

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

(BY HYBRID MODE)

Original Application No. 178/2023

In re: news item published in The Hindu dated 06.03.2023 titled **“Kochi chokes as fire at waste dump still rages; govt. asks people to stay indoors”**

Date of hearing: 17.03.2023

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

Respondents: Dr. Venu V, Additional Chief Secretary, Environment Department with Mr. Jaganth Muth Raj, Senior Advocate & Mr. Nishe Rajen Shonker, Advocate for the State of Kerala
Dr. Sheela AM, Member Secretary with Ms. Rema Smrithi & Mr. Jogy Scaria, Advocates for KSPCB
Mr. James P. Thomas, Advocate for Kochi Municipal Corporation

ORDER

The issue

1. Proceedings have been initiated in this matter *suo-motu* in the light of captioned media report of serious environmental emergency caused due to fire at waste dump site in Kochi as a result of utter failure of the State authorities in performing their inalienable basic duties of providing pollution free environment.

2. According to media report, Kochi city was choked on account of fire at waste dump site on 2.3.2023 which led to crisis situation. Warning was issued to the residents to stay indoors and asking the hospitals to prepare emergency admission of patients with respiratory distress to deal with severe air pollution and its worrying public health fallout.

3. Considering the media report, taking suo motu proceedings, advance notice was issued to the Chief Secretary, Kerala, Member Secretary, State PCB, District Collector, Kochi and Secretary, Kochi Municipal Corporation on 6.3.2023.

Response of the State

4. In response, affidavit has been filed by the Additional Chief Secretary, Kerala, apart from report filed by the State PCB. Substance of the affidavit of the ACS, Kerala is that Division Bench of Kerala High Court has also taken up the matter on 7.3.2023. The dump site is spread over 100 acres of land and processing plant has capacity of waste processing of 300 Tonnes Per Day. Contract to process the waste has been given to a contractor but only 33% of the work has been completed. Several major and minor fires earlier have broken out at the site. The present incident occurred on 2.3.2023 at 5:30 pm. Fire and Rescue Department took measures to control the fire. Naval Helicopters were deployed to air drop water over the fire heaps. Fire was brought under control by 05.03.2023. Health advisory was issued to general public on 4.3.2023 to use masks and stay indoors. Extra precautions were advised to be taken by more vulnerable citizens – senior citizens, children below age of 12, sick persons and pregnant women. Medical camps were organized. 120 oxygen beds were set up. 200 persons sought medical help. 30 fire tenders, 45 excavators, 14 high capacity water pumps and 4 helicopters along with 350 fire men and 150 supporting staff were engaged in mitigation efforts at the site. There was no CCTV surveillance at the site. Brahmapuram Waste Treatment Plant is solely owned and maintained by the Corporation of Cochin. Suggestions have been taken for short term and long term measures. The plant has been closed on 13.03.2023. Multi Sectoral

Empowered Committee has been constituted by the Disaster Management Department. In compliance with the order of the Hon'ble High Court of Kerala dated 10.03.2023, a committee consisting of (1) The Chief Engineer, LSGD (2) The Director, Suchitwa Mission, (3) The District Collector, Ernakulam, (4) the Chief Environmental Engineer, KSPCB, Regional Office, Ernakulam (5) The Secretary, Kochi Corporation and (6) the Secretary, Legal Service Authority, Ernakulam has been constituted. High Level Conference was held by the Hon'ble Chief Minister on 8.3.23, at 5 p.m. Certain decisions have been taken in pursuance of order of the Hon'ble High Court and action plan has been prepared for scientific handling of the waste.

5. Report of the State PCB is that grievance against unscientific management of solid waste was first raised as far back as in 2012 before Kerala High Court in WP (C) No. 9700/2012 which was transferred to the NGT(SZ) in 2013 and registered as OA No. 442/2013. Two other cases were filed before NGT being OA No. 20/2017 filed by Abdul Basheer and OA No. 276/2017 filed by Lawyers Environmental Awareness. NGT also took up the matter of compliance of solid waste management norms suo motu in OA No. 606/2018 and issued directions. The State PCB passed order dated 13.01.2021 levying environmental compensation of Rs. 14.92 crores against Kochi Municipal Corporation for violation of statutory rules against which stay was granted by Kerala High Court on 9.3.2021 in WP (C)No. 3478/2021.

6. We have heard learned Counsel for the appearing parties and perused record with their assistance.

Consideration by the Tribunal and directions

7. Thus, question for consideration is whether intervention by the Tribunal is necessary and if so, what direction is called for.

8. **We are conscious that identical issue is being dealt with the Kerala High Court but we make it clear that this order is without prejudice to and subject to the said proceedings.** We are also informed that identical issue is pending before South Zone bench of the Tribunal. South Zone Bench may accordingly, take into account this order before proceeding further in any pending matter.

9. **Reason why we have considered it necessary to deal with the matter inspite of pendency of proceedings elsewhere is that the matter is being dealt with by the Tribunal in the Principal Bench for the last more than eight years on direction of Hon'ble Supreme Court vide order dated 2.9.2014 in WP 888/1996, Almitra Patel etc. on the file of Hon'ble Supreme Court and several orders have been earlier passed to which reference is being made later.**

10. Before proceeding further, we may note some earlier orders of the Tribunal on the subject.

11. Vide order dated 22.10.2018 in OA No. 533/208, 534/2018 and 535/2018, this Tribunal found failure of the authorities in the State of Kerala in following solid waste management rules with regard to the site in question which had potential for damage to the public health and for such continued failure, the Tribunal levied compensation on polluter pays principle but the authorities neither complied with the norms as is acknowledged even now nor paid the compensation. Instead, W.P. (C) No. 36204/2018 was filed before the Kerala High Court and on giving assurance (which was never complied), interim order dated 09.11.2018 was granted which has continued till 13.03.2023 when stay has been vacated with following observations:

“xxxxxx.....xxx

3.1 After appreciating the reality of the report and also to prevent orders from working at cross-purposes and gain momentum on the directions issued by the National Green Tribunal, **we are of the view that the petitioner is not entitled to have the benefit of the stay granted by this Court on 09.11.2018 in W.P.(C) No.36204/2018 and 11.08.2016 in W.P.(C) No.24380/2016.**”

12. Vide order dated 21.01.2021 in OA No. 514/2019, **In Re: Report received from State Level Monitoring Committee, Kerala, constituted by this Tribunal vide order dated 16.01.2019 in O.A. No. 606/2018, headed by Justice A.V.R. Pillai, former Judge of Kerala High Court, to oversee compliance of directions on the subject of Solid Waste Management**, the Tribunal considered continuing violations as follows:

“2. xxxxxx.....xxx

1 to 7. xxxxxx.....xxx

8. We find that the steps taken to be inadequate having regard to the serious adverse consequences of acknowledged unscientific handling of waste management. Suggestion ‘c’ above shows that **1 lakh liter collection capacity for the leachate is nearing completion and the leachate is to be diverted to septage treatment plant. It is doubtful whether leachate can be treated in an ordinary septage treatment plant as it contains heavy metals. The progress appears to be very slow and in disregard to the statutory and constitutional obligation of providing clean environment. It is the responsibility of the KSPCB to initiate prosecution and recover compensation for such failures failing which, the Chairman and the Member Secretary of the KSPCB may be liable for their failure.**”

xxxxxx.....xxx

“7. From the above, it is clear that there is no meaningful action taken, as required under the law. **There is serious dereliction of duties of the State authorities under the ‘Public Trust Doctrine’ to provide pollution free environment. No meaningful coercive measures have been adopted as expected from the State PCB as a regulator. The local bodies as well as the Urban Development Department have failed to take effective steps in the matter. We record our disapproval for the lack of sincerity and sensitivity of the authorities to the health of the citizens on flimsy grounds. There is non compliance of orders of this Tribunal dated 28.2.2020, quoted earlier. Not even compensation has been recovered, as directed nor action taken against erring officers by way of entry in their ACRs. Under the NGT Act, 2010, violation of orders**

of this Tribunal is criminal offence, apart from an executable decree which can be enforced even by directing detention of violators in prison till compliance. This course of action may have to be considered even against highest erring officers, if the default continues. It is unfortunate that the State and its senior officers should not obey the law of the land. The Tribunal expects the State to enforce the law.

8. In view of above, we direct the Chief Secretary, Kerala to take the matter seriously and take remedial action by constituting a three-member team of Secretary, Urban Development Department, Chairman, State PCB and concerned Municipal Commissioner. It should not be difficult, if there is willingness, to tackle the problem. Failure of the State Authorities in this regard is at the cost of public health of the citizens which a welfare State can ill afford. The Chief Secretary, Kerala may personally monitor the compliance of these directions atleast on monthly basis and record the proceedings. The Chief Secretary may further direct that if the targeted actions are not taken, the erring officers will not be entitled to draw their salaries from a specified date till compliance. The Chief Secretary, Kerala may file his personal affidavit giving information about commencement of work relating to remediation of legacy waste site(s) and waste processing plant to handle day-to-day waste generation to avoid creation of legacy waste dump site before the next date 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.”

XXXXXX.....XXX

5. Long stories of all round failure of the administration are poor substitute for good governance required to enforce environmental rule of law for protection of public health and the environment. The fact remains that the administration is patently a failure in protecting citizens' right to clean environment which is in no way less important than the right to live in crime free environment. There is no meaningful action for complying with the Solid Waste Management Rules, 2016 (SWM Rules) and handling of solid waste inspite of repeated directions in the last two years. As shown from the report by the State PCB, the samples clearly show that the parameters of environment are not being met. The Municipal Corporation is still continuing unauthorised operations. Work is yet to start for bio-mining. Compensation has been assessed but not recovered. Windrow composting plant is in dilapidated condition. The affidavit of the Chief Secretary does not show that any effective action has been taken on the ground. Thus, the situation is far from satisfactory. One wonders whether the officers dealing with the matter lack in competence or will their Constitutional obligation to provide clean environment to the citizens. Failure to uphold environmental rule of law is no different from maintaining law and order and protecting the citizens against crimes. Continuing violation of environmental norms is not only violation of rights of citizens but also has

potential for damage to the public health. It is unfortunate that in spite of several orders of this Tribunal for the last two years the concerned officers have only paid lip service to the issue. There is thus clear governance deficit which needs to be urgently remedied at appropriate highest level in the State. There is failure to enforce environmental laws. We do hope that atleast now prompt action will be taken in the matter failing which the Tribunal may have to adopt coercive measures as per law, including prosecution of concerned officers. Least expected is placing of order for execution of legacy waste bio-mining, landscaping of the area and plantation, development of bio-diversity park, rectification of the compost plant, continuous monitoring by the Secretary, Urban Development and quarterly review by the Chief Secretary.”

13. Vide order dated 7.7.2022 in OA No. 606/2018, the Tribunal noted that the matter of scientific handling of solid waste management was monitored by the Hon’ble Supreme Court for 18 years starting from 1996 upto 02.09.2014 by various orders in *Writ Petition No. 888/1996, Almitra H. Patel vs. Union of India & Ors.* The said proceedings were transferred to this Tribunal on 2.9.2014 for further monitoring with the observations:

“2. ... “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.”

14. 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 Court¹are:

“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% 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

¹ (2004) 13 SCC 538

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."

15. 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 and 30.11.2021. 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.

16. 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. 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.

17. Orders passed thereafter are inter-alia dated 16.1.2019, 12.09.2019, 28.02.2020, 14.12.2020 and 30.11.2020. In order dated 7.7.2022, the Tribunal referred to statutory timelines which are as follows:

“17. xxxxxx.....xxx

“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 3 years all Local Bodies and census	3 years

	<i>towns under 0.5 million population for the disposal of permitted waste under the rules.</i>	
11.	<i>bio-remediation or capping of old and abandoned dump sites.</i>	5 years

”

18. The Tribunal also referred to the status of compliance provided by the Chief Secretary, Kerala during the hearing and report dated 4.7.2022 filed by the State level monitoring Committee headed by Justice A.V. Ramakrishna Pillai, former judge of the Kerala High Court as follows:

“27. xxxxxx.....xxx

CONCLUSION AND SUGGESTIONS

In spite of the efforts taken so far the Solid Waste Management in the State has not achieved the level of standard expected by the Environmental Laws.

Segregation and door-to-door collection of solid waste is not effectively done in many of the local bodies. The achievement by the District of Pathanamthitta, Idukki and Kottayam is far below average. The available statistics would reveal that a sizable percentage of waste generated in the households and commercial establishments are left unattended and therefore are disposed of in unscientific manner.

Though bio-mining of legacy waste dumped at 41 sites out of which 10 are large is going on various stages, the same has not attained the pace which is expected. The bio-mining at the major dump sites are inversely proportional to the inflow of solid waste to those dumping yards.

On an inspection of the dumping yard at Brahmapuram in Ernakulam District on 03.03.2021, it was found that the waste materials at the yard was not in the segregated form. Waste materials now being brought from the local limits of different local bodies were seen dumped over the existing legacy waste. The non-acceleration of the speed of the bio-mining process coupled with the delay in establishing the proposed waste to energy plant would make the legacy waste clearing an unending process.

I would like re-iterate the following course of action which I have specified in my earlier report, for an effective Solid Waste Management System.

The stake holders should consider the reduction of waste as the primary object of waste management. Therefore, the first step to be followed is the reduction of the waste inflow into the waste management system. Aware programs for the benefit of waste generators can

be undertaken by the local bodies under the supervision of District Magistrate and with the assistance of District Legal Services Authority, Suchithwa Mission (SM) as well as Haritha Kerala Mission (HKM).

All the local bodies should strictly implement, on a war footing under the disaster management protocol, the standard waste management protocols prescribed by HKM. Installation of Material collection facilities in every ward (for municipalities and corporation) and for every Panchayath shall be insisted upon. There should be compulsory segregation of waste by all doors. Door to door collection of segregated waste and secondary segregation of NBD in MRF and forward linkage shall be promoted. Source level composting as well as partially centralized composting facilities in market and similar bulk generator premises shall be adhered to.

There shall be a consistent effort for implementation of reduction of waste generation adopting alternative methods for waste management like re-use system.

Segregation of bio-degradable waste and non-biodegradable waste at source is inevitable because biodegradable waste which contains 80% moisture is unviable for being used in Waste to Energy (WTE) Plants due to the huge expenditure involved to dehydrate the same. There should be secondary segregation of Non-degradable

Waste (NBD) at MRF as Solid Waste Management Rule prescribe for recycling of valuable and reusable NBD waste. Only those NBD waste having no recyclable value need be processed in WTE plants.

All the bulk generators including industries, apartment complexes, gated communities, commercial establishments, etc. should establish compulsory in-house biodegradable waste management systems with technical assistance of agencies like Haritha Kerala Mission, Suchithwa Mission etc. and under the supervision of State Pollution

While promoting bio-degradable waste at source, proper records regarding the quantity of waste treated at source and its final disposal should be insisted upon.

Unauthorized disposal methods under the pretext of treating waste at source shall not happen under any eventuality.

Once the aforesaid steps are completed, expression of interest (EOI) can be invited for establishing innovative legacy waste management systems in the various treatment plants including the Brahmapuram plant at Ernakulam and also in the other proposed WTE plants in the State.

Plastic to fuel, RDF to cement factory Kiln co-processing, plastic brick manufacturing, modular WTE plant, compost to garden, compressed burial etc. are already established processes. These can be developed with the help of enterprises, CSR funds, Department of Science and Technology etc.”

19. The Tribunal observed:

“Our Observations about way forward

28. *It is seen from the data presented by the Chief Secretary and the conclusion of the State level monitoring Committee that there is still huge gap in management of solid as well as liquid waste. As noted in paras 13,16 and 20 above, no accountability has been fixed for continuing failure which is a matter of regret.*
29. ***In solid waste management, there is a gap of 781 TPD. Waste processing facilities are grossly inadequate and even cities like Thiruvananthapuram and Kochi lack adequate processing facilities. Compost produced at individual levels and their usage and linkages of MCFs with end users/processors have not been duly explained. Timelines indicated are too sketchy and in violation of directions of the Hon'ble Supreme Court, Tribunal and the statutory mandate. With regard to liquid waste management, the gap in treatment is reported to be 51.3 MLD. Distinction between sewage and sullage and their treatment by way of segregation and existing facilities and contemplated plan has no definite execution plan. Cities like Thiruvananthapuram, Kochi and others do not have requisite facilities. Reliance is on Septic tanks and Soak pits which also needs to be examined in context of ground water safety.***
30. ***Till this gap is bridged, unprocessed solid waste and 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 ensuring emergent measures in public interest to protect the environment and public health and discharge of Constitutional obligation.***
31. *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 Suraksha 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.

32. We have suggested change in approach in realizing that remedial action cannot wait for indefinite period as is being proposed by the Administration. Action cannot be linked to outside funds nor delayed on that pretext. Sources of funding are laid down in the orders of the Hon'ble Supreme Court. **Responsibility of the State is not merely to plan utilisation of Central funds or funds from World Bank, as appears to be happening, but having comprehensive plan to control pollution which is its absolute liability, which is not being unfortunately 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. Claimed success by some local bodies in setting up waste processing plants and harnessing benefits of bio-CNG/power energy² may need to be looked into and if found useful the same need to be followed with suitable modifications.**
33. It is the mindset and determination to act in a mission mode which can produce results.
34. Segregation of the solid waste at source 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

² Indore's Waste to Energy model leads the world, 72 countries set to follow! : <https://www.financialexpress.com/lifestyle/indores-waste-to-energy-model-leads-the-world-72-countries-set-to-follow/1695816/>

India's cleanest city Indore turns waste into bio-CNG, money : <https://energy.economictimes.indiatimes.com/amp/news/oil-and-gas/indias-cleanest-city-indore-turns-waste-into-bio-cng-money/87826232>

service providers. This may perhaps reduce planned expenditure.

35. Similarly, sewage can be required to be processed by conventional cost-effective methods atleast at several identified locations with least expenses. Decentralized 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. Such establishments include malls, industrial estates, automobile establishments, power plants etc. Treated water can also be used by 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. Several such models reportedly exist³.
36. We also observe that the issues in setting up of waste to energy plants in coastal areas on account of high humidity and unsegregated waste with low calorific value of the biodegradable waste need to be addressed. Suggestions and recommendations of the State Level Monitoring Committee also need to be addressed.
37. 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.

³ <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>
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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://cpcb.nic.in/success-stories/upload/1501156301.pdf>
http://cpheeo.gov.in/upload/uploadfiles/files/engineering_chapter7.pdf

38. ***Compliance of environmental norms on the subject of waste management has to be on high on priority. Tribunal has come across cases of serious neglect and continuing damage to the environment in absence of inadequate steps for treatment of solid and liquid waste.⁴ We are of the view that issues have been identified and monitored by the Tribunal for along time. It is high time that the State realises its duty to law and to citizens and adopts further monitoring at its own level.***
39. *We hope in the light of interaction with the Chief Secretary, whom we find to be very responsive and positive, the State of Kerala will take further measures in the matter by innovative approach, stringent monitoring at appropriate levels, including at the level of the District Magistrates (who execute the District Environment Plans) and the Chief Secretary, ensuring that the gap in waste generation and treatment is bridged at the earliest, shortening the proposed timelines, adopting alternative/interim measures to the extent and wherever found viable. All laid down statutory norms need to be complied as per laid down 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 13,18 and 21 above, accountability be fixed for erring officers and compensation collected and utilised, as already directed."*

20. Thereafter, vide order dated 1.12.2022, the Tribunal took up the matter for considering levy of compensation on "Polluter Pays" principle in pursuance of notice dated 7.9.2022 and further status report filed by the Chief Secretary, Kerala on 30.11.2022 showing huge gap in management

⁴ OA No. 439 of 2013 (SZ), Chandran Pilla, Kollam and Anr. vs. Union of India and Ors. dated 21.04.2022 relating to solid waste management, Kollam.

OA No.147/2020, K. M. Sanjeev Vijayan vs. State of Kerala dated 07.10.2021 relating to solid waste management, Ottapalam Municipality.

OA No. 514/2019, In Re: Report received from State Level Monitoring Committee, Kerala, constituted by this Tribunal vide order dated 16.01.2019 in O.A. No. 606/2018, headed by Justice A.V.R. Pillai, former Judge of Kerala High Court, to oversee compliance of directions on the subject of Solid Waste Management dated 21.01.2021 relating to solid waste management, Brahmapuram.

OA No. 395/2013/SZ (THC), SUO MOTU proceedings initiated based on the representation received from Justice R. Bhaskaran, Former Judge vs. State of Kerala & Ors. dated 27.05.2022 relating to Periyar river.

OA No. 581/2018, The Edayar Resident's Association, Edayar vs. The Government of India & Ors. dated 29.06.2020 relating to Karmana river.

OA No. 582/2018, Alavikutty vs. The State of Kerala & Ors. dated 29.06.2020 relating to Tirur-Ponnai River.

of waste. At the close of hearing, a note was filed that the State has ring-fenced an amount of Rs. 2343.18 crores, only for liquid waste management.

21. From the above background, **it is self evident that good governance in the matter of waste management is being neglected for long time to the detriment of environment and public health and no one has taken moral responsibility for such gross failure of rule of law and damage to public health. It is difficult to understand what is the value of citizen's right to life and safety with such attitude of total neglect by authorities in Government. This calls for soul searching and also high level enquiry to determine culpability in larger public interest.**

22. State of Kerala and its authorities have been utter failure and have rampantly violated the statutory solid waste management rules and orders of the Hon'ble Supreme Court in *Writ Petition No. 888/1996, Almitra H. Patel vs. Union of India & Ors.* and orders of this Tribunal, including orders dated 22.12.2016, 31.08.2018, 16.1.2019, 14.12.2020, 30.11.2021 and 7.7.2022. No accountability for such serious failure has been fixed and no senior person has been held accountable so far. Except for giving future plans, no fixing of accountability is proposed even now which is matter of regret. No prosecution has been launched against the guilty for criminal offences under the Environment (Protection) Act, 1986 and also under relevant provisions of IPC nor action taken for violation of orders of Hon'ble Supreme Court and repeated orders of this Tribunal in proceedings transferred to the Tribunal by the Hon'ble Supreme Court. **Such attitude of State authorities is threat to rule of law. We hope the situation is remedied at the higher level in the State such as the DGP and the Chief Secretary to uphold the Constitution and the mandate of environmental law.**

Monetary liability for damage to the environment for failing to comply with solid waste management norms

23. We may also note that the Tribunal has dealt with the issue of monetary liability for damage to the environment due to failure to handle solid waste. Expert study found huge damage to air quality, water quality and land quality which could be measured in monitoring terms. Studies were referred to inter alia vide order dated 18.08.2022 in Review Application No. 21/2022 in OA No. 286/2022 dealing with the failure of Municipal Corporation Ludhiana to comply with the Solid Waste Management Rules, 2016. Some extracts from the said order are reproduced below:

“xxxxxx xxx

7. *Even after judgement dated 22.12.2016 supra, this Tribunal has been monitoring compliance of Solid Waste Management Rules and the Chief Secretaries of non compliant States were required to appear before this Tribunal in person for interaction. The Chief Secretary, Punjab appeared on 07.03.2019 and thereafter, on 10.01.2020 and orders were passed requiring compliance, after recording findings that there was continued failure. 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

“xxx.....xxx.....xxx

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:

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

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, PM₁₀ & PM_{2.5} concentrations exceeded the prescribed values at all monitored stations upto 5 km distance & beyond from the Dumpsite sites. SO₂ & NH₃ concentrations are within the prescribed values at all monitored stations. Benzene has exceeded the stipulated limit at one station and NO_x 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 PM_{2.5} & PM₁₀, NO_x & 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 NO_x / 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)

Environment	Estimated Damage Cost in Lakhs, INR
Air	Nil
Water	2900
Soil	31*
Climatic (for last 5 years)	7,000

<i>Aesthetic</i>	4,946
Total	14,846

**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 CO₂ 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.”

9. *Thus, scientific studies support the estimated cost of damage to the environment in the present case. The report of the Committee shows that Ludhiana city generates 1100 TPD of waste which is being deposited in the 52 acres land resulting about **30 lakhs tonnes of legacy waste**. As already found, the cost of damage to the environment assessed by the Committee is supported by scientific report in similar circumstances in respect of landfill sites at Delhi and Bandhwari in Gurgaon. The amount in terms of environmental compensation is to be spent for restoration measures such as improving air quality by following proper processing of waste, preventing groundwater or surface water pollution by adopting leachate treatment measures, improving aesthetics and adopting fire-fighting mechanism and remediation of legacy waste to prevent further damage, in the interest of public health and environment.”*

24. **We also note that compensation has been awarded for violation of solid waste management rules resulting in fires in large number of matters, including Ludhiana (order dated 25.07.2022 in OA No. 286/2022, In re: News item published in The Indian Express dated 20th April, 2022, titled “7 Charred to death in fire near Ludhiana dumpsite”), Gurgaon (order dated 23.09.2022 in OA No. 172/2021, Poonam Yadav vs. M/s. Ecogreen Energy Pvt. Ltd. & Ors.) and Delhi (order dated 11.10.2022 in OA No. 300/2022, In re: News item published in News 18 dated 26.04.2022 titled “Delhi: Massive Fire at Bhalswa Dump Yard, Fourth This Year; 13 Fire Tenders on Spot”), apart from liability of all States/UTs in different orders in OA 606/2018.**

25. We may reproduce for ready reference findings from show cause notice issued by the State PCB dated 16.3.2021 addressed to Secretary, Kochi Municipal Corporation as follows:

“Major findings of the study.

- ❖ *Dioxins were detected and quantified in ambient air, residual ash and sediment samples collected from the premises of waste dump yard during fire break out*
- ❖ *The average dioxin levels observed in ambient air was found to be 10.3 pg TEQ/m³. The observed levels are 50 and 10 times higher than reference and field blank data.*
- ❖ *The average dioxin concentration observed in residual ash samples collected from different locations in the fire covered area is 158.5 ng TEQ/kg of ash.*
- ❖ *The observed dioxin levels in sediment samples collected from nearby marsh fields is 6.8 ng TEQ/kg.*
- ❖ *The dioxin generated by the fire is given by Emission Factor x Activity Rate.*
 - *The Activity Rate = total quantity of MSW burned = Area burned (from satellite photo of 23/2/2019) x burn depth (20 cm as given by Dr. Ajit Haridas), and bulk density (350 kg/m³) = 1800 tonnes (appr.)*
 - *The Emission Factor for dioxins as determined in "Burn-hut" at CSIR-NIIST is 39.81 µg PCDD-F TEQWHO/ ton of waste burned.*

- Hence, estimated dioxin emitted = 72 milligram Toxicity equivalence (TEQ).
- The WHO /FAO maximum tolerable monthly intake of dioxins for humans is 70 picogram TEQ/kg body weight (tolerable annual intake for a 65 kg person is 54.6 nanogram TEQ). While only a very small fraction of the dioxins generated reaches humans via the food chain, the total dioxin generated is sufficient to exceed tolerable annual intake of $72 \times 10^{-3} / 54.6 \times 10^{-9} = 1.3$ million persons

Recommendations

- It is essential to establish modern solid waste treatment plants and clear the dump yards of wastes by “bio-mining” to separate combustible and inert material. The contaminated ash separated during bio-mining should be removed to sanitary landfill.
- Given the widespread burning of waste and dump yard fires, analysis of dioxins in animal origin food samples such as milk, egg, meat and in human milk is recommended.”

Directions

26. Considering the studies referred to above in para 23 and long continuing neglect of its duties by the Kochi Municipal Corporation, we award environment compensation under section 15 of the NGT Act against Kochi Municipal Corporation of Rs. 100 crores which may be deposited with the Chief Secretary, Kerala within one month for necessary remediation measures, including dealing with the public health issues of the victims.

27. Apart from above, we direct the Chief Secretary, Kerala to fix accountability of concerned officers for such gross failures and initiate action under criminal law as well as by way of departmental proceedings, following due process and place the same in public domain within two months.

The proceedings are disposed of.

A copy of this order be forwarded to the Chief Secretary, Kerala and Kochi Municipal Corporation by e-mail for compliance.

A copy of this order be also forwarded to Registrar, Kerala High Court by e-mail for being placed before the Bench dealing with the matter, with the permission of the Bench.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

March 17, 2023
Original Application No. 178/2023
DV