

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

Original Application No. 138/2016 (T_{NHRC})

Stench Grips Mansa's Sacred Ghaggar River

Date of hearing: 17.01.2020

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

ORDER

1. This order is being passed in continuation of order dated 22.11.2019 on the subject of effective steps for making Ghaggar river pollution free. The river originates in the State of Himachal Pradesh and ends in the State of Rajasthan. The river is included by the Central Pollution Control Board (CPCB) in 351 polluted river stretches of the country in priority - I category, which is a category of highest pollution, having BOD more than 30 mg/l as against the prescribed standard of 3mg/l. The issue of control of pollution in all the said 351 river stretches is also being dealt with generally by this Tribunal in O.A. No. 673/2018. The present matter however involves a specific polluted river stretch.

2. Proceedings in this matter were initiated before this Tribunal on a reference received from the National Human Rights Commission (NHRC). The NHRC took *Suo-Motu* action on the basis of a news item appearing in 'The Tribute' dated 12.05.2014 under the caption "*Stench Grips Mansa's Sacred*

Ghaggar River” to the effect that the river Ghaggar had turned into a polluted water body on account of discharge of effluents - industrial as well as municipal. The NHRC considered the matter in the light of reports from the States of Punjab and Haryana as well as the State of Himachal Pradesh. Vide letter dated 17.03.2016, the NHRC sent the record of the matter to this Tribunal.

3. Pursuant to the order of this Tribunal dated 09.12.2016, a joint inspection was carried out by the representatives of the Central Pollution Control Board, Punjab State Pollution Control Board, Haryana Pollution Control Board, Himachal Pradesh State Pollution Control Board. Officials of Union Territory, Chandigarh also joined the said inspection team. The findings of the joint inspection report showed that values of various parameters such as BOD, TSS, Feecal Coliform, Lead and Iron were beyond permissible limits at most of the locations in Himachal Pradesh, Haryana, Punjab and Chandigarh.

4. The matter was reviewed vide order dated 07.08.2018 and noticing failure of the Regulatory Authorities in taking remedial steps by way of prevention of pollution and proceeding against the polluters, the Tribunal directed constitution of a Special Task Force (STFs) at the District level as well as at the State level. The State level STF was to be headed by Chief Secretary. The Tribunal directed preparation of action plans with firm timelines so as to ensure that water quality is as per norms within the targeted time. The Tribunal also constituted an Executing Committee, under Section 25 of the National Green

Tribunal Act, 2010, headed by a former Judge of Punjab and Haryana High Court, Justice Pritam Pal. The Executing Committee was to furnish an interim report to this Tribunal. Accordingly, report dated 28.02.2019 under the cover letter dated 01.03.2019 was received and considered on 11.04.2019.

5. The issue of 351 polluted river stretches was taken up by this Tribunal vide orders dated 20.09.2018, 19.12.2018 and 8.04.2019, in O.A. No. 673 of 2018. On 20.09.2018, the concerned States were required to constitute River Rejuvenation Committees (RRCs) to prepare action plans to make polluted river stretches pollution free. The action plans were to be submitted to CPCB. The matter was further reviewed on 19.12.2018 and thereafter. The matter is now fixed for 29.11.2019. This issue was also subject matter of consideration in order dated 16.01.2019, in Original Application No. 606 of 2018, which pertained to compliance of Municipal Solid Waste Management Rules. This Tribunal directed the Chief Secretaries of all the States to appear in person before this Tribunal after acquainting themselves with the progress not only on the issue of solid waste management but also other significant issues, including the subject of polluted river stretches. Accordingly, Chief Secretaries of Himachal Pradesh, Haryana, Punjab and Advisor to Administrator, Chandigarh appeared on 05.03.2019, 06.03.2019, 07.03.2019 and 26.03.2019 respectively and filed their reports which also included reports on the issues of polluted river stretches. The Tribunal directed the Chief Secretaries to continue to monitor the subject and furnish

quarterly reports. Reports were also furnished by RRCs to CPCB which matter was dealt with by the Tribunal on 08.04.2019 and by subsequent orders.

6. The Committee has already given three reports dated 28.02.2019, 14.06.2019 and 01.10.2019 which were dealt with by this Tribunal vide orders dated 11.04.2019 (report dated 28.02.2019) and 22.11.2019 (reports dated 14.06.2019 and 01.10.2019).

7. Gap in report of sewage management, as per report dated 28.02.2019 of the Executing Committee, was found to be as follows:-

(i) Himachal Pradesh – Parwanoo and Kala Amb

The gap for Parwanoo is 569.414 KLD
The gap for Kala Amb is 1046.24 KLD

(ii) With regard to Chandigarh the gap is 23.225 MLD

(iii) With regard to Punjab the gap is 75.92 MLD

(iv) With regard to Haryana the gap is 42.9 MLD

8. The Tribunal also considered the deteriorated water quality, status of STPs in Himachal Pradesh, Haryana, Punjab and UT Chandigarh and directed action to be taken by the Himachal Pradesh, Haryana, Punjab and UT Chandigarh to be monitored by the Chief Secretaries and required a further report from the Executing Committee with reference to the status on the ground after six months or as and when considered necessary by the Committee.

9. Vide order dated 22.11.2019, reports dated 14.06.2019 and 01.10.2019 were considered with particular reference to the

performance status of the STPs and proposal for remedial action, including new STPs. It was observed:-

“17. River Rejuvenation monitoring may generally involve following components:

- a. Environmental Flow*
- b. Quality of the River and groundwater*
- c. Sewage Treatment Plants and Online Monitoring*
- d. Use of treated Waste Water*
- e. Septage and Faecal Sludge Management*
- f. Industrial Pollution and CETPs*
- g. Solid Waste Management and issues of Legacy Waste in areas falling in catchment of river Ghaggar*
- h. Creating public awareness through Information, Education and Communication (IEC)*

It is desirable that henceforth, the Committee, as far as possible, gives report in terms of the above heads for facility of consideration.

- 18. The report of the Committee shows that the authorities have ‘miles to go’ to achieve the water quality standard. Strenuous efforts are required to ensure that no untreated sewage or trade effluents are discharged in water bodies and also no solid waste is dumped in the water bodies which requires robust environmental governance. This can be ignored by the authorities only at their own peril. A welfare State cannot afford to show apathy to degradation water quality and failure of waste management mechanism. This needs to be attended at highest level with promptitude and accountability of officers entrusted the job has to be ensured. Lack of funds cannot be pleaded as the issue is linked to the right to life. Funds may be generated from persons adding to pollution or otherwise. The conclusions of the Committee with reference to concerned State/UT need to be attended and acted upon expeditiously in accordance with law.*
- 19. Action plans have been prepared by the concerned States with reference to some of the above points in terms of orders of this Tribunal in O.A. 673/2018. Vide order dated 08.04.2019, in the said matter, the Tribunal directed that the action plans have to be executed latest by 31.03.2021.*
- 20. As noticed in the order dated 07.08.2018, the main concern for remedying the pollution of rivers is preventing discharge of untreated sewage or effluents or dumping of garbage to enforce the statutory provisions and to improve and maintain the water quality conforming to the prescribed standards within a targeted timeline. In this regard, it is also necessary to ensure that discharge of any untreated waste water is stopped as doing so is in*

violation of Section 25 of the Water (Prevention and Control of Pollution) Act, 1974. To give effect to this mandate of law, in pursuance of order of the Hon'ble Supreme Court in Paryavaran Suraksha case, (2017) 5 SCC 326, this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 directed all the local bodies and concerned departments of the States to ensure 100% treatment of sewage, failing which compensation will be liable to be recovered from the defaulting States/UTs with effect from 01.04.2020.

Accordingly, all the concerned States/UT relevant for River Ghaggar must ensure installation of STPs within the planned timelines subject to the rider that where the timelines proposal goes beyond 31.12.2020, the timeline will be treated to be 31.12.2020. Wherever timeline already laid down by the State/UT is exceeded, compensation will be payable @ Rs 10lakh/month per STP till commissioning of STPs. This scale of compensation will also apply, in respect of STPs for which timeline for construction of STP is beyond 31.12.2020, from 01.01.2021.

21. The other main source of pollution of the river is discharge of untreated effluents which is an offence under Section 25 of the Water Act. Such discharge has to be stopped forthwith and coercive measures adopted wherever it is found. Let the concerned SPCBs/PCC take steps in terms of observations of the Committee after considering the response of the alleged polluter. If the Committee observes that SPCBs/PCC has not taken necessary and adequate action, report be given to this Tribunal.

22. Apart from the issue of installation/ upgradation of STPs and action to be taken for discharge of untreated effluents in terms of paras 18 and 19 above, the Committee has also made recommendations on the subject of e-flow, quality of river and ground water, use of treated waste water, IEC activities and organizing health check ups. The Committee has also given data with regard to drains directly discharging sewage and sullage into the river reflected in the water quality shown by the samples taken. It is necessary wherever feasible that all such drains are duly tapped and connected to the existing and proposed STPs and till then in-situ remediation is ensured so that no untreated sewage or industrial effluent is discharged directly into the river. Let steps be taken by concerned States/UTs in terms of the said recommendations.

One of the major sources affecting water quality of the rivers is unscientific dumping of solid waste. Let the local bodies in the catchment areas of the river and its tributaries ensure all necessary steps are taken to prevent such dumping. The Committee may oversee this aspect and give its report.

23. Accordingly, following directions are issued:-

(i) All the concerned States/UT relevant for River Ghaggar must ensure installation of STPs within the planned timelines subject to the rider that where the timelines goes beyond 31.12.2020, the timeline will be treated to be 31.12.2020. Wherever timeline already laid down by the State/UT is exceeded, compensation will be payable @ Rs 10lakh/month per STP till commissioning of STPs. This scale of compensation will also apply, in respect of STPs for which timeline for construction of STP is beyond 31.12.2020, from 01.01.2021. The STPs must conform to the laid down standards and connected to the sewerage network with a view to achieve the object of setting up of such STPs.

(ii) Let the concerned SPCBs/PCC take steps in terms of observations of the Committee after considering the response of the alleged polluters. If the Committee observes that SPCBs/PCC has not taken necessary and adequate action, report be given to this Tribunal.

(iii) Local bodies in the catchment area may ensure that solid waste is not dumped into the river or its tributaries which aspect may be monitored by the Committee also.

(iv) Future functioning of the Committee will be in terms of clarification as per para 21 above. Incidental issues stands disposed of in terms of para 22 above.

(v) Let steps be taken by concerned States/UTs in terms of the recommendations and for compliance of direction for connecting the drains to the STPs wherever feasible and till then in-situ remediation in terms of para 20 above.

(vi) The Chairmen, Member Secretaries of SPCBs/PCC, Secretaries Urban Development and Secretaries Irrigation and Public Health of the four States/ UT and nodal officer of CPCB may remain present in person for the assistance of the Tribunal so that comprehensive review of progress can be undertaken.”

10. Accordingly, further (04th) report dated 08.01.2020 has been filed by the Committee. The concerned Officers of the States/UT have appeared in person. The conclusion and recommendations of the Committee State wise are:-

“3.5.1 State of Punjab

Conclusions and recommendations

1. The Executive Committee had visited 1 industry of district Patiala on 19.9.2019 and 2 industries of Dera Bassi area on 1.10.2019. The recommendations made in case of each industry were sent to Chairman, Punjab Pollution Control Board, vide no. 491 dated 14.10.2019 and no. 529 dated 1.11.2019, respectively, with the direction to take necessary action on the recommendations of the Executive Committee.
2. 30 towns have been identified, which are directly / indirectly discharging their sewage into River Ghaggar. For these 30 towns, 43 STPs are required to be installed. Presently, 21 STPs in 18 towns have been installed.
3. The existing 21 STPs were monitored during September to November, 2019 to check their performance. The analysis data indicate that out of these 21 STPs, 03 STPs (Baretta, Bhiki and Sardulgarh) are not complying with the prescribed norms. Remaining 18 STPs were complying with the prescribed norms w.r.t. BOD, TSS and F.Coli parameters.
4. 8 STPs, are under construction and percentage of work done in these STPs varies between 8-20%. These STPs are expected to be completed by 31.7.2020.
5. 14 STPs are under planning and funds have been tied up for these STPs and these may be completed by 31.12.2020.
6. 2 STPs (Bhadson: 2 MLD, Sanaur: 4 MLD) are under planning but the funds are yet to be tied up. The Committee recommends that the Department of Local Government should make necessary arrangements for funds for these STPs and these may be completed by 31.12.2020.
7. Technology upgradation and funds are yet to be tied up for 4 STPs (Baretta: 3 MLD, Bhikhi : 3 MLD, Sardulgarh: 4 MLD and Mohali: 45.5 MLD). The Executive Committee recommends that the Department of Local Government shall make necessary arrangements for funds for these STPs and these may be upgraded by 31.12.2020.
8. Tendering process in case of 2 STPs of capacity 6 MLD (Patiala) and 1 MLD (Nabha) has been initiated by MES Patiala and is likely to be completed by 31.1.2021 and 31.3.2021, respectively. The Executive

Committee recommends that urgent steps be taken to complete these STPs by 31.12.2020.

9. There is a gap of 69.7 MLD sewage in 30 towns, which is being discharged untreated (directly/indirectly) into river Ghaggar. The Department of Local Govt., Punjab shall make necessary arrangements for planning, designing and installation of new STPs to treat the gap in sewage by 31.12.2020.

10. During the period from September to November, 2019, 27 industries have been inspected by PPCB, out of which, bank guarantee in case of 3 industries, environment compensation in case of 2 industries, directions for closure under section 33-A of Water Act, 1974 in case of 4 industries have been imposed/issued. Action against 18 remaining industries is under process. The Executive Committee recommends as under:

✓ PPCB should increase frequency of regular inspections and surprise checkings of industries located in the catchment area of River Ghaggar to ensure that the ETPs of industries are always in operation and should meet with the prescribed norms. These industries may not be allowed to discharge their treated / untreated wastewater into drains / nallah / choes / river Ghaggar.

✓ During the visit, Punjab Pollution Control Board shall compare the data shown by OCEMS with the actual analysis of the parameters to verify the authenticity of the data of OCEMS. Legal action may be initiated against the concerned industry in case any major difference in the data is observed.

11. 5 industries have been inspected by the District Level Special task Force during the period from September to October, 2019 and action against these industries under the provisions of the Water Act, 1974 is under process.

12. Data w.r.t water quality of river Ghaggar indicate that there is improvement in the water quality during the period January to October, 2019 w.r.t BOD and DO parameters and improvement w.r.t Total coliform parameter has been found at 5 locations out of total 14 locations of river Ghaggar.

In order to further improve the water quality in river

Ghaggar, the Executive Committee recommends as under:

✓ Department of Local Government, other responsible agencies of the State and Punjab Water & Sewerage Board shall ensure that all the STPs shall be made operational at all the times and proper and adequate dose of disinfectant may be given at each STP to bring T.coli and F.coli parameters within prescribed norms. These departments shall ensure that all the STPs may achieve the stringent norms.

✓ PPCB shall continue to make surprise inspections to monitor the sewage treatment plants of the local bodies and action against the violating local bodies should be taken within 21 days from the date when the violations were observed.

13. All the Departments of State of Punjab shall ensure to comply with the directions given / recommendations made in each meeting of the Executive Committee so that the activities to be carried out to control pollution in River Ghaggar may be completed and commissioned within the time schedule.

14. The previous analysis study conducted by PPCB at 14 locations along the catchment area of river Ghaggar indicated that the values of calcium (3 locations), magnesium (3 locations) and hardness at 2 locations were found higher than the permissible limits and it was explained that it was due to geogenic reasons. The water quality analysis of these locations after monsoon season is yet to be carried out by PPCB. The Executive Committee recommends that water quality analysis of river Ghaggar at 14 locations along river Ghaggar may be carried out by PPCB by 15.1.2020 for all the required parameters and in case any groundwater sample is found contaminated and is unfit for drinking purposes, such ground water source may be capped and a display Board mentioning that "water is not fit for drinking" may be placed at the contaminated source.

15. Irrigation schemes to utilize 43 MLD treated sewage of 9 towns for irrigation of agriculture fields have been implemented, which cater 1427 hectares of land.

2 irrigation schemes for utilization of treated sewage of the towns namely Khanauri (3 MLD: 70%) and Rajpura (7 MLD: 75%) are under construction and these are likely to be commissioned by 30.6.2020 and 31.5.2020, respectively. Under these irrigation schemes, 300 Hectares of agriculture land shall be irrigated.

For 4 towns (Mandi Gobingarh: 25 MLD, Patiala: 10 MLD, Dhuri: 5 MLD, Sangrur: 11 MLD, irrigation projects have been sanctioned to cater 1961 hectare of land. For the completion of these irrigation projects, time period of 10 to 20 months has been mentioned. However, the Executive Committee recommends effective steps be taken to complete these irrigation projects by 30.9.2020.

16. For 18 towns, irrigation projects have been prepared but the funds are yet to be tied up. The department of soil and water conservation shall take up the matter with department of finance, Govt. of Punjab to release funds for installation of irrigation projects.

17. The data provided by department of Soil and Water Conservation indicate that in 4 towns (Budhlada: 6.5 MLD, Zirakpur: 17 MLD, SAS Nagar: 45.4 MLD and Dera Bassi: 4 MLD), irrigation projects are not feasible due to urbanized land and non availability of irrigation command area. Therefore, the Committee recommends that the department of Local Government/PWSSB shall make alternative arrangements such as use of treated sewage for construction activity, gardens and flushing purposes so that maximum quantity of treated sewage may be utilized.

18. Out of 28 villages, where STPs for treatment of sewage of villages were under construction, STPs for 20 villages have been completed and STPs for the remaining 8 villages are under construction. The Executive Committee recommends that these STPs may be completed by 31.3.2020.

19. During the months September to November, 2019, health checkup camps have been organized in the 4 districts namely Patiala, Mohali, Sangrur and Mansa, where 1037 patients were checked, out of which 15 patients were found suffered with water borne diseases. The Committee recommends that the department of Health and Family Welfare shall continue to organize health check up camps in all the 4 Districts (Patiala, SAS Nagar (Mohali), Sangrur and Mansa) of the State, which are located in the catchment area of river Ghaggar.

20. PPCB shall ensure that all the remaining industries which have not installed Online Continuous Effluent Monitoring System (OCEMS), shall install and commission the same by 31.01.2020. These OCEMS shall have their connectivity with PPCB and CPCB server.

21. The department of Local Government, Punjab Water Supply and Sewerage Board, Department of Water Supply and Sanitation, Municipal Council / Corporations or any other concerned department, relating to operation and maintenance of existing sewage treatment plants, shall install CCTV cameras on all the STPs by 31.01.2020 and OCEMS by 31.03.2020.

22. PPCB has carried out information, education & communication (IEC) activities in all the 4 districts located in the catchment area of river Ghaggar. These activities were w.r.t management of the liquid and solid waste, compliance of provisions of Environment Acts, segregation and disposal of biomedical waste and E-waste management.

The Executive Committee recommends that PPCB and other concerned department of the State of Punjab shall organize regular IEC activities for the awareness of the public.

23. To maintain environment flow in river Ghaggar, the Executive Committee recommends that the following directions be given to the concerned departments of State of Punjab.

i) Department of Water Resources and Department of Soil & Water conservation shall identify the area/stenches in the catchment area of river Ghaggar for providing check dams / storage tanks for storage of rain / storm water during rainy days and the stored water can be released in regulated way so as to maintain its quality at down streams.

ii) The Municipal Councils / Corporations / Department of Local Govt. may install STPs to achieve the stringent parameters i.e. BOD : 10 mg/I, so that the resultant value of BOD after mixing with the river water may be nearly 3 mg/I.

iii) All the industries may be directed to achieve the stringent parameters i.e. BOD : 10 mg/I. The industries discharging wastewater having toxic constituents may not be allowed to discharge the effluent into Rivers / water bodies. The Deptt. of Water Resource may explore the possibility of release of water from nearby canal to maintain the quality of the River.

iv) PPCB shall install on line River Water Quality Monitoring Stations (RWQMS) at appropriate location by 30.06.2020

24. For Septage and Faecal sludge management, the Executive Committee recommends that the Deptt. of Rural Development & Panchayat and Municipal Councils may be directed to identify the sources of generation of septage and fecal sludge from rural and urban areas and a comprehensive plan to dispose of these materials in an environmentally sound manner be prepared in a time bound manner. Thereafter, there is need to identify and adopt low cost technology, which may treat the septage and fecal sludge before their discharge into the Environment.

25. For removal of solid waste from river Ghaggar and drains/Nallah falling into it, the Executive Committee recommends that PPCB and department of water resources shall jointly survey river Ghaggar and its tributaries and identify the stretches where the solid waste is found dumped. The survey may be completed by 31.03.2020 and these solid waste may be lifted by the responsible departments by 30.05.2020.

3.5.2 State of Himachal Pradesh

Conclusions and recommendations

1. Presently, no STPs is in operation in Parwanoo and Kala Amb area of Himachal Pradesh, which are located in the catchment area of Sukhna Nallah and River Markanda, respectively, which further lead for River Ghaggar.
2. 2 STPs, each of capacity 1 MLD, have been proposed to be installed in Parwanoo area. These may be completed by 31.12.2020.
3. One CETP-cum-STP of capacity 5 MLD has been proposed for Kala Amb area and the same may be completed by 31.12.2020.
4. One STP of capacity 1.5 MLD has been proposed for Trilokpur Area and same may be completed by 31.12.2020.

5. All the STPs should have a provisions of disinfection for ensuring control of fecal coliform as well as sludge digestion for converting sludge into manure.

6. Necessary measures shall be taken by Urban Development as well as Irrigation & Public Health Department of Himachal Pradesh to ensure that the generated sewage in the catchment of Sukhna Nallah, River Kaushalya, River Markanda is intercepted and diverted to the existing STPs/ proposed STPs so that natural drains are restored and no sewage drains outfalls exists in future.

7. Proposed STPs for Parwanoo area, villages Trilokpur and Kheri and STP cum CETP for Kala Amb area shall be installed to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Deshpande Vs. Union of India & others.

8. All the treated sewage shall be utilized for flushing (in residential apartments, office, malls/commercial complexes), gardening, construction activity, irrigation purposes etc., and proposals shall be finalized in this regard by the State of Himachal Pradesh by 28.02.2020.

9. Dedicated drainage/sewerage network for carrying industrial effluent from industrial area of Kala Amb to the proposed CETP shall be laid or constructed and commissioned by 31.03.2020.

10. For utilization of treated sewage of the towns for irrigation, Departments of Irrigation and Public Health Engineering have submitted that it is difficult to utilize treated sewage for flushing, construction activity, irrigation etc due to topography of the area. However, Department of Irrigation and Public Health undertook to explore the feasibility of utilization of treated sewage in hilly areas on pilot basis. Most of the water polluting industries are using treated effluent from their STPs/ETPs for gardening and flushing etc.

11. As per data supplied by HPPCB, it has inspected 154 industries during the period September to November, 2019, out of which effluent samples of 15 industries have been collected and show cause notices have been issued to the violating industries. Environment Compensation amounting to Rs. 3.25 Lakh has been imposed on 3 units and directions for closure of 1 industry have been issued under the provisions of Water Act, 1974.

12. 9 Industries have been inspected by District Level Special Task Force. Action against the defaulting industries is under process.

13. Water quality of Sukhna Nallah monitored during April, 2019 to November, 2019 indicated that there is improvement w.r.t. parameters DO, BOD & F.Coli for the period September 2019 to November 2019 as compared to the analysis results for the period April, 2019 to June 2019.

14. Water quality of kaushalya river monitored during August, 2019 to November, 2019 indicated that there is improvement w.r.t. BOD and T.Coli parameters in the analysis results for the period November, 2019 as compared to the analysis results of August, 2019.

15. Water quality of river Markanda was monitored during August, 2019 to November, 2019 and its analysis results indicate that the water quality of River Markanda has been degraded in the month of November, 2019 w.r.t parameters namely F.Coli and T.Coli due to discharge of untreated sewage of Kala Amb area.

16. Ground water samples have been collected from the area located along Sukhna Nallah. No contamination of ground water has been observed as per the lab analysis results available till date.

17. Presently, a pulp and paper mill, falling under 17 categories of Industries, has installed OCEMS at the outlet of its ETP and data is sent to the HPPCB. However, no CCTV camera has been installed on ETP by the industry so far. The Committee recommends that CCTV cameras should be installed by the industry at appropriate locations by 15.1.2020.

18. In Sukhna catchment area, Health camps are being organized by Department of Health & Family Welfare on monthly basis in Parwanoo area. 11 such camps have been organized by department of Health and Family welfare so far in Parwanoo area.

Similarly in Markanda catchment area, 13 multi-specialty health camps have been organized. Health camp in the month of November was organized on 14.11.2019 in Village Johron, Kala Amb in which 130 patients were examined. Health camp in the month of December, 2019 was organized on 17.12.2019 at

Village Moginand, Kala Amb in which 157 patients were examined.

19. To maintain Environmental flow in river/Nallah, following steps have been taken by HPPCB:

- The RTWQMS along with Radar system for water quality monitoring and flow measurement, respectively, have been installed in river Markanda near Vill Ogli, Kala Amb town. The system is being run on trial basis and calibration is being done.
- The RTWQMS along with Radar system for water quality monitoring and flow measurement, respectively, has been installed in river Kaushalya near village Kamli. The parameters DO, BOD, TSS, pH, Temp and flow rate are being monitored and results of the same are being displayed at State Board server on real time basis.

20. For the management of septage and fecal sludge, following steps have been taken:

- Necessary directions have been issued to MC Parwanoo & BDO Dharampur to ensure that septage and fecal sludge is managed in a scientific manner.
- Show cause notice to the local authorities i.e. Member Secretary, SADA and Project Officer DRDA are being issued for higher values of BOD, T. Coli and F. Coli in Jattanwala Drain leading to Markanda River and further loading to river Ghaggar.

21. For sludge management in catchment area of Nallah/drain further leading to River Ghaggar, following steps have been taken:

- 1st cleanliness drive in Sukhna Nallah was organized on 02nd Oct, 2019 by HPPCB along with MC Parwanoo and PIA in the catchment area of Sukhna Nallah and more than 10 MT of solid waste was collected.
- 2nd cleanliness drive in the Sukhna Nallah was organised on 19th Oct 2019 by the HPPCB along with Forest Deptt, HPMC staff and MC Parwanoo,

wherein, the solid waste dumping area near Village Ambota was cleared.

- HPSPCB also organized 04 no of cleanliness drives in the area in Parwanoo area in November, 2019 and the solid waste from drains / road was removed. Similarly, other industries have been motivated to adopt the area surrounding them to keep clean and green.
- Cleanliness drives were organized on 2 October, 2019 and 19 October, 2019 under "Swachhata Hi Seva" campaign in which around 5 MT of Waste was collected and disposed off to the Solid Waste Management Sites of MC Nahan and MC Paonta in Sirmaur District.

22. To create awareness through information, education & communication, following steps have been taken by HPPCB:

- Workshop on Comprehensive Environment Pollution Index (CEPI) was held for various industries in Parwanoo area under the chairmanship of Member Secretary, HPSPCB Shimla on 21.11.2019.
- Awareness program cum stakeholder's workshop was held with the staff of Microtek Group regarding compliance of Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, Environment Protection Act, 1986, Solid Waste Management Rules, 2016, Hazardous Waste Rules, 2016, Batteries Waste Rules, 2001, E-Waste Rules, 2016, Noise Rules, 2000 and Plastic Waste Management Rules, 2016.
- HPSPCB is continuously carrying out mass awareness activities in Kala Amb area. A meeting on 19th November, 2019 was held under the chairmanship of Member Secretary, HPPCB with all the stakeholders in Kala Amb area to apprise them about pollution control norms to be achieved by them.

23. For watershed management, following steps have been taken by the various departments/agencies:

- Workshop regarding Jal Shakti Abhiyan and Roof Top Harvesting at Common Facility Centre in Kala Amb Industrial Area was held on 01/10/2019.
- Three industries namely M/s Akhil Enterprises, M/s Himsagar Labs Pvt Ltd, M/s Ruchira Printing and Packaging have agreed to connect their roof top drains with the dried borewells of IPH nearby their units.

24. HPPCB shall encourage only roof top rainwater harvesting by the industries.

25. HPPCB and other departments of the State of Himachal Pradesh shall comply with all the directions given / recommendations made in the meetings of the Executive Committee and action taken report be submitted to the Committee well in time.

3.5.3 State of Haryana

Conclusions and recommendations

1. The Executive Committee had visited 3 industries of district Panchkula on 19.11.2019. The recommendations made in case of each industry were sent to Chairman, Haryana State Pollution Control Board, vide no. 567 dated 5.12.2019 with the directions to take necessary action as per law.

2. In the State of Haryana, there are 62 existing STPs having total treatment capacity of 503.6 MLD. HSPCB has carried out performance of the 61 STPs in the month of May and September, 2019 w.r.t. BOD, TSS and F.Coli. parameters. The analysis results indicate that out of 61 STPs monitored during period. Under reporting, 9 STPs are not meeting with the BOD, TSS and F.Coli parameters. Rest of the STPs are meeting with BOD and TSS parameters. None of the STP is meeting with F.Coli parameter. The Executive Committee recommends that the concerned agencies of State of Haryana shall make necessary arrangements for addition of disinfection system in all the STPs to ensure the achievement of F.coli parameter for all the times by 28.2.2020. The performance of other STPs, which are not meeting with BOD and TSS parameters, should be improved by 31.3.2020.

3. For treatment of gap in sewage quantified as 123 MLD in 17 towns, STPs for 6 towns have been completed to 100%. Progress w.r.t. STPs for 3 towns is very poor (2-5%). In rest of the STPs for 8 towns, the progress varies between 30-92%. These STPs should be completed by 30.6.2020.

4. Out of 32 STPs, which have been proposed to be upgraded, tenders have been floated in case of 11 STPs, work has been allotted in case of 11 STPs, DPRs/DNIT are under preparation in case of 8 STPs and land is not available in case of 2 STPs. The committee recommends that upgradation work in all the STPs shall be completed by 31.12.2020.

5. Proposed STPs, STPs under construction and upgradation in the existing STPs shall be made to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Desh Pande Vs. Union of India & others.

6. For utilization of treated sewage of the towns for irrigation, pilot projects for STP Pehowa (1.47 MLD) catering 76 Hectares of land, STP Ladwa (1.22 MLD) catering 63 Hectares and STP Shahbad (3 MLD) catering 151 Hectares of land have been commissioned and the treated wastewater is being used for irrigation.

For 4 STPs (Panipat HSVP:30 MLD, Panipat PHED:60 MLD, Karnal:50 MLD, Karnal (H&S): 18 MLD), irrigation schemes are under planning and these schemes shall cover the irrigation land measuring 12755 Hectares.

The committee recommends that the Department of Irrigation, State of Haryana shall install and commission irrigation schemes to utilize the treated sewage of all existing STPs by 31.12.2020.

7. HSPCB through its Regional Offices has inspected 52 industrial units during October, 2019 to December 15, 2019, out of which 43 units were found non complying. Out of these 43 non complying units, 16 industries have been issued closure orders under the provisions of the Water Act, 1974 and show cause notices have been issued to remaining 27 industries. The committee recommends that HSPCB shall increase its surveillance by surprise checking or through Environment Protection Squads and shall ensure that every industry located in the catchment area of River Ghaggar should be visited at least once in a quarter.

8. No inspection has been carried out by District Level Special Task Force. Therefore, the committee

recommends that this District Level Special Task Force should also visit the industries and other polluting sources falling in the respective Districts. The action against the defaulting industries should be taken as per the provisions of the Water Act, 1974.

9. Water Quality of river Ghaggar before and after confluence of pollution source into river Ghaggar at 45 locations including pollution sources has been monitored and the analysis results indicate that no significant improvement w.r.t. BOD and TSS parameters has been observed. Moreover, during monitoring of river Ghaggar water, F.coli parameter has not been analyzed.

Therefore, the Executive Committee recommends that the State of Haryana shall install new STPs and upgrade the existing STPs by 31.12.2020 so that water quality in river Ghaggar may be improved.

10. Ground water quality of water sources existing along the catchment area of river Ghaggar has been carried out in the towns namely Panchkula, Ambala, Jind, Kaithal, Sirsa and Fatehabad and 165 ground water samples were analyzed, out of which 64 samples were found non complying the standards. Therefore, the committee recommends that **HSPCB shall ensure that the groundwater sources which have been found contaminated may not be allowed to be used for drinking purposes and display boards mentioning that groundwater source is not fit for drinking purposes.**

11. Out of total 62 STPs, CCTV cameras have been installed on 57 STPs and CCTV on the remaining STPs shall be installed by 31.3.2020. With regard to installation of OCEMS on STPs, it has been reported by HSPCB that OCEMS on 56 STPs have been installed. On the remaining STPs, OCEMS shall be installed by 31.3.2020.

With regard to installation of CCTV cameras and OCEMS by the industries as prescribed by CPCB, these systems may be installed by the industries by 31.3.2020.

12. 108 Health checkup camps in the habitation area along river Ghaggar were organized from January, 2019 to October, 2019 and in these camps, 7167 patients were examined, out of which 657 patients were diagnosed to be suffering from Gastrointestinal diseases, which was 9% of total patients. The committee recommends that HSPCB shall check the ground water quality of that

particular area. In case the ground water source is found unfit for human consumption, the same may not be allowed to be used by the public for drinking purposes and it should be notified immediately to reduce the disease burden.

13. In order to treat the sewage of villages located in the catchment area of river Ghaggar, 7 villages have been identified in Distt. Fatehabad, 6 villages in Distt. Panchkula and 11 villages in Distt. Sirsa. The Department of Panchayat of the State shall either divert the sewage of villages to the nearby existing STP or shall evolve suitable technology to treat the sewage of villages so that these STPs may be completed by 31.12.2020.

14. Regarding maintaining Environmental Flow to be maintained in river Ghaggar or its tributaries, the State of Haryana has claimed that Ghaggar river is not a perennial river and its discharge varies between zero to maximum during flood seasons. About 15-20% of the lowest possible discharge in the lean season is required for maintaining E-flow. The State of Haryana has claimed that since the discharge of river Ghaggar varies from zero to maximum, therefore, maintaining E-flow in the river is not possible.

15. Regarding removal of solid waste from the stretches of River Ghaggar and its tributaries, no identification of any stretch or area in river Ghaggar has been made so far. Therefore, it is recommended that HSPCB and Department of Irrigation of State of Haryana shall jointly identify the stretches of River Ghaggar and its tributaries, where the solid waste is lying dumped and the same shall be removed by 31.03.2020.

16. For septage and Faecal Sludge Management, following steps have been taken by State of Haryana:

- Municipal Corporation, Gurugram is doing the disposal of sewage through tankers in Gurugram in some areas. Municipal Corporation, Gurugram has made septage management policy and Urban Local Body (ULB) has given directions to other Municipalities vide their letter dated 23.07.2019 to frame their policy for septage management as per their local conditions adopting the policy of MC, Gurugram.

The Executive Committee recommends that the concerned departments of State of Haryana shall identify the rural area and others areas, wherever, septage and fecal sludge is generated

by 28.02.2020 and their management in environmentally sound manner be made by 31.05.2020.

17. The Deptt. of Urban Local Body, HSPCB and other concerned departments shall comply with the direction given / recommendations made during the meetings taken by the Executive Committee and action taken report be submitted to the Committee well in time

3.5.4 U.T. Chandigarh

Conclusions and recommendations

1) For the treatment of sewage of localities/areas covered under U.T., Chandigarh, 6 STPs of total treatment capacity of 242.3 MLD are in operation. The performance of these STPs carried out by CPCC during the months May to November, 2019. The performance study indicates as under:

- The data w.r.t. STP Raipur Khurd indicates that there is improvement w.r.t. TSS and BOD parameters but no improvement w.r.t. F.coli parameter.
- The monitoring of 3 BRD STP indicates that though the values of BOD and TSS are within the prescribed norms of BOD: 30 mg/I, TSS: 100 mg/I but the performance of STP has been degraded. Also, there is no improvement w.r.t F.Coli parameter.
- In case of Raipur Kalan STP, there is improvement w.r.t BOD parameter. The value of TSS is within the norms. No improvement w.r.t F.Coli parameter has been observed.
- Dhanas STP data indicate that though the values of BOD and TSS are within the prescribed norms of BOD: 30 mg/I, TSS: 100 mg/I but the performance of STP has been degraded. There is no improvement w.r.t F. Coli parameter.
- In the case of Maloya STP, the values of BOD and TSS are within the prescribed norms. No improvement w.r.t F. Coli parameter has been observed.
- STP Diggian data indicate that the value of BOD and TSS are within the prescribed norms of BOD: 30 mg/I and TSS: 100 mg/I. No improvement has been observed w.r.t F. Coli parameter.

The Executive Committees recommends that Municipal Corporation, Chandigarh shall make adequate arrangements for disinfection of treated

sewage so that value of F.Coli parameter may be brought within the norms. The necessary arrangements may also be made to improve the performance of STPs.

2) As per CPCC data, total discharge of sewage of Chandigarh is 243 MLD and 6 STPs of capacity 242.3 MLD are in operation. Therefore, there is a gap of only 0.7 MLD, which is to be treated by the Municipal Corporation, Chandigarh. Thus, to treat the balance quantity of wastewater, STP of capacity 2 MLD has been proposed to be set up in Kishangarh area to meet with the latest stringent norms. The STP is likely to be completed by November, 2021. However, the Executive Committee recommends that the proposed STP may be completed and commissioned by 31.12.2020.

3) For upgradation of existing STPs to meet the latest and stringent norms, the tenders for up gradation of these STPs stand opened and technical evaluation is under process. The Executive Committee recommends that upgradation work of the existing STPs, to meet within the stringent norms, may be completed by 31.12.2020.

4) Proposed STPs and the existing STPs shall be installed/upgraded to achieve the standards as directed by the Hon'ble NGT in OA No.1069 of 2018 in the matter of Nitin Shankar Desh Pande Vs. Union of India & others.

5) In order to utilize the treated sewage for irrigation, it has been reported by CPCC that there is no adjoining agriculture fields near Chandigarh where the treated sewage may be utilized for irrigation. Therefore, presently, the treated sewage is being used for gardening of various gardens/parks and golf course. The treated sewage is also supplied to houses for gardening purposes. However, after the upgradation of the existing STPs, the maximum quantity of treated sewage may be utilized for construction, gardening and other useful purposes.

6) In order to monitor the performance of effluent treatment plants of the industries, CPCC has inspected 12 industries in October, 2019 and 20 industries in November, 2019, out of these 32 industries, 15 industries were found non complying and show cause notices to these industries have been issued.

The Executive Committee recommends that CPCC shall increase its surveillance by conducting surprise inspection and forming a Environment Protection Squad. Regular check on operation of effluent treatment plants of the electroplating industries may be made as these are the source of discharge of toxic effluent into sewerage system leading to Sukhna Choe and N-Choe further leading to River Ghaggar.

7) *District Level Special Task Force has not inspected any industry during the months of October to December, 2019.*

The Executive Committee recommends that DLSTF shall also carry out inspection of industries and other pollution sources and action against the defaulting industries be recommended to CPCC.

8) *The water quality data of river Ghaggar monitored at various points for the period October, November and December, 2019 has been compared with the data for the period May, June and September, 2019 and it has been observed that there is improvement in the quality of river Ghaggar water w.r.t. DO, BOD, COD and TSS parameter and but no improvement w.r.t. F.coli parameter. Therefore, the Executive Committee recommends that suitable arrangements by the Municipal Corporation, Chandigarh shall be made to disinfect the treated sewage of STPs to bring the F.coli parameter within the prescribed norms.*

9) *The groundwater quality monitoring data for the period July to October, 2019 of ground water sources, falling in the catchment area of river Ghaggar, indicate that all the parameters are within the prescribed norms except calcium and magnesium, which have been mentioned due to geogenic reasons.*

10) *With regard to installation of OCEMS and CCTV cameras on STPs by the Municipal Corporation, Chandigarh, the committee recommends that these systems on all the existing 6 STPs may be installed by the Corporation by 31.03.2020.*

11) *Regarding closing of sewage outlets directly falling into Sukhna Choe and N-Choe, further leading to river Ghaggar, it has been observed as under:*

- *Presently, out of 13 outlets, falling in Sukhna Choe, 9 outlets have been plugged / diverted to sewerage system and remaining 4 outlets shall be closed by 31.01.2020.*

- Out of 15 outlets, falling into N-Choe, 12 outlets have been plugged/ diverted to sewerage system and remaining 3 outlets shall be closed by 31.01.2020.

12) Regarding maintaining the Environmental flow (E-flow), it has been observed that River Ghaggar flows far away from Chandigarh area. Moreover, Sukhna choe and N-Choe, are non-perennial drains. As such, maintaining of Environmental Flow (E-flow) is not possible in case of Chandigarh area.

13) With regard to removal of solid waste from the stench of River Ghaggar and its tributaries, it has been reported by CPCC that municipal solid waste is being lifted from whole of Chandigarh. No solid waste is being dumped along the drains or otherwise and in case any solid waste is dumped, the same is removed by the Municipal Corporation, Chandigarh at the earliest.

14) For septage and fecal sludge management, it has been mentioned by CPCC that Chandigarh is fully covered with sewerage network and there are no septic tanks allowed in Chandigarh, resulting in no generation for septage and fecal sludge. However, CPCC and M.C., Chandigarh shall identify, the areas (if any) where online sanitation systems have been provided so that plan for management of septage and faecal sludge may be prepared.

15) CPCC and Municipal Corporation, Chandigarh shall comply with all the directions given / recommendations made by the Executive Committee during its meetings (monthly meeting) with the officers of U.T., Chandigarh.”

11. In view of the deficiencies found with regard to functioning and inadequacy of STPs, use of treated water and waste management, further steps need to be taken expeditiously and monitored by the Committee. The Committee may give its next report after two months from today indicating the progress compare to the position reported in its 04th Report by e-mail at judicial-ngt@gov.in.

12. The Committee may simultaneously give a copy of its report to the concerned Chief Secretaries and PCBs/PCC who may give their respective response to this Tribunal within two weeks thereafter. The response may particularly focus on existing STP being compliant with the norms with regard to faecal coliform, bridging of gap in terms of sewage generated and treated, secondary use of STP treated water, bridging of gap in terms of solid waste generated and treated, remediation of legacy waste sites etc.

13. At this stage, we may also make a mention of recent order passed by this Tribunal dated 10.01.2020 in O.A. 606/2018, after hearing Chief Secretary, Punjab and Advisor to the Administrator, UT Chandigarh on the subject of solid waste management and other environmental issues, wherein following directions, which are relevant for the present matter also, have been issued:-

“1 to 35..... xxx.....xxx.....xxx

36. We accordingly direct:

a. *In view of the fact that most of the statutory timelines have expired and directions of the Hon'ble Supreme Court and this Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted, compensation scale is hereby laid down for continued failure after 31.03.2020. The compliance of the Rules requires taking of several steps mentioned in Rule 22 from Serial No. 1 to 10 (mentioned in para 12 above). Any such continued failure will result in liability of every Local Body to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for*

population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body from 01.04.2020 till compliance. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal.

b. Legacy waste remediation was to 'commence' from 01.11.2019 in terms of order of this Tribunal dated 17.07.2019 in O.A. No. 519/2019 para 28¹ even though statutory timeline for 'completing' the said step is till 07.04.2021 (as per serial no. 11 in Rule 22), which direction remains unexecuted at most of the places. Continued failure of every Local Body on the subject of commencing the work of legacy waste sites remediation from 01.04.2020 till compliance will result in liability to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal.

¹ The Chief Secretaries may ensure allocation of funds for processing of legacy waste and its disposal and in their respective next reports, give the progress relating to management of all the legacy waste dumpsites. Remediation work on all other dumpsites may commence from 01.11.2019 and completed preferably within six months and in no case beyond one year. Substantial progress be made within six months. We are conscious that the SWM Rules provide for a maximum period of upto five years for the purpose, however there is no reason why the same should not happen earlier, in view of serious implications on the environment and public health.

c. Further, with regard to thematic areas listed above in para 20, steps be ensured by the Chief Secretaries in terms of directions of this Tribunal especially w.r.t. plastic waste, bio-medical waste, construction and demolition waste which are linked with solid waste treatment and disposal. Action may also be ensured by the Chief Secretaries of the States/UTs with respect to remaining thematic areas viz. hazardous waste, e-waste, polluted industrial clusters, reuse of treated water, performance of CETPs/ETPs, groundwater extraction, groundwater recharge, restoration of water bodies, noise pollution and illegal sand mining.

d. The compensation regime already laid down for failure of the Local Bodies and/or Department of Irrigation and Public Health/In-charge Department to take action for treatment of sewage in terms of observations in para 31 above will result in liability to pay compensation as already noted above.

e. Compensation in above terms may be deposited with the CPCB for being spent on restoration of environment which may be ensured by the Chief Secretaries' of the States/UTs.

f. An 'Environment Monitoring Cell' may be set up in the office of Chief Secretaries of all the States/UTs within one month from today, if not already done for coordination and compliance of above directions which will be the responsibility of the Chief Secretaries of the States/UTs.

g. Compliance reports in respect of significant environmental issues may be furnished in terms of order dated 07.01.2020 quarterly with a copy to CPCB.”

Put up for further consideration on 15.04.2020.

Chairmen, Member Secretaries of SPCBs/PCC, Secretaries Urban Development and Secretaries Irrigation and Public Health of the four States/ UT and nodal officer of CPCB may remain present in person for the assistance of the Tribunal on the next date so that comprehensive review of progress can be undertaken and responsibility for default, if any, fixed.

A copy of this order be sent by e-mail to the Chairmen, Member Secretaries of SPCBs/PCC, Secretaries Urban Development and Secretaries Irrigation and Public Health of the four States/ UT.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

Siddhanta Das, EM

January 20, 2020
O.A. No. 138/2016 (T_{NHRC})
A