BEFORE THE NATIONAL GREEN TRIBUNAL, NEW DELHI

ORIGINAL APPLICATION NO. 450 OF 2025

IN THE MATTER OF
DR. ANIL KUMAR PANDEY ..... APPLICANT

VERSUS

STATE OF UTTAR PRADESH & ORS. ..... RESPONDENTS

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NEW DELHI

DATED 09.01.2026.

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Joint Committee report in compliance of Hon'ble NGT Order dated 06.10.2025 in the matter of "O.A. No. 450 of 2025 Dr. Anil Kumar Pandey Vs State of Uttar Pradesh & Ors."

1. Background: -

Joint committee was constituted in compliance of Hon'ble NGT order dated 06.10.2025 in the matter of (O. A. No. 450 of 2025 Dr. Anil Kumar Pandey Vs State of Uttar Pradesh & Ors.). The relevant portion of the order is as below:

"-------- In view of the averments made in the application, we also consider it appropriate that a Joint Committee be constituted to verify, the factual position and suggest appropriate remedial action. Accordingly, we constitute a Joint Committee comprising of representatives of CPCB, UPPCB and District Magistrate, Gorakhpur and direct the same to meet within two weeks, undertake visits to the site, look into the grievances of the applicant, associate the applicant and representative of the concerned project proponent, verify the factual position and suggest appropriate remedial action. The UPPCB will be the nodal agency for coordination and compliance……"

Copy of the Hon'ble NGT Order is attached as **Annexure-I.**

The Joint Committee was comprising the member of Sh. Kesari Nandan Tiwari, SDM Sahjanwan, Representative of Distrct Administration, Sh. Kamal Kumar, Sci.'E', Central Pollution Control Board, Regional Directorate as Representative of Central Pollution Control Board and Sh. P. P. Singh, Assistant Environmental Engineer, Uttar Pradesh Pollution Control, Regional Office, Gorakhpur Representative of Uttar Pradesh Pollution Control Board.

Gorakhpur Industrial Development Authority (GIDA) was incorporated by the Uttar Pradesh Government on 30th November 1989 under Uttar Pradesh Industrial Development Act 1976 for the complete and planned development of Eastern Uttar Pradesh. GIDA under its development plan has a total area of 13,135 acres. Currently, the development plan has been subdivided into 32 sectors. Currently two drains at GIDA sector 13 and Sector 15 are carrying out domestic as well as industrial wastewater through Sariya Drains which meets to River Ami and Ami River ultimately meets to River Rapti. GIDA is developing Common Effluent Treatment Plant and have also mechanism for waste collection in its sectors. GIDA industrial Sector has established mixed type industries.

The Ami River is a tributary of the Rapti River. This river originates from Sikahra Tal in the Rasulpur area of Dumariyaganj Tehsil, Siddharthnagar District. Sikahra Tal, located in the Rasulpur area, is a low-lying area situated approximately 12 kilometers south of the Rapti River. During the rainy season, rainwater collects in this low-lying area, and this accumulated water flows out from Sikahra Tal in the Rasulpur area as the Ami River. After originating from its source, the Ami River flows through the districts of Siddharthnagar, Basti, Sant Kabir Nagar, and Gorakhpur, covering a distance of

approximately 102 kilometers before joining the Rapti River near Sohagora village, near Kauriram in Gorakhpur district.

After flowing for approximately 24 kilometers from its source, another river called Rarua joins it. After the confluence of the Rarua River with the Ami River, and after flowing for some distance, two old channels of the Rapti River, known as Budhi River and Barar River, join the Ami River. From the source of the Ami River to the confluence point of the Satnariya Nala, there is no natural water flow except during the rainy season, and water remains collected in some parts of the river basin. After the confluence with the Satnariya Nala, there is generally no water flow from the Rudhauli area to the confluence point of the Rarua River with the Ami River. A limited amount of water flow begins in the river after the Budhi River and Barar River join the Ami River.

Domestic wastewater generated from the Khalilabad Municipal Council in Sant Kabir Nagar district flows into the Ami River via the Sarahi drain. Subsequently, domestic wastewater from the Maghar Nagar Panchayat and a portion of the domestic wastewater from the Khalilabad Municipal Council also flows into the Ami River.

2. Observation

Joint Committee visited vide dated 12.12.20225 to verify the factual position and suggest appropriate remedial action.

1. Domestic effluent generated from the Khalilabad Municipal Council in Sant Kabir Nagar district also flows into the Ami River via the Sarahi drain.
2. Domestic effluent from Maghar Nagar Panchayat and a portion of the domestic effluent from Khalilabad Municipal Council also join the Ami River.
3. Domestic effluent generated from Sahjanwa Nagar Panchayat is discharged into the Ami River through the Sariya drain.
4. Domestic and industrial effluent discharged from industries established in Sector 13 and Sector 15 of the Gorakhpur Industrial Development Authority (GIDA) in Gorakhpur district also flows into the Ami River via the Sariya drain.
5. During inspection Joint Committee, collected wastewater samples at the following points and analysed in the laboratory of Regional Office, Uttar Pradesh Pollution Control Board, Gorakhpur. The analysis report received from the laboratory is as follows-

S. No	Name of Sampling Point	pH	DO mg/L	BOD mg/L	COD mg/L	TSS mg/L	TDS mg/L	TS mg/L	TC MPN/100 ml	FC MPN/100 ml
1	Ami river upstream before confluence with Sariya Nala/GIDA drain	7.92	7.6	4.8	24	64	248	312	40000	17000

	near Vill-Bharsarn, Sahjanwa, Gorakhpu									
2	Ami river downstream after confluence with Sariya Nala/GIDA drain near Chhatai road bridge, Khajani, Gorakhpur	7.28	4.2	26	160	78	342	420	130000	68000
3	Sariya Nala, Near Vill-Bharsad, Sahjanwa, Gorakhpur	7.53	-	105	440	144	684	828	3100000	1400000
4	Industrial Drain, Sector-13, GIDA, Sahjanwa, Gorakhpur	7.80	-	160	520	162	871	1033	3400000	1500000
5	Industrial Drain, Sector-15, GIDA, Sahjanwa, Gorakhpur	7.74	-	120	380	138	527	665	2700000	1300000
6	Sewage Drain of Nagar Panchayat, Sahjanwa, Near Murari Inter College, Sahjanwa, Gorakhpur	7.69	1.0	64	224	112	602	694	2400000	1100000

7. As per the above result, it was observed that the water quality of Ami River upstream after confluence Sewage Drain of Nagar Panchayat, Sahjanwa, Near Murari Inter College, Sahjanwa, Gorakhpur degraded due to untreated wastewater discharge to Ammi River.
8. A total of 372 industries is established in Sector-13 and Sector-15 of the Gorakhpur Industrial Development Authority (GIDA), out of 372 Industries 49 Industries found to be water polluting, which needs further treatment before meeting to River Ammi. For which GIDA is already Establishing CETP which is under process.
9. During the site visit, urban solid waste and dead animals were observed being dumped into the Ami River near the Chhatai Overbridge.

During visit the representative of GIDA has informed that, Gorakhpur Industrial Development Authority (GIDA) has proposed the establishment of a 4.0 MLD capacity Common Effluent Treatment Plant (CETP) for the treatment of industrial effluent. The Authority has completed the process of selecting a consultant for the establishment of the CETP. The consultant has prepared and submitted the Detailed Project Report (DPR), which has been sent to the National Mission for Clean Ganga (NMCG) for review.

3. Recommendation

1. The construction of the Common Effluent Treatment Plant (CETP) proposed by the Gorakhpur Development Authority (GIDA), Gorakhpur, should be ensured within the stipulated time frame.
2. Concerned Authorities should properly collect and dispose the Domestic solid waste as per "*MSW, Rule 2016 and its amendment time to time*". Copy of the MSW Rule is attached as **Annexure-III.**
3. Concerned Authority should ensure proper disposal of dead animal through carcass/rendering plant. Copy of the Guidelines for Carcass Disposal is attached as **Annexure-IV.**
4. Concerned Authority i.e., Nagar Palika, Sahjanwan should be initiate for the construction of a Sewage Treatment Plant (STP) to treat the domestic wastewater generated by Nagar Panchayat, Sahjanwa, which is currently discharged into the Ami River through the Sariya drain. (*As per Hon'ble NGT Order dated 31.08.2018 in the matter of O.A. No. 593 of 2017 Paryavaran Suraksha Samiti Vs Union of India).* Order attached as ***Annexure-V.***
5. Concerned Authority i.e., Nagar Palika, Sahjanwan should ensure temporary wastewater treatment through Bio remediation till establishment of STP. (*As per Hon'ble NGT Order dated 22.02.2021 in the matter of O.A. No. 593 of 2017 Paryavaran Suraksha Samiti Vs Union of India).* Order attached as ***Annexure-VI.***
6. The Gorakhpur Development Authority (GIDA), Gorakhpur, should ensure the maintenance of roads in the industrial area to control dust emissions in the industrial zone.
7. The Uttar Pradesh Pollution Control Board should conduct regular inspections and ensure compliance of discharge standard for water-polluting industries located within vicinity.

Kesari Nandan Tiwari SDM Sahjanwan	Kamal Kumar, RD, CPCB, RD Lucknow	P. P. Singh, AEE, UPPCB, RO, Gorakhpur

ANNEXURE-1

Item No.02 Court No. 2

BEFORE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 450/2025

Dr Anil Kumar Pandey Applicant

Versus

State of Uttar Pradesh & Ors. Respondents

Date of hearing: 06.10.2025

CORAM: HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

ORDER

1. The applicant-Dr. Anil Kumar Pandey has sent present letter petition dated 19.05.2025 to this Tribunal by post which has been treated and registered as O.A. No. 450/2025 for exercise of suo moto jurisdiction in view of law laid down by Hon'ble Supreme Court in **Municipal Corporation of Greater Mumbai Versus Ankita Sinha and others, (2022) 13 SCC 401.**

2. The applicant has raised grievances regarding discharge of untreated industrial effluent by the Gorakhpur Industrial Development Authority (GIDA), Gorakhpur (Uttar Pradesh) via Saraya drain in Aami river, a tributary of river Ganga, near village Pt. Adilapar, Development Block-Piprauli, District-Gorakhpur (Uttar Pradesh). The relevant part of the English translation of the letter petition enumerating grievances of the applicant reads as follows:-

> "It is humbly requested that the discharge of chemically laden water (CONCENTRATED EFFLUENT) without purification and treatment is being continued in Aami River, a sub-tributary of Mata Ganga River, near Gram Panchayat-Adilapar, Block-Piprauli, District-Gorakhpur (U.P.), by Gorakhpur Industrial Development Authority, GIDA, Gorakhpur (U.P.) drain (via) Saraya drain (via) confluence of Aami River, Vanshi Bat Sthan (near Gram

> Panchayat-Adilapar). All rivers and drains are connected to Ganga River. Human race and civilization developed on the banks of rivers. Rivers are no longer life-giving. Humans ignored the importance of environment and nature for momentary gains and selfishness. Apart from this, instead of thinking about global welfare, thinking about selfwelfare made us anti-nature.
>
> Therefore, we humbly request you to kindly ensure compliance of environmental (protection) standards so that the vision of Swachh Bharat Mission, One Step towards Cleanliness, Cleanliness is Service, Jal Jeevan Mission, Namami Gange, Government of India can be realised…."

3. *Prima facie* the averments made in the application raise substantial questions relating to environment arising out of the implementation of the enactments specified in Schedule-I to the National Green Tribunal Act, 2010.

4. In view of the averments in the application, we consider it appropriate to have response of (1) State of Uttar Pradesh through Chief Secretary, (2) Principal Secretary, Environment and Climate Change, Government of Uttar Pradesh (3) Principal Secretary, Irrigation Department, Government of Uttar Pradesh (4) District Magistrate, Gorakhpur (5) Gorakhpur Industrial Development Authority through its CEO and (6) Uttar Pradesh Pollution Control Board through its Member Secretary who stand impleaded as respondents No. 1 to 6. The Registry is directed to prepare and attach memo of parties to the application and issue notices to respondents No. 1 to 5 requiring them to file their replies/responses.

5. In view of the averments made in the application, we also consider it appropriate that a Joint Committee be constituted to verify the factual position and suggest appropriate remedial action. Accordingly, we constitute a Joint Committee comprising of representatives of CPCB, UPPCB and District Magistrate, Gorakhpur and direct the same to meet within two weeks, undertake visits to the site, look into the grievances of the applicant, associate the applicant and representative of the concerned project proponent, verify the factual position and suggest appropriate remedial action. The UPPCB will be the nodal agency for coordination and compliance.

6. Report of the Joint Committee may be filed within one month and replies/responses by the Respondents may be filed within next one month.

7. List on 12.01.2026 for further consideration.

8. A copy of this order may be sent to The Member Secretary, CPCB, the Member Secretary, UPPCB and the District Magistrate, Gorakhpur by email for requisite compliance.

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

Dr. Afroz Ahmad, EM

October 06th, 2025
O.A. No. 450/2025
HB

रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

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पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 8 अप्रैल, 2016

का.आ. 1357(अ).—ठोस अपशिष्ट प्रबंधन नियम, 2015 का प्ररुप भारत सरकार के पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय की अधिसूचना सं. सा.का.नि.451 (अ) तारीख 3 जून, 2015 को भारत के राजपत्र भाग II, खंड-3, उप खंड (i) में उसी तारीख को प्रकाशित किए गए थे, जिसमें उनसे प्रभावित होने वाले संभावित व्यक्तियों से नगरीय ठोस अपशिष्ट (प्रबंधन और हथालन) नियम 2000 को अधिक्रांत करते हुए उक्त अधिसूचना के द्वारा ठोस अपशिष्ट प्रबंधन नियम, 2015 के प्रकाशन की तारीख से साठ दिनों की अवधि की समाप्ति से पूर्व आक्षेप और सुझाव आमंत्रित किए थे।

उक्त राजपत्र की प्रतियां जनता को तारीख 3 जून, 2015 को उपलब्ध कराई गईं थीं;

निर्धारित अवधि के भीतर उक्त प्रारूप नियमों पर प्राप्त आपत्तियों तथा टिप्पणियों पर केन्द्र सरकार द्वारा सम्यक रूप से विचार किया गया था;

पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3, 6 और 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और नगरीय ठोस अपशिष्ट (प्रबंधन और हथालन) नियम, 2000, उन बातों के सिवाय अधिक्रांत करते हुए जिन्हें ऐसे अधिक्रमणों से पहले किया गया है या किए जाने का लोप किया गया है, केन्द्रीय सरकार ठोस अपशिष्टों का प्रबंधन करने के लिए निम्नलिखित नियम बनाती है अर्थात् :

1. संक्षिप्त नाम और प्रारंभ.–

(1) इन नियमों का संक्षिप्त नाम ठोस अपशिष्ट प्रबंधन नियम, 2016 है।

(2) ये राजपत्र में इनके प्रकाशन की तारीख से प्रवृत्त होंगे ।

नगरपालिकाओं की कुल संख्या:

प्रस्तुत की गई कार्य योजना की संख्या:

प्ररुप-VI

[नियम 25 देखें]

दुर्घटना का प्रतिवेदन

1.	दुर्घटना की तारीख और समय	:	
2.	दुर्घटना के लिए कारकों का अनुक्रम	:	
3.	दुर्घटना में शामिल अपशिष्ट	:	
4.	मानव स्वास्थ्य और पर्यावरण पर दुर्घटनाओं के प्रभावों का मूल्यांकन	:	
5.	किए गए आपातकालीन उपाय	:	
6.	दुर्घटनाओं के प्रभावों को कम करने के लिए उठाए गए कदम	:	
7.	ऐसी किसी दुर्घटना की पुनरावृत्ति को रोकने के लिए उठाए गए कदम	:	
तारीख		हस्ताक्षर	
स्थान		पदनाम	

[फा. सं.18-3/2004-एचएसएमडी]

विश्वनाथ सिन्हा, संयुक्त सचिव

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 8th April, 2016

S.O. 1357(E).—Whereas the draft of the Solid Waste Management Rules, 2015 were published under the notification of the Government of India in the Ministry of Environment, Forest and Climate Change number G.S.R. 451 (E), dated the 3rd June, 2015 in the Gazette of India, part II, Section3, sub- section (i) of the same date inviting objections or suggestions from the persons likely to be affected thereby, before the expiry of the period of sixty days from the publication of the said notification on the Solid Waste Management Rules, 2015 in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000;

And whereas, copies of the said Gazette were made available to the public on the 3rd June, 2015;

And whereas, the objections or comments received within the stipulated period were duly considered by the Central Government;

Now, therefore, in exercise of the powers conferred by sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986) and in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000, except as respect things done or omitted to be done before such supersession, the Central Government hereby makes the following rules for management of Solid Waste, namely:-

1. **Short title and commencement.-**

(1) These rules may be called the Solid Waste Management Rules, 2016.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. **Application.-** These rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbours, defence establishments, special economic zones, State and Central government organisations, places of pilgrims, religious and historical importance as may be notified by respective State government from time to time and to every domestic, institutional, commercial and any other non residential solid waste generator situated in the areas except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act, 1986**.**

3. **Definitions –**(1) In these rules, unless the context otherwise requires,- (1) **"aerobic composting"** means a controlled process involving microbial decomposition of organic matter in the presence of oxygen;

2. **"anaerobic digestion"** means a controlled process involving microbial decomposition of organic matter in absence of oxygen;

3. **"authorisation"** means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or urban local suthority, or any other agency responsible for processing and disposal of solid waste;

4. **"biodegradable waste "** means any organic material that can be degraded by micro-organisms into simpler stable compounds;

5. **"bio-methanation"** means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;

6. **"brand owner"** means a person or company who sells any commodity under a registered brand label.

7. "**buffer zone**" means zone of no development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within total and area allotted for the solid waste processing and disposal facility.

8. **"bulk waste generator"** means and includes buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an average waste generation rate exceeding 100kg per day**;**

9. **"bye-laws"** means regulatory framework notified by local body, census town and notified area townships for facilitating the implementation of these rules effectively in their jurisdiction**.**

10. **"census town"** means an urban area as defined by the Registrar General and Census Commissioner of India;

11. **"combustible waste"** means non-biodegradable, non-recyclable, non-reusable, non hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like plastic, wood pulp, etc**;**

12. "**composting"** means a controlled process involving microbial decomposition of organic matter;

13. "**contractor**" means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;

14. **"co-processing"** means use of non-biodegradable and non recyclable solid waste having calorific value exceeding 1500k/cal as raw material or as a source of energy or both to replace or supplement the natural mineral resources and fossil fuels in industrial processes;

15. **"decentralised processing"** means establishment of dispersed facilities for maximizing the processing of bio-degradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal;

16. "**disposal"** means the final and safe disposal of post processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;

17. **"domestic hazardous waste"** means discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;

18. **"door to door collection" m**eans collection of solid waste from the door step of households, shops, commercial establishments , offices , institutional or any other non residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing society , multi storied building or apartments , large residential, commercial or institutional complex or premises;**.**

19. **"dry waste"** means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non recyclable waste, combustible waste and sanitary napkin and diapers, etc;

20. **"dump sites"** means a land utilised by local body for disposal of solid waste without following the principles of sanitary land filling;

21. **"extended producer responsibility" (EPR)** means responsibility of any producer of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;

22. **"facility"** means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;

23. **"fine" means** penalty imposed on waste generators or operators of waste processing and disposal facilities under the bye-laws for non-compliance of the directions contained in these rules and/or bye- laws

24. **"Form"** means a F8orm appended to these rules;

25. **"handling"** includes all activities relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;

26. **"inerts"** means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;

27. **"incineration"** means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;

28. **"informal waste collector"** includes individuals, associations or waste traders who are involved in sorting, sale and purchase of recyclable materials;

29. "**leachate"** means the liquid that seeps through solid waste or other medium and has extracts of dissolved or suspended material from it;

30. **" local body"** for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar Palikaparishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships with whatever name they are called in different States and union territories in India;

31. "**materials recovery facility" (MRF)** means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2for the purpose before the waste is delivered or taken up for its processing or disposal;

32. **"non-biodegradable waste"** means any waste that cannot be degraded by micro organisms into simpler stable compounds;

33. **"operator of a facility"** means a person or entity, who owns or operates a facility for handling solid waste which includes the local body and any other entity or agency appointed by the local body;

34. **primary collection"** means collecting, lifting and removal of segregated solid waste from source of its generation including households, shops, offices and any other non-residential premises or from any collection points or any other location specified by the local body;

35. "**processing"** means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products**;**

36. **"recycling**" means the process of transforming segregated non-biodegradable solid waste into new material or product or as raw material for producing new products which may or may not be similar to the original products;

37. **"redevelopment"** means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;

38. **"refused derived fuel**"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste ;

39. "**residual solid waste"** means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;

40. **"sanitary land filling "** means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;

41. **"sanitary waste"** means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;

42. **"Schedule"** means the Schedule appended to these rules;

43. "**secondary storage**" means the temporary containment of solid waste after collection at secondary waste storage depots or MRFs or bins for onward transportation of the waste to the processing or disposal facility;

44. **"segregation"** means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and non recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;

45. **"service provider"** means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc;

46. **"solid waste"** means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2;

47. **"sorting"** means separating various components and categories of recyclables such as paper, plastic, card-boards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling;

48. **"stabilising"** means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odours and is fit for application to farm land ,soil erosion control and soil remediation;

49. **"street vendor"** means any person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly;

50. **"tipping fee"** means a fee or support price determined by the local authorities or any state agency authorised by the State government to be paid to the concessionaire or operator of waste processing facility or for disposal of residual solid waste at the landfill;

51. **"transfer station"** means a facility created to receive solid waste from collection areas and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;

52. **"transportation"** means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions;

53. **"treatment"** means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;

54. **"user fee"** means a fee imposed by the local body and any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services.

55. "**vermi composting"** means the process of conversion of bio-degradable waste into compost using earth worms;

56. "**waste generator**" means and includes every person or group of persons, every residential premises and non residential establishments including Indian Railways, defense establishments, which generate solid waste;

57. **"waste hierarchy"** means the priority order in which the solid waste is to should be managed by giving

emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least;

58. **"waste picker"** means a person or groups of persons informally engaged in collection and recovery of reusable and recyclable solid waste from the source of waste generation the streets, bins, material recovery facilities, processing and waste disposal facilities for sale to recyclers directly or through intermediaries to earn their livelihood.

(2) Words and expressions used herein but not defined, but defined in the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (prevention and Control of Pollution) Act, 1981 shall have the same meaning as assigned to them in the respective Acts.

4 Duties of waste generators.- (1) Every waste generator shall,-

(a) segregate and store the waste generated by them in three separate streams namely bio-degradable, non bio-degradable and domestic hazardous wastes in suitable bins and handover segregated wastes to authorised waste pickers or waste collectors as per the direction or notification by the local authorities from time to time;

(b) wrap securely the used sanitary waste like diapers, sanitary pads etc., in the pouches provided by the manufacturers or brand owners of these products or in a suitable wrapping material as instructed by the local authorities and shall place the same in the bin meant for dry waste or non- bio-degradable waste;

(c) store separately construction and demolition waste, as and when generated, in his own premises and shall dispose off as per the Construction and Demolition Waste Management Rules, 2016; and

(d) store horticulture waste and garden waste generated from his premises separately in his own premises and dispose of as per the directions of the local body from time to time.

(2) No waste generator shall throw**,** burn or burry the solid waste generated by him, on streets, open public spaces outside his premises or in the drain or water bodies.

(3) All waste generators shall pay such user fee for solid waste management, as specified in the bye-laws of the local bodies.

(4) No person shall organise an event or gathering of more than one hundred persons at any unlicensed place without intimating the local body, at least three working days in advance and such person or the organiser of such event shall ensure segregation of waste at source and handing over of segregated waste to waste collector or agency as specified by the local body.

(5) Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity such as food waste, disposable plates, cups, cans, wrappers, coconut shells, leftover food, vegetables, fruits, etc., and shall deposit such waste at waste storage depot or container or vehicle as notified by the local body**.**

(6) All resident welfare and market associations shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(7) All gated communities and institutions with more than 5,000 sqm area shall, within one year from the date of notification of these rules and in partnership with the local body, ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorizsd recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

(8) All hotels and restaurants shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.

5. Duties of Ministry of Environment, Forest and Climate Change.- (1) The Ministry of Environment, Forest and Climate Change shall be responsible for over all monitoring the implementation of these rules in the country. It shall constitute a Central Monitoring Committee under the Chairmanship of Secretary, Ministry of Environment, Forest and Climate Change comprising officer not below the rank of Joint Secretary or Advisor from the following namely,-

1) Ministry of Urban Development

2) Ministry of Rural Development

3) Ministry of Chemicals and Fertilizers

4) Ministry of Agriculture

5) Central Pollution Control Board

6) Three State Pollution Control Boards or Pollution Control Committees by rotation

7) Urban Development Departments of three State Governments by rotation

8) Rural Development Departments from two State Governments by rotation

9) Three Urban Local bodies by rotation

10) Two census towns by rotation

11) FICCI, CII

12) Two subject experts

2. This Central Monitoring Committee shall meet at least once in a year to monitor and review the implementation of these rules. The Ministry of Environment, Forest and Climate Change may co-opt other experts, if needed. The Committee shall be renewed every three years.

6. Duties of Ministry of Urban Development.- (1) The Ministry of Urban Development shall coordinate with State Governments and Union territory Administrations to,-

(a) take periodic review of the measures taken by the states and local bodies for improving solid waste management practices and execution of solid waste management projects funded by the Ministry and external agencies at least once in a year and give advice on taking corrective measures;

(b) formulate national policy and strategy on solid waste management including policy on waste to energy in consultation with stakeholders within six months from the date of notification of these rules;

(c) facilitate States and Union Territories in formulation of state policy and strategy on solid management based on national solid waste management policy and national urban sanitation policy;

(d) promote research and development in solid waste management sector and disseminate information to States and local bodies;

(e) undertake training and capacity building of local bodies and other stakeholders;and

(f) provide technical guidelines and project finance to states, Union territories and local bodies on solid waste management to facilitate meeting timelines and standards.

7. Duties of Department of Fertilisers, Ministry of Chemicals and Fertilisers.- (1) The Department of Fertilisers through appropriate mechanisms shall,-

(a) provide market development assistance on city compost; and

(b) ensure promotion of co-marketing of compost with chemical fertilisers in the ratio of 3 to 4 bags: 6 to 7 bags by the fertiliser companies to the extent compost is made availablefor marketing to the companies.

8. Duties of Ministry of Agriculture, Government of India.- The Ministry of Agriculture through appropriate mechanisms shall,-

(a) provide flexibility in Fertiliser Control Order for manufacturing and sale of compost;

(b) propagate utlisation of compost on farm land;

(c) set up laboratories to test quality of compost produced by local authorities or their authorised agencies; and

(d) issue suitable guidelines for maintaining the quality of compost and ratio of use of compost visa-a-vis chemical fertilizers while applying compost to farmland.

9. Duties of the Ministry of Power.-The Ministry of Power through appropriate mechanisms shall,-

(a) decide tariff or charges for the power generated from the waste to energy plants based on solid waste.

(b) compulsory purchase power generated from such waste to energy plants by distribution company.

10. Duties of Ministry of New and Renewable Energy Sources- The Ministry of New and Renewable Energy Sources through appropriate mechanisms shall,-

(a) facilitate infrastructure creation for waste to energy plants; and

(b) provide appropriate subsidy or incentives for such waste to energy plants.

11. Duties of the Secretary–in-charge, Urban Development in the States and Union territories.- (1) The Secretary, Urban Development Department in the State or Union territory through the Commissioner or Director of Municipal Administration or Director of local bodies shall,-

(a) prepare a state policy and solid waste management strategy for the state or the union territory in consultation with stakeholders including representative of waste pickers**,** self help group and similar groups working in the field of waste management consistent with these rules, national policy on solid waste management and national urban sanitation policy of the ministry of urban development, in a period not later than one year from the date of notification of these rules;

(b) while preparing State policy and strategy on solid waste management, lay emphasis on waste reduction, reuse, recycling, recovery and optimum utilisation of various components of solid waste to ensure minimisation of waste going to the landfill and minimise impact of solid waste on human health and environment;

(c) state policies and strategies should acknowledge the primary role played by the informal sector of waste pickers, waste collectors and recycling industry in reducing waste and provide broad guidelines regarding integration of waste picker or informal waste collectors in the waste management system.

(d) ensure implementation of provisions of these rules by all local authorities;

(e) direct the town planning department of the State to ensure that master plan of every city in the State or Union territory provisions for setting up of solid waste processing and disposal facilities except for the cities who are members of common waste processing facility or regional sanitary landfill for a group of cities; and

(f) ensure identification and allocation of suitable land to the local bodies within one year for setting up of processing and disposal facilities for solid wastes and incorporate them in the master plans (land use plan) of the State or as the case may be, cities through metropolitan and district planning committees or town and country planning department;

(h) direct the town planning department of the State and local bodies to ensure that a separate space for segregation, storage, decentralised processing of solid waste is demarcated in the development plan for group housing or commercial, institutional or any other non-residential complex exceeding 200 dwelling or having a plot area exceeding 5,000 square meters;

(i) direct the developers of Special Economic Zone, Industrial Estate, Industrial Park to earmark at least five percent of the total area of the plot or minimum five plots or sheds for recovery and recycling facility.

(j) facilitate establishment of common regional sanitary land fill for a group of cities and towns falling within a distance of 50 km (or more) from the regional facility on a cost sharing basis and ensure professional management of such sanitary landfills;

(k) arrange for capacity building of local bodies in managing solid waste, segregation and transportation or processing of such waste at source;

(l) notify buffer zone for the solid waste processing and disposal facilities of more than five tons per day in consultation with the State Pollution Control Board; and

(m) start a scheme on registration of waste pickers and waste dealers.

12. Duties of District Magistrate or District Collector or Deputy Commissioner.- The District Magistrate or District Collector or as the case may be , the Deputy Commissioner shall, -

(a) facilitate identification and allocation of suitable land as per clause (f) of rules 11 for setting up solid waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from the date of notification of these rules;

(b) review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with the Commissioner or Director of Municipal Administration or Director of local bodies and secretary-in-charge of the State Urban Development.

13. Duties of the Secretary–in-charge of Village Panchayats or Rural Development Department in the State and Union territory.- (1) The Secretary–in-charge of Village Panchayats or Rural Development Department in the State and Union territory shall have the same duties as the Secretary–in-charge, Urban Development in the States and Union territories, for the areas which are covered under these rules and are under their jurisdictions.

14. Duties of Central Pollution Control Board.-The Central Pollution Control Board shall, -

(a) co-ordinate with the State Pollution Control Boards and the Pollution Control Committees for implementation of these rules and adherence to the prescribed standards by local authorities;

(b) formulate the standards for ground water, ambient air, noise pollution, leachate in respect of all solid waste processing and disposal facilities;

(c) review environmental standards and norms prescribed for solid waste processing facilities or treatment technologies and update them as and when required;

(d) review through State Pollution Control Boards or Pollution Control Committees, at least once in a year, the implementation of prescribed environmental standards for solid waste processing facilities or treatment technologies and compile the data monitored by them;

(e) review the proposals of State Pollution Control Boards or Pollution Control Committees on use of any new technologies for processing, recycling and treatment of solid waste and prescribe performance standards, emission norms for the same within 6 months;

(f) monitor through State Pollution Control Boards or Pollution Control Committees the implementation of these rules by local bodies;

(g) prepare an annual report on implementation of these rules on the basis of reports received from State Pollution Control Boards and Committees and submit to the Ministry of Environment, Forest and Climate Change and the report shall also be put in public domain;

(h) publish guidelines for maintaining buffer zone restricting any residential, commercial or any other construction activity from the outer boundary of the waste processing and disposal facilities for different sizes of facilities handling more than five tons per day of solid waste;

(i) publish guidelines, from time to time, on environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of these rules; and

(j) provide guidance to States or Union territories on inter-state movement of waste.

15. Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations.- The local authorities and Panchayats shall,-

(a) prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification of state policy and strategy and submit a copy to respective departments of State Government or Union territory Administration or agency authorised by the State Government or Union territory Administration;

(b) arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non residential premises. From multi-storage buildings, large commercial complexes, malls, housing complexes, etc., this may be collected from the entry gate or any other designated location;

(c) establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste-pickers and waste collectors to facilitate their participation in solid waste management including door to door collection of waste;

(d) facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management including door to door collection of waste;

(e) frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules and ensure timely implementation;

(f) prescribe from time to time user fee as deemed appropriate and collect the fee from the waste generators on its own or through authorised agency;

(g) direct waste generators not to litter i.e throw or dispose of any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, fruit peel, wrappers, etc., or burn or burry waste on streets, open public spaces, drains, waste bodies and to segregate the waste at source as prescribed under these rules and hand over the segregated waste to authorised the waste pickers or waste collectors authorised by the local body;

(h) setup material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials to enable informal or authorised waste pickers and waste collectors to separate recyclables from the waste and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste such as paper, plastic, metal, glass, textile from the source of generation or from material recovery facilities; Bins for storage of bio-degradable wastes shall be painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be printed black;

(i) establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal. Such facility shall be established in a city or town in a manner that one centre is set up for the area of twenty square kilometers or part thereof and notify the timings of receiving domestic hazardous waste at such centres;

(j) ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the State Pollution Control Board or the Pollution Control Committee;

(k) direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency authorised by local body;

(l) provide training on solid waste management to waste-pickers and waste collectors;

(m) collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;

(n) collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week depending on the density of population, commercial activity and local situation;

(o) set up covered secondary storage facility for temporary storage of street sweepings and silt removed from surface drains in cases where direct collection of such waste into transport vehicles is not convenient. Waste so collected shall be collected and disposed of at regular intervals as decided by the local body;

(p) collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;

(q) transport segregated bio-degradable waste to the processing facilities like compost plant, bio-methanation plant or any such facility. Preference shall be given for on site processing of such waste;

(r) transport non-bio-degradable waste to the respective processing facility or material recovery facilities or secondary storage facility;

(s) transport construction and demolition waste as per the provisions of the Construction and Demolition Waste management Rules, 2016;

(t) involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;

(u) phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by the local body and wherever possible in other places under its jurisdiction. Incentives may be provided to recycling initiatives by informal waste recycling sector.

(v) facilitate construction, operation and maintenance of solid waste processing facilities and associated infrastructure on their own or with private sector participation or through any agency for optimum utilisation of various components of solid waste adopting suitable technology including the following technologies and adhering to the guidelines issued by the Ministry of Urban Development from time to time and standards prescribed by the Central Pollution Control Board. Preference shall be given to decentralised processing to minimize transportation cost and environmental impacts such as-

a) bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes;

b) waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;

(w) undertake on their own or through any other agency construction, operation and maintenance of sanitary landfill and associated infrastructure as per Schedule 1 for disposal of residual wastes in a manner prescribed under these rules;

(x) make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget ensuring that funds for discretionary functions of the local body have been allocated only after meeting the requirement of necessary funds for solid waste management and other obligatory functions of the local body as per these rules;

(y) make an application in Form-I for grant of authorisation for setting up waste processing, treatment or disposal facility, if the volume of waste is exceeding five metric tones per day including sanitary landfills from the State Pollution Control Board or the Pollution Control Committee, as the case may be;

(z) submit application for renewal of authorisation at least sixty days before the expiry of the validity of authorisation;

(za) prepare and submit annual report in Form IV on or before the 30th April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer;

(zb) the annual report shall then be sent to the Secretary -in-Charge of the State Urban Development Department or village panchayat or rural development department and to the respective State Pollution Control Board or Pollution Control Committee by the 31st May of every year;

(zc) educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility;

(zd) ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;

(ze) ensure that provisions for setting up of centers for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex; and

(zf) frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed; and

(zg) create public awareness through information, education and communication campaign and educate the waste generators on the following; namely:-

(i) not to litter;

(ii) minimise generation of waste;

(iii) reuse the waste to the extent possible;

(iv) practice segregation of waste into bio–degradable, non-biodegradable (recyclable and combustible), sanitary waste and domestic hazardous wastes at source;

(v) practice home composting, vermi-composting, bio-gas generation or community level composting;

(vi) wrap securely used sanitary waste as and when generated in the pouches provided by the brand owners or a suitable wrapping as prescribed by the local body and place the same in the bin meant for non-biodegradable waste;

(vii) storage of segregated waste at source in different bins;

(viii) handover segregated waste to waste pickers, waste collectors, recyclers or waste collection agencies; and

(ix) pay monthly user fee or charges to waste collectors or local bodies or any other person authorised by the local body for sustainability of solid waste management.

(zh) stop land filling or dumping of mixed waste soon after the timeline as specified in rule 23 for setting up and operationalisation of sanitary landfill is over;

(zi) allow only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities to go to sanitary landfill and the sanitary landfill sites shall meet the specifications as given in Schedule–I, however, every effort shall be made to recycle or reuse the rejects to achieve the desired objective of zero waste going to landfill;

(zj) investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and wheresoever feasible, take necessary actions to bio-mine or bio-remediate the sites;

(zk) in absence of the potential of bio-mining and bio-remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.

16. Duties of State Pollution Control Board or Pollution Control Committee.- (1) The State Pollution Control Board or Pollution Control Committee shall,-

(a) enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department;

(b) monitor environmental standards and adherence to conditions as specified under the Schedule I and Schedule II for waste processing and disposal sites;

(c) examine the proposal for authorisation and make such inquiries as deemed fit, after the receipt of the application for the same in Form I from the local body or any other agency authorised by the local body;

(d) while examining the proposal for authorisation, the requirement of consents under respective enactments and views of other agencies like the State Urban Development Department, the Town and Country Planning Department, District Planning Committee or Metropolitan Area Planning Committee, as may be applicable, Airport or Airbase Authority, the Ground Water Board, Railways, power distribution companies, highway department and other relevant agencies shall be taken into consideration and they shall be given four weeks time to give their views, if any;

(e) issue authorisation within a period of sixty days in Form II to the local body or an operator of a facility or any other agency authorised by local body stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary;

(f) synchronise the validity of said authorisation with the validity of the consents;

(g) suspend or cancel the authorization issued under clause (a) any time, if the local body or operator of the facility fails to operate the facility as per the conditions stipulated:

provided that no such authorization shall be suspended or cancelled without giving notice to the local body or operator, as the case may be; and

(h) on receipt of application for renewal, renew the authorisation for next five years, after examining every application on merit and subject to the condition that the operator of the facility has fulfilled all the provisions of the rules, standards or conditions specified in the authorisation, consents or environment clearance.

(2) The State Pollution Control Board or Pollution Control Committee shall, after giving reasonable opportunity of being heard to the applicant and for reasons thereof to be recorded in writing, refuse to grant or renew an authorisation.

(3) In case of new technologies, where no standards have been prescribed by the Central Pollution Control Board, State Pollution Control Board or Pollution Control Committee, as the case may be, shall approach Central Pollution Control Board for getting standards specified.

(4) The State Pollution Control Board or the Pollution Control Committee, as the case may be, shall monitor the compliance of the standards as prescribed or laid down and treatment technology as approved and the conditions stipulated in the authorisation and the standards specified in Schedules I and II under these rules as and when deemed appropriate but not less than once in a year.

(5) The State Pollution Control Board or the Pollution Control Committee may give directions to local bodies for safe handling and disposal of domestic hazardous waste deposited by the waste generators at hazardous waste deposition facilities.

(6) The State Pollution Control Board or the Pollution Control Committee shall regulate Inter-State movement of waste.

17. Duty of manufacturers or brand owners of disposable products and sanitary napkins and diapers.- (1) All manufacturers of disposable products such as tin, glass, plastics packaging, etc., or brand owners who introduce such products in the market shall provide necessary financial assistance to local authorities for establishment of waste management system.

(2) All such brand owners who sell or market their products in such packaging material which are non-biodegradable shall put in place a system to collect back the packaging waste generated due to their production.

(3) Manufacturers or brand owners or marketing companies of sanitary napkins and diapers shall explore the possibility of using all recyclable materials in their products or they shall provide a pouch or wrapper for disposal of each napkin or diapers along with the packet of their sanitary products.

(4) All such manufacturers, brand owners or marketing companies shall educate the masses for wrapping and disposal of their products.

18. Duties of the industrial units located within one hundred km from the refused derived fuel and waste to energy plants based on solid waste- All industrial units using fuel and located within one hundred km from a solid waste based refused derived fuel plant shall make arrangements within six months from the date of notification of these rules to replace at least five percent of their fuel requirement by refused derived fuel so produced.

19. Criteria for Duties regarding setting-up solid waste processing and treatment facility.- (1) The department in- charge of the allocation of land assignment shall be responsible for providing suitable land for setting up of the solid waste processing and treatment facilities and notify such sites by the State Government or Union territory Administration.

(2) The operator of the facility shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.

(3) The operator of the facility shall obtain necessary approvals from the State Pollution Control Board or Pollution Control Committee.

(4) The State Pollution Control Board or Pollution Control Committee shall monitor the environment standards of the operation of the solid waste processing and treatment facilities.

(5) The operator of the facility shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.

(6) The operator of the solid waste processing and treatment facility shall submit annual report in Form III each year by 30th April to the State Pollution Control Board or Pollution Committee and concerned local body.

20. Criteria and actions to be taken for solid waste management in hilly areas.- In the hilly areas, the duties and responsibilities of the local authorities shall be the same as mentioned in rule 15 with additional clauses as under:

(a) Construction of landfill on the hill shall be avoided. A transfer station at a suitable enclosed location shall be setup to collect residual waste from the processing facility and inert waste. A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill. The residual waste from the transfer station shall be disposed of at this sanitary landfill.

(b) In case of non-availability of such land, efforts shall be made to set up regional sanitary landfill for the inert and residual waste.

(c) Local body shall frame Bye-laws and prohibit citizen from littering wastes on the streets and give strict direction to the tourists not to dispose any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, any other plastic or paper waste on the streets or down the hills and instead direct to deposit such waste in the litter bins that shall be placed by the local body at all tourist destinations.

(d) Local body shall arrange to convey the provisions of solid waste management under the bye-laws to all tourists visiting the hilly areas at the entry point in the town as well as through the hotels, guest houses or like where they stay and by putting suitable hoardings at tourist destinations.

(e) Local body may levy solid waste management charge from the tourist at the entry point to make the solid waste management services sustainable.

(f) The department in- charge of the allocation of land assignment shall identify and allot suitable space on the hills for setting up decentralised waste processing facilities. Local body shall set up such facilities. Step garden system may be adopted for optimum utilisation of hill space.

21. Criteria for waste to energy process.- (1) Non recyclable waste having calorific value of 1500 K/cal/kg or more shall not be disposed of on landfills and shall only be utilised for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel.

(2) High calorific wastes shall be used for co-processing in cement or thermal power plants.

(3) The local body or an operator of facility or an agency designated by them proposing to set up waste to energy plant of more than five tones per day processing capacity shall submit an application in Form-I to the State Pollution Control Board or Pollution Control Committee, as the case may be, for authorisation.

(4) The State Pollution Control Board or Pollution Control Committee, on receiving such application for setting up waste to energy facility, shall examine the same and grant permission within sixty days.

22. Time frame for implementation.- Necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own, by directly or engaging agencies within the time frame specified below:

Sl. No.	**Activity**	**Time limit from the date of notification of rules**
(1)	**(2)**	**(3)**
1.	identification of suitable sites for setting up solid waste processing facilities	1 year

2.	identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more .	1 year
3.	procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 years
4.	enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source ,	2 years
5.	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years
6.	ensure separate storage, collection and transportation of construction and demolition wastes	2 years
7.	setting up solid waste processing facilities by all local bodies having 100000 or more population	2 years
8.	Setting up solid waste processing facilities by local bodies and census towns below 100000 population.	3 years
9	setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules	3 years
10.	setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	3years
11.	bio-remediation or capping of old and abandoned dump sites	5years

23. State Level Advisory Body. – (1) Every Department in-charge of local bodies of the concerned State Government or Union territory administration shall constitute a State Level Advisory Body within six months from the date of notification of these rules comprising the following members, namely:-

Sl. No	**Designation**	**Member**
(1)	**(2)**	**(3)**
1.	Secretary, Department of Urban Development orLocal self government department of the State	Chairperson, ex-officio
2.	One representative of Panchayats or Rural development Department not below the rank of Joint Secretary to State Government	Member, ex-officio
3.	one representative of Revenue Department of State Government	Member,ex-officio
4.	One representative from Ministry of Environment, Forest and Climate Change Government of India	Member, ex-officio

5.	One representative from Ministry of Urban Development, Government of India	Member, ex-officio
6.	One representative from Ministry of Rural Development, Government of India	Member, ex-officio
7.	One representative from the Central Pollution Control Board	Member, ex-officio
8.	One representative from the State Pollution Control Board or Pollution Control Committee	Member, ex-officio
9.	One representative from Indian Institute of Technology or National Institute of Technology	Member,Ex-officio
10.	Chief town planner of the state	Member
11.	Three representatives from the local bodies by rotation	Member
12.	Two representatives from census towns or urban agglomerations by rotation.	Member
13.	One representative from reputed Non-Governmental Organisation or Civil Society working for the waste pickers or informal recycler or solid waste management	Member
14.	One representative from a body representing Industries at the State or Central level	Member
15.	one representative from waste recycling industry	member
16.	Two subject experts	Member
17.	Co-opt one representative each from agriculture department, and labour department of State Government.	Member

(2) The State Level Advisory Body shall meet at least one in every six months to review the matters related to implementation of these rules, state policy and strategy on solid waste management and give advice to state government for taking measures that are necessary for expeditious and appropriate implementation of these rules.

(3) The copies of the review report shall be forwarded to the State Pollution Control Board or Pollution Control Committee for necessary action.

24. Annual report.- (1) The operator of facility shall submit the annual report to the local body in Form-III on or before the 30th day of April every year.

(2) The local body shall submit its annual report in Form-IV to State P Control Board or P Committee and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year

(3) Each State Pollution Control Board or Pollution Control Committee as the case may be, shall prepare and submit the consolidated annual report to the Central Pollution Control Board and Ministry of Urban Development on the implementation of these rules and action taken against non complying local body by the 31stday of July of each year in Form-V.

(4) The Central Pollution Control Board shall prepare a consolidated annual review report on the status of implementation of these rules by local bodies in the country and forward the same to the Ministry of Urban Development

and Ministry of Environment, Forest and Climate Change, along with its recommendations before the 31st day of August each year.

(5) The annual report shall be reviewed by the Ministry of Environment, Forest and Climate Change during the meeting of Central Monitoring Committee.

25. Accident reporting- In case of an accident at any solid waste processing or treatment or disposal facility or landfill site, the Officer- in- charge of the facility shall report to the local body in Form-VI and the local body shall review and issue instructions if any, to the in- charge of the facility.

SCHEDULE I

[see rule 15 (w),(zi), 16 (1) (b) (e), 16 (4)]

Specifications for Sanitary Landfills

(A) Criteria for site selection.-

(i) The department in the business allocation of land assignment shall provide suitable site for setting up of the solid waste processing and treatment facilities and notify such sites.

(ii) The sanitary landfill site shall be planned, designed and developed with proper documentation of construction plan as well as a closure planin a phased manner. In case a new landfill facility is being established adjoining an existing landfill site, the closure plan of existing landfill should form a part of the proposal of such new landfill.

(iii) The landfill sites shall be selected to make use of nearby wastes processing facilities. Otherwise, wastes processing facility shall be planned as an integral part of the landfill site.

(iv) Landfill sites shall be set up as per the guidelines of the Ministry of Urban Development, Government of India and Central Pollution Control Board.

(v) The existing landfill sites which are in use for more than five years shall be improved in accordance with the specifications given in this Schedule.

(vi) The landfill site shall be large enough to last for at least 20-25 years and shall develop 'landfill cells' in a phased manner to avoid water logging and misuse.

(vii) The landfill site shall be 100 meter away from river, 200 meter from a pond, 200 meter from Highways, Habitations, Public Parks and water supply wells and 20 km away from Airports or Airbase. However in a special case, landfill site may be set up within a distance of 10 and 20 km away from the Airport/Airbase after obtaining no objection certificate from the civil aviation authority/ Air force as the case may be. The Landfill site shall not be permitted within the flood plains as recorded for the last 100 years, zone of coastal regulation, wetland, Critical habitat areas, sensitive eco-fragile areas..

(viii) The sites for landfill and processing and disposal of solid waste shall be incorporated in the Town Planning Department's land-use plans.

(ix) A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five Tonnes per day of installed capacity. This will be maintained within the total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local body in consultation with concerned State Pollution Control Board.

(x) The biomedical waste shall be disposed of in accordance with the Bio-medical Waste Management Rules, 2016, as amended from time to time . The hazardous waste shall be managed in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended from time to time. The E-waste shall be managed in accordance with the e-Waste (Management) Rules, 2016 as amended from time to time.

(xi) Temporary storage facility for solid waste shall be established in each landfill site to accommodate the waste in case of non- operation of waste processing and during emergency or natural calamities.

(B) Criteria for development of facilities at the sanitary landfills.-

(i) Landfill site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles, to prevent entry of unauthorised persons and stray animals

(ii) The approach and / internal roads shall be concreted or paved so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.

(iii) The landfill site shall have waste inspection facility to monitor waste brought in for landfilling h, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipment. The operator of the facility shall maintain record of waste received, processed and disposed.

(iv) Provisions like weigh bridge to measure quantity of waste brought at landfill site, fire protection equipment and other facilities as may be required shall be provided.

(v) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill operations during night hours shall be provided.

(vi) Safety provisions including health inspections of workers at landfill sites shall be carried out made.

(vii) Provisions for parking, cleaning, washing of transport vehicles carrying solid waste shall be provided. The wastewater so generated shall be treated to meet the prescribed standards.

(C) Criteria for specifications for land filling operations and closure on completion of land filling.-

(i) Waste for land filling shall be compacted in thin layers using heavy compactors to achieve high density of the waste. In high rainfall areas where heavy compactors cannot be used, alternative measures shall be adopted.

(ii) Till the time waste processing facilities for composting or recycling or energy recovery are set up, the waste shall be sent to the sanitary landfill. The landfill cell shall be covered at the end of each working day with minimum 10 cm of soil, inert debris or construction material..

(iii) Prior to the commencement of monsoon season, an intermediate cover of 40-65 cm thickness of soil shall be placed on the landfill with proper compaction and grading to prevent infiltration during monsoon. Proper drainage shall be constructed to divert run-off away from the active cell of the landfill.

(iv) After completion of landfill, a final cover shall be designed to minimise infiltration and erosion. The final cover shall meet the following specifications, namely :--

a) The final cover shall have a barrier soil layer comprising of 60 cm of clay or amended soil with permeability coefficient less than 1 x 10^{-7} cm/sec.

b) On top of the barrier soil layer, there shall be a drainage layer of 15 cm.

c) On top of the drainage layer, there shall be a vegetative layer of 45 cm to support natural plant growth and to minimise erosion.

(D) Criteria for pollution prevention.-In order to prevent pollution from landfill operations, the following provisions shall be made, namely:-

(i) The storm water drain shall be designed and constructed in such a way that the surface runoff water is diverted from the landfilling site and leachates from solid waste locations do not get mixed with the surface runoff water. Provisions for diversion of storm water discharge drains shall be made to minimise leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.

(ii) Non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of waste processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, polishes, batteries, waste oils, paint products and pesticides) shall have liner of composite barrier of 1.5 mm thick high density polyethylene (HDPE) geo-membrane or geo-synthetic liners, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than 1 x 10-7 cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer provided at the bottom of landfills.

(iii) Provisions for management of leachates including its collection and treatment shall be made. The treated leachate shall be recycled or utilized as permitted, otherwise shall be released into the sewerage line, after meeting the standards specified in Schedule- II**.**. In no case, leachate shall be released into open environment.

(iv) Arrangement shall be made to prevent leachate runoff from landfill area entering any drain, stream, river, lake or pond. In case of mixing of runoff water with leachate or solid waste, the entire mixed water shall be treated by the concern authority.

(E) Criteria for water quality monitoring.-

(i) Before establishing any landfill site, baseline data of ground water quality in the area shall be collected and kept in record for future reference. The ground water quality within 50 meter of the periphery of landfill site shall be periodically monitored covering different seasons in a year that is, summer, monsoon and post-monsoon period to ensure that the ground water is not contaminated.

(ii) Usage of groundwater in and around landfill sites for any purpose (including drinking and irrigation) shall be considered only after ensuring its quality. The following specifications for drinking water quality shall apply for monitoring purpose, namely :-

S. No.	Parameters	IS 10500:2012, Edition 2.2(2003-09) Desirable limit (mg/l except for pH)
(1)	(2)`	(3)
	Arsenic	0.01
	Cadmium	0.01
	Chromium(as Cr^{6+})	0.05
	Copper	0.05
	Cyanide	0.05
	Lead	0.05
	Mercury	0.001
	Nickel	-
	Nitrate as NO_3	45.0
	pH	6.5-8.5
	Iron	0.3
	Total hardness (as $CaCO_3$)	300.0
	Chlorides	250
	Dissolved solids	500
	Phenolic compounds (as C_6H_5OH)	0.001
	Zinc	5.0
	Sulphate (as SO_4)	200

(F) Criteria for ambient air quality monitoring.-

(i) Landfill gas control system including gas collection system shall be installed at landfill site to minimize odour, prevent off-site migration of gases, to protect vegetation planted on the rehabilitated landfill surface. For enhancing landfill gas recovery, use of geomembranes in cover systems along with gas collection wells should be considered.

(ii) The concentration of methane gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL).

(iii) The landfill gas from the collection facility at a landfill site shall be utilized for either direct thermal applications or power generation, as per viability. Otherwise, landfill gas shall be burnt (flared) and shall not be allowed to escape directly to the atmosphere or for illegal tapping. Passive venting shall be allowed in case if its utilisation or flaring is not possible.

(iv) Ambient air quality at the landfill site and at the vicinity shall be regularly monitored. Ambient air quality shall

meet the standards prescribed by the Central Pollution Control Board for Industrial area.

G. Criteria for plantation at landfill Site.- A vegetative cover shall be provided over the completed site in accordance with the following specifications, namely:-

(a) Locally adopted non-edible perennial plants that are resistant to drought and extreme temperatures shall be planted;

(b) The selection of plants should be of such variety that their roots do not penetrate more than 30 cms. This condition shall apply till the landfill is stabilized;

(c) Selected plants shall have ability to thrive on low-nutrient soil with minimum nutrient addition;

(d) Plantation to be made in sufficient density to minimise soil erosion.

(e) Green belts shall be developed all around the boundary of the landfill in consultation with State Pollution Control Boards or Pollution Control Committees .

H. Criteria for post-care of landfill site.- (1) The post-closure care of landfill site shall be conducted for at least fifteen years and long term monitoring or care plan shall consist of the following, namely :-'

(a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(b) Monitoring leachate collection system in accordance with the requirement;

(c) Monitoring of ground water in and around landfill;

(d) Maintaining and operating the landfill gas collection system to meet the standards.

(2) Use of closed landfill sites after fifteen years of post-closure monitoring can be considered for human settlement or otherwise only after ensuring that gaseous emission and leachate quality analysis complies with the specified standards and the soil stability is ensured.

I. Criteria for special provisions for hilly areas.-Cities and towns located on hills shall have location-specific methods evolved for final disposal of solid waste by the local body with the approval of the concerned State Pollution Control Board or the Pollution Control Committee. The local body shall set up processing facilities for utilisation of biodegradable organic waste. The non-biodegradable recyclable materials shall be stored and sent for recycling periodically. The inert and non-biodegradable waste shall be used for building roads or filling-up of appropriate areas on hills. In case of constraints in finding adequate land in hilly areas, waste not suitable for road-laying or filling up shall be disposed of in regional landfills in plain areas.

J. Closure and Rehabilitation of Old Dumps- Solid waste dumps which have reached their full capacity or those which will not receive additional waste after setting up of new and properly designed landfills should be closed and rehabilitated by examining the following options:

(i) Reduction of waste by bio mining and waste processing followed by placement of residues in new landfills or capping as in (ii) below.

(i). Capping with solid waste cover or solid waste cover enhanced with geomembrane to enable collection and flaring / utilisation of greenhouse gases.

(iii) Capping as in (ii) above with additional measures (in alluvial and other coarse grained soils) such as cut-off walls and extraction wells for pumping and treating contaminated ground water.

(iv) Any other method suitable for reducing environmental impact to acceptable level.

SCHEDULE II

[see rule 16 (1), (b), (e), 16 (4))

Standards of processing and treatment of solid waste

A. Standards for composting.- The waste processing facilities shall include composting as one of the technologies for processing of bio degradable waste. In order to prevent pollution from compost plant, the following shall be complied with namely :-

(a) The incoming organic waste at site shall be stored properly prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility;

(b) Necessary precaution shall be taken to minimise nuisance of odour, flies, rodents, bird menace and fire hazard;

(c) In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of waste to the temporary processing site or temporary landfill sites which will be again reprocessed when plant is in order;

(d) Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclable high calorific fractions to be segregated and sent to waste to energy or for RDF production, co-processing in cement plants or to thermal power plants. Only rejects from all processes shall be sent for sanitary landfill site(s).

(e) The windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay of 50 cm thick having permeability coefficient less than 10^{-7} cm/sec. The base shall be provided with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off;

(f) Ambient air quality monitoring shall be regularly carried out. Odurnuisance at down-wind direction on the boundary of processing plant shall also be checked regularly.

(g) Leachate shall be re-circulated in compost plant for moisture maintenance.

(h) The end product compost shall meet the standards prescribed under Fertilizer Control Order notified from time to time.

(i) In order to ensure safe application of compost, the following specifications for compost quality shall be met, namely:-

Parameters	**Organic Compost (FCO 2009)**	**Phosphate Rich Organic Manure (FCO 2013)**
(1)	**(2)**	**(3)**
Arsenic (mg/Kg)	10.00	10.00
Cadmium (mg/Kg)	5.00	5.00
Chromium (mg/Kg)	50.00	50.00
Copper (mg/Kg)	300.00	300.00
Lead (mg/Kg)	100.00	100.00
Mercury (mg/Kg)	0.15	0.15
Nickel (mg/Kg)	50.00	50.00
Zinc (mg/Kg)	1000.00	1000.00
C/N ratio	<20	Less than 20:1
pH	6.5-7.5	(1:5 solution) maximum 6.7
Moisture, percent by weight, maximum	15.0-25.0	25.0
Bulk density (g/cm^3)	<1.0	Less than 1.6
Total Organic Carbon, per cent by weight, minimum	12.0	7.9

Total Nitrogen (as N), per cent by weight, minimum	0.8	0.4
Total Phosphate (as $P_2 0_5$) percent by weight, minimum	0.4	10.4
Total Potassium (as $K_2 0$), percent by weight, minimum	0.4	-
Colour	Dark brown to black	-
Odour	Absence of foul Odor	-
Particle size	Minimum 90% material should pass through 4.0 mm IS sieve	Minimum 90% material should pass through 4.0 mm IS sieve
Conductivity (as dsm-1), not more than	4.0	8.2

* Compost (final product) exceeding the above stated concentration limits shall not be used for food crops. However, it may be utilized for purposes other than growing food crops.

B. Standards for treated leachates.-The disposal of treated leachates shall meet the following standards, namely:-

S. No	Parameter	Standards (Mode of Disposal)		
		Inland surface water	Public sewers	Land disposal
(1)	(2)	(3)	(4)	(5)
1.	Suspended solids, mg/l, max	100	600	200
2.	Dissolved solids (inorganic) mg/l, max.	2100	2100	2100
3	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
4	Ammonical nitrogen (as N), mg/l, max.	50	50	-
5	Total Kjeldahl nitrogen (as N), mg/l, max.	100	-	-
6	Biochemical oxygen demand (3 days at 27^0 C) max.(mg/l)	30	350	100
7	Chemical oxygen demand, mg/l, max.	250	-	-
8	Arsenic (as As), mg/l, max	0.2	0.2	0.2
9	Mercury (as Hg), mg/l, max	0.01	0.01	-
10	Lead (as Pb), mg/l, max	0.1	1.0	-
11	Cadmium (as Cd), mg/l, max	2.0	1.0	-

12	Total Chromium (as Cr), mg/l, max.	2.0	2.0	-
13	Copper (as Cu), mg/l, max.	3.0	3.0	-
14	Zinc (as Zn), mg/l, max.	5.0	15	-
15	Nickel (as Ni), mg/l, max	3.0	3.0	-
16	Cyanide (as CN), mg/l, max.	0.2	2.0	0.2
17	Chloride (as Cl), mg/l, max.	1000	1000	600
18	Fluoride (as F), mg/l, max	2.0	1.5	-
19	Phenolic compounds (as C_6H_5OH) mg/l, max.	1.0	5.0	-

Note : While discharging treated leachates into inland surface waters, quantity of leachates being discharged and the quantity of dilution water available in the receiving water body shall be given due consideration.

C. Standards for incineration: The Emission from incinerators /thermal technologies in Solid Waste treatment/disposal facility shall meet the following standards, namely:-

Parameter	**Emission standard**	
(1)	**(2)**	**(3)**
Particulates	50 mg/Nm^3	Standard refers to half hourly average value
HCl	50 mg/Nm^3	Standard refers to half hourly average value
SO2	200 mg/Nm^3	Standard refers to half hourly average value
CO	100 mg/Nm^3	Standard refers to half hourly average value
	50 mg/Nm^3	Standard refers to daily average value
Total Organic Carbon	20 mg/Nm^3	Standard refers to half hourly average value
HF	4 mg/Nm^3	Standard refers to half hourly average value
NOx (NO and NO2 expressed as NO2)	400 mg/Nm^3	Standard refers to half hourly average value
Total dioxins and furans	0.1 ng TEQ/Nm^3	Standard refers to 6-8 hours sampling. Please refer guidelines for 17 concerned congeners for toxic equivalence values to arrive at total toxic equivalence.
Cd + Th + their compounds	0.05 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Hg and its compounds	0.05 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.

Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + their compounds	0.5 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Note.- *All values corrected to 11% oxygen on a dry basis.*		

Note:

(a) Suitably designed pollution control devices shall be installed or retrofitted with the incinerator to achieve the above emission limits..

(b) Waste to be incinerated shall not be chemically treated with any chlorinated disinfectants.

(c) Incineration of chlorinated plastics shall be phased out within two years.

(d) if the concentation of toxic metals in incineration ash exceeds the limits specified in the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008, as amended from time to time, the ash shall be sent to the hazardous waste treatment, storage and disposal fcaility.

(e) Only low sulphur fuel like LDO, LSHS, Diesel**,** bio-mass, coal, LNG, CNG, RDF and bio-gas shall be used as fuel in the incinerator.

(f) The CO2 concentration in tail gas shall not be more than 7%.

(g) All the facilities in twin chamber incinerators shall be designed to achieve a minimum temperature of 950^0C in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds.

(h) Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, as to achieve total Organic Carbon (TOC) content in the slag and bottom ash less than 3%, or the loss on ignition is less than 5% of the dry weight.

(i) Odour from sites shall be managed as per guidelines of CPCB issued from time to time

FORM – I

[see rule 15 (y) 16 (1) (c), 21(3)]

Application for obtaining authorisation under solid waste management rules

for processing/recycling/treatment and disposal of solid waste

To,

The Member Secretary,

State Pollution Control Board or Pollution Control Committee,

of…....

Sir,

I/We hereby apply for authorisation under the Solid Waste Management Rules, 2016 for processing, recycling, treatment and disposal of solid waste.

1.	Name of the local body/agency appointed by them/ operator of facility	
2.	Correspondence address Telephone No. Fax No. ,e-mail:	

3.	Nodal Officer & designation(Officer authorised by the local body or agency responsible for operation of processing/ treatment or disposal facility)	
4.	Authorisation required for setting up and operation of the facility (Please tick mark)	waste processing recycling treatment disposal at landfill
5.	Attach copies of the Documents Site clearance (local body) Proof of Environmental Clearance Consent for establishment Agreement between municipal authority and operating agency Investment on the project and expected return	
6.	**Processing/recycling/treatment of solid waste** (i) Total Quantity of waste to be processed per day Quantity of waste to be recycled Quantity of waste to be treated Quantity of waste to be disposed into landfill (ii)Utilisation programme for waste processed (Product utilisation) (iii)Methodology for disposal (attach details) Quantity of leachate Treatment technology for leachate (iv)Measures to be taken for prevention and control of environmental pollution (v)Measures to be taken for safety of workers working in the plant (vi)Details on solid waste processing/recycling/ treatment/disposal facility (to be attached)	
7.	**Disposal of solid waste** Number of sites identified Quantity of waste to be disposed per day Details of methodology or criteria followed for site selection (attach) Details of existing site under operation Methodology and operational details of landfilling Measures taken to check environmental pollution	
8	Any other information.	

Date: Signature:

Place: Designation

Form- II

[see rule 16 (1) (e)]

Format for issue of authorisation

File No.: _____

Dated:_____

Authorisation No_____

To

Ref: Your application number _____dt. _____

The _____State Pollution Control Board/Pollution Control Committee after examining the proposal hereby authorises_____ having administrative office at _____to set up and operate waste processing/recycling/ treatment/disposal facility at_____

The authorisation is hereby granted to operate the facility for processing, recycling, treatment and disposal of solid waste.

The authorisation is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.

The _____State Pollution Control Board/Pollution Control Committees of the UT may, at any time, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

Any violation of the provision of the Solid Waste Management Rules, 2016will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

(Member Secretary)

State Pollution Control Board/Pollution Control Committee of the UT

(Signature and designation)

Date:

Place:

Form – III

[see rule 19 (6), 24 (1)]

Format of annual report to be submitted by the operator of facility to the local body

1	Name of the City/Town and State	
2	Population	
3	Area in sq. kilometers	
4	Name & Address of the local body Telephone No. Fax No. E-mail:	
5	Name and address of operator of the facility	
6	Name of officer in-charge of the facility Phone No: Fax No: E-mail:	

7	Number of households in the city/town , Number of non-residential premises in the city Number of election/ administrative wards in the city/town	
8	Quantity of Solid waste	
	Estimated Quantity of solid waste generated in the local body area per day in metric tones	/tpd
	Quantity of solid waste collected per day	/tpd
	Per capita waste collected per day	/gm/day
	Quantity of solid waste processed	/tpd
	Quantity of solid waste disposed at landfill	/tpd
9	Status of Solid Waste Management (SWM) service	
	Segregation and storage of waste at source Whether solid waste is stored at source in domestic/commercial/ institutional bins If yes, Percentage of households practice storage of waste at source in domestic bins Percentage of non-residential premises practice storage of waste at source in commercial /institutional bins Percentage of households dispose of throw solid waste on the streets Percentage of non-residential premises dispose of throw solid waste on the streets Whether solid waste is stored at source in a segregated form If yes, Percentage of premises segregating the waste at source	 Yes/No % % % % Yes/No %
	Door to Door Collection of solid waste	
	Whether door to door collection (D2D) of solid waste is being done in the city/town	Yes/No
	if yes	
	Number of wards covered in D2D collection of waste	
	No. of households covered	
	No. of non-residential premises including commercial establishments ,hotels, restaurants educational institutions/ offices etc covered	

	Percentage of residential and non-residential premises covered in door to door collection through : Motorized vehicle Containerized tricycle/handcart Other device	% % %
	If not, method of primary collection adopted	
	Sweeping of streets	
	Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned	km
	Frequency of street sweepings and percentage of population covered	frequency: Daily / Alternate days / Twice a week / Occasionally % of population covered
	Tools used Manual sweeping Mechanical sweeping Whether long handle broom used by sanitation workers Whether each sanitation worker is given handcart/tricycle for collection of waste Whether handcart / tricycle is containerized Whether the collection tool synchronizes with collection/ waste storage containers utilized	% % Yes/No Yes/No Yes/No Yes/No
.	Secondary Waste Storage facilities	
	No. and type of waste storage depots in the city/town Open waste storage sites Masonry bins Cement concrete cylinder bins Dhalao/covered rooms/space Covered metal/plastic containers Upto 1.1 m^3 bins 2 to 5 m^3 bins Above 5m^3 containers Bin-less city	No. Capacity in m^3
	Bin/ population ratio	

	Ward wise details of waste storage depots (attach) : Ward No: Area: Population: No. of bins placed Total volume of bins placed		
	Total storage capacity of waste storage facilities in cubic meters		
	Total waste actually stored at the waste storage depots daily		
	Give frequency of collection of waste from the depots Number of bins cleared	Frequency	No. of bins
		Daily	
		Alternate day	
		Twice a week	
		Once a week	
		Occasionally	
	Whether storage depots have facility for storage of segregated waste in green, blue and black bins	Yes/ No (if yes, add details) No. of green bins: No. of blue bins: No. of black bins:	
	Whether lifting of solid waste from storage depots is manual or mechanical. Give percentage	(%) of Manual Lifting of SOLID WASTE	%
		(%) of Mechanical lifting	%
	If mechanical – specify the method used	front-end loaders/ Top loaders	
	Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Yes/ No (if yes, specify)	

	Waste Transportation per day Type and Number of vehicles used (pl tick or add)	No. Trips made waste transported
	Animal cart Tractors Non tipping Truck Tipping Truck Dumper Placers Refuse collectors Compactors Others JCB/loader	
	Frequency of transportation of waste	Frequency (%) of waste transported Daily Alternate day Twice a week Once a week Occasionally
	Quantity of waste transported each day	/tpd
	Percentage of total waste transported daily	%
	Waste Treatment Technologies used Whether solid waste is processed	 Yes/No
	If yes, Quantity of waste processed daily Land(s) available with the local body for waste processing (in Hectares)	/tpd
	Land currently utilized for waste processing	
	Solid waste processing facilities in operation	
	Solid waste processing facilities under construction Distance of processing facilities from city/town boundary	
	Details of technologies adopted	

	Composting ,	Qty. raw material processed Qty. final product produced Qty. sold Qty. of residual waste landfilled
	vermi composting	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Bio-methanation	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Refuse Derived Fuel	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology (give detail)	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Co-processing	Qty. raw material processed
	Combustible waste supplied to cement plant	
	Combustible waste supplied to solid waste based power plants	
	Others	Qty.
	Solid waste disposal facilities	
	No. of dumpsites sites available with the local body	
	No. of sanitary landfill sites available with the local body Area of each such sites available for waste disposal	
	Area of land currently used for waste disposal	
	Distance of dumpsite/landfill facility from city/town	kms
	Distance from the nearest habitation	kms
	Distance from water body	kms

	Distance from state/national highway	kms
	Distance from Airport	kms
	Distance from important religious places or historical monument	kms
	Whether it falls in flood prone area	Yes/No
	Whether it falls in earthquake fault line area	Yes/No
	Quantity of waste landfilled each day	tpd
	Whether landfill site is fenced	Yes / No
	Whether Lighting facility is available on site Whether Weigh bridge facility available	Yes / No Yes / No
	Vehicles and equipments used at landfill (specify) Manpower deployed at landfill site	Bulldozer, Compacters etc. available Yes/No (if yes, attach details)
	Whether covering is done on daily basis	Yes/No
	If not, Frequency of covering the waste deposited at the landfill	
	Cover material used	
	Whether adequate covering material is available	Yes/No
	Provisions for gas venting provided	Yes/No, (if yes, attach technical data sheet)
	Provision for leachate collection	Yes/No, (if yes, attach technical data sheet)
10	Whether an Action Plan has been prepared for improving solid waste management practices in the city	Yes/No (if Yes attach Action Plan details)
11	What separate provisions are made for : Dairy related activities : Slaughter houses waste : C&D waste (construction debris) :	Attach details on Proposals, Steps taken, Yes/No Yes/No Yes/No
12	Details of Post Closure Plan	Attach Plan
13	How many slums are identified and whether these are provided with Solid Waste Management facilities :	Yes/ No (if Yes, attach details)
14	Give details of manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	

15	Mention briefly, the difficulties being experienced by the local body in complying with provisions of these rules	
16	Mention briefly, if any innovative idea is implemented to tackle a problem related to solid waste, which could be replicated by other local bodies.	

Signature of Operator

Dated :

Place:

Form – IV

[see rules 15(za), 24(2)]

Format for annual report on solid waste management to be submitted by the local body

CALENDAR YEAR:	**DATE OF SUBMISSION OF REPORT:**

1	Name of the City/Town and State	
2	Population	
3	Area in sq. kilometers	
4	Name & Address of local body Telephone No. Fax No. E-mail:	
5	Name of officer in-charge dealing with solid waste management (SOLID WASTEM)Phone No: Fax No: E-mail:	
6	Number of households in the city/town Number of non-residential premises in the city Number of election/ administrative wards in the city/town	
7	Quantity of Solid waste (solid waste)	
	Estimated Quantity of solid waste generated in the local body area per day in metric tones	/tpd
	Quantity of solid waste collected per day	/tpd

	Per capita waste collected per day	/gm/day
	Quantity of solid waste processed	/tpd
	Quantity of solid waste disposed at dumpsite/ landfill	/tpd
8	Status of Solid Waste Management service	
	Segregation and storage of waste at source	
	Whether SOLID WASTE is stored at source in domestic/commercial/ institutional bins, If yes,	Yes/No
	Percentage of households practice storage of waste at source in domestic bins	%
	Percentage of non-residential premises practice storage of waste at source in commercial /institutional bins	%
	Percentage of households dispose or throw solid waste on the streets	%
	Percentage of non-residential premises dispose of throw solid waste on the streets	%
	Whether solid waste is stored at source in a segregated form, If yes,	Yes/No
	Percentage of premises segregating the waste at source	%
	Door to Door Collection of solid waste	
	Whether door to door collection (D2D) of solid waste is being done in the city/town	Yes/No
	if yes	
	Number of wards covered in D2D collection of waste	
	No. of households covered	
	No. of non-residential premises including commercial establishments ,hotels, restaurants educational institutions/ offices etc covered	
	Percentage of residential and non-residential premises covered in door to door collection through :	
	Motorized vehicle	%
	Containerized tricycle/handcart	%
	Other device	%
	If not, method of primary collection adopted	
	Sweeping of streets	
	Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned	km

	Frequency of street sweepings and percentage of population covered	frequency	Daily	Alternate days	Twice a week	Occasionally
		% of population covered				
	Tools used					
	Manual sweeping			%		
	Mechanical sweeping			%		
	Whether long handle broom used by sanitation workers			Yes/No		
	Whether each sanitation worker is given handcart/tricycle for collection of waste			Yes/No		
	Whether handcart / tricycle is containerized			Yes/No		
	Whether the collection tool synchronizes with collection/ waste storage containers utilized			Yes/No		
.	Secondary Waste Storage facilities					
	No. and type of waste storage depots in the city/town	No. Capacity in m^3				
	Open waste storage sites					
	Masonry bins					
	Cement concrete cylinder bins					
	Dhalao/covered rooms/space					
	Covered metal/plastic containers					
	Upto 1.1 m3 bins					
	2 to 5 m3 bins					
	Above 5m3 containers					
	Bin-less city					
	Bin/ population ratio					
	Ward wise details of waste storage depots (attach) :					
	Ward No:					
	Area:					
	Population:					
	No. of bins placed					
	Total volume of bins placed					
	Total storage capacity of waste storage facilities in cubic meters					
	Total waste actually stored at the waste storage depots daily					

	Give frequency of collection of waste from the depots Number of bins cleared	Frequency	No. of bins
		Daily Alternate day Twice a week Once a week	
		Occasionally	
	Whether storage depots have facility for storage of segregated waste in green, blue and black bins	Yes/ No (if yes, add details) No. of green bins: No. of blue bins: No. of black bins:	
	Whether lifting of solid waste from storage depots is manual or mechanical. Give percentage (%) of Manual Lifting of solid waste (%) of Mechanical lifting	% %	
	If mechanical – specify the method used	front-end loaders/ Top loaders	
	Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Yes/ No (if yes, specify)	
	Waste transportation per day Type and Number of vehicles used	No. Trips made waste transported	
	Animal cart Tractors Non tipping Truck Tipping Truck Dumper Placers Refuse collectors Compactors Others JCB/loader		

	Frequency of transportation of waste	Frequency (%) of waste transported Daily Alternate day Twice a week Once a week Occasionally
	Quantity of waste transported each day	/tpd
	Percentage of total waste transported daily	%
	Waste Treatment Technologies used	
	Whether solid waste is processed	Yes/No
	If yes, Quantity of waste processed daily	/tpd
	Whether treatment is done by local body or through an agency	
	Land(s) available with the local body for waste processing (in Hectares)	
	Land currently utilized for waste processing	
	Solid waste processing facilities in operation	
	Solid waste processing facilities under construction	
	Distance of processing facilities from city/town boundary	
	Details of technologies adopted	
	Composting ,	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Vermi composting	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Bio-methanation	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled

	Refuse Derived Fuel	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology (give detail)	Qty. raw material processed Qty. final product produced Qty. sold Quantity of residual waste landfilled
	Co-processing	Qty. raw material processed
	Combustible waste supplied to cement plant	
	Combustible waste supplied to solid waste based power plants	
	Others	Qty.
	Solid waste disposal facilities	
	No. of dumpsites sites available with the local body No. of sanitary landfill sites available with the local body	
	Area of each such sites available for waste disposal	
	Area of land currently used for waste disposal	
	Distance of dumpsite/landfill facility from city/town	kms
	Distance from the nearest habitation	kms
	Distance from water body	kms
	Distance from state/national highway	kms
	Distance from Airport	kms
	Distance from important religious places or historical monument	kms
	Whether it falls in flood prone area	Yes/No
	Whether it falls in earthquake fault line area	Yes/No
	Quantity of waste landfilled each day	tpd
	Whether landfill site is fenced	Yes / No
	Whether Lighting facility is available on site	Yes / No

	Whether Weigh bridge facility available	Yes / No
	Vehicles and equipments used at landfill (specify)	Bulldozer, Compacters etc. available
	Manpower deployed at landfill site	Yes/No (if yes, attach details)
	Whether covering is done on daily basis	Yes/No
	If not, Frequency of covering the waste deposited at the landfill	
	Cover material used	
	Whether adequate covering material is available	Yes/No
	Provisions for gas venting provided	Yes/No (if yes, attach technical data sheet)
	Provision for leachate collection	Yes/No (if yes, attach technical data sheet)
9	Whether an Action Plan has been prepared for improving solid waste management practices in the city	Yes/No (if Yes attach Action Plan details)
10	What separate provisions are made for : Dairy related activities : Slaughter houses waste : C&D waste (construction debris) :	Attach details on Proposals,Steps taken, Yes/No Yes/No Yes/No
11	Details of Post Closure Plan	Attach Plan
12	How many slums are identified and whether these are provided with Solid Waste Management facilities :	Yes/ No (if Yes, attach details)
13	Give details of: Local body's own manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	
14	Give details of: Contractor/ concessionaire's manpower deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	
15	Mention briefly, the difficulties being experienced by the local body in complying with provisions of these rules	

16	Mention briefly, if any innovative idea is implemented to tackle a problem related to solid waste, which could be replicated by other local bodies	

Signature of CEO/Municipal Commissioner/

Executive Officer/Chief Officer

Date:

Place:

Form – V

[see rule 24(3)]

Format of annual report to be submitted by the state pollution control board or pollution control committee committees to the central pollution control board

PART A

To,

The Chairman

Central Pollution Control Board

Parivesh Bhawan, East Arjun Nagar

DELHI- 110 0032

1.	Name of the State/Union territory	:	
2.	Name & address of the State Pollution Control	:	
3.	Number of local bodies responsible for management of solid waste in the State/Union territory under these rules	:	
4.	No. of authorisation application Received	:	
5.	A Summary Statement on progress made by local body in respect of solid waste management	:	Please attach as Annexure-I
6.	A Summary Statement on progress made by local bodies in respect of waste collection, segregation, transportation and disposal	:	Please attach as Annexure-II
7.	A summary statement on progress made by local bodies in respect of implementation of Schedule II	:	Please attach as Annexure-III

Date: …….	Chairman or the Member Secretary
Place: ……..	State Pollution Control Board/
	Pollution Control Committee

PART B

Towns/cities

Total number of towns/cities

Total number of ULBs

Number of class I & class II cities/towns

Authorisation status (names/number)

Number of applications received

Number of authorisations granted

Authorisations under scrutiny

SOLID WASTE Generation status

Solid waste generation in the state (TPD)

collected

treated

landfilled

Compliance to Schedule I of SW Rules (Number/names of towns/capacity)

Good practices in cities/towns

House-to-house collection

Segregation

Storage

Covered transportation

Processing of SW (Number/names of towns/capacity)

Solid Waste processing facilities setup:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletization

Processing facility operational:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletization

Processing facility under installation/planned:

Sl. No.	Composting	Vermi-composting	Biogas	RDF/Pelletisation

Waste-to-Energy Plants: (Number/names of towns/capacity)

Sl. No.	Plant Location	Status of operation	Power generation (MW)	Remarks

Disposal of solid waste (number/names of towns/capacity):

Landfill sites identified

Landfill constructed

Landfill under construction

Landfill in operation

Landfill exhausted

Landfilled capped

Solid Waste Dumpsites (number/names of towns/capacity):

Total number of existing dumpsites

Dumpsites reclaimed/capped

Dumpsites converted to sanitary landfill

Monitoring at Waste processing/Landfills sites

Sl. No.	Name of facilities	Ambient air	Groundwater	Leachate quality	Compost quality	VOCs
1.						
2.						
3.						

Status of Action Plan prepared by Municipalities

Total number of municipalities:

Number of Action Plan submitted:

Form – VI

[see rule 25]

Accident Reporting

1.	Date and time of accident	:	
2.	Sequence of events leading to accident	:	
3.	The waste involved in accident	:	

4.	Assessment of the effects of the accidents on human health and the environment	:	
5.	Emergency measures taken	:	
6.	Steps taken to alleviate the effects of accidents	:	
7.	Steps taken to prevent the recurrence of such an accident	:	
Date: ……		Signature:……..……	
Place: ……		Designation: ……	

[F. No. 18-3/2004-HSMD]

BISHWANATH SINHA, Jt. Secy.

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ANNEXURE-IV

Guidelines for Carcass Disposal

Central Pollution Control Board
Delhi
November 2020

CONTENT

1.0 INTRODUCTION

In India large number of cattle die of natural causes in villages and municipal areas every year. However, there is no organized and scientific system for the disposal of carcasses, in the absence of which, it has become a major environmental hazard. In most cases, whereas the hides are removed for leather, the remaining carcass is left to putrefy in open without any control resulting in highly repellent stench permeating into surrounding atmosphere. As no enclosure is provided, vultures and dogs are attracted to such sites polluting the environment and creating health hazards and can also cause air accidents

Further, it is mandatory under Prevention and Control of Infectious and Contagious Disease in Animal Act, 2009 to dispose-off the fallen animals/carcasses properly. This Guideline outlines available methods for carcass disposal, the related environmental issues, the required pollution control measures to be implemented and the way forward to address issues related to carcass disposal in the country.

2.0 Current practices of carcass disposal

2.1 Carcass utilization plant:

Utilization of dead animals has many benefits. According to one estimate among dead animals 30% of cattle, 20 % of buffaloes, 46% goats and 50% sheep on an average are not flayed and 9 million bovine hides and 9 million ovine and caprine skins are lost annually due to non-recovery in India . After flaying, carcasses of dead animals can be processed to produce valuable meat-meal, bonemeal and technical fat. These products have good demand as feed ingredients of poultry and dairy animals. The economic utilization of dead animals, is imperative to reduce the spread of diseases. It also reduces the feed grounds for vultures and saves aircraft from bird hits. However, factors such as social, economic and climatic conditions as well as lack of technical knowhow and efficient processing machinery have hampered efficient utilization of carcass utilization in the country.

Carcass Utilization involves integrated utilization of all tissues of fallen carcass for value added product which find application in animal feed/leather industry/fertilizer/chemical Industry . The process includes lifting of fallen animals, flaying, preservation of hides and skins, rendering (cooking) of the flayed carcass, preparation of meat meal, bone meal, tallow, besides treatment of effluent waste water and conversion of rumen contents into manure. Machinery/Equipment used in the process includes flaying tools, wet rendering cooker, meat mincer, bone crusher, drier and pulveriser, transportable flaying and lifting device

2.1.1. Production Process

Rendering involves removal of hides/skin at the flaying yard from the Carcass, separation of rumen contents and horns and hooves. The rest of the animal body consisting of flesh, tissues and bones is cooked in a cooker for obtaining tallow and cooked meat and bones. Limited amount of water is added in the cooker for the production of steam. The separation of cooked meat from bones is carried out manually. The separated bones are crushed in the bone crusher for obtaining bone meal. The separated cooked meal is generally sun dried. However, during rainy season this meat is first minced in the meat mincer and then dried in a rotary drier. The dried meat is pulverized in the pulverizer for producing meat meal. The meat meal can also be mixed with bone meal for making meat cum bone meal.

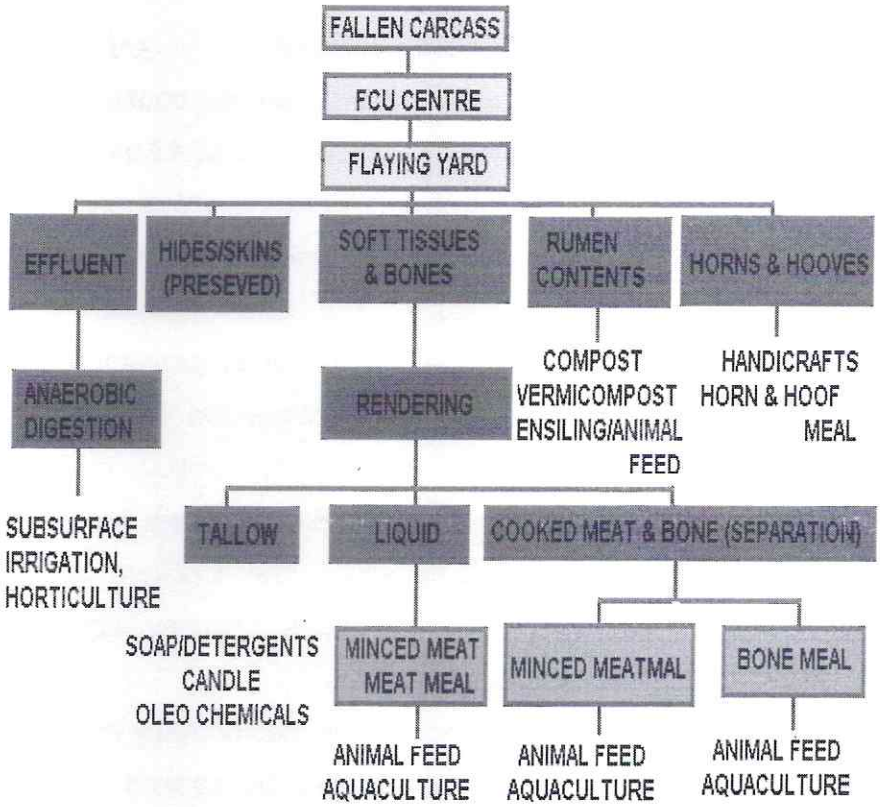
Rendering is essentially done in dry or wet process. In a wet rendering process, steam enters the rendering tank, along with the biomass. In dry process, steam is confined in a jacket that surrounds the tank containing the material being rendered The dry rendering process yields are 20 per cent higher than the wet rendering process as the water soluble extractive and proteins suspended are not discarded. In other words in dry rendering process, the meat and bones are cooked in its own fluid and

fried in its own fat. As the yield is in dry rendering is higher, it should be adopted wherever feasible

The slurry containing tallow is collected into an open pan from the rendering vessel. It is allowed to cool so that fat will solidify on the top layer. Fat is scooped off and collected in a separate vessel. There are impurities such as water with soluble proteins and some minerals. Hence the fat containing water and other impurities iscooked in an open pan by adding alum and salt. Water is evaporated and then purified tallow is collected.

The process flow chart is given in figure 1.0

Figure 1.0 Carcass utilization plant



2.1.2 Carcass Utilization Products: 3 main products are obtained from this technology:

a) **Tallow or fat** is obtained by `clarifying' fatty tissues and from the cooker, the former being white superior grade and the

latter slightly yellowish. These are familiar products and find a ready market in soap-manufacturing.

b) **Meat Meal** is a protein-, vitamin- and mineral-rich material used as a supplement in poultry feed. It is completely sterile and free from pathogens since it is processed at high temperatures. It is a valuable substitute for fish meal since it is much cheaper and also eliminates need for some other additives. Meat meal can also be used as Pig Feed.

c) **Bone Meal** is rich in phosphorous and calcium, is famous as fertilizer especially for horticulture, floriculture and home gardens. Bone meal is also an extremely beneficial supplement in poultry feed for both layers and broilers. It is also a powerful nutritional supplement in the growth phase of dogs.

2.1.3 Equipment & Machinery

(i) Carcass cooker; Carcass cooker is a pressure vessel to operated at a pressure of 35-40 psi. The Cooker handles one large carcass (250 Kg) at a time, larger capacity vessels not being preferred since the timing of carcass arrivals is unpredictable and each carcass should be processed immediately on arrival to prevent putrefaction.. At least 2 Cookers are recommended for each unit for reasons as above. Overhead rails, trolley, chain and pulley etc for loading and unloading Cookers are provided for convenient material handling. The Cookers are to be installed on platforms with grates, chimney, dampers etc. for operating with biomass fuels.

(ii) Meat Mincer: This medium-duty motorised machine with SS body is for mincing the cooked meat emanating from the Cooker. It is supplied with extra plates for different output sizes.

(iii) Bone Crusher: This machine powders the digested bone from the Cooker to yield bone meal.

(iv) **Vibratory Sieve:** This sieves the Bone Meal to desired size as per user specifications.

(v) **SS Tallow Clarification Vessels:** Tallow tapped off from the cooker is clarified in SS vessels.

(vi) **SS Drying Tray:** Cooked and minced flesh is gently dried on SS trays over an open hearth to yield Meat Meal.

Other equipments

The following other items are also required in the plant :

- Flaying Bed
- Hoist with chain & pulley
- Cleaver, knives, apron, handtools etc
- Wheel barrows
- Tallow Storage SS bins
- Balance (500 kg.)

2.1.4 Essential requirement for setting up of carcass utilization plant

- **Raw Material availability:**At least 4-6 carcasses should be available in a radius of 6-8 kilometers per day for viable operations.
- **Infrastructure:** Adequate water supply should be available
- **Logistics :**Vehicle for transportation of carcasses is needed
- **Workshed :**A covered area of about 1200-1500 sq. ft. is required

"CSIR-CLRI Technology for Collection of fallen Carcass and its Utilization" is enclosed at **Annexure I**

2.2 Incineration: -

Incineration is the thermal destruction of carcasses by auxiliary fuel such as diesel or natural gas etc. or by using electric energy. It reduces carcasses to ash and is generally bio-secure.

This technology can be applied as:

- fixed, whole-carcass incineration,
- mobile air curtain whole carcass incineration,
- municipal incinerators,

Fixed whole carcass incineration occurs in an established facility in which whole carcasses or carcass portions can be completely burnt and reduced to ash. This process is normally fuelled by natural gas.

Mobile air curtain whole carcass incineration is a mobile system which can be taken on-site. Whole carcasses can be burnt and reduced to ash using wood as a fuel. Because it can be used on site, there is no requirement for transportation of the animal material. It also produces effective inactivation of pathogens and may actually achieve higher temperatures (1000 deg.C).

Municipal incinerators are pre-established facilities which are normally used for the burning of household waste. Although they may not be currently licensed to burn carcasses, use of these facilities allows an expanded capacity for effective inactivation of pathogens.

2.3 Deep Burial: -

Burial is a method in which carcass is buried in the ground. It is a common and oldest method of carcass disposal and requires thoughtful selection of the burial site. After deep burial, carcass is covered with covered with slaked lime, bleaching powder and crystal salt to address environmental issues related to deep burial.

2.4 Other methods

Other methods of disposing carcass include pyre burning, composting etc.

3.0 Environmental Issues associated with Carcass Disposal Methods: -

Environmental issues associated with different carcass disposal methods are mentioned below:

3.1 Rendering:

Environmental issues related to carcass rendering process are odour as well as trade effluent generated from various process steps followed for rendering. Besides, solid waste is generated from the Effluent Treatment plant

3.2 Environmental issues of Incineration: -

Environmental issues related to incineration are emission of flue gases causing air pollution and disposal of remaining solid waste.

3.3 Environmental issues of Deep Burial: -

- Deep burial may cause soil contamination if pathogens inactivation is not carried out.
- It can also lead to ground water contamination, particularly in cases where ground water table is shallow.

3.4 Pyre burning

Scientific analysis is required to assess environmental impact due to burning with focus on increased dioxin levels and groundwater contamination.

4.0 Control Measures:

4.1 Transportation of Carcasses to Disposal Site: -

i. Separate system should be instituted for collection of carcass.

ii. The transport of materials must be carried out by vehicles, which are easy to clean and disinfect. The bottom of the vehicles must be water proof to prevent infective material or liquid from leaking out during transportation

iii. It should not be overloaded - half a metre or more (depending on distance to be travelled and temperature) should be left clear for expansion of carcasses.

iv. Carcasses should not be slashed before loading. Vehicles should travel slowly to avoid splashing of contaminated material.

v. Staff should carry a supply of an approved disinfectant and basic equipment to deal with minor spills during a journey.

vi. The diseased animal should not be touched without protective clothing and gloves

vii. All vehicles must be cleaned and disinfected before leaving the premises and after unloading.

viii. The quantity of wash water generated during cleaning of vehicles should be connected to Effluent Treatment Plant (ETP) only and should not be allowed to discharge directly on land

4.2 Carcass utilization plant

i. The parameters of concern in the effluent generated from a carcass utilization in the effluent include BOD , COD,TSS & O&G. The effluent is biodegradable and a combination of anaerobic and aerobic treatment system or two stage aeration system may be adopted for treatment of the effluent. O&G Trap is to be essentially provided to treat the effluent generated from the plant. Disinfection method using chlorination should be adopted for treatment of effluent prior to discharge . Effluent generated from various process steps to be treated in ETP and treated effluent should comply with Standards for water pollutants notified under E(P) Act, 1986 or as may be prescribed by SPCBs/PCCs.

ii. The operations in the rendering plant release a huge amount of steam. Without proper ventilation, the working conditions may become incongenial. Therefore, the building should be well ventilated.

iii. The rendering plant emits a large quantity of obnoxious gases, since it handles dead, even decomposed animals also. In such cases, it is preferable to have one of the following arrangements for reducing the odour.

   a) Pass the fumes from the rendering vessel into the boiler stock where they are burnt and dispersed.

   b) Disperse the hot vapors in cooling water where they are dissolved and discharged into the effluent disposal system. The equipment is called condenser

   c) Chemical treatment like chlorination or absorption by activated carbons.

   d) Generally, dry rendering equipment produces much less offensive odours than wet rendering.

iv. The sludge generated from the ETP has to be dewatered and disposed-off properly, as per directions of respective state pollution control boards. Also the process solid waste generated from the

carcass utilization plant has to be properly treated/ disposed-off, after recovery of valuable products.

v. As personnel hygiene is important, arrangement must be made for the workers to wash and change clothes while leaving the plant after their work is completed.

vi. The room for salting and storing of hides must be easy to clean and disinfected. The floor and walls should be covered with tiles and sewerage for waste water should be provided.

vii. To minimize the danger of infection, it is necessary to keep the hides in salted condition for at least for 14 days before delivery to the tannery.

viii. Precautions must be taken to prevent the entry of animals and birds to this section.

ix. The various units of the plant should be so chosen so as to provide a continuous uninterrupted flow of operations between each individual unit of equipment without exposing the materials to air contamination. Wherever possible, a covered screw conveyor may be installed to transport any material from one point of processing to the other.

x. The carcass utilization should be operated under the supervision and control of Veterinary/Animal Husbandry Department of the State and the Local Bodies

4.2 Measures to be taken for Incineration:-

i. Complete combustion of carcasses to be ensured.

ii. Air pollution control devices should be installed and the emission from incinerators should comply the General Emission Standards mentioned under Standard for incineration section in SWM Rules,2016

4.3 Measures to be taken for Deep Burial:-

(i) It is crucial to select a site which is well-protected from people and scavenging animals. General factors to be considered are:

- Accessibility to disposal site by heavy transport vehicles;

- Nature of soil/rock formation in the available area;
- Level of water table: The deep burial site should be relatively impermeable and no shallow well should be close to the site. The ground water table level should be a minimum of six meters below the lower level of deep burial pit
- Proximity to habitation and water catchment areas, bores and wells: The pits should be distant from habitation, and sited so as to ensure that no contamination occurs of any surface water or ground water. The area should not be prone to flooding or erosion
- Presence of services such as water, gas, electricity, telephone lines, drainage, sewerage and other improvements or structures, including aerial lines;

The location of the deep burial site should be authorised by the prescribed authority.

(ii) A pit or trench should be dug about 2 meters deep. Lime should not be placed directly on carcasses, because in wet conditions it slows and may prevent decomposition. A layer of 10 cm of soil shall be added to initially cover the wastes. The pit should be half filled with waste, then covered with lime within 50 cm of the surface, before filing the rest of the pit with soil. Lime is added to pits, to prevent earthworms from bringing contaminated material to the surface after pit closure.

(iii) It must be ensured that animals do not have any access to burial sites. Covers of galvanised iron/wire meshes may be used.

(iv) Burial must be performed under close and dedicated supervision.

(v) The institution shall maintain a record of all pits for deep burial.

5.0 Status of carcass disposal in India

(i) Methods currently adopted for carcass disposal include rendering, incineration and deep burial, of which deep burial is the most common practice for carcass disposal in the country. Very few cities have carcass

utilization plants and incinerators. One such carcass utilization plant is installed in Delhi and incinerator is under installation in Chandigarh.

(ii) Carcass disposal sites are yet to be identified in most of the states

(iii) Most of the disposal sites are not scientifically developed

(iv) The disposal sites do not have necessary approvals (Consent, Authorization) from the regulatory bodies in most of the cases

5.0 Role of concerned organizations

5.1 Implementing agencies:

The implementing agencies shall include Municipalities / Department of Animal Husbandry of the States. States may involve NGOs, SHGs, Co-operatives.

The following provisions of the Section 393 of India Code Disposal of dead animals (Disposal of dead animals) should be implemented by these agencies

(1) Whenever any animal in charge of any person dies, the person in charge thereof shall within twenty-four hours either—

(a) convey the carcass to a place provided or appointed under section 352 for the final disposal of the carcasses of dead animals, or

(b) give notice of the death to the Commissioner whereupon the shall cause the carcass to be disposed of.

(2) In respect of the disposal of the carcass of a dead animal under clause (b) of sub-section (1) the Commissioner may charge such fee as he may by public notice prescribe.

The implementing agencies to ensure the following:

- No person shall deposit or otherwise dispose of the carcass or parts of any dead animal at a place not provided or appointed for this purpose
- Bye law to be framed by the local bodies for imposing of Penalty for non compliance of above. Spot fine in the range of Rs.100 to 5000 may be imposed based on the scale of. Such spot fines

may be imposed and collected by officers and Supervisory Staff authorized by the Municipal Authorities including Police personnel. The amount of fine imposed, if not paid on the spot, shall be recoverable in manner deemed appropriate by the Municipal Authority."

- A citizen charter has to be put in place by the local body for prompt disposal of carcasses in a time bound manner, with services which run 24X7. Accordingly, a dedicated on-call service should be established at ULB level for citizens to avail collection and transportation and disposal of animal carcasses.
- The District Magistrate or District Collector or as the case may be, the Deputy Commissioner shall facilitate identification and allocation of suitable land for setting up carcass disposal facility to local authorities in his/her district.
- The local authorities and Panchayats shall facilitate construction, operation and maintenance of carcass disposal facilities and associated infrastructure on their own or with private sector participation or through any agency, adhering to the guidelines issued by the Ministry of Urban Development from time to time and standards prescribed by the Central Pollution Control Board.
- Adequate buffer zone and green belt to be provided around the carcass disposal site to minimize the impact of the carcass disposal on human habitation
- The fund for setting up of the facilities may be obtained from schemes like National Livestock Mission or Animal Husbandry Department of the States.
- Based on pollution load generation a comprehensive wastewater treatment facility, solid waste management including gaseous emission/ odour control measures shall be implemented by the operator of the facility for carcass disposal.
- The local authorities and Panchayats shall make an application, obtain authorisation and consent for setting up carcass disposal

facility from the State Pollution Control Board or the Pollution Control Committee.

5.2 **Regulatory bodies**

- The regulatory bodies to ensure that the implementing agencies provide necessary infrastructure for carcass in areas falling in their jurisdiction
- The concerned State Boards shall grant consent & authorization to such carcass disposal facilities, after ensuring that necessary measures have been taken to control environmental pollution from such sites
- The respective State Boards shall regularly monitor the activities of such facilities to ensure that the emissions and discharges are within the stipulated norms.

6.0 Conclusion: -

a) Carcass should be utilized by adopting rendering process or incineration and priority may be given to carcass utilization plant which are run by adopting rendering process at all the major towns to process the dead animal carcasses in a scientific manner.

b) Carcass disposal to be done under the supervision Veterinary/Animal Husbandry Department of the State and the Local Bodies.

c) Disposal of carcasses through deep burial method may be adopted only in where facilities listed in 6 (a) & (b) above are yet to be developed. Deep burial with adequate precautions may be adopted in case of mass mortality that may result from vagaries of nature or a mass die-off due to communicable disease, to avoid zoonotic transmission

d) Scientific analysis required to assess environmental impact due to burning with focus on increased dioxin levels and groundwater contamination

e) The implementing agencies to ensure that necessary infrastructure required for utilization and disposal of carcass is set up in the area under their jurisdiction

f) The regulatory agency to ensure that necessary pollution control measures are implemented and monitor to ensure compliance with the stipulated norms

Annexure I

CSIR- CLRI Technology for Collection of fallen Carcass & its utilization

1.	Name of Product / Process/Technology	**Collection of Fallen Carcass and its utilization**
2.	Application / Use	It involves integrated utilization of all tissues of fallen carcass for value added product. Finds application in Animal feed/Leather industry/Fertilizer/Chemical Industry
3.	Salient features of technology/process	It is an eco-friendly and sustainable technology developed by CLRI for total utilisation of fallen animals (cattle and buffalo). It provides economically useful products from waste. The process includes lifting of fallen animals, flaying techniques, preservation of hides and skins, rendering (cooking) of the flayed carcass, preparation of meat meal, bone meal, tallow, besides treatment of effluent waste water and utilisation for agri-horticultural purposes and conversion of rumen contents into manure. Transportable devices for effective collection of fallen carcass are enclosed in Annexures 1 & 2.
4.	Raw materials	Fallen animals (cattle and buffalo)
5.	Machinery/Equipment	Flaying tools, wet rendering cooker, meat mincer, bone crusher, drier and pulveriser, transportable flaying and lifting device.
6.	Status of technology	Well developed and available at CSIR-CLRI.
7.	Minimum economic unit and total investment	3-4 carcasses per day Rs. 20 lakhs.(It may go upto Rs.40Lakhs when transportable device is included)
8.	Technology transfer methodology	As per CSIR guidelines
9.	Technology demonstration – cum – Training facilities	Demonstration can be done at Bardouli, Gujarat or some other location, if possible.
10.	Product acceptability	Excellent Market potential
11.	Marketability	Highly potential
12.	Is this technology locationspecific? If so, please elaborate	Need to ensure availability of 3-4 carcasses per day within a radius of about 30 Kms.
13.	Any gender-bias in technology utilisation?	No. Traditionally flaying activities are carried out by males in rural areas.

14.	Is any video-cassette available on the technology?	Requires to be arranged, if necessary.
15.	Any other relevant information not covered above	The centre can cater to the needs of a group of villages within a radius of 15 Kms. The likely benefits provided by the technology is not only economical but also in social and environmental spheres provides employment to rural poor and clean environment. Efficient carcass recovery not only reduces losses but also facilitates the availability of cheap and quality leathers to rural folk. Production of quality meat meal, bone meal would help to prepare animal feeds of better quality and help the feed industry to be less dependent on imports.
16.	Terms and conditions for technology transfer	Negotiable under the framework of CSIR guidelines.
17.	If required, can you provide prototype/working model for display/demonstrations	Yes
18.	Name and address of technology generating institute/ individual	CSIR-Central Leather Research Institute, Adyar, Chennai - 600 020, India.
19.	Name and address of technology transfer agency, if different from above	Same as above (Sl. No.18)

Contact address:
Director
CSIR-Central Leather Research Institute Adyar,
Chennai - 600 020.
Phone: 91-44-24910897 / 24910846 / 24437158
Fax: 91-44-24912150
E-Mail: directorclri@gmail.com, director@clri.res.in,
ppbd@clri.res.in, bpdclri@yahoo.com
Website: www.clri.org

Annexure 1

1.	Name of the Device	**Transportable Device for lifting of Carcass**
2.	Application / Use	➢ Collection of fallen animal especially in rural areas. ➢ Ensure economic utilization of the hide/skin and even other body parts of a dead animal. ➢ Ensure cleanliness of environment by not allowing it to be spoilt by the putrefaction of carcass.
3.	Salient features	The device can be fitted on the rear side of a vehicle and can be operated by a flayer cum driver to lift the animal and also flay the hide if the animal is dead. This device has several advantages over the existing methods presently used for lifting animals. The device has tremendous potential to improve the availability of quality hides from fallen animals to Indian leather industry if used by flayers and their societies in the country. The device also ensures proper collection of the remaining parts of the carcass for further processing into valueadded products like bone meal, meat meal, tallow etc.
4.	Any other relevant information not covered above	It ensures economical utilization of fallen carcass, while keeping the environment pollution free. The knowledge lead has been applied for patent protection (Indian Patent application no. 200Del2007).
5.	Name and address of technology generating institute/ individual	CSIR-Central Leather Research Institute, Adyar, Chennai - 600 020, India.

Annexure 2

1.	Name of the Device	**Transportable Device for lifting and flaying animals**
2.	Application / Use	➢ Collection of fallen animal especially in rural areas. ➢ Ensure economic utilization of the hide/skin and even other body parts of a dead animal. ➢ Ensure cleanliness of environment by not allowing it to be spoilt by the putrefaction of carcass.
3.	Salient features of technology/process	An improved transportable device for flaying of fallen animals from rural and urban areas has been innovated. The design features are exclusive for lifting and flaying of dead animals. The device is mechanized vehicle which uses power transmission system for loading, hoisting for flaying, carrying and unloading of the fallen animals. It has several advantages, in view of its (a) easy operability (b) reduction in time for flaying (c) provision for carrying and unloading two large or three small dead animals after flaying (d) hydraulic or mechanical system which increases efficiency (e) drastic reduction (by 50%) for capital investment (f) designed exclusively for flaying of dead animals.
4.	Any other relevant information not covered above	It ensures economical utilization of fallen carcass, while keeping the environment pollution free. The knowledge lead has been applied for patent protection (Indian Patent application no. 269DEL2011).
5.	Name and address of technology generating institute/ individual	CSIR-Central Leather Research Institute, Adyar, Chennai - 600 020, India.

.ANNEXURE-V

REVISED ORDER
CORRECTED 31.08.2018

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 593/2017
(W.P. (Civil) No. 375/2012)

In the matter of:

Paryavaran Suraksha Samiti & Anr.
Vs.
Union of India & Ors.

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

Present:

Applicant: **Mr. Rohit Prajapati, Applicant in person**
Amicus Curiae: **Mr. Jai A. Dehadrai, Adv.**
Respondent Nos. **Mr. Nishe Rajan Shonker, Adv. for State of Kerala**
Mr. Tarunvir Singh Khehar, Ms. Guneet Khehar Mr. Sandeep Mishra Advs. for GNCTD
Mr. Anil Shrivastava Mr Rituraj Bswas and Ms. Sujaya Bardhan, Advs. for State of Arunachal Pradesh
Mr. Jogy Scaria, Ms. Beena Victor, Advs. for Kerala State Pollution Control Board
Mr. Avijit Roy, Adv. for Assam Pollution Control Board
Mr. Leishangthem Roshmani Kh, Ms. Maibam Babina, Advs. for State of Manipur
Mr. Nikhil Nayyar, Mr. Dhananjay Baijal, Advs. for APPCB and TSPCB
Mr. Mukesh Verma, Adv.
Mr. Tarunvir Singh Khehar, Adv., Mr. Sandeep Mishra and Ms. Guneet Khehar, Adv.
Mr. Dinesh Jindal, LO for DPCC
Ms. Aruna Mathur, Mr. Avneesh Arputham, Ms. Simraj Jeet and Ms. Anuradha Arputham, Advs. for State of Sikkim
Mr. Raja Chatterjee, Mr. Piyush Sachdev, Ms. Abhinandini Yadav, Advs. and Advs. for State of WB
Mr. Edward Belho, AAG, Mr. K. Luikang Michael and Ms. Hoineithiam, Advs. for State of Nagaland
Ms. Enatoli Sema, Adv. for State of Nagaland and Pollution Control Board
Mr. M. Paikaray and Mr. A.K. Panda, Advs. for SPCB, Odisha
Mr. Dhruv Pal, Adv. for State of Gujarat
Mr. V.K. Shukla, Adv. for State of MP
Mr. Jayesh Gaurav, Adv. for R-47
Mr. Tayenjam Momo Singh, Adv. for Meghalaya Pollution Control Board
Mr. Shlok Chandra and Mr. Ritesh Kumar Sharma, Advs.
Mr. Gautam Singh and Mr. Shoeab Alam, Advs. for State of Bihar
Ms. Aprajita Mukherjee, Adv.
Ms. G. Indira, Adv. for UT of Andaman & Nicobar
Mr. Balendu Shekhar, Mr. Sriansh Prakash and Mr. Rajkumar Maurya, Advs. for Ministry of Environment, Forest and Climate Change
Ms. Puja Kalra, Adv. for SDMC & NDMC

Mr. Anil Grover, AAG, Mr. Rahul Khurana and Mr. Mishal Vij, Advs. for State of Haryana and HSPCB
Ms. Yogmaya Agnihotri, Adv. and Ms. Prity, Adv. for CECB
Ms. Sakshi Popli, Adv. for Ministry of Environment, Forest and Climate Change
Mr. Shuvodeep Roy, Adv. and Mr. Rituraj Biswas, Adv. for State of Tripura & Tripura Pollution Control Board
Mr. Shashank Bajpai and Mr. Shakun S. Shukla, Advs. for State of Odisha
Ms. Asha Nayar Basu and Ms. Aradhita Ghosh Mandal, Advs.
Ms. Priyanka Sinha, Adv. for State of Jharkhand
Mr. Rajul Shrivastav, Adv. for MPPCB
Mr. Pradeep Misra and Mr. Daleep Dhyani Advs. for UPPCB
Mr. R. Rakesh Sharma and Mr. V. Mowli, Advs. for State of TN & TNPCB
Mr. Shubham Bhalla, Adv.
Mr. Shiv Mangal Sharma, AAG, Mr. Saurabh Rajpal, Mr. Adhiraj Singh, Ms.Shikha Sandhu and Mr. Vikrmjeet singh, Advs. for State of Rajasthan and Pollution Control Board
Mr. G. M. Kawoosa, Adv. for State of J & K
Mr. Divya Prakash Pande, Adv. For HPSPCB
Mr. Manish Kumar, Adv.

	Date and Remarks	**Orders of the Tribunal**
	Item No. 12 **August 03, 2018** **A**	1. This matter was taken by this Tribunal in furtherance to the orders of the Hon'ble Supreme Court dated 22.02.2017 *Paryavaran Suraksha Samiti Vs. Union of India* (2017) 5 SCC 326, establishment and functioning of ETPs/CETP/STPs. 2. Vide order dated 25.05.2017, Notice was issued to Central Pollution Control Board and all the States Pollution Control Boards/Committees and the Ministry of Environment, Forest and Climate Change. They were directed to file status-cum-compliance report in terms of the orders of the Hon'ble Supreme Court. Accordingly, various status reports have been filed. An affidavit has been filed by the Ministry of Environment, Forest and Climate Change dated 04th July, 2017 stating as follows: *"4. That the answering Respondent is engaged in policy formulation, prescribing standards and its implementation through the Central Pollution Control Board (CPCB), State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) for UTs. This Ministry has written to all*

	Item No. 12 **August 03, 2018** **A**	*SPCBs and PCCs as well as to CPCB to ensure compliance of the judgment of the Hon'ble Supreme Court and to submit detailed compliance report.* *5. That the CPCB has also followed up with all SPCBs and PCCs through letters and review meetings to ensure compliance of the aforementioned judgment and that the matter was also discussed in the 62nd Conference of the Chairmen and Member Secretaries of SPCBs and PCCs held on 27.06.2017. That 26 SPCBs/PCCs have submitted the compliance report, which has been summarized at* ***Annexure-I****.* *6. That the CPCB has also carried out inspections of 17 categories of industries to verify compliance with its directions issued on online effluent/emission monitoring system and to cross-verify online results with manual sampling. During February-June, 2017, 64 industries were inspected and directions under section 5 of the Environment (Protection) Act, 1986 have been issued to 24 non-complying industries; 18 industries were complying; 8 were found closed and inspection reports of 14 industries are under process.* *7. That the CPCB and NMCG through 11 technical institutions, inspected 751 industries located in the River Ganga main stem during March-April, 2017 to verify the status of installation and connectivity of industries discharging effluents as well as their compliance with the standards. Closure directions have been issued to 154 industries; show cause notices issue to 36 industries; 149 industries were found complying and direction issued to 91 self-closed Grossly Polluting Industries (GPI) to remain closed; 93 GPI units were found closed as per directions; 38 GPI units found operational in violation of closure directions and inspection reports of 190 industries are under process".* 3. We have heard learned Amicus Curiae Sh. Jai A. Dehadrai and the learned counsel for Ministry of Environment, Forest and Climate Change, Central Pollution Control Board, various State Pollution Control Boards and the Pollution Control Committees. 4. Learned Amicus Curiae has drawn our attention to orders dated 04.07.2017, 18.09.2017 and 11.10.2017 of the Tribunal directing the State Pollution Control Boards to file a statement as to how many Industrial Units discharging trade effluents or causing emissions exist in

	Item No. 12 **August 03, 2018** **A**	the State, how many are having their own STPs, ETPs and/or connected to Common Effluent Treatment Plant (CETP), whether any such CETP or ETP or STP is properly functioning and treating the effluents as per prescribed limits or not. 5. Learned Amicus Curiae submitted that contamination of water due to industrial effluents can lead to various diseases and adverse consequences on the aquatic organism due to decreased level of oxygen. The use of technology can help reduction of adverse consequences. However, the best solution is to prevent pollution by soil conservation and proper disposal of toxics and chemicals which may include chemical recycling. 6. Having monitored the matter for the last more than one year on several dates, we are of the view that the matter requires continuous monitoring by statutory authorities as per directions which we proceed to issue today. (i) We direct the Central Pollution Control Board (CPCB) to forthwith prepare an action plan after looking into all the status reports. The action plans must have mechanism to ensure compliance or all the directions in the order of the Hon'ble Supreme Court. To enable this to be done, a Nodal officer must be identified to deal with the issue of CETPs/ ETPs/STPs. (ii) A representative of the Ministry of Environment, Forest and Climate Change may be associated with the Nodal Officer of the CETP for monitoring. The Monitoring by the said two officers- the representative of the MoEF and the Nodal Officer of the CPCB must be held atleast once in a

	Item No. 12 **August 03, 2018** **A**	month and on the basis of such meeting and the feedback taken further follow up action must be taken and appropriate directions issued. This process may be a continuous process. (iii) It must be ensured that STPs, CETPs and ETPs are functional and meet the requisite standards. (iv) There is already a direction in the above judgment under which 50% of the funds for the purpose are to be provided by the Central Government, 25% by the States and remaining 25% to be arranged by way of loans which is to be re-paid by the user industries. Local bodies and the States have duties as clearly stipulated in the judgment. There has to be online monitoring system by each State to display emission levels in public domain in terms of paragraph 17 of the order of the Hon'ble Supreme Court. (v) A report of the steps taken may be placed on the website of the Central Pollution Control Board atleast once in three months. Deficiencies if any may also be so displayed. (vi) The Central Pollution Control Board may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs Central Pollution Control Board may also assess and recover compensation for damage to the environment and the said fund be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the Central Pollution Control Board within three months from today. (vii) A compliance report in terms of the above order may

	Item No. 12 **August 03, 2018** **A**	be furnished to this Tribunal within four months from today by e-mail at filing.ngt@gmail.com. (7) Proceedings are disposed of. However, the report received from the Central Pollution Control Board may be placed for consideration before this Tribunal on 3.2.2019. We place on record our appreciation for the services rendered by the learned Amicus Curiae. ……., CP (Adarsh Kumar Goel) ……., JM (Dr. Jawad Rahim) ……,JM (S.P. Wangdi) ……,EM (Dr. Nagin Nanda) 03.08.2018

ANNEXURE-VI

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.

Sl. 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:

Sl. 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

Sl. 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:

Sl. 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]

xxx ……xxx……xxx

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

12. ***It will be appropriate to note the crisis situation in the country on the subject of availability of potable water. The matter has been considered in the report of Niti Aayog on Composite Water Management Index (CWMI).[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.*

xxx ……xxx……xxx

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.

xxx ……xxx……xxx

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."

xxx ……xxx……xxx

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.

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

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

and save it for the future generations and to ensure good quality of life that Parliament enacted the anti-pollution laws, namely, the Water Act, Air Act and the Environment (Protection) Act, 1986. These Acts and Rules framed and notification issued thereunder contain provisions which prohibit and/or regulate certain activities with a view to protect and preserve the environment. When a law is enacted containing some provisions which prohibit certain types of activities, then, it is of utmost importance that such legal provisions are effectively enforced. If a law is enacted but is not being voluntarily obeyed, then, it has to be enforced. Otherwise, infringement of law, which is actively or passively condoned for personal gain, will be encouraged which will in turn lead to a lawless society. ***Violation of anti-pollution laws not only adversely affects the existing quality of life but the non-enforcement of the legal provisions often results in ecological imbalance and degradation of environment, the adverse effect of which will have to be borne by the future generations***.[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* *9*
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. Directions:

36. Accordingly, we issue following directions:

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

ii. The timeline for commissioning of all STPs fixed by the Hon'ble Supreme Court, i.e., 31.03.2018, has long passed. The Hon'ble Supreme Court directed that the State PCBs must initiate prosecution of the erring Secretaries to the Governments, which has also not happened. This Tribunal was directed to monitor compliance and in the course thereof, we direct that compensation may be recovered in the manner

*already directed in earlier orders (See, **Paras 5 and 6** herein), which may be deposited with the CPCB for restoration of the environment.*

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

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

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

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

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

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

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

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

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

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

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

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

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

CMC Report dated 12.02.2021

11. Accordingly, the Central Monitoring Committee has filed its report dated 12.02.2021 titled **'3rd QUARTERLY REPORT OF THE CENTRAL MONITORING COMMITTEE (CMC) IN COMPLIANCE OF THE ORDER DATED 21.09.2020'**. The report refers to the correspondence with the States for preventing and controlling pollution in rivers/ water bodies/ lakes and ensuring that no untreated effluent/ sewage (beyond the prescribed standards) is allowed to be discharged from the ETPs/ CETPs/ STPs. Further reference has been made to the webinar held on 06.11.2020 to discuss approaches and models for waste management. Reference has also been made to discussion with the Niti Aayog to discuss business models to be adopted in Fecal Sludge and Septage Management (FSSM). Webinar held on 19.01.2021 for implementation of FSSM in cities and towns of Ganga basin has also been referred to. The report further mentions the meetings held by the CMC to monitor the progress on 30th September, 2020, 9th November, 2020 and 5th January, 2021 apart from other meetings with the Senior level Officials of the States/UTs to discuss States specific issues. It is further mentioned that the implementation of projects is being monitored in States which is reviewed at Central level. Progress reports were obtained in respect of action plans of States/UTs to prevent pollution of rivers/water bodies and to take action against the violators. **The CMC also sought information about coastal pollution**

from 13 States/UTs. Further, grievance module for addressing the issues of sewage/ effluent has been developed and made online on NMCG website, the States/ UTs have been directed to regularly monitor and update the status. Report also deals with use of treated water for secondary purposes.

12. The report thereafter gives the status as follows:

"Existing Sewage Infrastructure

48,004 MLD of sewage (from urban settlements) is being generated in 31 States/ UTs and 30,001 MLD capacity of STPs (1249 nos.) is existing which approximates to about 62% of sewage generation. Against the existing capacity, only 56% of the capacity is being utilized for treatment of municipal sewage. This leaves a gap of 17,027 MLD in treatment capacity. *The details of sewage generation, existing sewage treatment capacity, its utilization and gap thereof is presented in Table-1.*

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

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

”

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.

"

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.

xxx ……xxx ……xxx

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

20. xxx ……xxx……xxx……

21. While removing already raised constructions from the floodplain zones may be dealt with separately, there is need to atleast identify and take protective measures. All remedial measures have already been outlined in the earlier orders of this Tribunal and need not be repeated. As earlier observed, the desirable situation is that not a drop of pollution is discharged into the river Ganga, but in any case, ***every next report must show decreasing trend of pollution load which needs to be quantified by the NMCG in a tabular form giving the extent of pollution load on a particular date and reduction achieved in terms of gap after steps for treatment.*** *Stopping pollution is as much necessary as stopping any other heinous crimes of homicides and assaults as pollution is acknowledged cause of deaths and diseases and deprivation of access to drinking water.*

22. xxx ……xxx……xxx……

23. ***With regard to the recovery of laid down compensation, it is made clear that the compensation must be faithfully paid by the concerned States by way of deposit to the CPCB which can thereafter be spent for restoration in the same State, as per action plan prepared for the purpose by the State and approved by the NMCG, after due evaluation on the pattern of orders earlier passed by this Tribunal[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.

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

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

22. ***xxx .....xxx.....xxx.....***

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

(viii) Consistent with Digital India initiatives, MoEF&CC/MoJS/CPCB may consider setting up and periodically updating National Environment Data Grid (NEDG) linked to the State Environment Data Grids (SEDGs) DEDGs and further linked to available portals

like online air/water quality, Sameer and other monitoring stations to facilitate analysis, research and planning on the subject. It may be further interlinked to initiatives like NMCG/Swachh Bharat/Jal Jeevan Mission."

Conclusion

37. **In view of the above, we are of opinion that the monitoring by the Tribunal cannot be unending and must now be taken over by the concerned authorities. The roadmap stands laid out. Action plans have been prepared for remediation of all the 351 identified polluted river stretches. Gaps have been identified for ETPs/CETPs/STPs (including modular STPs wherever necessary). Timelines are clear. Sources of funding are clear in the Supreme Court order. HAM model is also available as per Govt. of India Policy mentioned in the report of the CMC. Alternative conventional methods of bio/phytoremediation are also available as mentioned in the report of the CMC. Existing treatment capacity is not fully utilised. New projects, already ongoing or those yet to commence need to be expedited. Consequences for delay in terms of compensation and administrative measures have been clearly mentioned. The river rejuvenation committees in the States/UTs, as per directions of the Chief Secretaries may perform their obligations accordingly which may be monitored by the Central Monitoring Committee, headed by Secretary, Jal Shakti, as directed earlier.**

38. We find that the monitoring mechanism introduced as per directions of this Tribunal in the form of RRCs at the States level and CMC at the Central level is to an extent identical to the monitoring mechanism laid down under the River Ganga Rejuvenation, Protection and Management Authorities Notification 2016. **However, mechanism under the 2016 notification being statutory and exhaustive, it will be better that the**

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