

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

(By Video Conferencing)

Original Application No. 286/2022
(I.A. No. 189/2022 & I.A. No. 190/2022)

In re: News item published in The Indian Express dated 20th April, 2022,
titled "7 Charred to death in fire near Ludhiana dumpsite"

Date of hearing: 01.11.2022

**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**

Respondent(s): Mr. Amit Singh Chauhan, Advocate for CPCB
Mr. Ankit Siwach, Advocate for MC Ludhiana

ORDER

1. Proceedings in this matter have been taken up in the light of captioned media report to the effect that **seven persons were charred to death** in a fire at a garbage dump site at Tajpur Road, Ludhiana. Most of the deceased belonged to the rag picker family who were living for the last ten years near the site with a huge dump of 20 lakhs tons. Deceased have been identified as **Suresh, aged 55, his wife Rona Rani aged 50, and their children Rakhi aged 15, Manisha aged 10, Chandini aged 5, Geeta aged 6 and Sunny aged 2.**

2. On 21.04.2022, notice was issued to the Chief Secretary, Punjab and to independently ascertain the factual position, the Tribunal sought a report from a Monitoring Committee, constituted by this Tribunal to monitor compliance of certain orders of this Tribunal in Punjab, headed by Justice Jasbir Singh, former Judge of the Punjab and Haryana High Court. A copy of its report was also to be given to the Chief Secretary for

his response. The Tribunal also directed CPCB to issue a statutory order for preventing such fires and handling them effectively if the same take place.

3. Thereafter, the matter was dealt with vide order dated 25.07.2022 in the light of report of the Monitoring Committee dated 15.05.2022. It was noted that in spite of service of copy of report on the Chief Secretary, Punjab, no response was filed. The Tribunal also noted the statutory order of CPCB dated 06.05.2022 for safety measures to prevent fires. The report of the Committee was summed up as follows:-

*“5.....xxx.....The report finds that the Municipal Corporation and other State Authorities have failed to provide clean environment and also failed to comply with the SWM Rules not only at Ludhiana but even other places. Out of 1100 TPD wet and dry waste generated, negligible part of it – 49% is treated. The remaining remains untreated. Presently 25-30 lakh tonne legacy waste is stored at 52 acres of land in Ludhiana. No steps are being taken to remediate the same. There is no boundary wall or green belt around the dump site, except a boundary wall of about 2 km one side. 200-300 rag pickers are residing in the vicinity to recover recyclable material from the dump site. There is need to provide vents at appropriate locations to release methane gas into the atmosphere and measures to protect safety of rag pickers. There is no segregation of mixed waste dumped at the site. An ‘on-site’ emergency plan is required to be prepared. Fire hydrants are required to be installed at appropriate locations with appropriate staff. Fire alarms and sirens are also required to be installed. The incident of fire resulting in death of seven persons near the dump site could be due to fire in the dump site or other possible causes. The conditions in which rag pickers are living is pathetic who need to be rehabilitated. In any case, protective measures are required to be adopted to prevent danger to their lives and safety. **Leachate water in large quantity is flowing from the site and children of rag pickers were seen playing with the leachate water which can “wet eyes of any on looker”.** The State PCB conducted inspection on 29.04.2022 and undertook videography and photography showing that Municipal Corporation, Ludhiana was totally non-compliant with the requirements of SWM Rules. The solid waste was being buried into earth illegally which could adversely affect the groundwater and soil fertility. Carcass disposal sites were also generating waste water which was being discharged into river Sutlej in violation of orders of this Tribunal in OA No. 465/2019, Kulwinder Singh & Ors. vs. Ram Murti & Ors. The Committee also observed unscientific dumping of solid waste at different points. It was also seen that Municipal Corporation, Ludhiana failed to comply with the earlier orders in OA No. 191/2020, Gurinderpreet Singh & Ors. vs. State of Punjab & Ors. directing remedial action against unscientific handling of waste.*

Deceased identified are same as in the media report from one family and are survived by a male member, who appeared before the Committee and sought rehabilitation by way of compensation/job.

6. *The Monitoring Committee also mentions the non-compliance status of Municipal Councils of other Districts - Patiala, Fatehgarh Sahib, Sangrur & Malerkotla, SBS Nagar, Mansa, Ropar, Gurdaspur, Pathankot, Fazitka and Sri Mukatsar Sahib in violation of directions in OA No. 360/2018, Shree Nath Sharma vs. Union of India & Ors. The State PCB is required to levy compensation in terms of directions of this Tribunal dated 28.02.2020 in OA No. 606/2018. The Committee also noticed operation of dairy complexes at Tajpur Road and Haibowal, Ludhiana without requisite safeguards. The same are required to be shifted from the present location and have follow up action taken for compliance of environmental norms. The Committee noted garbage vulnerable points near Shani Mandir in Kalyan Nagar area, Ludhiana. The Committee held meeting with 11 MCs in Ludhiana District - Ludhiana, Doraha, Jagroan, Payal, Raikot, Samrala, Machhiwara, Sahnewal, Mullanpur, Khanna and Maloudh and noticed violations. Further observations of the Committee are with regard to manual and mechanical sweeping of roads, providing waste deposition centres, on-site composting by bulk waste generators, setting up of composting centres with wet waste and remediation of legacy waste site, apart from measures for disposal of non-recyclable waste, clearing of garbage vulnerable points, and developing green areas/green belts/boundary walls around the dump sites, stopping of dumping of waste into Budha Nallah, treatment of leachate generated at the waste dump site, setting up CCTV cameras/piezometers, scientific disposal of carcass, C&D waste management and e-waste management. The consolidated recommendations of the Monitoring Committee are:*

“10.0 Consolidated recommendations of the Monitoring Committee

A) Meeting with District Level Officers, Commissioner, Municipal Corporation, Ludhiana, ADC MO) and Executive Officers of Municipal Councils of Ludhiana in the presence of Deputy Commissioner, Ludhiana on 27.4.2022.

During the meeting held with District Level Officer, Commissioners, Municipal Corporation, Ludhiana and the Executive Officers of Municipal Councils of district Ludhiana in the presence of Deputy Commissioner, Ludhiana on 27.4.2022 w.r.t implementation of various activities as mentioned in the District Environment Plan, the Monitoring Committee has observed that there is poor progress regarding compliance of the various activities as mentioned in the District Environment Plan. The details have been mentioned at pages 20 to 25 of this report

Besides, as per the directions of the Chairman of the Monitoring Committee, various sites of solid waste management of all MCs, Ludhiana, Doraha, Jagroan, Payal, Raikot, Samrala, Machhiwara, Sahnewal, Mullanpur, Khanna and Maloudh were got inspected from the officers of Punjab Pollution Control Board, posted at Ludhiana on 24/04/2022 and it was observed that mixed solid waste was found thrown at dumping site. Few steps

have been taken to treat the legacy waste lying dumped at dumping sites of MCs.

Therefore, the Monitoring Committee recommends that Punjab Pollution Control Board shall initiate the process of imposing environmental compensation of suitable amount on each MC as per the provisions of the EPA, 1986. Further, since MC Ludhiana has failed to treat wet waste, dry waste and legacy waste inspite of persuasion by the Monitoring Committee, therefore, the Monitoring Committee also recommends that over and above the environmental compensation to be imposed as mentioned above, additional environmental compensation of suitable amount may also be imposed on Municipal Corporation Ludhiana.

B) The probable reasons for catching the fire and cause of death

The officers of the Department of Police stated that there are following possibilities for charring to death of 7 persons in the fire.

- i. There may be foul play in this case, as in the jhuggi, which is situated very near to the deceased family's jhuggi, there was no burning or damage to the same.**
- ii. There may be short circuiting of electricity as illegal/ kundi connections have been taken by these rag pickers residing near the solid waste dumping site.**
- iii. The possibility of causing fire to the jhuggi of deceased family, due to existing of large dump site of solid waste spread in an area of 52 acres and occurrence of fire incident at various locations of the solid waste dump, cannot be ruled out.**
- iv. The Department of Police has got conducted post mortem of burnt bodies and the report and viscera have been sent to the Forensic Laboratory to ascertain the cause of death.**

C) Remedial action to save the lives of the persons residing near solid waste dumping site.

- i. The Government may think of rehabilitating the rag pickers families at a safe place away from solid waste dump site.**
- ii. Next to rag pickers habitation, immediately height of the wall around solid waste dump site may be increased to 10 feet. 10-12 feet wide motorable passage may be provided on the periphery of entire solid waste dump site. Next to it, upto the distance of 30 feet, the height of solid waste dump site which is about 20 feet may be reduced to 7 feet by spreading the waste on the other available areas. The rag pickers may be asked to dispose off the plastic waste collected by them before the sun set.**

- iii. **Facility of light system on poles of 10 feet height near to the huts and the facility of potable drinking water may also be given to them.**
- iv. **The rag pickers families may be provided huts constructed of non burnable material and may be asked to remove their huts made of inflammable material and construct their huts with mud.**

D) Facts leading to fire incident

The Hon'ble National Green Tribunal directed the Monitoring Committee to give findings about persons responsible for failure, on account of which, 7 people had died in fire.

It is stated that the administrative set up at Ludhiana has failed so far as the compliance to Solid Waste Management Rules, 2016, notified on 8.4.2016, is concerned. There is a story of failed promises. In the rules for 11 thematic areas in the field of Solid Waste Management Rules, 2016, the time frame to implement each activities was given. By now, the timelines for all those activities have expired.

The Monitoring Committee held its 3 meetings with District Level Officers of District Ludhiana on 13.02.2020, 14.08.2010 and 21.05.2021 to check the compliance of the Solid waste Management Rules, 2016 and it was found that compliance to the most of the thematic area mentioned in rule 22 of the said rules was poor. The details are mentioned at pages no. 6 to 10 of this report.

The facts mentioned at point 1.7 (pages 6 to 10) show that MC, Ludhiana Is totally non complying w.r.t, compliance of the provisions of the Solid Waste Management Rules, 2016.

E) Disturbing trend to finish solid waste by burying it into womb of Mother earth

i. Dumping of Solid Waste in an area about 1 Acre on PSIEC land near CETP, Tajpur Road, Ludhiana

During the visit of the Monitoring Committee on 27.04.2022 to Ludhiana area, it was observed that the MC, Ludhiana has dumped huge quantity of solid waste in low lying area owned by PSIEC. The Committee directed the officer of PPCB to assess the quantity of solid waste dumped in that area and after assessing the quantity of solid waste dumped at site, it was estimated as 1000 MT.

ii. Dumping of legacy waste and fresh unsegregated solid waste in low lying area into 20 feet deep pit by MC 3agraon.

At the time of monitoring by the officers of Punjab Pollution Control Board on 24.4.2022 at 3agraon, it was observed that MC,

Jagraon has dumped legacy waste in low lying area and the fresh unsegregated solid waste is dumped into 20 feet deep pit which was a result of illegal mining of soil.

iii. Dumping of solid waste in low lying area in deep pit by MC Batala.

The Monitoring Committee during its visit to Batala area on 25.4.2022, it was observed that large quantity of solid waste was found buried by MC, Batala. Vide separate report, it has been ordered to be retrieved and process the solid waste as per norms. There is total violation of the rules and attempt has been made to cause huge loss to the water through contaminated waste and on account of generation of hazardous gases. The details are mentioned at pages no. 10 to 11 in this report.

The Monitoring Committee recommends as under:

- i. Municipal Corporation, Ludhiana may be directed to excavate the solid waste from the said site and the same may be got processed by installing mechanical separator/screener at the site by 30.6.2022 under the supervision of Chief Environmental Engineer, Ludhiana.**
 - ii. The reclaimed land, belonging to PSIEC may be handed over to the said authority and a display board may be erected at site mentioning that "No solid waste dumping is allowed, land belongs to Govt."**
 - iii. PSIEC shall provide boundary wall all around the site so that solid waste may not be dumped at the site in future.**
 - iv. Deputy Commissioner, Ludhiana shall conduct an enquiry to fix the liability of the officer who permitted such an illegal activity.**
 - v. Municipal Corporation, Jagraon shall extract the solid waste dumped in 20 feet pit within 02 days and process the solid waste by deploying mechanical separator / screeners within 01 month and the byproducts may be disposed of in an environment sound manner.**
 - vi. Municipal Corporation, Batala shall extract the solid waste dumped in deep pit within 02 days and process the solid waste by deploying mechanical separator / screeners within 01 month and the byproducts may be disposed of in an environment sound manner.**
 - vii. SDM, Jagraon and Batala shall conduct an enquiry to fix the liability of the officers who permitted such an illegal activity as mentioned in point ii and iii above.**
- F) Non compliance of orders of Hon'ble National Green Tribunal in certain cases.**

a. Mismanagement of wastewater and solid waste generated by carcass disposal points, located at Ladhawal, Ludhiana

The Monitoring Committee, during its meeting/ visit to Ludhiana area on 27.4.2022, was informed that out of total 5 carcass disposal sites located at Village Ladhawal, 02 sites have been closed and presently, 03 carcass disposal sites are in operation. The Hada roadies are generating wastewater and the same is leading to river Sutlej and contaminating its water quality. Further, the solid waste generated by carcass disposal points are also big source of nuisance in the area. As such, these carcass disposal plants are violating the directions of the Hon'ble NGT in OA no. 465 of 2019 in the matter of Kulwinder Singh and Others vs Ram Murti and Others.

The Monitoring Committee recommended that MC, Ludhiana shall commission modern carcass utilization plant by 21.05.2022 which is ready and waiting for inauguration for the last 6 months. Also, PPCB shall close 03 carcasses disposal sites located at Ladhawal, Ludhiana within one month under the provisions of the Water Act, 1974 and EPA, 1986.

b. Solid waste dumping point existing near Chatter Sing Park, Ludhiana

The Monitoring Committee in the presence of Officers of PPCB and Municipal Corporation, Ludhiana visited the solid waste dumping point near Chatter Singh Park, Ludhiana on 27.4.2022 and it was observed that mixed solid waste was found dumped at the site.

It is mentioned here that the monitoring committee while submitting its report to the Hon'ble NGT in OA no. 191 of 2020 In the matter of Gurinderpreet Singh and Other vs State of Punjab and other had recommended as under: -

- i. Compartmentalized portable municipal solid waste compactor for temporary storage of wet waste, dry waste and domestic hazardous waste may be set up at Bhai Chatter Singh Park within 03 Months.***
- ii. Municipal Corporation, Ludhiana shall increase the frequency of lifting of solid waste twice in a day to remove the segregated solid waste from the said location and the same may be transported to the solid waste management site and hazardous waste management site.***
- iii. A boundary wall of suitable material with its one gate for entry & exist of vehicles may be provided around the solid waste collection centre within 01 month.***

- iv. A green belt of suitable width to attenuate obnoxious odour from the site may be developed within 01 month.*

The Monitoring Committee has observed that the Municipal Corporation has not complied with any of the said recommendations of the Monitoring Committee, affirmed by the Hon'ble National Green Tribunal.

Therefore, it is recommended that the Hon'ble NGT may be requested that Environment compensation of suitable amount may be imposed on the Municipal Corporation, Ludhiana for not complying with the recommendations of the Monitoring Committee and this collection point may immediately be stopped.

G) Garbage vulnerable points in Ludhiana

a) Garbage vulnerable point at site near Greatway industry, opposite Dholewal Military Complex

i) Municipal Corporation, Ludhiana shall remove Garbage vulnerable point maintained at site by 21-05-2022 and the said site may be beautified by maintaining sitting place or any other useful usage.

ii) Municipal Corporation, Ludhiana shall ensure that no solid waste may be thrown at the site and the public may also be not allowed to throw any solid waste at the site. In case any person found throwing solid waste at site, a fine of suitable amount may be imposed by MC Ludhiana on the violators.

b) Garbage vulnerable point near Shani Mandir in Kalyan Nagar area, Ludhiana

i. Municipal Corporation, Ludhiana shall remove Garbage vulnerable point maintained near Shani Mandir, Kalyan Nagar by 21-05-2022.

ii. Municipal Corporation, Ludhiana shall ensure that no solid waste is thrown at site and the public may also be not allowed to throw any solid waste at the site. In case any person found throwing solid waste at site, a fine of suitable amount may be imposed on the violator by MC Ludhiana.

H) Other secondary points of solid waste maintaining by Municipal Corporation, Ludhiana as verified by officers of PPCB on 24.4.2022

The Monitoring Committee recommends that all the 38 secondary points of solid waste maintained by Municipal Corporation Ludhiana at various locations may be removed permanently and the solid waste collected from the various areas of Ludhiana may be sent to the solid waste dumping site. Compartmentalized trolleys may be

stationed at the requisite places and solid waste received through small rickshaw rehries/ vehicles be filled in it and it may be sent to solid waste dumping site and another compartmentalized trolleys may be placed at the site.

1) Visit to the solid waste dumping site of Ludhiana at Village Kakka, Tajpur Road, Ludhiana by the Monitoring Committee on 27.04.2022.

1. The Municipal Corporation Ludhiana is generating 1100 TPD solid waste and entire waste is sent to the dump site. As per the report submitted by PPCB, 968 TPD and 985 TPD solid waste has been sent to solid waste dumping site on 23.04.2022 and 24.04.2022, respectively and the remaining quantity is thrown at garbage vulnerable points causing lot of damage to the environment.

2. Since the fresh solid waste processing plant is lying defunct, as such, there is need to appoint a new concessionaire to process the solid waste by the Municipal Corporation, Ludhiana at the earliest. As per the District Environment Plan, the timelines for commissioning of the solid waste processing plant for processing of fresh solid waste was mentioned as 30.04.2024. However, the processes of preparation of DPR, approval of DPR, floating of RFP and appoint of consultant are yet to be initiated by the Corporation. Therefore, the Monitoring committee recommended that an Environment compensation of suitable amount may be imposed on the Corporation as a cost of damage caused to the environment. PPCB may also initiate the process of encashment of bank guarantees submitted for not completing the various activities like source segregation of solid waste by 31.08.2021, providing onsite composting in the remaining parks to manage horticulture waste by 31.8.2021, constructing remaining material recovery facilities by 30.11.2021 and construction of boundary wall by 31.08.2021 and stating the work of treatment of legacy waste by 28.02.2021. The compensation be imposed in terms of the formula recognized by the Hon'ble National Green Tribunal in OA no. 593 of 2018 and WPC No. 375 of 2012, Paryavaran Suraksha Samiti & Am. Vs. Union of India & Ors. The total amount works out to more than Rs. 100 crores.

3. As per District Environment Plan, for installation of machinery for processing of legacy waste, DPR was to prepared by 31.12.2021, approval of DPR by 31.01.2022, preparation of RFP by 31.03.2022 and appointment of new concessionaire by 31.07.2022. However, the most of the timelines of said activities have been expired and concessionaire to process the legacy waste is yet to be appointed, as such, for the treatment of legacy waste, long time will be required and the quantity of legacy waste shall be continued to be increased day by day. Therefore, the Municipal Corporation, Ludhiana has to appoint the concessionaire at the earliest. For delay in processing the legacy waste, the Monitoring Committee recommends that

Environment Compensation of suitable amount may be imposed by PPCB as a cost of damage caused to the Environment in a manner as mentioned in recommendation no. 2 as above.

4. *Municipal Corporation, Ludhiana shall assess the quantity of leachate generated at solid waste dumping site and effluent treatment plant for treatment of leachate may be installed by 31.12.2022.*

J) *Other Environmental issue: Shifting of dairy complex located at Tajpur Road and Halbawal, Ludhiana and installation effluent treatment plants and bio gas power plants for treatment of wastewater and animal dung generated by dairy units.*

The details have been mentioned as page 15 of this report.

The Monitoring Committee recommends that the State Government may be issued directions to take immediate decision about shifting of dairy complex located at Tajpur road and Haibowal, Ludhiana within 1 month or install effluent treatment plants and bio gas based power plants of adequate capacity to treat wastewater and animal dung generated by these dairy complexes by 31.3.2023.

K) *Non-compliance by the Municipal Councils of District Patiala, Fatehgarh Sahib, Sangrur & Malerkotla SBS Nagar, Mansa, Roper, Gurdaspur, Pathankot, Fazilka and Sri Mukatsar Sahib w.r.t activities as mentioned in the District Environment Plan as observed by the Monitoring Committee during its meeting with District Level officers of the Districts and visit to the solid waste dumping site on 24.2.2022, 15.3.2022, 22.3.2022, 28.3.2022, 4.4.2022, 11.4.2022, 25.4.2022, 26.4.2022 and 6.5.2022, respectively.*

The Monitoring Committee held its meetings with District Level officers of District Patiala, Fatehgarh Sahib, Sangrur & Malerkotla, SBS Nagar, Mansa, Roper, Gurdaspur, Pathankot, Fazilka and Sri Mukatsar Sahib on 24./2022, 15.3.2022, 22.3.2022, 28.3.2022, 4.4.2022, 11.4.2022, 25.4.2022, 26.4.2022 and 6.5.2022, respectively w.r.t activities as mentioned in the District Environment Plan to review the action taken on the activities as mentioned in the District Environment Plan of the said districts in compliance to order dated 8.12.2022 in OA no. 360 of 2018 in the matter of Shree Nath Sharma Vs Union of India and Ors. It was observed that in almost all the Municipal Councils, the compliance of activities w.r.t management of solid waste was poor and no significant progress has been made to achieve the target to complete the activities within the time schedule. The minutes of the meetings held with District Level officers of various districts have been conveyed separately to the concerned Deputy Commissioners of the districts as well as Punjab Pollution Control Board.

The Monitoring Committee recommends as under:

- i. **PPCB may be directed to impose environmental compensation of suitable amount on all the said MCs as already recommended by the Monitoring Committee while conveying the minutes of the meeting to all the concerned Deputy Commissioner of the districts and Punjab Pollution Control Board.**
 - ii. **The minutes of the meeting held with District Level Officers of these 11 Districts may be sent to the State Government with the directions to effect recovery of Environmental Compensation imposed by the Monitoring Committee as well as PPCB from the ULBs for noncompliance of the Solid Waste Management Rules, 2016 and other action points as mentioned in the District Environment Plan of these districts.**
- L) Imposition of Environment Compensation upon the ULBs for violation of Solid Waste Management Rules, 2016 and non adoption of in situ remediation of drains, non-commencement and non-commissioning of STPs.**
- a) **Imposition of Environmental Compensation upon the ULBs for violation of Solid Waste Management Rules, 2016 for the period 01.07.2020 to 31.03.2021 and 01.04.2021 to 28.02.2022.**

Punjab Pollution Control Board has assessed the environment compensation for non-compliance serial no. 1 to 10 of rules 22 of Solid Waste Management Rules, 2016 for 9 months w.e.f. 01.07.2020 till 31.03.2021, which has been mentioned as Rs, 17.01 crores. Similarly, environment compensation for violation of said rule has been assessed for the period 01.04.2021 to 28.02.2022 and the same has been mentioned as Rs. 20.35 crores.

- b) **Imposition of Environmental Compensation upon the ULBs for non-adoption of in site remediation of drains, non-commencement and non-commissioning of STPs for the period 01.07.2020 to 31.03.2021 and 01.04.2021 to 28.02.2022.**

Punjab Pollution Control Board has also assessed the environment compensation upon ULBs for non-compliance of in situ remediation of drains, non-commencement and non-commissioning of STPs, which has been mentioned as Rs. 93.22 crores.

*Copy of the letter no. 7268 dated 23.03.2021, letter no. 07 dated 29.04.2022 and letter no, 2849 dated 17.02.2022 of Punjab Pollution Control Board mentioning the amount of environment compensation to be paid by State Government for above said non-compliances are annexed as per **Annexure 26 to 28.***

As per the information received, the State Government has paid only Rs. 17 crores for noncompliance of Solid Waste Management Rules, 2016, which is very small part of environment compensation to be paid by the State Government.

The Monitoring Committee recommended that the directions may be issued to the State Government to deposit environment compensation imposed by Punjab Pollution Control Board for non-compliance of Solid Waste Management Rules, 2016 and non-adoption of in site remediation of drains, non-commencement and non-commissioning of STPs, which is more than Rs. 100 crore.”

4. The Tribunal held that further action was required to be taken in terms of the report and Municipal Corporation, Ludhiana was liable to deposit a sum of Rs. 100 Crores towards interim compensation for remedial measures, to be overseen by the Monitoring Committee. The victims were held entitled to compensation of Rs. 57.5 lakhs to be disbursed in the laid down manner. Directions were also issued to the Authorities to adopt necessary safety measures. Further action taken report was directed to be filed. Operative part of the order is reproduced below:-

“1to6...xxx.....xxx.....xxx

7. *Since no response has been filed by the Chief Secretary, Punjab, inspite of copy of order of this Tribunal and copy of report of the Monitoring Committee having been sent to the Chief Secretary by email, we give further opportunity to the Chief Secretary, Punjab, Additional Chief Secretary, Urban Local Bodies, Punjab and Municipal Corporation, Ludhiana to file their response/objections to the report, if any.*

8. *Issues for consideration are liability of the Corporation and the State for failure to comply with the SWM Rules resulting in damage to environment and public health, for restoration measures on ‘polluter pays’ principle and also under public trust doctrine, compensation to the heirs of the persons who have died, further remedial action by the Corporation and the State and monitoring by CPCB on the issue of safety measures against forest fires.*

9. *Since prima facie we find that action needs to be taken in terms of the report on urgent basis, such action being based on pre-existing orders of the Tribunal, including two orders dated 7.3.2019 and 10.1.2020 in OA 606/2018, passed in the presence of Chief Secretary, Punjab on the subject, we direct action in terms of recommendations in the report, subject to further orders, considering the stand of the Corporation and the State. Further, in terms of recommendations, based on calculations in based on earlier orders of this Tribunal, referred in the report, which have attained finality, the Municipal Corporation Ludhiana may deposit a sum of Rs. 100*

crores with the District Magistrate, Ludhiana, towards interim compensation within one month, to be kept in a separate account, to be utilized for remedial measures in terms of the report, to be overseen by the Monitoring Committee. If Corporation is unable to make such deposit, it may be done by the State Government. It is open to the Corporation to recover the amount from those contributing to the garbage or those who failed to perform their duties, as per law.

10. Further, in view of preponderance of probabilities that death of seven persons is attributable to fire of the dump site, the Municipal Corporation is held liable to pay compensation to their next of kin by way of deposit with the District Magistrate, Ludhiana within one month. Compensation is assessed at Rs.57.5 lacs – Rs.10 lacs each for persons aged above 50 and Rs.7.5 lac each to the persons below 20 on the principle laid down in *MCD v. Uphaar Tragedy Victims Assn.*, (2011) 14 SCC 481. Relevant observations there are “65.....Taking note of the facts and circumstances, the amount of compensation awarded in public law remedy cases, and the need to provide a deterrent, we are of the view that the **award of Rs 10 lakhs in the case of persons aged above 20 years and Rs 7.5 lakhs in regard to those who were 20 years or below as on the date of the incident, would be appropriate.**” Further, following the observations in Kerala, *SRTC v. Susamma Thomas*, (1994) 2 SCC 176, to the effect that “23.....**appropriate investments to safeguard the feed from being frittered away by the beneficiaries owing to ignorance, illiteracy and susceptibility to exploitation**”, we direct that the District Magistrate may deposit the amount with a Bank with direction that a sum of Rs.5 lac be paid immediately to the sole surviving male member of the family and the remaining be kept in fixed deposit, to be paid @ Rs.5 lac every year with accrued interest till the entire amount is disbursed.

11. The State PCB and other authorities in the State of Punjab may comply with the directions of the CPCB dated 26.05.2022 with regard to safety measures against fire incidents in dump sites, apart from observations in the report of the Monitoring Committee. In particular, Ludhiana Municipal Corporation may set up requisite facilities/ infrastructure to prevent fires. PPCB may grant necessary Authorization under MSW Rules as per norms. Remediation of legacy waste which has already been delayed beyond timelines under the Rules may now be done without further delay.

12. CPCB may collate information on legacy and active dump sites in cities having population more than one million and, in the State/UT capitals, with timelines to prepare and execute fire management plans, with requisite facilities and infrastructure.

13. An action taken report may be filed by the Municipal Corporation, Ludhiana, District Magistrate Ludhiana, State PCB and the Chief Secretary, Punjab and CPCB within two months 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.”

5. The Municipal Corporation filed the Review Application No. 21/2022, which was dismissed vide order dated 18.08.2022. The Tribunal held that merely making of a plan did not exonerate statutory liability to scientifically process the waste and past liability for damage to the environment. The observations therein are:-

“1 to 4.....xxx.....xxx.....xxx

5. We have considered the Review Application by circulation as per Rules. The said Application does not dispute the state of affairs depicted in the report of the Committee. Only basis for seeking review is that a plan has been prepared for remediation of the waste and submitted to the Central Government for funds. A plant has been set up for carcass utilization. Directions have been issued to the Local Bodies in the State for compliance. An agreement has been entered into with a service provider for waste management.

6. In view of undisputed and proved continued violations, mere making of plan and submitting it to the Central Government, issuing of directions or entering into an agreement with the service provider cannot be treated as substitute for inalienable constitutional obligation of providing clean environment. Such steps are not compliance of binding statutory norms under the Solid Waste Management Rules, 2016. Timelines provided therein have admittedly expired without any effective compliance by the State. There is also violation of judgement of this Tribunal dated 22.12.2016, (2016) SCC Online NGT 2981, in proceedings transferred by the Hon'ble Supreme Court to this Tribunal vide order dated 2.9.2014 in WP 888/1996, Almitra Patel case. No plea has been raised that the compensation is not based on any scientific assessment. Moreover, compensation is to be utilized for restoration measures for which constitutional and statutory obligation is of the State Authorities.

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.	NDMC (North Delhi Municipal Corp.)	Bhalswa	155.9 Crore
2.	EDMC (East Delhi Municipal Corp.)	Ghazipur	142.5 Crore
3.	SDMC (South Delhi 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 :

- 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.
- 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.

- vi. ***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 limited at one station and NO_x has exceeded the permissible limit at 7 monitored stations.***
- vii. ***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.**

- viii. *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.*
- ix. *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.*
- x. *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).**

- xi. Source apportionment studies are required to assess the actual impact of air pollution sources at dumpsite on air quality in the region.
- xii. 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
Aesthetic	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.”

6. In above background, we have perused the report of the Municipal Corporation, Ludhiana dated 21.09.2022 and action taken report filed by the State PCB dated 27.10.2022. The report of the Municipal Corporation is that bio-remediation work for 5 lakhs MT is taken up while bio-remediation for remaining 19.6 lakhs tonnes is yet to take off. Compensation of Rs. 57.5 lakhs has been deposited in a separate account for disbursement after police enquiry is completed. It has prepared plan for remediation at the cost of Rs. 200 Crores. A sum of Rs. 40 Crores has been deposited in a separate account under the Deputy Commissioner. There is no reason for non compliance of remaining part of the order. Needless to say that if such non compliance continues, the Tribunal may have to initiate coercive measures, as per law.

7. Report of the State PCB is that it has levied compensation of Rs. 4 Crores and issued directions regarding fire incidents on 19.07.2022 and 14.09.2022. In view of earlier orders of the Tribunal in the matter, we find the action of the PCB to be of no consequence.

8. We find that the compensation payable to the victims has to be disbursed in the manner directed vide order dated 25.07.2022 and uncalled for attempt of the Municipal Corporation that disbursement of compensation will be linked to the Police enquiry is patently untenable. The compensation may be deposited/dispursed strictly as per directions vide order dated 25.07.2022.

9. The remaining amount of compensation for restoration may also be deposited in terms of the said order without the same being linked to any

other scheme of the Government as such scheme cannot be substitute for orders of this Tribunal. The Corporation may carry out its obligation for remediation of legacy waste of 30 lakhs MT as well as scientific management of current waste strictly in accordance with Solid Waste Management Rules, 2016. For any continuing default, Chief Secretary of the State will be held personally accountable, as earlier directed. Attention be duly given to prevention of land fill fires, including unnecessary entry of any visitors/ workers. Order dated 25.7.2022 is made absolute.

The application is disposed of.

In view of order in the main matter, all pending I.A.s also stands disposed of.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

November 01, 2022
O.A. No. 286/2022
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