

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

(By Video Conferencing)

Original Application No. 606/2018

**(In respect of State of Rajasthan)**

In re: **Compliance of Municipal Solid Waste Management Rules,  
2016 and other environmental issues**

**(Arising out of directions of the Hon'ble Supreme Court  
in W.P. No. 888/1996 and W.P. No. 375/2012)**

Date of hearing: 15.09.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER**

Present: Ms. Usha Sharma, Chief Secretary Rajasthan  
Shri. Shikhar Agarwal, Principal Secretary Department of Environment &  
Climate Change  
Dr. Joga Ram, Secretary Local Self Government  
Shri Naveen Jain, Secretary Panchayati Raj  
Sri Sandesh Nayak Director, Swachh Bharat Mission

**ORDER**

**The Issue – Monitoring of compliance of waste in terms of orders of  
Hon'ble Supreme Court**

1. The issues of solid as well as liquid waste management are being monitored by this Tribunal as per orders of the Hon'ble Supreme Court order dated 02.09.2014 in *Writ Petition No. 888/1996, Almitra H. Patel vs. Union of India & Ors.*, with regard to solid waste management and order dated 22.02.2017 in W.P. No. 375/2012, reported in (2017) 5 SCC 326, *Paryavaran Suraksha vs. Union of India*, with regard to liquid waste management. Other related issues include pollution of 351 river stretches,

124 non-attainment cities in terms of air quality, 100 polluted industrial clusters, illegal sand mining etc. which have also been dealt with earlier but we propose to limit the proceedings in the present matter to two issues of solid waste and sewage management.

**ORDERS OF THE HON'BLE SUPREME COURT TRANSFERRING THE ISSUE OF SOLID WASTE MANAGEMENT AND LIQUID WASTE MANAGEMENT TO THIS TRIBUNAL:**

**Solid Waste Management**

2. While transferring the issue of solid waste management vide Order dated 02.09.2014 in *Writ Petition No. 888/1996, Almitra H. Patel Vs. Union of India & Ors.*, the Hon'ble Supreme Court observed **“handling of solid municipal waste is a perennial challenge and would require constant efforts and monitoring with a view to making the municipal authorities concerned accountable, taking note of dereliction, if any, issuing suitable directions consistent with the said Rules and direction incidental to the purpose underlying the Rules such as upgradation of technology wherever possible. All these matters can, in our opinion, be best left to be handled by the National Green Tribunal established under the National Green Tribunal Act, 2010. The Tribunal, it is common ground, is not only equipped with the necessary expertise to examine and deal with the environment related issues but is also competent to issue in appropriate cases directions considered necessary for enforcing the statutory provisions.”**

3. Before transferring the said proceedings, matter was monitored by Hon'ble Supreme Court for about eighteen years and orders passed include (2000) 2 SCC 679 and (2004) 13 SCC 538, directing scientific disposal of waste by setting up of compost plants/processing plants, preventing water percolation through heaps of garbage, creating focused **‘solid waste**

**management cells'** in all States and complying with the Municipal Solid Waste Management Rules, 2000 (now replaced by SWM Rules, 2016). **It was observed that the local authorities constituted for providing services to the citizens are lethargic and insufficient in their functioning which is impermissible. Non-accountability has led to lack of effort on the part of the employees.** Domestic garbage and sewage along with poor drainage system in an unplanned manner contribute heavily to the problem of solid waste. The number of slums have multiplied significantly occupying large areas of public land. Promise of free land attracts more land grabbers. **Instead of "slum clearance" there is "slum creation" in cities which is further aggravating the problem of domestic waste being strewn in the open.** Accordingly, the Court directed that provisions pertaining to sanitation and public health be complied with, streets and public premises be cleaned daily, **statutory authorities levy and recover charges from any person violating laws and ensure scientific disposal of waste**, landfill sites be identified keeping in mind requirement of the city for next 20 years and environmental considerations, sites be identified for setting up of compost plants, steps be taken to prevent fresh encroachments and compliance report be submitted within eight weeks. Further observations in the judgment of the Hon'ble Supreme Court<sup>1</sup>are:

*"3. The petitioner has handed over a note in the Court showing the progress that has been made in some of the States and also setting out some of the suggestions, including the suggestion for creation of solid waste management cell, so as to put a focus on the issue and also to provide incentives to those who perform well as was tried in some of the States. The said note states as under:*

*"1. As a result of the Hon'ble Supreme Court's orders on 26-7-2004, in Maharashtra the number of authorisations granted for solid waste management (SWM) has increased from 32% to 98%, in Gujarat from 58% to 92%*

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<sup>1</sup> (2004) 13 SCC 538

and in M.P. from NIL to 34%. No affidavits at all have been received from the 24 other States/UTs for which CPCB reported NIL or less than 3% authorisations in February 2004. All these States and their SPCBs can study and learn from Karnataka, Maharashtra and Gujarat's successes.

2. **All States/UTs and their SPCBs/PCCs have totally ignored the improvement of existing open dumps, due by 31-12-2001**, let alone identifying and monitoring the existing sites. Simple steps can be taken immediately at almost no cost by every single ULB to prevent monsoon water percolation through the heaps, which produces highly polluting black run-off (leachate). Waste heaps can be made convex to eliminate standing water, upslope diversion drains can prevent water inflow, downslope diversion drains can capture leachate for recirculation onto the heaps, and disused heaps can be given soil cover for vegetative healing.
3. **Lack of funds is no excuse for inaction. Smaller towns in every State should go and learn from Suryapet in A.P. (population 103,000) and Namakkal in T.N. (population 53,000) which have both seen dustbin-free 'zero garbage towns' complying with the MSW Rules since 2003 with no financial input from the State or the Centre, just good management and a sense of commitment.**
4. **States seem to use the Rules as an excuse to milk funds from the Centre, by making that a precondition for action and inflating waste processing costs 2-3 fold.** The Supreme Court Committee recommended 1/3 contribution each from the city, State and Centre. Before seeking 70-80% Centre's contribution, every State should first ensure that each city first spends its own share to immediately make its wastes non-polluting by simple sanitising/stabilising, which is always the first step in composting viz. inoculate the waste with cow dung solution or bio culture and placing it in windrows (long heaps) which are turned at least once or twice over a period of 45 to 60 days.
5. Unless each State creates a focussed '**solid waste management cell**' and rewards its cities for good performance, both of which Maharashtra has done, compliance with the MSW Rules seems to be an illusion.
6. **The admitted position is that the MSW Rules have not been complied with even after four years.** None of the functionaries have bothered or discharged their duties to ensure compliance. **Even existing dumps have not been improved.** Thus deeper thought and urgent and immediate action is necessary to ensure compliance in future."

4. In this regard, reference may also be made to orders of Hon'ble Supreme Court in *Municipal Council, Ratlam vs. Vardhichand*<sup>2</sup> and *B.L. Wadhera v. Union of India and Ors.*<sup>3</sup> laying down that **clean environment is fundamental right of citizens under Article 21** and it is for the local bodies as well as the State to ensure that public health is preserved by taking all possible steps. **For doing so, financial inability cannot be pleaded.** We note that even after 26 years of monitoring, 18 years by Hon'ble Supreme Court and eight years by this Tribunal, ground situation remains unsatisfactory.

#### **Liquid Waste Management**

5. Hon'ble Supreme Court in *Paryavaran Suraksha vs. Union of India*<sup>4</sup> required this Tribunal to monitor directions for proper treatment of sewage to prevent untreated sewage and other effluents being discharged in water bodies by directing "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**

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<sup>2</sup> (1980) 4 SCC 162

<sup>3</sup> (1996) 2 SCC 594

<sup>4</sup> (2017) 5 SCC 326

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. 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.”

6. Extracts from the judgement of the Hon’ble Supreme Court in *Paryavaran Suraksha Samiti Vs. Union of India* are as follows:

“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.”

7. Expression ‘Common Effluent Treatment Plants’ in para 7 may infact refer to the STPs, as the context shows.

8. On this subject, inspite of deadline of 31.3.2018 fixed by Hon'ble Supreme Court for preventing discharge of pollutants and rigorous monitoring by this Tribunal for the last five years, ground situation remains unsatisfactory.

**Procedural History of present proceedings before this Tribunal**

9. In the light of above, the Tribunal has considered the matter in the last eight years as far as solid waste management is concerned and more than five years as far as liquid waste management is concerned. Main orders on the subject include orders dated 22.12.2016, 31.08.2018, 16.01.2019, 28.8.2019, 12.09.2019, 6.12.2019, 07.01.2020, 28.02.2020, 02.07.2020, 14.12.2020, 22.2.2021, 30.11.2021, 14.12.2020 and 31.05.2022. First two orders - dated 22.12.2016 and 31.08.2018 deal only with solid waste management. Orders dated 28.8.2019, 6.12.2019 and 22.2.2021 deal with only liquid waste management while the remaining orders deal with solid waste as well as liquid waste management. Issue of liquid waste has also been separately dealt with in OA No. 593/2017 which was finally disposed of on 22.02.2021 with direction that further monitoring be undertaken by Central Monitoring Committee constituted by the said order. It was held that monitoring by the Tribunal cannot be for indefinite time and State authorities are primarily responsible for such monitoring after adequate monitoring by the Tribunal. By the same order, the Tribunal also dealt with the issue of 351 identified polluted river stretches in OA 673/2018. This is apart from individual cases dealing with solid and liquid waste management. A brief reference of these orders will be made hereafter.



**Orders dated 22.12.2016 and 31.08.2018**

10. Vide order dated 22.12.2016, (2016) SCC Online NGT 2981, the issue of Solid Waste Management was disposed of requiring strict compliance of Solid Waste Management Rules, 2016 by all the States/UTs making it clear that if violations continue, the State will be liable to pay compensation. Later, matter was taken up to ascertain compliance status and finding that all the States/UTs were still non-compliant in the matter, the matter was again taken up and fresh directions issued for monitoring by the Tribunal constituted Monitoring Committees vide order dated 31.08.2018. Later, continuance of the committees was left to discretion of the States, depending on their own monitoring mechanism.

**Order dated 16.01.2019 requiring personal presence of Chief Secretaries of all States and UTs to explore remedial action after interaction with them and further orders**

11. In view of continuing non-compliances, vide order dated 16.01.2019, the Tribunal directed personal presence of Chief Secretaries of all States and UTs for interaction to ensure compliance. The Tribunal held that large scale non-compliance of environmental norms was resulting in deaths and diseases and irreversible damage to the environment, without accountability for such failures. Though violation of the Rules as well as orders of this Tribunal is criminal offence, still there was rampant violation by State authorities practically with no accountability which unhappy situation was required to be remedied by involvement of highest functionaries of the State in the interest of public health and to uphold rule of law.

12. In terms of order dated 16.1.2019, the Chief Secretaries of all the States/UTs appeared on different dates till 18.07.2019 and the Tribunal, after reviewing the status of noncompliance on most of the issues, directed

further effective steps to be taken for compliance of the Rules and the environmental norms. The Chief Secretary of Rajasthan appeared on 16.04.2019 and following directions were issued:

*“43. In view of above, after discussion with the Chief Secretary, following further directions are issued:*

- i. Steps for compliance of Rules 22 and 24 of SWM Rules be now taken within six weeks to the extent not yet taken. Similar steps be taken with regard to Bio-Medical Waste Management Rules and Plastic Waste Management Rules.*
- ii. Atleast three major cities/towns in the State and atleast three Panchayats in every District may be notified on the website within two weeks from today as model cities/towns/villages which will be made fully compliant within next six months.*
- iii. The remaining cities, towns and Village Panchayats of the State may be made fully compliant in respect of environmental norms within one year.*
- iv. A quarterly report be furnished by the Chief Secretary, every three months. First such report shall be furnished by July 20, 2019.*
- v. Estimate of value of environmental degradation and cost of restoration be prepared and compensation be planned and recovered from polluters for environmental restoration and restitution on that basis.*
- vi. The Chief Secretary may personally monitor the progress, atleast once in a month, with all the District Magistrates.*
- vii. The District Magistrates or other Officers may be imparted requisite training.*
- viii. The District Magistrates may monitor the status of compliance of environmental norms, atleast once in two weeks.*
- ix. Performance audit of functioning of all regulatory bodies may be got conducted and remedial measures be taken, within six months.”*

13. The Chief Secretary of Rajasthan appeared again on 31.01.2020 and the Tribunal inter-alia issued following directions:

*“38. In view of above, consistent with the directions referred to in Para 29 issued on 10.01.2020 in the case of UP, Punjab and*

Chandigarh which have also been repeated for other States in matters already dealt with, we direct:

- a. *In view of the fact that most of the statutory timelines have expired and directions of the Hon'ble Supreme Court and this Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted, compensation scale is hereby laid down for continued failure after 31.03.2020. The compliance of the Rules requires taking of several steps mentioned in Rule 22 from Serial No. 1 to 10 (mentioned in para 12 above). Any such continued failure will result in liability of every Local Body to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body from 01.04.2020 till compliance. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal.*
- b. *Legacy waste remediation was to 'commence' from 01.11.2019 in terms of order of this Tribunal dated 17.07.2019 in O.A. No. 519/2019 para 28<sup>5</sup> even though statutory timeline for 'completing' the said step is till 07.04.2021 (as per serial no. 11 in Rule 22), which direction remains unexecuted at most of the places. Continued failure of every Local Body on the subject of commencing the work of legacy waste sites remediation from 01.04.2020 till compliance will result in liability to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal.*
- c. *Further, with regard to thematic areas listed above in para 20, steps be ensured by the Chief Secretaries in terms of directions of this Tribunal especially w.r.t. plastic waste, bio-medical*

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<sup>5</sup> The Chief Secretaries may ensure allocation of funds for processing of legacy waste and its disposal and in their respective next reports, give the progress relating to management of all the legacy waste dumpsites. Remediation work on all other dumpsites may commence from 01.11.2019 and completed preferably within six months and in no case beyond one year. Substantial progress be made within six months. We are conscious that the SWM Rules provide for a maximum period of upto five years for the purpose, however there is no reason why the same should not happen earlier, in view of serious implications on the environment and public health.

waste, construction and demolition waste which are linked with solid waste treatment and disposal. Action may also be ensured by the Chief Secretaries of the States/UTs with respect to remaining thematic areas viz. hazardous waste, e-waste, polluted industrial clusters, reuse of treated water, performance of CETPs/ETPs, groundwater extraction, groundwater recharge, restoration of water bodies, noise pollution and illegal sand mining.

- d. *The compensation regime already laid down for failure of the Local Bodies and/or Department of Irrigation and Public Health/In-charge Department to take action for treatment of sewage in terms of observations in para 34 above will result in liability to pay compensation as already noted above which are reproduced for ready reference:*
  - i. *Interim measures for phytoremediation/bioremediation etc. in respect of 100% sewage to reduce the pollution load on recipient water bodies – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per drain by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.*
  - ii. *Commencement of setting up of STPs – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.*
  - iii. *Commissioning of STPs – 31.03.2021. Compensation is payable for failure to do so at the rate of Rs. 10 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2021.*
- e. *Compensation in above terms may be deposited with the CPCB for being spent on restoration of environment which may be ensured by the Chief Secretaries' of the States/UTs.*
- f. *An 'Environment Monitoring Cell' may be set up in the office of Chief Secretaries of all the States/UTs within one month from today, if not already done for coordination and compliance of above directions which will be the responsibility of the Chief Secretaries of the States/UTs.*
- g. *Compliance reports in respect of significant environmental issues may be furnished in terms of order dated 07.01.2020 quarterly with a copy to CPCB."*

14. **In short, the Tribunal expected three model cities, towns and villages to be made compliant in six months and the remaining State with one year. It was this target for the State by setting up of environmental cells directly under the Chief Secretaries, regular periodical monitoring by the Chief Secretaries at the State level and by the District Magistrates at the District level.** Further direction also was to take action for non-compliance by recovery of compensation and recording adverse ACRs against erring officers. The Tribunal also directed filing of quarterly reports by the Chief Secretaries. Based on such reports, CPCB was to file consolidated status reports. The Chief Secretaries were to appear again after six months with updated status of compliance. **It is difficult to hold that the State has taken directions of the Tribunal seriously or even endeavoured to go by this mandate. Even after three years, neither there is adequate compliance nor the same has been projected in immediate future. No accountability fixed, no performance audit shown to have been conducted and no entries in ACRs are shown to have been made. There is nothing to show that compensation has been recovered in terms of directions of the Tribunal. The State assumes that none is responsible for such gross violations of law and directions of Hon'ble Supreme Court and this Tribunal. It is difficult to say how rule of law will be achieved. We thus record our disappointment with the attitude of the State and hope the State makes amends in compliance now.**

15. The Tribunal has been receiving progress reports from States as well as monitoring Committees wherever functioning which have been considered by further orders.

**Further Review after completing round of interaction with all Chief Secretaries by order dated 12.9.2019**

16. The matter was then reviewed on 12.09.2019 in the light of report of the CPCB dated 09.09.2019 **showing wide gaps in compliance of solid waste, plastic waste, bio-medical waste management, rejuvenation of identified polluted river stretches, polluted industrial clusters and non-attainment cities.** A fresh schedule for appearance of the Chief Secretaries was issued. Vide order dated 07.01.2020, the Tribunal directed CPCB to ascertain Compliance of Solid Waste Management Rules, 2016 in terms of MSW generated, segregated and treated, gaps in the waste processing, enforcement of statutory timelines and orders of this Tribunal, number of sites remediated, and quantity of legacy waste therein and timelines for completing remediation. It was further directed that on the subject of sewage treatment, CPCB has to ascertain quantity of sewage generated and treated in the State, gap in the sewage treatment and timelines to bridge the gap, including strategy for use of treated water for secondary purpose. CPCB was accordingly directed to redesign its formats for securing relevant quantifiable information.

**Order dated 28.02.2020**

17. Accordingly, the Chief Secretaries of 18 States/UTs appeared and filed updated status reports. Since there still existed huge gaps in compliance, further directions were issued by way of different orders. Last such order is of 28.2.2020. Other orders are on same pattern. The direction part of the said order is reproduced below:

*“41. In view of above, consistent with the directions referred to in Para 29 issued on 10.01.2020 in the case of UP, Punjab and Chandigarh which have also been repeated for other States in matters already dealt with, we direct:*

- a. In view of the fact that most of the statutory timelines have expired and directions of the Hon’ble Supreme Court and this Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted, **interim***

**compensation scale is hereby laid down for continued failure after 31.03.2020. The compliance of the Rules requires taking of several steps mentioned in Rule 22 from Serial No. 1 to 10 (mentioned in para 12 above). Any such continued failure will result in liability of every Local Body to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body from 01.04.2020 till compliance. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal. Final compensation may be assessed and recovered by the State PCBs/PCCs in the light of Para 33 above within six months from today. CPCB may prepare a template and issue an appropriate direction to the State PCBs/PCCs for undertaking such an assessment in the light thereof within one month.**

- b. Legacy waste remediation was to 'commence' from 01.11.2019 in terms of order of this Tribunal dated 17.07.2019 in O.A. No. 519/2019 para 28<sup>6</sup> even though statutory timeline for 'completing' the said step is till 07.04.2021 (as per serial no. 11 in Rule 22), which direction remains unexecuted at most of the places and delay in clearing legacy waste is causing huge damage to environment in monetary terms as noted in para 33 above, pending assessment and recovery of such damage by the concerned State PCB within four months from today, continued failure of every Local Body on the subject of commencing the work of legacy waste sites remediation from 01.04.2020 till compliance will result in liability to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local**

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<sup>6</sup> The Chief Secretaries may ensure allocation of funds for processing of legacy waste and its disposal and in their respective next reports, give the progress relating to management of all the legacy waste dumpsites. Remediation work on all other dumpsites may commence from 01.11.2019 and completed preferably within six months and in no case beyond one year. Substantial progress be made within six months. We are conscious that the SWM Rules provide for a maximum period of upto five years for the purpose, however there is no reason why the same should not happen earlier, in view of serious implications on the environment and public health.

**Body. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal. Final compensation may be assessed and recovered by the State PCBs/PCCs in the light of Para 33 above within six months from today.**

- c. Further, with regard to thematic areas listed above in para 20, steps be ensured by the Chief Secretaries in terms of directions of this Tribunal especially w.r.t. plastic waste, bio-medical waste, construction and demolition waste which are linked with solid waste treatment and disposal. Action may also be ensured by the Chief Secretaries of the States/UTs with respect to remaining thematic areas viz. hazardous waste, e-waste, polluted industrial clusters, reuse of treated water, performance of CETPs/ETPs, groundwater extraction, groundwater recharge, restoration of water bodies, noise pollution and illegal sand mining.
- d. The compensation regime already laid down for failure of the Local Bodies and/or Department of Irrigation and Public Health/In-charge Department to take action for treatment of sewage in terms of observations in Para 36 above will result in liability to pay compensation as already noted above which are reproduced for ready reference:
  - i. **Interim measures for phytoremediation/bioremediation etc. in respect of 100% sewage to reduce the pollution load on recipient water bodies - 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per drain by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.**
  - ii. **Commencement of setting up of STPs - 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.**
  - iii. **Commissioning of STPs - 31.03.2021. Compensation is payable for failure to do**



**so at the rate of Rs. 10 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2021.**

- e. Compensation in above terms may be deposited with the CPCB for being spent on restoration of environment which may be ensured by the Chief Secretaries' of the States/UTs.
- f. An 'Environment Monitoring Cell' may be set up in the office of Chief Secretaries of all the States/UTs within one month from today, if not already done for coordination and compliance of above directions which will be the responsibility of the Chief Secretaries of the States/UTs.
- g. Compliance reports in respect of significant environmental issues may be furnished in terms of order dated 07.01.2020 quarterly with a copy to CPCB."

18. Timelines under the Rules referred to in sub para (a) above are :

**“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:

<b>Sl. No.</b>	<b>Activity</b>	<b>Time limit from the date of notification of rules</b>
(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	2 years

	<i>transportation of construction and demolition wastes.</i>	
7.	<i>setting up solid waste processing facilities by all Local Bodies having 100000 or more population.</i>	<i>2 years</i>
8.	<i>Setting up solid waste processing facilities by Local Bodies and census towns below 100000 population.</i>	<i>3 years</i>
9.	<i>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.</i>	<i>3 years</i>
10.	<i>setting up common or regional sanitary landfills by 3 years all Local Bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules.</i>	<i>3 years</i>
11.	<i>bio-remediation or capping of old and abandoned dump sites.</i>	<i>5 years</i>

19. **Our comments with regard to compliance of directions dated 28.2.2020 remain the same as in para 13 above.**

**Order dated 02.07.2020**

20. The matter was then considered on 02.07.2020. Having regard to the pandemic, appearance of remaining Chief Secretaries was deferred.

**Order dated 14.12.2020**

21. The matter was further considered on 14.12.2020 for review of progress. Scheduled appearance of remaining Chief Secretaries was dispensed with but it was directed that monitoring at the level of Chief Secretaries may continue and quarterly status reports be filed with CPCB so that CPCB may file a consolidated report every six months before the Tribunal. It was further directed that compensation in terms of earlier orders be recovered and credited to a separate account with the Environment Department of concerned State to be used for restoration of environment. It was also observed that in these proceedings Solid Waste

Management also will be monitored, other issues being considered in separate proceedings.

22. **As already noted above, there is nothing to show compliance by the State of Rajasthan on the issue of deposit of compensation and its utilization as directed.**

**Further review on 30.11.2021 – huge gaps still found and hence, another round of interaction with Chief Secretaries proposed**

23. The matter was thereafter taken up on 30.11.2021 to consider the report of CPCB dated 25.10.2020 giving compliance status in 32 States/UTs as in March, 2021 as follows:-

**“Solid Waste Management**

**4.0 SUMMARY & CONCLUSIONS**

- a. *Total No. of ULBs in 29 States/UTs is 4186.*
- b. ***As per information provided by 29 States/UTs - total waste generated is 150858.951 TPD of which 94435.318 TPD is processed, which is 62.6% of the total waste generated in these States/UT. 11772.4538 TPD (7.8%) of the waste is landfilled and the gap in Solid waste management in 29 States is 45071.771 TPD which is 29.8% of the waste generated in these States/UTs.***
- c. *Information on MRF has been provided for 28 States/UTs covering 77% of ULBs in these States/UTs.*
- d. *Information on Recycling facilities have been provided for 22 States/UTs covering 39% of ULBs in these States/UTs*
- e. *Information on Composting facilities has been provided for all 29 States/UTs covering 70% of ULBs in these States/UTs*
- f. *Information on WtE has been provided for 25 out of 29 States/UTs covering 1.9% of ULBs in these States/UTs.*
- g. *Information on RDF has been provided for 24 out of 29 States/UTs covering 12.4% of ULBs in these States/UTs.*
- h. *Information on Bio-methanation has been provided for 27 out of 29 States/UTs covering 7.1% of ULBs in these States/UTs.*
- i. ***Information on Landfills has been provided in 24 out of 29 States/UTs covering 18.9% of ULBs in the States.***

- j. 498 of 2111 (23%) dumpsites in 25 States/UTs have been cleared and Remediation has been initiated in 23% (496) of the dumpsites.
- k. Model Town/ Cities have been identified in 25 States/UTs.
- l. 16 States /UTs have established environmental cells.
- m. 15 States /UTs have standardised rates for procurement of services/equipment required for solid waste management.**
- n. *In view of above, States/UTs need to develop of ULB wise action plan for collection, segregation, transportation and processing of waste and lay down an appropriate governance framework at state and district levels.”*

24. The Tribunal in its order dated 30.11.2021 observed:-

**“1to17....xxxx.....xxx.....xxx**

**18. We are of the view that hence forthwith proceedings in this matter need to cover Solid Waste Management and Sewage Management, these issues being crucial and required to be monitored by this Tribunal by the Hon’ble Supreme Court. Absence of management of waste results in adding to air and water pollution in a big way. All the legacy waste dump sites in the country need to be remediated to reduce methane gas, foul smell and leachate and also to release valuable land occupied by such sites which can be used for waste management/plantation or raising funds. Waste collected must be scientifically processed and disposed at the earliest in the interest of hygiene and public health. It needs to be ensured that instead of remediating the legacy waste sites, the garbage is not shifted to new sites which is not a solution to the problem. It only results in shifting the problem from one place to the other without any advancement of environment protection. What is necessary is that the garbage must be finally disposed of and land reclaimed. The authorities must move towards zero garbage at the end of the day by ensuring that instead of garbage being collected and dumped, it is taken to destination where it is finally processed scientifically and appropriately, except for reused/recycling of such residues as is possible. This is also the mandate of Swachh Bharat Mission, initiated by the Central Government. Similarly, sewage has to be scientifically treated to give effect to the mandate of Water (Prevention and Control of Pollution) Act, 1974 in the interest of availability of clean water in rivers and other waterbodies. Central Governments programmes also provide for initiatives on these subjects. On both aspects, compensation regime has been laid down which is necessary to enforce the rule of law and for protection of environment and public health. The compensation laid down has to be duly collected and utilized for restoration of environment, by being kept in a separate account. Accountability for the failures needs to be fixed by**

***way of ACRs and departmental action as such failures result in crimes under the law of land and damage to public health. Such failure is also breach of Constitutional obligation to uphold the Right to Life. The country is committed to Sustainable Development Goals of providing clean air and safe drinking water.***

***19. In view of above, continued failure of Rule of Law must be remedied in terms of mandate of orders of the Hon'ble Supreme Court in Writ Petition No. 888/1996, Almitra H. Patel Vs. Union of India & Ors. and Paryavaran Suraksha vs. Union of India,<sup>7</sup> followed by orders of this Tribunal. It is necessary that Chief Secretaries continue the monitoring and interact with this Tribunal periodically by video conferencing. Accordingly, we lay down following further schedule for personal appearance of the Chief Secretaries, by Video Conferencing, with the status of compliance in respect of each of the States/UTs on the subject of Solid Waste Management and Sewage Management. The data to be furnished should cover all categories of areas in the State – big cities, towns and villages.***

***20. The hearing on each of above dates will commence at 10:30 a.m. sharp. The Chief Secretaries may not delegate the responsibility. As far as possible, they may adjust other work for which long advance notice is being given. In case adjustment is found difficult for any unforeseen reason, request for change of date may be mailed by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in).***

*21. All the States/CPCB may undertake process of verification of data after having interaction on video conferencing with the concerned States/UTs within one month. The Secretaries, Environment, Urban Development Department and Irrigation Department may also coordinate with the Member Secretaries of State Legal Services Authorities in all State/UTs in the light of background mentioned in paras 3 and 4 above for the awareness programmes on the subject.”*

**Separate orders dated 28.8.2019, 12.9.2019, 6.12.2019 and 22.02.2021 on the subject of Liquid Waste Management**

25. Issue of liquid waste management was separately dealt with in OA 593/2017 on directions of Hon'ble Supreme Court and in suo motu proceedings for restoration of 351 identified polluted river stretches in OA 673/2018. Vide order dated 28.08.2019, the Tribunal directed that 100% sewage treatment must be ensured by all local bodies. Vide further order

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<sup>7</sup> (2017) 5 SCC 326

dated 06.12.2019 in O.A. No. 673/2018<sup>8</sup>, the Tribunal directed that for failure to commence in-situ remediation, compensation will be payable at the rate of Rs. 5 lakh per month per drain after 31.03.2020 and for failure to commence setting up of STPs after 31.03.2020 compensation is to be paid at the rate of Rs. 5 lakh per month per STP. For failure to complete the project, compensation has to be paid at the rate of Rs. 10 lakh per STP per month after 31.03.2021. Relevant part of the order is quoted below:

***“47. (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.”**

26. Both the matters were disposed of vide order dated 22.02.2021 with a direction that further monitoring be continued at the level of the Chief Secretaries in States and Central Monitoring Committee headed by Secretary, Ministry of Jal Shakti at the national level.

**Today’s hearing in the presence of Chief Secretary, Rajasthan to ascertain compliance status and way forward**

**Compliance status in Rajasthan presented**

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<sup>8</sup> News item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB"

27. The presentation filed by the Chief Secretary, Rajasthan on 15.09.2022 shows following data:

**SUMMARY OF STATUS**

<b>A: Solid Waste Management*</b>					
Quantity of waste generation in the State (in TPD)	Waste Processed (in TPD)	Gap in generation and Processing (in TPD)	Quantity of waste being disposed in landfills (in TPD)	Quantity of Legacy waste in the State (Tones)	Status of Bio-mining
6523 (196 ULBs)	3534	2989	2989	88 lakh cu. m. in 176 UBLs	Work completed for 2.62 lakh cu. m. and still 85.38 lakh cu. m. has to be remediated

\* Data taken from page no. 4 and 18 of the presentation filed by the Chief Secretary.

<b>B): Sewage Management** (in 68 out of 196 cities)</b>					
Quantity of sewage generation in the State (in MLD)	Treatment and Utilization capacity (in MLD)	Current Gap in treatment (in MLD)	Utilization of treated sewage in		
			Agriculture/ Horticulture purpose	Industrial purpose	Any other purpose
1551 MLD	Existing treatment capacity 1085 mld  Utilization level 700 mld	851	264 mld		

\*\* Data taken from page no. 22 of the presentation filed by the Chief Secretary.

**Our Observations findings and Directions**

28. It is disappointing to see from the data presented by the Chief Secretary that after 31.1.2020 when the Chief Secretary, Rajasthan last appeared before the Tribunal in the present matter, there is no meaningful progress as there exists huge gap in management of solid and liquid waste.

29. **On the issue of solid waste management**, unremediated legacy waste in 176 ULBs is to the extent of 88 lakh cu.m. (one cu.m. corresponds roughly to one tonne). Data for rural areas has not been given except relating to sanitation and prospective plans. Data also indicates that out of 176 dump sites having 88 lakh cu. m. of legacy waste, only 15 sites have been cleared corresponding to 2.3 cu.m. of waste. Further, more unprocessed waste is being added on daily basis to the extent of 2989 Tonne per day (TPD). As per the presentation, 3534 TPD of waste is processed out of 6523 which is equivalent to 54.18% of waste generation in the State. As per reply given by the Ministry of Housing and Urban Affairs to an unstarred question No. 1882 on July 28, 2022 in Lok Sabha, total waste generation in the State of Rajasthan is 7345 MT/D and the total waste processing is 33%.<sup>9</sup> Dump sites in operation as well as the legacy waste dump sites remain source of air, water and land pollution resulting in damage to environment and public health. In recent order of the Tribunal dated 18.08.2022 in RA No. 21/2022 in OA No. 286/2022, two scientific studies on the subject of environmental damage have been referred to. These are reproduced below:

*“7. ...Legacy waste dumpsites are serious threat to public health and also source of generation of greenhouse gases. The Tribunal considered the issue of quantification of loss to environment by legacy waste dump sites inter alia in OA 514/2018 and OA 519/2019. Orders passed show that as per expert studies, loss for such failure, due to release of pollutants in air atmosphere, release of leachate into ground / surface water and soil, due to pollution from the landfill site, damage cost associated with climate change due to carbon di-oxide and methane, damage caused due to aesthetics loss, price depreciation due to disamenity cost etc., is huge running in hundreds of crores. Some of the orders showing this are quoted below:*

**Order dated 23.03.2020 in O.A. No. 519/2019**

“xxxx.....xxx.....xxx

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<sup>9</sup> <http://164.100.24.220/loksabhaquestions/annex/179/AU1882.pdf>



18. We may observe that non-compliance of rules relating to waste disposal results in damage to the environment and public health. Any failure needs to be visited with assessment and recovery of compensation for such damage from the persons responsible for such failure. **A study was recently got conducted by CPCB, under orders of this Tribunal requiring such a study by a joint Committee comprising CPCB, NEERI and IIT, Delhi about the monetary cost of damage caused to the environment on account of existence of legacy waste dump site at Gurgaon (Bandhewadi) vide order dated 05.03.2019 in O.A. No. 514/2018. The report of the CPCB filed on 13.02.2020 is that damage on account of the said legacy waste dump site was Rs. 148.46 crore, on account of damage to the air quality, soil and water quality, climate change and disamenity (aesthetic).** The damage has been assessed in terms of impact on health due to release of pollutants in air atmosphere, release of leachate into ground / surface water and soil, due to pollution from the landfill site, damage cost associated with climate change due to carbon di-oxide and methane, damage caused due to aesthetics loss, price depreciation due to disamenity cost etc.
19. Thus, monetary cost of every legacy dump site is expected to be huge depending upon the location, quantity and quality of waste and area covered, its proximity to water body/ stream and human habitation etc. Needless to say that there is huge cost for non-compliance of provisions relating to waste management – Solid as well as Liquid. Loss to the environment and public health is taking place not only on account of delay in clearing legacy waste but also for not complying with other provisions of the Rules resulting in huge gap in generation and processing of waste. It may be necessary to determine such cost for delay in clearing legacy waste at every dump site as well as for delay in complying with other rules and failure to treat sewage and recover the same from the persons responsible for action in the matter. **Let the Committee comprising CPCB, NEERI & IIT Delhi carry out similar study as mentioned in Para 18 above to assess the amount of damage to environment on account of dump sites in Delhi within two months.”**

**Order dated 29.01.2021 in O.A. No. 519/2019**

“6. Accordingly, status report dated 28.01.2021 has been filed by the CPCB as follows:-

**“2.0 Action Taken :-**

**In compliance of Para 19 of aforesaid Hon'ble NGT's Order, Joint committee comprising of following members has been formed:**

- Dr. S. K. Goyal, Chief Scientist and Head, NEERI Delhi Zonal Center
- Dr. G .V .Ramanna, Professor, Department. of Civil Engg., IIT-Delhi
- Ms D. Sinha, DH- UPC-II, CPCB
- Mr. P. Agarwal, Scientist-E, CPCB

Report on "**Assessment of amount of damage to environment on account of dumpsites in Delhi**" as prepared by Joint committee is placed at **Annexure-A**. Amount of Damage to Environment due to three dumpsites of Delhi to be levied on Municipal Corporations of Delhi is given in the following table:

<b>S.No.</b>	<b>Name of Municipal Corporation</b>	<b>Name of Dumpsite</b>	<b>Damage Cost assessed, (Rupees)</b>
1.	NDMC (North Delhi Municipal Corp.)	Bhalswa	155.9 Crore
2.	EDMC (East Delhi Municipal Corp.)	Ghazipur	142.5 Crore
3.	SDMC (SouthDelhi Municipal Corp.)	Okhla	151.1 Crore

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

7. Report of inspection conducted by the joint Committee comprising of the CPCB, NEERI and IIT Delhi is filed with following summary and conclusion:

**“5.0 SUMMARY & CONCLUSION :**

- i. Hon'ble NGT in OA No. 519/2019 constituted a Committee comprising of CPCB, NEERI & IIT Delhi to assessment of damage to environment due of dump sites in Delhi within two months.
- ii. Baseline information was collected by Committee through Questionnaire sent to three concerned Municipal Corporations (MCs). As per the information provided by the MCs, bio mining is being carried out at all three sites. **However, about 6% of waste has been bio-remediated at the three sites.** Further, fresh waste is being dumped at all three dumpsites.
- iii. Potential sources of air pollution at the sites include handling of fresh waste, Bio mining of legacy waste, Methane and other Green House gases from the Dumpsite , transportation of fresh waste & screened

*fractions, Odour & Fire accidents. Potential sources of water pollution at the sites includes Leachate which is being generated at all the three dumpsites*

- iv. Air Pollution control measures taken at site includes mainly includes sprinkling of water. It has been informed by the authorities that smog guns are being procured for control of air pollution. **No concrete measures for leachate collection and treatment have being taken at the three dumpsites. Leachate is partially being recirculated for stabilization of waste and the remaining is being discharged into nearby surface water drains. Actual details regarding quantity of leachate used/ discharged not provided by the concerned authorities***
- v. Concentration of TDS, TSS, COD & BOD in leachate exceeds the stipulated norms at all the three dumpsites. Concentration of Heavy metals is within the stipulated norms with the exception of lead which has marginally exceeded the permissible limits at Ghazipur. Assessment of Ambient Air, Surface & Ground Water quality is based on monitoring data of CPCB for the past three years. Zone of impact has been considered to be 5 km and information related to monitored stations located within and beyond this radius has been compiled and analysed. In addition, information provided by Delhi Pollution Control Committee regarding ground water monitoring has been taken into consideration.*
- vii. **As per air quality monitoring data, PM<sub>10</sub> & PM<sub>2.5</sub> concentrations exceeded the prescribed values at all monitored stations upto 5 km distance & beyond from the Dumpsite sites. SO<sub>2</sub> & NH<sub>3</sub> concentrations are within the prescribed values at all monitored stations. Benzene has exceeded the stipulated limited at one station and NO<sub>x</sub> has exceeded the permissible limit at 7 monitored stations.***
- viii. **As per the water quality monitoring data, concentration value of Arsenic, Chromium, Copper, Chloride, TDS, Fluoride, Cadmium and Iron exceeded the permissible limits at specified locations of Surface & Ground Water***

**locations. Besides COD was detected at several stations monitored.** As heavy metals (except iron) concentration in leachate was within specified norms and Chloride and TDS were within the permissible drinking water limits (BIS 10500) at most stations monitored, further analysis was done in terms of COD & Fe concentration levels and following are the observations:

- **High level of COD & Fe reported in Ground water at all three sites in Ground water which may be due to leachate from the dumpsite**
- **Very High level of COD, Chloride, TDS, TSS, Turbidity reported in surface water body (Bhalswa lake) located within a radius of 0-1 km from Bhalswa site, which may be due to leachate from the dumpsite**
- **High COD values reported in surface water body (Sanjay Lake) located at a distance of 3-5 km from Ghazipur site. Owing to the distance from the site, actual impact due to dumpsite can be confirmed based on the hydrogeology of the region and contaminant transport modelling**
- **Fluctuating trend in Iron & COD concentration in ground water observed within 5 km radius at the three sites. Overall increase in Iron and COD levels observed with increase in distance from the dumpsites, indicating, marginal impact on ground water quality due to dumpsite within 5 km distance from dumpsite**
- **Ground water outside 5 km radius have reported higher value of COD & Fe than stations located within 5 km radius, indicating minimal impact of dumpsite on ground water quality. Local factors are contributing in deterioration in water quality at these stations**
- **As several sources of water pollution including open drains observed in these regions, actual impact of the local sources as well as that of the dumpsite can be confirmed based on the hydrogeology of the region and contaminant transport modelling**

- ix. There are currently 37 Continuous Air Quality monitoring locations in Delhi, of which 10 are located within a distance of 5 km from the dumpsites.
- x. Range in variation in PM2.5 & PM10, NOx & Benzene concentration levels within 5 km overlaps the range observed for stations located at distance greater than 5 km from dumpsites. Fluctuating trend is observed in NOx /Benzene concentration levels vis-a-vis distance from the dumpsite.
- xi. Several local factors such as drains, road dust, vehicular pollution, C&D waste etc. also contribute towards air & water pollution in the region.  
As per analysis of air and water quality carried out, deterioration in environmental quality cannot be attributed directly to the various activities happening at the dumpsites. **As further detailed investigations are required to assess actual impact of the dumpsite related activities on the environment (air, water & soil quality), interim cost of damage to environment is based on the Environmental Compensation to be levied for violation of Solid Waste Management Rules, 2016. Cost of damage to environment has been calculated based on the Environmental Compensation to be levied for violation of Solid Waste Management Rules and has been assessed as Rs.155.9 Crore (for Bhalswa), Rs. 142.5 Crore (for Ghazipur) and Rs. 151.1 Crore (for Okhla).**
- xii. Source apportionment studies are required to assess the actual impact of air pollution sources at dumpsite on air quality in the region.
- xiii. Detailed hydrogeological investigations and containment transport modelling is required to assess the impact of dumpsites on surface / ground water.”

8. As shown above, in O.A. No. 514/2018, damage to the environment was assessed at Rs. 148.46 crores for Air pollution, Water pollution, Soil pollution, Climatic (GHG emissions) and Aesthetics has been taken into consideration in the report and damage cost to environment is estimated at Rs 148.46 crores. The report has following conclusions:-

**“7. Results & Conclusion**

The report focuses on identifying and estimating monetary losses (in 2019 Rupees) on the environment due to the operation of Bandhwari municipal dumpsite. The damage was assessed with a consideration that there is no major polluting industries existing in nearby vicinity other than the dumpsite. The study estimates a total incurred damage of about ₹ 148.46 Crore due to externalities from Bandhwari dumpsite. The breakup is shown in Table 22. The cost for damages includes drivers of externalities like greenhouse gas emissions, air pollution, water pollution, soil pollution and aesthetic loss.

**Table 22:** Break Up of Monetary Estimation of Damages (reported in 2019 values)

<b>Environment</b>	<b>Estimated Damage Cost in Lakhs, INR</b>
Air	Nil
Water	2900
Soil	31*
Climatic (for last 5 years)	7,000
Aesthetic	4,946
<b>Total</b>	<b>14,846</b>

\*Soil value is not considered in total, to avoid double-counting, as it based on total quantum of heavy metal from leachate which is considered in water as well.

The valuation of damages is done for greenhouse gas emissions using social cost of carbon approach recommended by USEPA. The social cost of carbon is indirect measure of loss in economy due to emission of CO<sub>2</sub> and is contributing by 73% of total damage due to Bandhwari municipal dumpsite. Air pollution damages are not valued as the emissions hardly breach the limits and the area in which emissions are higher, no population exposure is there. Further, the leachate contaminated groundwater and soil damages are valued using cost transfer method and Extern report valuations. Groundwater sample analysis shows lead and nickel exceeding the BIS standards at sampling locations near the dumpsite. Groundwater beneath the dumpsite showed high contamination due to heavy metals such as Cr, Cu, Pb & Ni. Physiochemical characteristics such as BOD, COD, SS, N, P of the treated leachate showed higher concentration and have contributed to half of the total damage cost in water environment. The leachate is valued for the damages which it can cause due to contamination of soil and water. The damages to water are considered as overall damages. The total quantum of heavy metals due

*to leachate is fixed and is used for valuation for both soil and water, however, higher damages are seen for water and hence considered in total. Aesthetic losses due to dumpsite are valued using hedonic pricing method. GHG emissions are a part and parcel of any dumpsite. If proper control systems are kept in place these emissions can be controlled and may be utilized as well and hence maximum damages can be averted. Leachate also should be controlled and treated scientifically.”*

30. In view of above, since statutory timelines for remediation of legacy waste have expired, liability of the State for past violations has to be quantified on ‘Polluter Pays’ principle to be utilised for restoration of the environment. Further steps have to be taken in a mission mode.

31. **On the issue of liquid waste/sewage**, gap mentioned is 851 MLD. However, since data covers only 68 out of 196 cities, further gap has to be inferred on estimated basis. Further, the data does not cover the compliance status in rural areas which mentions that with reference to liquid and solid waste management alongwith other components, 50% of villages are targeted for appropriate arrangement upto March 2024. Figure of utilisaton of treated sewage is to an extent of 264 MLD which shows that much work remains to be done. Keeping these factors in mind, if we add 400 MLD for the remaining State (area beyond 68 cities with FSTP arrangement) total gap appears to be not less than 1250 MLD. The State needs to extensively focus on sewage utilization by adopting/replicating models practiced in the State by the industries (referred at page 24 of the CS’s presentation). Unless treated sewage is usefully deployed for non-potable purpose, potable water may be used for such purposes and sewage may mix with potable water or go to storm water drains or rivers which has to be avoided. Timeline for the establishing requisite treatment systems in terms of judgment of Hon’ble Supreme Court in *Paryavaran Suraksha vs. Union of India*, supra has long expired. This Tribunal had

also directed that for delay after 01.04.2020, coercive measures are to be taken. Till the gaps are bridged, untreated liquid waste will continue to remain source of degradation of environment and damage to public health, including deaths and diseases which the society can ill afford. Hence, the urgency of the situation for good governance for ensuring emergent measures in public interest to protect the environment, natural resources and public health as per mandate of the Constitution. We have to levy compensation for continuing violation on polluter pays principle to be utilised for restoration measures.

32. As already noted and observed in the judgement of the Hon'ble Supreme Court in *Paryavaran Surakhsha*, supra, quoted earlier, the matter falls in 12<sup>th</sup> Schedule to the Constitution and it is constitutional responsibility of the State and the Local Bodies to provide pollution free environment and to arrange funds. Being part of right to life, which is also basic human right and absolute liability of the State, lack of funds cannot be plea to deny such right. While there may be no objection to any central funds being availed, the State cannot avoid its responsibility or delay its discharge on that pretext.

33. It is a matter of concern that even after 48 years of enactment of Water (Prevention and Control of Pollution) Act, 1974 and expiry of timelines for taking necessary steps for solid waste management in terms of Solid Waste Management Rules, 2016 and binding direction in the judgment of the Hon'ble Supreme Court and this Tribunal in *Almitra H. Patel vs. Union of India & Ors.* and *Paryavaran Surakhsha vs. Union of India*, supra, huge gaps still exist. Are there insurmountable difficulties for State authorities or lack of will and determination? We find it difficult to believe



the first. In our view, it is lack of good governance and determination responsible for the situation which needs to be remedied soonest.

34. We have suggested change in approach in realizing that remedial action cannot wait for indefinite period as is being proposed by the Administration. Sources of funding are laid down in the orders of the Hon'ble Supreme Court. Responsibility of the State is to have comprehensive plan to control pollution which is its absolute liability, which is not being understood. If there is deficit in budgetary allocations, it is for the State and state alone to have suitable planning by reducing cost or augmenting resources. By way of suggestion, one may consider harnessing traditional knowledge and community involvement. People must be involved in the problem by appropriate awareness and strategies to encourage public participation and contribution. At the cost of repetition, health issues cannot be deferred to long future. Long future dates which, breach of which is established from the track record of last several decades, is not convincing solution. There is no accountability for the past breaches. It is poor substitute for compliance. This approach may project lack of concern or not realizing the grim ground situation crying for emergent remedial measures on priority. There is no time for leisure, reflected in timelines proposed for bridging the acknowledged gaps.

35. It is the mindset and determination to act in a mission mode which can produce results.

36. Segregation of the solid waste at source particularly by the bulk generators and its earliest processing nearest to the point of generation with defined destination is imperative. In particular, adequate composting/vermicomposting/bio-methanation centers need to be set up and upgraded nearest to the source of generation of wet solid waste, listing

people's involvement. Waste generators can themselves be required to process the waste under guidance and handholding by the Administration, with the assistance of identified empaneled service providers and such details may be posted on State's/Center's GeM portal. This may perhaps reduce planned expenditure.

37. Similarly, sewage can be required to be processed by cost-effective methods at least at several identified locations with least expenses. Decentralized and the prefabricated/modular treatment plants can be explored, apart from imposing condition of ZLD on industries, Group Housing Societies etc. Reduced load can be processed partly with the help of water using commercial establishments requiring water for their processes enforcing consent conditions in CTEs and CTOs whereby State's financial burden can be reduced. In this context, the draft Notification of MoEF&CC dated 25.02.2022<sup>10</sup> etc. and the relevant part of the draft Notification in context of sewage and solid waste management is reproduced below:

**“xxx .....xxx.....xxx**  
**C. Management of sewage/waste water, Reuse and recycle of treated wastewater by dual plumbing system**

*10. Dual Plumbing System shall be implemented - one for supplying fresh water for drinking, cooking and bathing etc. and another for supply of treated water for flushing.*

*11. Only treated water shall be used for flushing.*

*12. In no case, sewage or untreated waste water generated within the project area shall be discharged through storm water drains or otherwise into water bodies nor discharged/injected into the ground water by any mode.*

*13. Subject to Clause (3) of this notification, the project authority may opt or avail to common off-site treatment facility, as feasible, for treatment with reuse & recycle of corresponding*

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<sup>10</sup> [https://www.compfi.com/wp-content/uploads/2022/03/01032022\\_EHS\\_02.pdf](https://www.compfi.com/wp-content/uploads/2022/03/01032022_EHS_02.pdf)

*quantity of treated water through the dual plumbing system for flushing and other non-potable use.*

**A. For projects with built up area of 5,000 sq.mtrs. to 20,000 sq.mtrs. –**

*i. In areas where there is no municipal sewage network,*

*a. Either Onsite Sewage Treatment Systems with capacity to treat 100% waste water may be installed with appropriate tertiary treatment system with disinfection for black & grey water. Such treated water should be used with dual plumbing system for flushing and other non-potable use;*

OR

*b. In case of usage of septic tank, only black water shall be discharged in the septic tank. Grey water may be treated through natural treatment systems or other secondary treatment as feasible. Such treated water should be used with dual plumbing system for flushing and other non-potable use;*

*The excess treated water should conform to the general discharge norms of CPCB/MoEF&CC.*

*ii. In areas where there is municipal sewage network*

*a. Either Onsite Sewage Treatment Systems with capacity to treat 100% waste water may be installed with appropriate tertiary treatment system with disinfection for black & grey water. Such treated water should be used with dual plumbing system for flushing and other non-potable use;*

OR

*b. The project authority may opt to discharge only black water in such municipal sewage network subject to availability of trunk sewer line. For this purpose, two separate pipeline network– one for black water discharge and other for collection of grey water shall be installed. Grey water may be treated through natural treatment systems or other secondary treatment as feasible. Such treated*

*water should be used with dual plumbing system for flushing and other non-potable use;*

**B. For projects involving built-up area of 20,000 sq. mts. or more –**

*14. Subject to Clause (3) of this notification, Onsite Sewage Treatment Plant with capacity to treat 100% waste water generated within the project area through tertiary treatment shall be installed. Treated waste water shall be reused on site for landscape, flushing, HVAC, fire-fighting, and other end-uses.*

*15. The adequacy of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the authorized agency.*

*16. Discharge of excess treated wastewater outside the premises, after treatment in STP, should meet the discharge standards as notified by CPCB/MoEF&CC from time to time.*

*17. Wastewater and treated water quantification system through metering/sub-metering shall be installed.*

*18. Sludge from the onsite sewage treatment shall be collected, conveyed and disposed as per the Central Public Health and Environmental Engineering Organization (CPHEEO) Manual, Ministry of Housing and Urban Affairs, on Sewerage and Sewage Treatment Systems.*

*19. Where Common Sewage Treatment Plant facility has been availed, it shall be ensured that treated waste water is recycled back to respective building for reuse.*

**D. Solid Waste Management**

*20. Subject to Clause (3) of this notification, onsite solid waste management facility should be developed and a formal contractual arrangement shall be ensured with authorized recyclers/concerned municipal agency for disposal of all non-biodegradable waste.*

*21. Subject to Clause (3) of this notification, where there is no alternate arrangement for disposal of biodegradable waste, Organic waste composter/Vermiculture pit with a minimum capacity of 1.0 kg/150 sqm. of built-up area/day shall be installed & operated.”*

38. Efforts are also required on utilization of treated sewage such as by establishments like malls, industrial estates, automobile establishments, power plants, playgrounds, railways, bus stands, local bodies, universities etc. to save potable water for drinking. The treated sewage can be utilized for industrial/agricultural/other non-drinking uses like washing railway wagons/yards, buses, roads, water sprinkling and several such models reportedly exist<sup>11</sup>.

39. Thus, it may be necessary to brain storm with available experts and other stake holders in the State at different levels, evolve models which can be fast replicated, initiate special campaigns with community/media involvement in the larger interest of protecting environment and public health with determination for prompt action. Such brain storming sessions may enable capacity enhancement of the regulators and the processes. Campaigns and community involvement may result in reducing the financial and administrative load on the administration.

40. Compliance of environmental norms on the subject of waste management has to be on high on priority. We are of the view that issues

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<sup>11</sup> <https://www.newindianexpress.com/cities/chennai/2019/jul/31/chennai-industries-to-now-use-treated-sewage-water-2011837.html>  
<https://timesofindia.indiatimes.com/city/surat/surat-water-reuse-model-goes-global/articleshow/85668103.cms>  
<https://www.aninews.in/news/national/general-news/surat-generating-massive-revenue-by-selling-treated-water-to-industries20201217051127/>  
<https://swachhindia.ndtv.com/surat-generating-massive-revenue-by-selling-treated-water-of-river-tapi-to-industries-54411/>  
[https://m.timesofindia.com/city/ahmedabad/amc-offers-rs43/kl-treated-wastewater-for-industries/amp\\_articleshow/87169850.cms](https://m.timesofindia.com/city/ahmedabad/amc-offers-rs43/kl-treated-wastewater-for-industries/amp_articleshow/87169850.cms) <https://theprint.in/india/governance/nagpur-to-become-the-first-indian-city-to-treat-and-reuse-90-of-its-sewage/180493/>  
[https://www.business-standard.com/content/press-releases-ani/india-s-1st-and-largest-ppp-on-waste-water-reuse-completed-in-record-time-during-pandemic-bags-ficci-water-award-2020-121022500841\\_1.html](https://www.business-standard.com/content/press-releases-ani/india-s-1st-and-largest-ppp-on-waste-water-reuse-completed-in-record-time-during-pandemic-bags-ficci-water-award-2020-121022500841_1.html)  
[https://mpcb.gov.in/sites/default/files/focus-area-reports-documents/NMC\\_%26\\_KTPS\\_success\\_story\\_28052019.pdf](https://mpcb.gov.in/sites/default/files/focus-area-reports-documents/NMC_%26_KTPS_success_story_28052019.pdf)  
<https://cpcb.nic.in/success-stories/upload/1501156301.pdf>  
[http://cpheeo.gov.in/upload/uploadfiles/files/engineering\\_chapter7.pdf](http://cpheeo.gov.in/upload/uploadfiles/files/engineering_chapter7.pdf)

have been identified and monitored by the Tribunal for a long time. It is high time that the State realizes its duty to law and to citizens and adopts further monitoring at its own level.

**Conclusion with expression of hope for future remedial action**

41. **We hope in the light of interaction with the Chief Secretary, the State of Rajasthan will take further measures in the matter by innovative approach, stringent monitoring at appropriate level, including at the level of the District Magistrates (who execute the District Environment Plans) and the Chief Secretary, ensuring that the gap in solid and liquid waste generation and treatment is bridged at the earliest, shortening the proposed timelines, adopting alternative/interim measures to the extent and wherever found viable.** The State may devise an operative mechanism by which service providers with due diligent process can execute work relating to solid and sewage management simultaneously throughout the State – all districts, cities and towns. Considering the environment compensation imposed for restoration dovetailed with the State budget and availability of confirmed sites, there should not be any difficulty in execution without delay.

42. The Chief Secretary may consider designating a Senior Nodal Officer at the rank of ACS to regularly assess the progress in bridging the gaps in sewage and solid waste management and establishing stocktaking at the district levels. Existing and upcoming STPs need to have linkages with industries and other bulk users including Agriculture/horticulture for using treated sewage. Legacy waste sites need to be remediated and reclaimed areas utilized for setting up of waste processing plants so to process day-to-day waste generation. More and more green belts/dense forests need to be set up to mitigate adverse impact of waste. Based on the

gained experience, standardized processing and treatment methodologies be replicated for areas of other Corporations, Municipalities and Panchayats. The State also has failed to produce verifiable information with reference to compliance of the orders of the Tribunal dated 16.04.2019, para 43(ii) to develop model cities/towns/villages. Cities/towns having population more than 1 lakh (about 28 in number - Jaipur, Jodhpur, Kota, Bikaner, Ajmer, Udaipur, Bhilwara, Alwar, Bharatpur, Sikar, Pali, Ganganagar, Tonk, Kishangarh, Hanumangarh, Beawar, Dhaulpur, Sawai Madhopur, Churu, Gangapur, Jhunjhunun, Baran, Chittaurgarh, Hindaun, Bhiwadi, Bundi, Nagaur and Sujangarh) need to be immediately taken up.

43. Laid down statutory norms need to be complied as per prescribed timelines and directions in the judgments of Hon'ble Supreme Court and this Tribunal, including directions in orders dated 25.4.2019, 28.2.2020 and 14.12.2020 and other orders in individual cases. In the light of observations in paras 14, 19 and 22 above, accountability be fixed for erring officers and compensation collected and utilised, as already directed.

**Need for monitoring by NMCG and MoUD NMCG, SBM and Amrut schemes**

44. In view of continuing huge gap in solid and liquid waste generation and treatment, it is high time that Ministry of Housing and Urban Development (MoUD) and National Mission for Clean Ganga (NMCG) who have programmes like Swachh Bharat Mission (SBM), AMRUT - 1 and 2.0 and River Cleaning, appropriately monitor compliance of waste management norms by concerned States and take remedial action on their part. Central Funding and State budgetary provisions need to be

adequately allocated and apportioned keeping in view of environment compensation which is based on the restoration work estimate. MoEF&CC and CPCB may continue monitoring as per MSW Rules and the Water Act.

**Determination of liability for compensation for restoration of environment**

45. **Apart from compliance in future, the liability of the State has to be fixed for the past violations in the light of earlier binding orders passed in pursuance of orders of Hon'ble Supreme Court dated 2.9.2014 in WP 888/1996, Almitra Patel and dated 22.2.2017 in WP 375/2012, Paryavaran Suraksha. Order dated 22.12.2016 in Almitra Patel clearly laid down liability for compensation for breach of statutory timelines. Similarly, liability for compensation was laid down for failing to install water pollution control devices after 31.3.2020.** The Tribunal has to follow 'Polluter Pays' principle under Section 20 of the NGT Act. The State Authorities contributing to the pollution by failing in their constitutional duties are to be held accountable on this principle. Admittedly, timelines under Supreme Court orders and orders of this Tribunal for preventing water pollution and statutory timelines for solid waste management are over. Thus, atleast from 01.01.2021, the 'Polluter Pays' principle has to be applied. Compensation has to be equal to the loss to the environment and also taking into account cost of remediation.

46. In our recent order dated 01.09.2022 in O.A No. 606/2018 (in respect of State of West Bengal), considering scale of compensation adopted in earlier cases including in OA No. 1002/2018, *Abhisht Kusum Gupta vs. State of Uttar Pradesh & Ors.*, compensation was determined @ Rs. 2 Crore per MLD for untreated liquid waste and in OA No. 286/2022



for unprocessed legacy waste compensation was fixed @ Rs. 300 per MT to be utilized for restoration measures, including preventing discharge of untreated sewage and solid waste treatment/processing facilities, as per appropriate mechanism for planning and execution that may be evolved, within three months. Operative part of the said order is reproduced below:-

#### **“Conclusion about quantum of compensation**

*49. In the light of above and considering damage to the recipient environment, we hold that apart from ensuring compliance at the earliest, compensation has to be paid by the State for past violations. The amount of compensation is fixed @ Rs. 2 crore per MLD (at which rate compensation has been levied against Noida and DJB in OA No. 1002/2018, Abhisht Kusum Gupta vs. State of Uttar Pradesh & Ors, referred to in para 48 above for detailed reasons mentioned therein). As noted earlier, **gap in generation and treatment in West Bengal, as per data furnished is 1490 MLD. Thus, under this head, liability of the State of West Bengal is to pay compensation of Rs. 2980 crores, rounded off to Rs. 3000 crore in view of continuing damage. For failure to process solid waste, unprocessed legacy waste being 1.20 crore MT, compensation is assessed @ Rs. 300 per MT (at which approximate rate compensation has been awarded in OA No. 286/2022 against Municipal Corporation, Ludhiana, for the reasons given therein). This works out to Rs. 366 crore but adding 134 crore for continuing addition of unprocessed waste @ 13469.19 TPD, the total amount is rounded off to Rs. 500 crore. Thus, final amount of compensation under the two heads (solid and liquid waste) is assessed at Rs. 3500 crores which may be deposited by the State of West Bengal in a separate ring-fenced account within two months, to be operated as per directions of the Chief Secretary and utilised for restoration measures, including preventing discharge of untreated sewage and solid waste treatment/processing facilities, as per appropriate mechanism for planning and execution that may be evolved, within three months. If violations continue, liability to pay additional compensation may have to be considered. Compliance will be the responsibility of the Chief Secretary.”***

#### **Finding about quantum of compensation by Rajasthan and its utilisation for restoration measures**

47. Following the above pattern, we determine compensation payable by the State of Rajasthan. In respect of **gap in treatment of liquid waste/ sewage i.e. 1250 MLD (851 MLD for 68 cities + 400 MLD for the remaining State), compensation works out to Rs. 2,500/- crores and**

**compensation for un-remediated legacy waste to the extent of 85 lakh cu.m/MT works out roughly to about Rs. 255 crores. Further, there is per day gap of 2989 TPD (rounded off to 3000 TPD). If multiplied by 365 days (assuming it is remediated within next one year), the figure of waste will come to 10.95 lakh (rounded off to 11 lakh). The total compensation under the head of failure to scientifically manage solid waste works out to Rs. 555 crores. The total compensation is rounded off at Rs. 3,000/- crores which may be deposited by the State of Rajasthan in a separate ring-fenced account within two months, to be operated as per directions of the Chief Secretary and utilised for restoration measures.**

48. **The restoration measures with respect to sewage management** would include: setting up of sewage treatment and utilization systems, upgrading systems/operations of existing sewage treatment facilities to ensure utilization of their full capacities, ensuring compliance of standards, including those of fecal coliform and setting up of proper fecal sewage and sludge management in rural areas.

49. **With regard to solid waste management**, the execution plan would include: setting up of required waste processing plants and remediation of left out 161 sites. Bio-remediation/bio-mining process need to be executed as per CPCB guidelines and the stabilized organic waste from biomining as well as from compost plants need to comply with laid down specifications. Other material recovered during such processes are to be put to use through authorized dealers/handlers/users.

50. Both the above restoration plans need to be executed at the earliest simultaneously in all districts/cities/ towns/ villages in a time bound manner without further delay. If violations continue, liability to pay

additional compensation may have to be considered. Compliance will be the responsibility of the Chief Secretary for which a Special Senior Level Nodal Secretary with team of technical experts may be deputed immediately.

51. Award of above compensation has become necessary under section 15 of the NGT Act to remedy the continuing damage to the environment and to comply with directions of the Hon'ble Supreme Court requiring this Tribunal to monitor enforcement of norms for solid and liquid waste management. Moreover, without fixing quantified liability necessary for restoration, mere passing of orders has not shown any tangible results in the last eight years (for solid waste management) and five years (for liquid waste management), even after expiry of statutory/laid down timelines. Continuing damage is required to be prevented in future and past damage is to be restored.

**Directions for further follow up**

52. Further, six monthly progress reports with verifiable progress may be filed by the Chief Secretary with a copy to the Registrar General of this Tribunal by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. Copies thereof may be furnished to the NMCG, MoUD and CPCB and also be placed on the website of the State Government.

A copy of this order be forwarded for compliance to the Chief Secretary, Rajasthan, Secretary, Ministry of Housing and Urban Development, MoEF&CC, GoI, National Mission for Clean Ganga and CPCB.

On report being filed with the Registrar General of this Tribunal, the same may be placed before the Bench, if found necessary.

If any grievance survives, it will be open to the aggrieved parties to take further remedies as per law.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

September 15, 2022  
Original Application No. 606/2018