CGWA, Dhanbad and Bermo are among the overexploited blocks, Patratu, Silli and Bermo are among semi critical blocks along the seven polluted river stretches.

Groundwater quality monitoring shall be carried out at least twice in the year (winter: December-January and summer: May- June) at strategic locations to ascertain quality of groundwater.

XIV. Good irrigation practices being adopted by the State:

- **Promoting micro irrigation (drip & mini-irrigation) system to save the quantity of water used during agriculture and for promoting micro irrigation (drip & mini-irrigation) system- 90% subsidy is given to Small and Micro Level Farmers whereas 80% subsidy to other farmers.**
- **15004 nos. of the Farmers have obtained the benefit and total Area which is under Drip & Micro Irrigation- 6000 hect.**

XV. Rain Water Harvesting: Policy made by the department of UD&HD Jharkhand has been attached with the report as **Annexure 1**.

XVI. Demarcation of Floodplain, removal of illegal encroachments and maintaining minimum e-flow of river

- **Final Submission of Action Plan/Report for Swarnrekha, Konar, Damodar, Garga, Sankh Nalkari & Jumar are under process.**
- **Periodic drives carried out by Local Administration to remove encroachments**
- **Training Programs have been conducted on "No burning of any kind of waste" for sanitary labors to create awareness on ill-effects of waste burning on environment and human health.**

XVII. Plantation activities along the rivers: ***Total – 124.69 Kms. (Jumar – 20 Kms, Swarnrekha – 65 Kms, Damodar- 20.69 Kms, Konar – 6 Kms, Sankh -8 Kms and Garga - 5 Kms)***

XVIII. Reuse of Treated Water: Policy made by the department has been attached with the report as **Annexure 2**.

XIX. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards: **River *Swarnrekha***

XX. Status of Preparation of Action Plan by the 13 Coastal States: **NA**

XXI. Regulation of Mining Activities in the State/UT: **NA**

XXII. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring: **Environmental Compensation has been charged upon 3 units (BTPS & CTPS – Damodar River and HIDALCO Muri- Swarnrekha River)**

XXIII. Status of Grievances redressal portal in the on-going NGT OA No. 673 of 2018: **All 5 (five)-grievances have been disposed off.**

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**[1], which mandates establishment and functioning of requisite ETPs/CETPs/STPs by 31.3.2018 and in default,

[1] (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 regretfully 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 installed	*Target Date*	*Rs 1.0 Crore*
ii. Non functional	*Very poor to Severe +*	*Rs 50.0 Lakh*
	Moderate to Poor	*Rs 25.0 Lakh*
Construction sites (Offending plot more than 20,000 Sq.m.)	*Severe +/Emergency*	*Rs 1.0 Crore*
	Severe	*Rs 50 Lakh*
	Very Poor	*Rs 25 Lakh*
	Moderate to Poor	*Rs 10 Lakh*
Solid waste/ garbage dumping in Industrial Estates	*Very poor to Severe +*	*Rs 25.0 Lakh*
	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*

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 City/Town	***Mega-City***	***Million-plus City***	***Class-I City/Town and others***

Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	*Min. 2000 Max. 20000*	*Min. 1000 Max. 10000*	*Min. 100 Max. 1000*
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	*Min. 2 Max. 20*	*Min. 1 Max. 10*	*Min. 0.5 Max. 5*

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 City***	***Class-I City/Town and others***
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	*Min. 1000 Max. 10000*	*Min. 500 Max. 5000*	*Min. 100 Max. 1000*
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	*Min. 1.0 Max. 10.0*	*Min. 0.5 Max. 5.0*	*Min. 0.1 Max. 1.0*

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}):

EC_{GW} = Water Consumption per Day x No. of Days x Environmental Compensation Rate for illegal extraction of ground water {ECR_{Gw})

Where water Consumption is in m^3/day and ECRGw in Rs./m^3

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/Categorization0fAssessmentUnits.pdf#ZOOM=150.

Environmental Compensation Rates (ECR_GW) for illegal use of ground water (ECR_GW) 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.

SI. No.	Area Category	Water Consumption (m^3/day)			
		<2	2 to <5	5 to <25	25 & above
		Environmental Compensation Rate (ECRGw) in Rs./m^3			
1	Safe	4	6	8	10
2	Semi Critical	12	14	16	20
3	Critical	22	24	26	30
4	Over-Exploited	32	34	36	40
Minimum EC_GW=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:

SI. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 &
		Environmental Compensation Rate (ECR_{Gw}) in Rs./m^3			
1	Safe	12	18	24	30
2	Semi critical	24	36	48	60
3	Critical	36	48	66	90
4	Over-exploited	48	72	96	120
Minimum EC_GW=Rs 1,00,000/-					

4.6.3 ECR_{Gw} for Mining, Infrastructure and Dewatering Projects

SI. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR_{Gw}) in Rs./m^3			
1	Safe	15	21	30	40
2	Semi critical	30	45	60	75
3	Critical	45	60	85	115
4	Over-exploited	60	90	120	150
Minimum EC_GW=Rs 1,00,000/-					

4.6.4 ECRGw for Industrial Units:

SI. No.	Area Category	Water Consumption (m^3/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECRGw) in			
1	Safe	20	30	40	50
2	Semi critical	40	60	80	100
3	Critical	60	80	110	150

4	*Over-exploited*	*80*	*120*	*160*	*200*
Minimum EC_{Gw} = 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 EC_{Gw} 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"*	*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. No.	River Basin	State/ UT	Number of units w.r.t. their effluent disposal points									Total
			CETP	Canal	Drain	Land/ Irrigation	River	Sewer	STP	ZLD	Others	
1	Ganga	Delhi	817	1	571	0	0	26	1	3	0	**1419**
2	West flowing rivers from Tapi to Tadri	Daman & Diu	0	0	0	2	1	0	0	20	21	**44**
3	Minor river basins drainage to Bangladesh & Burma	Mizoram	0	0	61	0	0	0	0	0	0	**61**
		Tripura	4	0	2	I	2	0	0	0	II	**20**
Total			**821**	**1**	**634**	**3**	**3**	**26**	**1**	**23**	**32**	**1544**

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

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

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

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

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

As per the available information for the 04 States/UTs, the Table No. 3 summarizes the river basin-wise status of the designed capacity of ETPs, daily average volume of effluent

generation and Discharge of untreated/partially treated effluent (KLD).

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

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

3.2.2 River basin-wise status of CETPs:

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

3.2.3 River basin-wise status of STPs:

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

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

CPCB developed the formats for collection of information regarding Municipal solid Waste (MSW) processing facilities, landfill sites and dumpsites from all the States/UTs, to ensure compliance with Hon'ble NGT Directions. The formats circulated to all States/UTs vide letter dated July 31, 2020 ***Annexure-IX.*** *Information has been received from 10 States/UTs (namely; Kerala, Maharashtra, Jammu & Kashmir, Himachal Pradesh, Mizoram, Tamil Nadu, Delhi, West Bengal, Meghalaya & Pondicherry). Out of the 10 states, Tamil Nadu has provided*

information for only dumpsites. On the basis of information, as submitted by States/UTs, the status is as follow:

3.2.4.1 Status of MSW facilities and legacy waste sites

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

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

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

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

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

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

79.	*Uppanaru*	*Tamil Nadu*	*0*	*0*	*1*
80.	*Valapattanam*	*Kerala*	*0*	*0*	*1*
81.	*Wainganga*	*Maharashtra*	*5*	*3*	*5*
82.	*Wardha*	*Maharashtra*	*3*	*2*	*2*
83.	*Wena*	*Maharashtra*	*1*	*0*	*1*
84.	*Yamuna*	*Delhi*	*41*	*2*	*3*
85.	*NA*	*Break-up given*	*88*	*8*	*325*
		TOTAL	*259*	*35*	*428*

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

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

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

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

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

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

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

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

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

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

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

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

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

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"[2]. 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[3], 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.[4]***
> >
> > ***"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,***

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[2] https://www.thehindu.com/news/national/more-river-stretches-critically-polluted cpcb/article24962440.ece

[3] http://cpcb.nic.in/cpcbold/RESTORATION-OF-POLLUTED-RIVER-STRETCHES.pdf

[4] 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.[5]

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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).***[6] *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[7]. 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[8]. As per the report of National Commission for Integrated Water Resource Development of MoWR, the water requirement by2050 in high use scenario is likely to be a milder 1,180 BCM, whereas the present-day availability is 695BCM. The total availability of water possible in country is still lower than this projected demand, at 1,137BCM. Thus, there is an imminent need to deepen our***

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

[6] 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.

[7]Source: WRI Aqueduct; WHO Global Health Observatory

[8]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[9] are facing acute water shortages. Critical groundwater resources – which account for 40% of our water supply – are being depleted at unsustainable rates.[10]

(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[11].***

(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****.[12]*

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****. Inspite 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*

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[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).
[12] https://www.indiaspend.com/diarrhoea-took-more-lives-than-any-other-water-borne-disease-in-india-58143/
[13] http://pib.nic.in/newsite/PrintRelease.aspx?relid=106612

achieved. As per CPCB's report 2016[14]*, 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)***

[14] http://www.sulabhenvis.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.

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 (T_{NHRC}), "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:

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 heath 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.***

xxx ……xxx……xxx

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

> ***"26. Enactment of a law, but tolerating its infringement, is worse than not enacting a law at all. The continued infringement of law, over a period of time, is made possible by adoption of such means which are best known to the violators of law. Continued tolerance of such violations of law not only renders legal provisions nugatory but such tolerance by the enforcement authorities encourages lawlessness and adoption of means which cannot, or ought not to, be tolerated in any civilized society****. Law should not only be meant for the law-abiding but is meant to be obeyed by all for whom it has been enacted. A law is usually enacted because the legislature feels that it is necessary. It is with a view to protect and preserve the environment*

and save it for the future generations and to ensure good quality of life that Parliament enacted the anti-pollution laws, namely, the Water Act, Air Act and the Environment (Protection) Act, 1986. These Acts and Rules framed and notification issued thereunder contain provisions which prohibit and/or regulate certain activities with a view to protect and preserve the environment. When a law is enacted containing some provisions which prohibit certain types of activities, then, it is of utmost importance that such legal provisions are effectively enforced. If a law is enacted but is not being voluntarily obeyed, then, it has to be enforced. Otherwise, infringement of law, which is actively or passively condoned for personal gain, will be encouraged which will in turn lead to a lawless society. ***Violation of anti-pollution laws not only adversely affects the existing quality of life but the non-enforcement of the legal provisions often results in ecological imbalance and degradation of environment, the adverse effect of which will have to be borne by the future generations***.[15]

"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."[16]

"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

[15] INDIAN COUNCIL FOR ENVIRO-LEGAL ACTION Vs. UNION OF INDIA AND OTHERS (1996) 5 SCC 281
[16] A.P. Pollution Control Board II v. Prof. M.V. Nayudu, (2001) 2 SCC 62
[17] 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 ……xxx……xxx

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.*

[18] 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:-
"

15. ***It is clear from the order of the Hon'ble Supreme Court[19] 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***

[19]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."

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[20] 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[21] 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.***

[20] (2017) 5 SCC 326

[21] Order dated 28.08.2019 in Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors., O.A No. 593/2017

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."[22]

"15. A. (iv):

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

[22]O.A No. 200/2014 order dated 22.08.2019

to recover the said amount from erring officers/contractors."

xxx……xxx……xxx……..

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.inimcngt-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/mcncit-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/Guidelines wqm-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-Xl.*** *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)

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		Priority — III to V Identified Polluted River stretches		Total Action Plans Received
		No. of P-I PRS	Action Plans received w.r.to P-I	No. of P-II PRS	Action Plans received w.r.to P-II	No. of P-III to V	Action Plans received w.r.to P-III to V	
Andhra Pradesh	5	0	0	0	0	5	5	5
Assam	44	3	3	1	1	40	40	44
Bihar	6	0	0	0	0	6	6	6
Chhattisgarh	5	0	0	0	0	5	5	5
DD & DNH	1	1	1	0	0	0	0	1
Delhi	1	1	1	0	0	0	0	1
Goa	11	0	0	0	0	11	11	11
Gujarat	20	5	5	1	1	14	14	20
Haryana	2	2	2	0	0	0	0	2
Himachal Pradesh	7	1	1	1	1	5	5	7
J & K	9	0	0	1	1	8	8	9
Jharkhand	7	0	0	0	0	7	7	7
Karnataka	17	0	0	0	0	17	17	17
Kerala	21	1	1	0	0	20	20	21
Madhya* Pradesh	22	3	3	1	1	18	18	22
Maharashtra	53	9	9	6	6	38	38	53
Manipur	9	0	0	1	1	8	8	9
Meghalaya	7	2	2	0	0	5	5	7
Mizoram	9	0	0	0	0	9	9	9
Nagaland	6	1	1	0	0	5	5	6
Odisha	19	1	1	0	0	18	18	19
Puducherry	2	0	0	0	0	2	2	2
Punjab	4	2	2	0	0	2	2	4
Rajasthan	2	0	0	0	0	2	2	2
Sikkim	4	0	0	0	0	4	4	4
Tamil Nadu	6	4	4	0	0	2	2	6
Telangana**	8	1	1	2	2	5	5	8
Tripura	6	0	0	0	0	6	6	6
UP	12	4	4	0	0	8	8	12
Uttarakhand	9	3	3	1	1	5	5	9

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)

NAME OF THE STATE/UT	***Total Identified Polluted River Stretches (PRS) Priority-I & Priority II***	***Identified PS Priority-II***	***Identified PRS Priority-II***	***No. of Action Plans Received***	***Action Plans Not Approved***	***Total Action Plans Approved***
ASSAM	*4*	*3*	*1*	*4*	-	*4*
DAMAN, DIU AND DADRA NAGAR HAVELI	*1*	*1*	*0*	*1*	-	*1*
DELHI	***1***	***1***	***0***	***1***	***1***	***0***
GUJARAT	*6*	*5*	*1*	*6*	-	*6*
HARYANA	*2*	*2*	*0*	*2*	-	*2*
HIMACHAL PRADESH	*2*	*1*	*1*	*2*	-	*2*
JAMMU & KASHMIR	*1*	*0*	*1*	*1*	-	*1*
KERALA	*1*	*1*	*0*	*1*	-	*1*
MADHYA PRADESH	*4*	*3*	*1*	*4*	-	*4*
MAHARASHTRA	*15*	*9*	*6*	*15*	-	*15*
MANIPUR	*1*	*0*	*1*	*1*	-	*1*
MEGHALAYA	*2*	*2*	*0*	*2*	-	*2*
NAGALAND	*1*	*1*	*0*	*1*	-	***1***
ODISHA	*1*	*1*	*0*	*1*	-	*1*
PUNJAB	*2*	*2*	*0*	*2*	-	*2*
TAMIL NADU	*4*	*4*	*0*	*4*	-	*4*
TELANGANA	*3*	*1*	*2*	*3*	-	*3*
UTTAR PRADESH	*4*	*4*	*0*	*4*	-	*4*
UTTARAKHAND	*4*	*3*	*1*	*4*	-	*4*
WEST BENGAL	*2*	*1*	*1*	*2*	-	*2*
TOTAL	***61***	***45***	***16***	***61***	***01***	***60***

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***
ASSAM	*BHARALU*	*Recommended subjected to conditions*
	BORSOLA	*Recommended subjected to conditions*
	SILSAKO	*Recommended subjected to conditions*
	SORUSOLA	*Recommended subjected to conditions*
DAMAN, DIU AND DADRA NAGAR HAVELI	*DAMANGANGA*	*Recommended subjected to conditions*
DELHI	***YAMUNA***	***Not Recommended***
GUJARAT	*AMLAKHADI*	*Recommended subjected to conditions*
	BHADAR	*Recommended subjected to conditions*
	BHOGAVO	*Recommended subjected to conditions*
	KHARI	*Recommended subjected to conditions*
	SABARMATI	*Recommended subjected to conditions*
	VISHWAMITRI	*Recommended subjected to conditions*
HARYANA	*GHAGGAR*	*Recommended subjected to conditions*
	YAMUNA	*Recommended subjected to conditions*
HIMACHAL PRADESH	*SUKHANA*	*Recommended subjected to conditions*
	MARKANDA	*Recommended subjected to conditions*
JAMMU & KASHMIR	*DEVIKA*	*Recommended subjected to conditions*
KERALA	*KARAMANA*	*Recommended subjected to conditions*
MADHYA PRADESH	*CHAMBAL*	*Recommended subjected to conditions*
	KHAN	*Recommended subjected to conditions*
	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*
UTTAR PRADESH	*HINDON*	*Recommended subjected to conditions*
	KALINADI	*Recommended subjected to conditions*
	VARUNA	*Recommended subjected to conditions*
	YAMUNA	*Recommended subjected to conditions*
UTTARAKHAND	*BHELA*	*Recommended subjected to conditions*
	DHELA	*Recommended subjected to conditions*
	SUSWA	*Recommended subjected to conditions*
	KICHHA	*Recommended subjected to conditions*
WEST BENGAL	*VINDHADHARI*	*Recommended subjected to conditions*
	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***
III	*11 - 12.02.2019*	*GUJARAT*	*6*
		HARYANA	*2*
		HIMACHAL PRADESH	*2*
		KERALA	
		MADHYA PRADESH	*2*
		PUNJAB	*2*
		TELANGANA	*3*
		WEST BENGAL	*2*
IV	*28.03.2019*	*DD, DNH*	*1*
		JAMMU & KASHMIR	*1*
		MADHYA PRADESH	*2*
		MAHARASHTRA	*15*
		ODISHA	*1*
V	*24.04.2019*	*TAMIL NADU*	*4*
VI	*31 05.2019*	*UTTAR PRADESH*	*4*
VII	*16.07.2019*	*UTTARAKHAND*	*4*
VIII	*06.09.2019*	*ASSAM*	*4*
		MANIPUR	*1*
		MEGHALAYA	*2*
		NAGALAND	*1*
Total Action Plans Approved			***60***

With respect to Priority — Ill 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.

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***		***Priority — III to V Identified Polluted River stretches***		***Total Action***
		No. of P-I PRS	***Action Plans received w.r.to P-I***	***No. of P-II PRS***	***Action Plans received w.r.to p-II P-1 I 0***	***No. of P-III to P-V V 5***	***Action Plans received w.r.to P-III to P-V 5***	***Plans Received*** 5
Andhra Pradesh	*5*	*0*	*0*	*0*	*0*	*5*	*5*	*5*
Assam	*44*	*3*	*3*	*1*	*1*	*40*	*40*	*44*
Bihar	*6*	*0*	*0*	*0*	*0*	*6*	*6*	*6*
Chhattisgarh	*5*	*0*	*0*	*0*	*0*	*5*	*5*	*5*
DD & DNH	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*1*
Delhi	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*1*
Goa	*11*	*0*	*0*	*0*	*0*	*11*	*11*	*11*
Gujarat	*20*	*5*	*5*	*1*	*1*	*14*	*14*	*20*
Haryana	*2*	*2*	*2*	*0*	*0*	*0*	*0*	*2*
Himachal Pradesh	*7*	*1*	*1*	*1*	*1*	*5*	*5*	*7*
i & K	*9*	*0*	*0*	*1*	*1*	*8*	*8*	*9*
Jharkhand	*7*	*0*	*0*	*0*	*0*	*7*	*7*	*7*
Karnataka	*17*	*0*	*0*	*0*	*0*	*17*	*17*	*17*
Kerala	*21*	*1*	*1*	*0*	*0*	*20*	*13*	*14*
Madhya Pradesh	*22*	*3*	*3*	*1*	*1*	*18*	*17*	*21*
Maharashtra	*53*	*9*	*9*	*6*	*6*	*38* *8*	*38* *8*	*53* *0*
Manipur	*9*	*0*	*0*	*1*	*1*	*8*	*8*	*9*
Meghalaya	*7*	*2*	*2*	*0*	*0*	*5*	*5*	*7*
Mizoram	*9*	*0*	*0*	*0*	*0*	*9*	*9*	*9*
Nagaland	*6*	*1*	*1*	*0*	*0*	*5*	*5*	*6*
Odisha	*19*	*1*	*1*	*0*	*0*	*18*	*18*	*19*
Puducherry	*2*	*0*	*0*	*0*	*0*	*2*	*2*	*2*
Punjab	*4*	*2*	*2*	*0*	*0*	*2*	*2*	*4*
Rajasthan	*2*	*0*	*0*	*0*	*0*	*2*	*2*	*2*
Sikkim	*4*	*0*	*0*	*0*	*0*	*4*	*4*	*4*
Tamil Nadu	*6*	*4*	*4*	*0*	*0*	*2*	*2*	*6*
Telangana	*8*	*1*	*1*	*2*	*2*	*5* *6*	*5* *6*	*8* *6*
Tripura	*6*	*0*	*0*	*0*	*0*	*6*	*6*	*6*
UP	*12*	*4*	*4*	*0*	*0*	*8*	*8*	*12*
Uttarakhand	*9*	*3*	*3*	*1*	*1*	*5*	*5*	*9*
West Bengal	*17*	*1*	*1*	*1*	***1***	*15*	*15*	*17*
Grand Total	***351***	***45***	***45***	***16***	***16***	***290***	***282***	***343***

”

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.<u>Original Application No. 673/2018</u>

Review of proceedings before the Tribunal

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

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

"XII. Directions:

47. We now sum up our directions as follows:

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

22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.

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

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

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

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

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

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

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

ix. CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the

execution of the action plans prepared by the States which may start forthwith, if not already started.

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

xi. *Since the report of the CPCB has focused only on BOD and FC without other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of bio magnification,* ***a survey may now be conducted with reference to all the said parameters*** *by involving the SPCB/PCCs within three months. Monitoring gaps be identified and upgraded so to cover upstream and downstream locations of major discharges to the river. CPCB may file a report on the subject before the next date by e-mail at judicial-ngt@gov.in.*

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

(emphasis supplied)

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

"XII. Directions:

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

Review of Compliance Status Reports

CPCB Report dated 15.09.2020

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

"

- *All 61 action plans pertaining to Priority I and Priority II polluted river stretches submitted by 18 States & 2 UTs have been approved along with conditions by CPCB Task Team*
- *Out of 115 Action plans pertaining to P-Ill and P-IV polluted river stretches received from 24 States & 1 UT, 108 action plans pertaining to 22 States and 1 UT have been approved along with the conditions.*
- *Total 169 action plans submitted by 24 States & 3 UTs have been approved by CPCB Task Team."*

Annexure-2 is reproduced below:-

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

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

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

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

CMC Report dated 15.09.2020

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

"Existing Sewage Infrastructure

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

provided to CMC. The details of sewage generation, existing sewage treatment capacity, its utilization and gap thereof is presented in ***Table-1****.*

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

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

23	***Punjab***	*2111*	*1621.5 (115 STPs)*	*80%*	*456*
24	***Rajasthan***	*1712*	*966 (68 STPs)*	*43%*	*746*
25	***Sikkim***	*47.68*	*19.02 (6 STPs)*	*17 (89%)*	*28*
26	***Tamil Nadu***	*2070.855*	*1484.42 (56 STPs)*	*798.34 (53%)*	*586.435*
27	***Telangana***	*2453*	*920.1*	*810 (88%)*	*1532.9*
28	***Tripura***	*175*	*8 (1 STP)*	*-*	*167*
29	***Uttarakhand***	*329.33*	*355.13 (61 STPs)*	*203.9 (57%)*	*-*
30	***Uttar Pradesh***	*5500*	*3365.88 (105 STPs)*	*2566.55 (76%)*	*2134.11*
31	***West Bengal (as per CPCB Report 2018)***	*5303*	*557.64 (43 STPs)*	*-*	*4745.36*
	Total	***53,396.849***	***29,556.795***		***24,144.47***

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

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

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

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

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

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

Pradesh, West Bengal have reported that works have been taken up in 42 drains and 10 drains respectively in their State.

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

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

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

8. Industrial Pollution Management in the State/ UTs:

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

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

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

Observations and recommendations in the CMC report:

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

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

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

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

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

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

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

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

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

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

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

- *States do not have an online monitoring system in place to monitor (both quantity and quality of treated water) the health of existing sewerage infrastructure. States must consider to develop an online monitoring system, preferably IoT enabled platform for monitoring the performance of sewage infrastructure, with flexibility of integrating STPs under implementation and planning alike and which are likely to be commissioned in future. Such a system will enable that health of sewage treatment facility is readily available, with minimum human interference in regard to data inflows into the system, at appropriate levels in the Government and State and Central regulators. An IoT enabled platform shall also be futuristic and will have common architecture, thus facilitating, horizontal integration of large number of STP plants (both existing and likely to come up in future) and uniform platform adaptable for all States and also at National level.*

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

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

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

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. <u>Directions:</u>

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

No.	State	Sewage Generation (in MLD)	Existing STP (capacity in MLD and No.)	Capacity Utilization (In MLD)	Gap in Treatment at present (in MLD)
1	**Andhra Pradesh**	1463.20	515.85 (43 STPs)	473.77 (91%)	947.35
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
5	**Daman, Diu And Dadra 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 Pradesh**	163.5	120.5 (65 STPs)	76.8 (64%)	43

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 STPs)	91.12 (73%)	192
15	**Madhya Pradesh**	2183.65	618.23 (23 STPs)	472.6 (76%)	1565.4
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
19	**Mizoram**	68	10 (1 STP)	0	58
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 STP)	80%	482.5
24	**Rajasthan**	1551	999 (80 STPs)	694.5 (69%)	552
25	**Sikkim**	47.68	19.5 (7 STPs)	60%	28
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%)	1071.68
Total		**48,003.69**	**30,000.96 (1261 STPs)**	**55.9%**	**17,026.58**

*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

No.	State	Completion By			
		January 2021-March 2021	**April 2021-December 2021**	**January 2022-June 2022**	**Beyond June 2022**
1	**Andhra Pradesh**	2 STPs of 7 MLD	29 STPs of 328.4 MLD	1 STP of 123 MLD	15 MLD STP
2	**Bihar**	12 projects of 355.5 MLD. Revised timeline to be provided			
3	**Chhattisgarh**	-	6 STPs of 238 MLD	-	-
4	**Daman, Diu And Dadra Nagar Haveli**	-	-	-	-
5	**Delhi**	-	1 STP of 318 MLD (new)	-	STPs of 950.8 MLD
6	**Goa**		5 STPs of 35.5 MLD including sewer networks		3 STPs of 43 MLD – work not started due to issues by locals.
7	**Gujarat**	23 STPs of 426.72 MLD	44 STPs of 571.68 MLD	4 STPs of 116.6 MLD	10 STPs of 125.4 MLD
8	**Haryana**	15 STPs of 59.45 MLD	19 STPs of 168.75 MLD	2 STPs of 45 MLD	2 STPs of 180 MLD
9	**Himachal Pradesh**	5 STPs of 26 MLD	10 STPs of 7.9 MLD	6 STPs of 6.1 MLD	5 STPs of 8.26 MLD
10	**Jammu & Kashmir**	2 STPs of 61.2 MLD	4 STPs of 17.6 MLD	4 STPs of 13.21 MLD	-
11	**Jharkhand**	-	3 STPs of 89 MLD	-	-
12	**Karnataka**	21 STPs of 427.17 MLD	9 STPs of 197.3 MLD	21 STPs of 115.67 MLD	4 STPs of 16.07 MLD
13	**Kerala**	STP/ETP/FSTP of 0.331 MLD	STP of 0.01 MLD		
14	**Madhya Pradesh**	15 STPs of 212 MLD	2 STPs of 22.25 MLD	19 STPs of 212.5 MLD	
15	**Maharashtra**	10 STPs of 141.5 MLD	5 STPs of 110.26 MLD	2 STPs of 13 MLD	-
16	**Manipur**	-	-	2 STPs of 17 MLD	-
17	**Meghalaya**	115 KLD Septage Treatment Plant			
18	**Mizoram**	Sewer	-	-	-
19	**Nagaland**		sewer connections in	-	-
20	**Odisha**	2 STPs of 56 MLD	48 MLD STP	-	-

22	**Punjab**	6 STPs of 27.5 MLD	12 STPs of 49.2 MLD	4 STPs of 67.5 MLD	8 STPs of 109 MLD
23	**Rajasthan**	29 STPs of 126 MLD	15 STPs of 113.5 MLD	4 STPs of 59.5 MLD	12 STPs of 141 MLD
24	**Sikkim**	2 STPs of 3 MLD	-	-	3.25 MLD STP
25	**Tamil Nadu**	18 STPs of 244 MLD	8 STPs of 203.46 MLD	6 STPs of 450.53 MLD	16.71 MLD STP
26	**Telangana**	2 STPs of 16.45 MLD	12 STPs of 73.96 MLD	3 STPs of 120 MLD	-
27	**Tripura**	-	-	8 MLD STP	-
28	**Uttarakhand**	3 STPs of 8.9 MLD	3 STPs of 23.7 MLD	1 STP of 28 MLD	
29	**Uttar Pradesh**	6 STPs of 122.01 MLD	21 STPs of 523.55 MLD	7 STPs of 161.5 MLD	3 STPs of 80 MLD
30	**West Bengal**	1 STP of 24 MLD	4 STPs of 47.75 MLD	6 STPs of 271.5 MLD	-
	Total (except Bihar)	**163 STPs of 1989.211 MLD**	**214 STPs of 3187.77 MLD**	**93 STPs of 1828.61 MLD**	**1688.49 MLD**

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 Nagar Haveli**	1 STP of 7 MLD
5	**Gujarat**	59 STPs of 445 MLD
6	**Himachal Pradesh**	8 STPs of 33.31 MLD
7	**Jharkhand**	15 MLD STP - Sanctioned
8	**Karnataka**	14 STP, 1 UGD for STP, 144 MLD 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
4	**Daman, Diu And Dadra Nagar Haveli**	1 STP of 16 MLD
5	**Delhi**	42 decentralized STPs and Mori Gate 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
11	**Karnataka**	23 STP of 72.136 MLD;3 FSSM, 4.5 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
18	**Tamil Nadu**	DPRs prepared and are being prepared on 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

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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 Pradesh**	No information provided in the MPR.

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 phytorid treatment in all ULBs.
5	**Daman Diu & Dadra Nagar Haveli**	Phyto-remediation and Bioremediation proposal for the 13 identified drain has been received from NEERI 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 Sonepat 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 Pradesh**	In-situ Phytoremediation technique is being applied in 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 Adityapur, 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 Pradesh**	In-situ bio-remediation for Nagda and Mandideep town 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.
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.

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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. of Industries having ETPs	Treatment Capacity of ETPs (MLD)	CETPs (Nos. and Capacity in MLD)
Gujarat	State	**12815**	**NA**	**12700**	**NA**	**Existing CETPs : 34 of 755.259 MLD, Proposed/Under construction: 16 of 263.35 MLD, Under expansion: 3, Capacity: 45.5 MLD**
Tamil Nadu	**State**	**11445**	**2835.7**	**11445**	**NA**	**Existing-36 of 87.350 MLD capacity. Proposed- 10 (41MLD) 1497 units connected to CETP.**
	PRS	1770	452.696	1770	NA	Existing – NA Proposed- 10 CETPs (41MLD)
Haryana	PRS	3729	126	3729	-	Existing- 19 CETPs of 190.1 MLD capacity. Proposed- 11 CETPs 141.5 MLD capacity Under Construction: 1 CETP of 6 MLD

Karnataka	State	3503	1339	3287	4523	Existing - 10 CETPs of 5.875 MLD installed capacity; Operational Capacity = 3.445 KLD (59%); 733 units connected Under construction = 2 (in Bidar and Yadgir), Expression of Interest issued = 1
Delhi	UT	1516	36	1516 (100%)	-	Existing – 13 CETPs of capacity 212.3MLD of which 2 are complying, 11 non complying. All CETPs have OLMS installed. Upgradation of CETPs has been proposed.
Goa	State	NIL				
Odisha	State	1031	886	1030	886	NIL
Tripura	PRS	179	0.0144	18 ETPs Installed	-	1 CETP of 500 KLD capacity installed
Maharashtra	State	16597	2100	16597	NA	Existing CETPs: 26 nos. (244.85 MLD) Under Construction-2CETPs, Proposed: 2 CETP at Nashik and Kolhapur

Himachal Pradesh	State	2773	45.67	955	35.1	Existing: 25 MLD CETP at Baddi. (468 units connected) Proposed: 2 MLD at Poanta Sahib Under Construction: 5 MLD at Kala Amb
Jammu & Kashmir	State	450	17	239	-	2 CETPs of 1.05 MLD functional, 1 CETP under trial, 10 CETP under construction and 10 CETP proposed
Uttarakhand	State	830	145	830	175	Existing-3 (13.2MLD) Proposed- 3 CETPs of 18 MLD
State	Stretch	No. of Industries(Water Polluting)	Current Effluent Discharge (MLD)	No. of Industries having ETPs	Treatment Capacity of ETPs (MLD)	CETPs (Nos. and Capacity in MLD)
Uttar Pradesh	State	1648	850.5	1404	NA	Existing – 7 (58.60 MLD) (NC-01/07 operational) Under Construction – 01No. (20 MLD)/ 3 Nos. of 26.65 MLD Sanctioned – 2 Nos. of (6.65 MLD)

Rajasthan	State	1199	-	1167	3173.61	16 CETPs (14 Operational, 01 under construction and 01 closed) Capacity - 159.88MLD
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 is under process
Manipur	State	Non-polluting industries	-	-	-	5 industrial units are connected to 1 non-functional CETP of 400 KLD
Mizoram	State	56	0.0438	56	0.099	NIL

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: 4 module of 20 MLD
Kerala	State	1401	156.3	5166	-	Existing- 8 CETPs of 12.4 MLD. 64 units connected.
Telangana	State	2178	603	1519	593.85	Existing- 4 Nos. of 7 MLD capacity operational. Under Construction – 1 CETP of 480 KLD
Andhra Pradesh	State	1069	4494.33	1069	-	Existing-7 CETP of (31 MLD) total capacity having 330 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.

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 Haveli**	Damanganga
6	**Delhi**	Yamuna
7	**Goa**	Sal River
8	**Gujarat**	Sabarmati River
9	**Haryana**	Both Yamuna & 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
1	Andhra Pradesh	Action Plan Submitted to CPCB and under consideration of CPCB
2	Daman, Diu & Dadra Nagar	-
3	Goa	-
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 Hnn"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 Pradesh	321.81 MLD of treated wastewater is being reused.
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 resuse 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 drawing 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 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 duel 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 wastewater of STPs for non-potable use such as domestic use, construction activities, industrial processes, urban landscaping & green belts, etc.

<table>
<tr><td>Rajasthan</td><td>No information provided.</td></tr>
<tr><td>Sikkim</td><td>Treated effluent is to be utilized in cooling towers, irrigation of green belt, evaporation or flushing purposes.</td></tr>
<tr><td>Tamil Nadu</td><td>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.</td></tr>
<tr><td></td><td>Some of details are given in Table-11.1 below.

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

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.</td></tr>
</table>

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 Pradesh	No information provided.
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. <u>Observations</u> <u>and Recommendations</u>

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:*

  - *Considering financial limitations, S**tates/ 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.***
  - *"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**. 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.*
  - *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.***
  - *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.*

- ***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 Costal State PCBs/PCCs but compliance of such directions needs to be monitored. We have dealt with OA Nos. 593/2017 and 673/2018, dealing with the setting up of ETPs/ STPs/CETPs and preventing discharge of untreated effluents/sewage into the rivers hereinabove.* ***The subject of coastal pollution needs to be dealt with in the same manner as polluted river stretches by preparing action plans of each States/UTs which may also be monitored by the Central Monitoring Committee (CMC) simultaneously with the 351 polluted river stretches and the said subject may also be covered in the next report of the CMC. As already mentioned, the CMC is to be headed by the Secretary, Ministry of Jal Shakti and assisted by the CPCB and NMCG and at the States/UTs level, the Chief Secretaries have to monitor the compliance status and give reports to and interact with the CMC.***
>
> *OA No. 829/2019 stands disposed of and further monitoring of the issue will henceforth be in OA 593/2017 and OA 673/2018."*

- **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[23]. 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

[23] These include (not an exhaustive list):

- M.C. Mehta V. UOI **O.A. No. 200/2014** (pollution of **Ganga**), see also 2017 NGTR (3) PB 1
- Manoj Mishra V. UOI, **O.A. No. 06/2012** (pollution of **Yamuna**)
- Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case) **O.A. No. 138/2016** (TNHRC) (pollution of river **Ghaggar**)
- Mahendra Pandey V. UOI & Ors. **O.A. No. 58/2017** (river **Ramganga**, a tributary of river Ganga)
- Sobha Singh & Ors. V. State of Punjab & Ors. O.A. 916/2018, and **O.A. No. 101/2014** (rivers **Sutlej and Beas**)
- Amresh Singh V. UOI & Ors. **O.A. No. 295/2016, Execution Application No. 32/2016** (rivers **Chenab and Tawi**)
- Nityanand Mishra V. State of M.P. & Ors. **O.A. No. 456/2018** (river **Son**)
- Doaba Paryavaran Samiti V. State of U.P. &Ors. **O.A. No. 231/2014** (river **Hindon**)
- 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:-

> ***"<u>RECOMMENDATIONS BY THE OVERSIGHT COMMITTEE</u>***
>
> 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 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 uncomplied 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 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)***[24] *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."*

[24] 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.

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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[25]. NMCG may monitor compliance. Control of pollution of river Ganga will be incomplete without controlling pollution of all the tributaries and drains connected thereto.***

xxx ……xxx……xxx……

27. Further progress reports may be furnished by the concerned five States to the NMCG on or before 30.06.2021

[25] 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 ETPS, 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[26] 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……

[26] 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 Taloja 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 Paryavaran 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.

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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[27].**

[27] 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.[28] If the offence is by a Government Department, Head of the Department is deemed to be guilty.[29] 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

[28] Section 26
[29] 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