

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

(By Video Conferencing)

Original Application No. 138/2016 (TNHRC)
(Case No.559/19/11/14)

Stench Grips Mansa's Sacred Ghaggar River

(With report dated 07.09.2020)

Date of hearing: 28.10.2020

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. SATYAWAN SINGH GARBYAL, EXPERT MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Amicus Curiae: Ms. Katyayni, Advocate

Respondent(s): Mr. Nalin Kohli, Advocate for HPSPCB
Mr. Rajkumar, Advocate for CPCB
Ms. Richa Kapoor Advocate for PPCB
Mr. Rahul Khurana, Advocate for State of Haryana and HSPCB
Mr. Shubham Bhalla, Advocate for UT Chandigarh

ORDER

1. The issue for consideration is the remedial action for abatement of pollution of river Ghaggar. 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.

Background of the Proceedings

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 Tribune' 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, Faecal Coliform, Lead and Iron were beyond permissible limits at most of the locations in Himachal Pradesh, Haryana, Punjab and Chandigarh.

Constitution of Executing Committee to monitor orders of the Tribunal and six reports submitted showing repeated and continued failure of the States of HP, Haryana, Punjab and UT Chandigarh in direct violation of law, including order of the Hon'ble Supreme Court in (2017)5 SCC 326

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 Committee has earlier given five reports dated 28.02.2019, 14.06.2019, 01.10.2019, 8.1.2020 and 16.04.2020 which were dealt with by this Tribunal vide earlier orders.

Last order dated 15.6.2020

6. The matter was last considered on 15.06.2020 in the light of Fifth Report dated 16.04.2020. In the said order, the Tribunal referred to the gap in the sewage management in Himachal Pradesh, Chandigarh, Punjab and Haryana as per report dated 28.02.2019 as follows:

“Himachal Pradesh – Parwanoo and Kala Amb

The gap for Parwanoo is 569.414 KLD

The gap for Kala Amb is 1046.24 KLD

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

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

(iii) With regard to Haryana the gap is 42.9 MLD”

7. 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.

8. The Tribunal considered the conclusions in the Fifth Report in all the four States/UT and thereafter observed:

*“9. We regretfully note flagrant violation of mandate of the Water (Prevention and Control Pollution) Act, 1974 and the Waste Management Rules framed under the Environment (Protection) Act, 1986 as well as repeated directions given by the Hon’ble Supreme Court and this Tribunal. There is repeated failure by the concerned States and its authorities in performing their constitutional obligation in ensuring that no pollution is discharged into the rivers or drains connected thereto. **The timeline fixed by the Hon’ble Supreme Court in its judgement in Paryavaran Suraksha case, (2017) 5 SCC 326 to ensure treatment of sewage and effluent is by 31.03.2018 which has expired since long.***

10. It may be appropriate to note the directions of the Hon’ble Supreme Court:-

*“7. Having effectuated the directions recorded in the foregoing paragraphs, the next step would be, to set up common effluent treatment plants. **We are informed, that for the aforesaid purpose, the financial contribution of the Central Government is to the extent of 50%, that of the State Government concerned (including the Union Territory concerned) is 25%. The balance 25%, is to be arranged by way of loans from banks. The above loans, are to be repaid, by the industrial areas, and/or industrial clusters. We are also informed that the setting up of a common effluent treatment plant, would ordinarily take approximately two years (in cases where the process has yet to be commenced). The reason for the above prolonged period, for setting up “common effluent treatment plants”, according to the learned counsel, is not only financial, but also, the requirement of land acquisition, for the same.***

10. Given the responsibility vested in municipalities under Article 243-W of the Constitution, as also, in Item 6 of Schedule XII, wherein the aforesaid obligation, pointedly extends to “public health, sanitation conservancy and solid waste

management”, we are of the view that the onus to operate the existing common effluent treatment plants, rests on municipalities (and/or local bodies). Given the aforesaid responsibility, the municipalities (and/or local bodies) concerned, cannot be permitted to shy away from discharging this onerous duty. In case there are further financial constraints, the remedy lies in Articles 243-X and 243-Y of the Constitution. It will be open to the municipalities (and/or local bodies) concerned, to evolve norms to recover funds, for the purpose of generating finances to install and run all the “common effluent treatment plants”, within the purview of the provisions referred to hereinabove. Needless to mention that such norms as may be evolved for generating financial resources, may include all or any of the commercial, industrial and domestic beneficiaries, of the facility. The process of evolving the above norms, shall be supervised by the State Government (Union Territory) concerned, through the Secretaries, Urban Development and Local Bodies, respectively (depending on the location of the respective common effluent treatment plant). The norms for generating funds for setting up and/or operating the “common effluent treatment plant” shall be finalised, on or before 31-3-2017, so as to be implemented with effect from the next financial year. In case, such norms are not in place, before the commencement of the next financial year, the State Governments (or the Union Territories) concerned, shall cater to the financial requirements, of running the “common effluent treatment plants”, which are presently dysfunctional, from their own financial resources.

- 11.** *Just in the manner suggested hereinabove, for the purpose of setting up of “common effluent treatment plants”, the State Governments concerned (including, the Union Territories concerned) will prioritise such cities, towns and villages, which discharge **industrial pollutants and sewer, directly into rivers and water bodies.***
- 12.** *We are of the view that in the manner suggested above, **the malady of sewer treatment, should also be dealt with simultaneously.** We, therefore, hereby direct that “sewage treatment plants” shall also be set up and made functional, within the timelines and the format, expressed hereinabove.*
- 13.** *We are of the view that **mere directions are inconsequential, unless a rigid implementation mechanism is laid down.** We, therefore, hereby provide that the directions pertaining to continuation of*

industrial activity only when there is in place a functional “primary effluent treatment plants”, and the setting up of functional “common effluent treatment plants” within the timelines, expressed above, shall be of the Member Secretaries of the Pollution Control Boards concerned. **The Secretary of the Department of Environment, of the State Government concerned (and the Union Territory concerned), shall be answerable in case of default. The Secretaries to the Government concerned shall be responsible for monitoring the progress and issuing necessary directions to the Pollution Control Board concerned, as may be required, for the implementation of the above directions.** They shall be also responsible for collecting and maintaining records of data, in respect of the directions contained in this order. The said data shall be furnished to the Central Ground Water Authority, which shall evaluate the data and shall furnish the same to the Bench of the jurisdictional **National Green Tribunal.**

14. To supervise complaints of non-implementation of the instant directions, the Benches concerned of the National Green Tribunal, will maintain running and numbered case files, by dividing the jurisdictional area into units. The abovementioned case files will be listed periodically. **The Pollution Control Board concerned is also hereby directed to initiate such civil or criminal action, as may be permissible in law, against all or any of the defaulters.”**

(emphasis supplied)

11. As already noted, this Tribunal has dealt with the matter in O.A. No. 593 of 2017, Paryavaran Suraksha Samiti & Anr. Vs. UOI & Ors., for monitoring the situation in pursuance to the directions of the Hon’ble Supreme Court and noted the disappointment for failure in this regard by almost all the States and Union Territories. Vide order dated 21.05.2020, this Tribunal observed as follows:-

“8. Before proceeding further, we may also note further order of this Tribunal dated 06.12.2019 in O.A. No. 673/2018 directing as follows:

“XII. Directions:

47. We now sum up our directions as follows:

- i. **100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 at least to the extent of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local**

bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.

- ii. Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. Rs. 10 lakhs per month per STP.**
- iii. We further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by the Chief Secretaries of all the States/UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.*
- iv. For above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/UTs atleast once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01.04.2020.**
- v. The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.*
- vi. Monthly progress report may be furnished by the States/UTs to Secretary, Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers.*

- vii. **As already mentioned, procedures for DPRs/tender process needs to be shortened and if found viable business model developed at central/state level.**
- viii. **Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.**
- ix. *CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the execution of the action plans prepared by the States which may start forthwith, if not already started.*
- x. *The action plan prepared by the Delhi Government which is to be approved by the CPCB has to follow the action points delineated in the order of this Tribunal dated 11.09.2019 in O.A. No. 06/2012.*
- xi. *Since the report of the CPCB has focused only on BOD and FC without other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of bio magnification, a survey may now be conducted with reference to all the said parameters by involving the SPCB/PCCs within three months. Monitoring gaps be identified and upgraded so to cover upstream and downstream locations of major discharges to the river. CPCB may file a report on the subject before the next date by e-mail at judicial-ngt@gov.in.*
- xii. *Rivers which have been identified as clean may be maintained.”*

(emphasis supplied)

13. *The above report shows that some steps have been initiated against non-compliant ETPs/CETPs/STPs while further steps need to be taken. With regard to industries not having ETP or not connected to CETP, pending construction of CETPs as mentioned in the above report, the State PCBs/PCCs may ensure that there is no discharge of any untreated pollutants by the industries and such polluting activities must be stopped and compensation recovered for the non-compliance, if any, apart from any other legal action in accordance with law. As regards non-compliant STPs, further action may be completed by the State PCBs/PCCs and it may be ensured that there is 100% treatment of sewage and till STPs are set up, atleast in-situ remediation takes place. However, on account of Corona pandemic which has affected several on-going activities, the timeline of levy of compensation in terms of order dated 28.08.2019 in O.A. No. 593/2017 read with order dated 06.12.2019 in O.A. No. 673/2018, of 01.04.2020*

may be read as 01.07.2020 and 01.04.2021 may be read as 01.07.2021. Further reports may be taken by the CPCB from all the State PCBs/PCCs as per the system evolved by the CPCB from time to time.

26. Summary of directions:

i. All States/UTs through their concerned departments such as Urban/Rural Development, Irrigation & Public Health, Local Bodies, Environment, etc. may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town and village, adhering to the timeline as directed by Hon'ble Supreme Court. STPs must meet the prescribed standards, including faecal coliform.

CPCB may further continue efforts on compilation of River Basin-wise data. Action plans be firmed up with Budgets/Financial tie up. Such plans be overseen by Chief Secretary and forwarded to CPCB before 30.6.2020. CPCB may consolidate all action plans and file a report accordingly.

Ministry of Jal Shakti and Ministry of Housing and Urban Affairs may facilitate States/UTs for ensuring that water quality of rivers, lakes, water bodies and ground water is maintained.

As observed in para 13 above, 100% treatment of sewage/effluent must be ensured and strict coercive action taken for any violation to enforce rule of law. Any party is free to move the Hon'ble Supreme Court for continued violation of its order after the deadline of 31.3.2018. This order is without prejudice to the said remedy as direction of the Hon'ble Supreme Court cannot be diluted or relaxed by this Tribunal in the course of execution. PCBs/PCCs are free to realise compensation for violations but from 1.7.2020, such compensation must be realised as per direction of this Tribunal failing which the erring State PCBs/PCCs will be accountable.

ii. The CPCB may study and analyse the extent of reduction of industrial and sewage pollution load on the environment, including industrial areas and rivers and other water bodies and submit its detailed report to the Tribunal.

iii. During the lockdown period there are reports that the water quality of river has improved, the reasons for the same may be got studied and analysed by the CPCB and report submitted to this Tribunal. If the activities reopen,

the compliance to standards must be maintained by ensuring full compliance of law by authorities statutorily responsible for the same.

iv. Accordingly, we direct that States which have not addressed all the action points with regard to the utilisation of sewage treated water may do so promptly latest before 30.06.2020, reducing the time lines in the action plans. The timelines must coincide with the timelines for setting up of STPs since both the issues are interconnected. The CPCB may compile further information on the subject accordingly.

v. Needless to say that since the issue of sources of funding has already been dealt with in the orders of the Hon'ble Supreme Court, the States may not put up any excuse on this pretext in violation of the judgment of the Hon'ble Supreme Court.

27. The CPCB may furnish its report by 15.09.2020 giving the status of furnishing of action plans and their execution as on 31.08.2020 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.”

12. The Tribunal has also been monitoring the situation in O.A. No. 606/2018 wherein the Chief Secretaries of the all the States/UTs have appeared in person before this Tribunal and directions have been issued to comply with the mandate of law. In O.A. No. 673 of 2018, the issue of polluted river stretches is being dealt with, as already noted above. Further, in O.A. No. 148 of 2016, Mahesh Chandra Saxena Vs. South Delhi Municipal Corporation & Ors., the issue of utilization of treated water is being dealt with and the last order was passed by this Tribunal on 21.05.2020. In O.A. No. 325/2015, Lt. Col. Sarvadaman Singh Oberoi Vs. Union of India & Ors., the issue of restoration of water bodies has been dealt with and the last order passed by this Tribunal is of 01.06.2020. It will be appropriate that the States/UTs take further prompt action in the matter and hold erring officers responsible and accountable. The Chief Secretaries of the States/UTs may monitor the situation with the assistance of Environment Cells directly under them as per observations in the orders of the Hon'ble Supreme Court, referred to in the orders of this Tribunal in O.A. No. 606/2018.

13. The States have not filed their response even though the report of the Committee was made available in pursuance of direction in paragraph 12 of order dated 20.01.2020 quoted above.

14. **We note the presence of learned counsel for the States of Punjab, Haryana, Himachal Pradesh and UT Chandigarh who have nothing meaningful to explain the persistent defaults.** Learned counsel for the State of Himachal Pradesh submitted that he is not able to get complete instructions on account of the lock down. Learned counsel for the UT Chandigarh states

that certain further steps have been taken in the matter of plugging of the outlets and upgradation of STPs but the steps for use of treated water and action in terms of recommendations of the Committee are yet to be taken. Learned counsel for the State of Punjab and the Member Secretary State PCB stated that there is some progress but we find the progress to be highly inadequate and unsatisfactory. Learned counsel for the State of Haryana states that the State of Haryana is not even aware of the standards of fecal coliform and has yet to lay down the standards. We are surprised at this statement. The standard of fecal coliform has been dealt with by this Tribunal vide order dated 30.04.2019 in O.A. No. 1069 of 2018, Nitin Shankar Deshpande Vs. UOI & Ors. The Tribunal noted the standards proposed in the draft Notification dated 24.11.2015 by the MoEF&CC and held that dilution of the standards by Notification in October, 2017 was against the recommendation of the Expert Committee referred to therein. Such relaxed standards led to deterioration of water quality, adversely affecting the environment and public health. The Tribunal observed as follows:-

“13. We find that there is no justification for diluted standards for areas other than Mega and Metropolitan Cities. The water quality standards are required to be same for the population of major cities or other cities. No justification has been shown for different standards for persons living in cities other than Mega and Metropolitan Cities. Major population of this country will be affected by diluted standards and only persons in Mega and Metropolitan Cities will have comparatively better standards without any valid reason or distinction. We may note that filters, UV filters etc. are facilities mainly available in major cities and not in smaller cities or villages where the standards are proposed to be diluted.

14. Accordingly, we accept the report of the Expert Committee with the modification that the standards recommended for Mega and Metropolitan Cities will also apply to rest of the country. We also direct that the standards will apply not only for new STPs but also for existing/under construction STPs without any delay and giving of seven years time stands disapproved.

MoEF & CC may issue an appropriate Notification in the matter within one month from today.”

The norms are <100 MPN(Most Probable Number)/100 ml

15. In view of the above, we direct that the directions already issued by this Tribunal in O.A. No. 673/2018, 606/2018, 148/2016, O.A. No. 325/2015 and 593/2017 and the recommendations of the Committee may be complied with. The Compliance Status may be verified by the Executing Committee and the next report may be furnished by 30.09.2020 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. Simultaneously copy of the report be furnished to the Chief Secretaries/ PCBs and PCCs

of the States of Punjab, Haryana, Himachal Pradesh and UT Chandigarh who may give their response within two weeks thereafter.

Consideration of Sixth Report dated 7.9.2020

9. Accordingly, the Sixth Report has been filed by the Executing Committee on 07.09.2020. The report has discussed the matter threadbare and concluded as follows:

“STATE OF HIMACHAL PRADESH:

4.1.6. Conclusions and Recommendations

Keeping in view the detailed interaction made with the State level officers of State of Himachal Pradesh with regard to various activities carried out/ to be carried out to clean river Ghaggar, the Executing Committee has made the following conclusions and recommendations.

- 1. Sukhna Nallah, a tributary of Kaushalaya River, sub tributary of river Ghaggar, falls in the catchment area of river Ghaggar, therefore, sewage treatment plants to treat sewage of the towns located on Sukhna Choe need to be installed in a time bound manner. The State of Himachal Pradesh is in the process of installing 2 STPs each of capacity 1 MLD in Parwanoo town, out of which, land is available for one STP for which tender work has been awarded. For 2nd STP, land is located in forest area in village Tipra. The concerned department of the State should make immediate arrangements to get the land transferred so that work of STP may be started.*

The Executing Committee recommends that 02 STPs each capacity 1 MLD to treat the sewage of Parwanoo town should be installed by 31.3.2021

- 2. For providing STP of capacity 1.5 MLD in Kala Amb area and 1 MLD in Trilokpur falling in catchment area of river Markanda, construction work has been awarded. The electric fitting at STP Site is in process. The pipeline laying work is under process and 2500 m sewer line has been laid. The construction work of STP shall be started within one week.*

The Executing Committee recommends that STP of capacity 1.5 MLD in Kala Amb and 1 MLD in Trilokpur should be completed by 31.3.2021

- 3. Presently, 2 small STPs each of capacity 0.07 MLD have been installed in Parwanoo area and are in working condition. One STP is meeting with prescribed norms and*

2nd STP of capacity 0.07 MLD has recently been commissioned.

4. For the treatment of effluent of the industries after their primary treatment and sewage of industrial units and other areas, a CETP of capacity 5 MLD has been proposed for which tender was floated on 15th March, 2020 but no bids were received due to lockdown. Tender for proposed CETP was re-invited by Kala Amb Infrastructure Development Company on 6-6-2020 and technical bids were opened on 30-7-2020 by the committee. There were some observations on technical points as bidders have submitted bids of different technology. Bidders have been asked to give bids on MBBR/SBR technology separately by 12-8-2020.

The Executing Committee recommends that CETP of capacity 5 MLD in Kala Amb area should be completed by 30.6.2021

5. There are 48 industries in the catchment area of Sukhna Nallah i.e in Parwanoo area and all these industries have installed their individual effluent treatment plants. Similarly, 94 industries exist in catchment area of river Markanda i.e. in Kala Amb area. These industries have also installed their individual effluent treatment plants. In order to check the performance of ETPs of the industries, 59 industries were inspected by HPPCB from March, 2020 to July, 2020, out of which 5 industries were found violating the norms and these industries were issued show cause notices but now these industries started using their treated wastewater for irrigation.

Similarly, HPPCB has also visited all the 94 industries of Kala Amb area during March, 2020 to June, 2020, out of which 2 industrial units were found violating the norms and these industries were issued show cause notices.

The Executing Committee recommends that HPPCB shall continue to make surprise inspection of the industries as per the time schedule prescribed by HPPCB/CPCB and action against the defaulting industries may be taken under the provisions of the Water Act, 1974.

6. In order to treat the sewage of the villages located in the catchment area of Sukhna Nallah at Parwanoo and river Markanda at Kala Amb, it has been claimed that all the adjoining villages have been covered under the Sewage Treatment Plants and CETP being set up at Parwanoo and Kala Amb area.

The Executing Committee recommends that the State of Himachal Pradesh shall ensure sewage of all the villages, located in the catchment area of Sukhna Nallah and river Markanda, should be connected to the STPs and CETP being installed in these areas

7. *The Ground Water quality in catchment area of river Ghaggar is monitored by the Irrigation and Public Health Irrigation Departments of the State. As per the analysis results, all the parameters are within the prescribed norms.*
8. *Water quality of Sukhna Nallah at Parwanoo, Samtel Nallah and Sector-4 Nallah has been analyzed by HSPPCB for the period December 2019 to February, 2020 and March, 2020 to July, 2020. The analysis results indicate that there is improvement in the water quality of Sukhna Nallah w.r.t DO and F.Coli.*

Water quality of Kaushalya River at downstream Parwanoo shows that water quality of the river is complying with Class B standard.

The water quality of River Markanda upstream of Jattan Wala Nallah was also monitored and its analysis result indicate that the water quality of River Markanda is complying with Class B standard.

The water quality of River Markanda downstream of Jattan Wala Nallah was also monitored and it was observed that there is an improvement w.r.t BOD and F.Coli parameters but the value of T.Coli is much higher than the prescribed limits. Similarly, the water quality of the river Markanda downstream of Jattan Wala Nallah also indicate that there is improvement w.r.t. BOD and T.Coli parameters but the value of T.Coli parameter is much higher than the prescribed limits.

The State of Himachal Pradesh should install STPs and CETP in Kala Amb area and Parwanoo area by 31.3.2021, so that organic parameters and F.Coli are always within the prescribed norms and water quality of the drains/river may be further improved.

9. *As per the record and discussion held with the Officers of State of Himachal Pradesh, presently, there is no scheme to utilize the treated sewage. As such, the concerned department of State of Himachal Pradesh should prepare a detailed scheme to utilize the treated sewage for construction activities, toilet flushing, industrial usage, plantation, road cleaning, watering of green belt or any other use within 02 months.*
10. *HPPCB should monitor the ground water quality of groundwater sources located in the catchment area of Sukhna Nallah and River Markanda, as per the frequency prescribed by CPCB. In case any ground water source is found contaminated, the same shall be sealed by HPPCB and display board be erected at the site with caption as "**Water is not fit for drinking purposes**".*

11. *In order to maintain environmental flow in Sukhna Nallah and Markanda river, more check dams and water retaining structures may be provided so as to retain and store the excess rain water flow and discharge the same in a regulated manner in the drains/nallahs during non-Monsoon periods.*
12. *HPPCB shall constitute teams to conduct surprise inspections of the catchment area of Sukhna Nallah and river Markanda to ensure that there is no discharge of septage and faecal sludge from septage tank in these Nallahs. Also, policy/guidelines for management of septage and faecal sludge from rural areas and other un-sewered areas may be framed within 3 months.*
13. *Since presently, no STP along Sukhna Nallah and Markanda river has been constructed, therefore, there is need to treat sewage of the towns of Kala Amb area and Parwanoo area by providing in-situ remediation technology in the drains. In-situ remediation technology work undertaken at Samtel Nallah and proposed on Jattan Wala Nallah at 2 locations should be installed and commissioned by 31.10.2020.*
14. *HPPCB shall install Real Time Water Quality Monitoring Stations in Jattan Wala Nallah, Markanda river and Sukhna Nallah by 31.12.2020.”*

UT CHANDIGARH

“4.2.20 Conclusions and recommendations

- 1) *In order to treat sewage of Chandigarh, 6 STPs [STP Diggian:135 MLD, STP 3BRD: 49.5MLD, STP Raipur Kalan 22.5 MLD, STP Raipur Khurd: 5.63 MLD, STP Dhanas:7.5 MLD and MaloyaSTP;22.5 MLD] are in operation. The performance study of these STPs monitored during April, 2020 to June, 2020 indicated as under:*
 - *The values of BOD and F.Coli varying between 40-87 mg/l and 7000-490000 MPN/100ml, respectively, which are higher than the prescribed limits, have been observed in case of STP Diggian, STP, 3 BRD, Raipur Kalan, Raipur Khurd and Dhanas.*
 - *STP Maloya is meeting with the prescribed limits.*

Therefore, there is need to upgrade all the 5 existing STPs except STP Maloya for which Municipal

Corporation Chandigarh have invited tenders and work has been allotted.

- 2) Presently, 54 MGD wastewater is generated by the MC Chandigarh and the capacity of existing STPs is 53.9 MGD.
- There is proposal to enhance the capacity of STP Raipur Khurd to 2 MGD, STP Raipur Kalan 1.25 MGD and Kishangarh 0.44 MGD, for which tender is being recalled.
 - STP of capacity 5 MLD at Raipur Kalan has been commissioned but yet to be commissioned.

The Executing Committee recommends that new STP of Kishangarh (0.44 MGD = 2 MLD) and upgradation of Raipur Khurd STP from 1.25 MGD to 2 MGD= 9 MLD) should be installed by 31.3.2021 so that there shall be no gap in the treatment of sewage.

- 3) Since 5 existing STPs are not meeting with the parameters namely BOD and F.Coli parameters, therefore there is need to upgrade these 5 STPs to bring down the parameters within the norm. Accordingly, Municipal Corporation Chandigarh has allotted the work to the qualifying agency.

The Executing Committee recommends that Municipal Corporation Chandigarh shall upgrade all the existing 5 STPs [STP Diggian:135 MLD, STP 3BRD: 49.5MLD, STP Raipur Kalan 22.5 MLD, STP Raipur Khurd: 5.63 MLD and STP Dhanas:7.5 MLD] except STP Maloya by 31.03.2021.

- 4) The Water quality of river Ghaggar has been found deteriorated due to presence of high value of F. Coliform which can be controlled only after technological upgradation of the existing 5 STPs. Municipal Corporation Chandigarh has allotted the work of upgradation of STP and these are likely to be completed by 31.03.2021.

The Executing Committee expects that the water quality of river Ghaggar shall be improved after the upgradation of these STPs by Municipal Corporation Chandigarh.

- 5) There is proposal to install Real Time Water Quality Monitoring Stations at Sukhna Choe and N Choe for which tender is under process for N Choe. In Sukhna Choe, proper space and location is being identified.

The Executing Committee recommends that Real Time Water Quality Monitoring Stations in Sukhna Choe and N Choe should be installed and commissioned by 31.10.2020.

- 6) CPCC is carrying out the ground water quality of ground water sources located in the catchment area of river Ghaggar. It has been claimed by CPCC that ground water

sources at these locations are not used for drinking purposes.

The Executing Committee recommends that though the ground water sources are not used for drinking purposes but even then if the ground water source is found contaminated, it may be sealed by CPCC along with erection of display board, mentioning that water is not fit for drinking purposes.

- 7) As per the Action Plan submitted by MC, Chandigarh for utilization of treated sewage, 36 MGD wastewater is treated to the level of tertiary and out of which, 10 MGD treated wastewater is pumped back to the city for use in gardens, green belts, schools, colleges, institutions and houses. Further, there is proposal to utilize about 20 MGD treated wastewater in the green spaces of various Sectors, for washing of coaches, bus depots for cleaning purposes and industrial clusters.
- 8) Regarding inspection of industries by CPCC and District Level Special task Force, it has been claimed that industries could not be inspected due to lockdown in the month of March and April and non-operation of the industries in the month of June to July, 2020.

It is recommended that CPCC and District Level Task Force shall continue to inspect the industries and check the operational status and performance of ETPs of the industries.

- 9) The Department of Health, has not organized any health checkup camps during March, 2020 to July, 2020 and due to Covid-19 situation. Therefore, the said department shall continue to organize health checkup camps soon after the improvement in the situation.
- 10) With regard to maintaining environmental flow in river Ghaggar, it has been reported that river Ghaggar is flowing 7 Kms away from Chandigarh city and Sukhna Choe and N Choe are non-perennial drains and carry storm water only. As such, maintaining of environmental flow is not possible in case of Chandigarh area.

The claim of UT Chandigarh is not justified because Sukhna Choe and N Choe also carry treated/ untreated sewage of Chandigarh area, whenever, there is chocking in sewerage system or STPs are not in operation, as such, there is need to maintain environmental flow in Sukhna Choe and N Choe for which the concerned department of UT Chandigarh should prepare a scheme to maintain environment flow in these Choes and such schemes may be implemented by 31.12.2020.

- 11) *For watershed management, Chandigarh Forest Department has undertaken various soil and moisture conservation measures in order to arrest soil erosion and checking the flow of silt in Sukhna Lake. More than 100 such check dams have been constructed in Sukhna Wild Life Sanctuary.*

The Executing Committee recommends that Forest Department Chandigarh should construct check dams in the catchment area of Sukhna Choe and N Choe in a time bound manner.

- 12) *Presently, all the 5 existing STPs are not meeting with the prescribed standards for the parameters, as such, the drains carrying untreated sewage/ partially treated sewage need to be bio remediated at the site. For this purpose, UT Chandigarh has planned to plant Terminalia arjuna and Syzygiumcumini along the Sukhna choe and N-choe. About 2000 Canna plants (wetland plants) shall also be planted along the Sukhna choe and N-choe by the end of August, 2020.*
- 13) *It has been observed that Sukhna Choe and N-Choe are natural choes and carry storm water of the Chandigarh, therefore, there is no need to provide real time water quality monitoring stations (RTWQMS). Moreover, there is regular flow in Sukhna Choe and N-Choe and there is quite possibility that the treated/ partially treated sewage of the STPs may also be discharged into these choes, as such, in-situ bioremediation technology should be installed in these choes at appropriate location by 31.12.2020.”*

STATE OF PUNJAB

“4.3.6. Conclusions and recommendations

1. *30 towns have been identified, which are located in the catchment area of river Ghaggar. For these 30 towns, 48 STPs are required to be installed, out of which 21 STPs for 20 towns have been completed and commissioned. Punjab Pollution Control Board is carrying out the monitoring of all these STPs on monthly basis and the performance of these STPs monitored during March, 2020 to July, 2020 indicates that 4 towns in the month of March, 5 towns in the month of May, 6 towns in the month of June and 4 towns in the month of July were not found meeting with prescribed standards.*

Punjab Pollution Control Board should take legal action under the provisions of Water Act, 1974 against the operating agencies of these STPs. Non-compliance in these STPs observed by Punjab Pollution Control Board may be conveyed to the concerned operating agencies of STPs and these agencies may be directed to comply with the

observations in time bound manner and operate the STPs efficiently so as to meet with the prescribed standards.

2. 11 STPs in 9 towns are under construction. Construction work has been started in 7 STPs [Boha: 2 MLD (52%), Dhuri: 5 MLD (27%), Sangrur: 4 MLD (30%), Bassi Pathana: 3 MLD (14%), Sirhind: 5 MLD (20%), Sirhind: 4 MLD (12%) and Banur: 0.5 MLD (5%)]. In case of 3 STPs (Nabha: 12MLD, Longowal: 5 MLD and Patiala (MES): 6 MLD, the work has been allotted. To treat sewage of 2 MLD of Sirhind town, diversion work of pond water is under progress.

The Executing Committee recommends that the State of Punjab should accelerate the progress of construction of STPs so that these may be completed by 31.3.2021.

3. In 14 towns, there is proposal to install 19 STPs, out of which 7 STPs (Dera Bassi: 2 MLD, Dera Bassi: 2 MLD, Lalru: 1 MLD, Ghanaur: 2 MLD, Sanaur: 4 MLD, Nabha: 1 MLD, Nabha MES: 1 MLD) are at tender in stage. In case of 5 STPs (Amluh: 3 MLD, Lalru Mandi: 1 1/2 MLD, Dhuri : 6 MLD, Sangrur: 11 MLD, Bassi Pathana: 0.2 MLD), land issues are to be resolved. 5 STPs (Gholu Majra: 0.35 MLD, Lalru: 0.15 MLD, Lalru: 0.35, Banur: 0.15 MLD, Zirakpur: 17 MLD) are at DNIT stage. In case of 01 STP of Cheema town, where there is proposal to install STP of capacity 2 MLD, the Department is exploring the possibility for providing nano bubble technology in the drain to treat sewerage in the town. 01 STP of capacity 3 MLD for Bhadson town, DPR is under preparation.

It is recommended that the senior functionaries of the Department of Local Government should resolve the issue of land for the STPs so that the work of these STPs may be started timely and construction work of these STPs should be completed by 30.6.2021. The Department of Local Government/Punjab Water Supply & Sewerage Board should finalize the technology to be provided to treat the sewage of Cheema town within 15 days.

4. 3 STPs (Bareta: 3 MLD, Bhikhi: 3 MLD, Sardulgarh: 4 MLD) are based on old technology and these have been proposed to be upgraded based on new technology. Funds have been tied up and are at DPR stage. STP of capacity 46 MLD of Patiala town is being enhanced to 61 MLD and 75% progress has been achieved upto 31.7.2020.

The Executing Committee recommends that old technology based 03 STPs should be upgraded based on new technology by 30.6.2021. The work of

enhancement of STP of 46 MLD of Patiala town to 61 MLD should be completed by 31.12.2020.

5. *In 30 towns, laying of sewerage network is in progress except Bhadson and Sanaur town where no sewerage network has been laid down so far. These towns may be provided with 100% sewerage network by 31.12.2020. Sewerage system in Bhadson (21.7 Kms) and Sanaur(25 Kms) town may also be laid and it should be laid simultaneously with the construction of STPs for these towns i.e. by 31.3.2021.*
6. *Wastewater generation and capacity of STP installed for 30 towns have been assessed and it has been observed that there is gap of 66.47 MLD, which is to be treated by providing STPs in different towns.*

The Executing Committee recommends that treatment of sewage to cover the gap of 66.47 MLD shall be completed by 30.06.2021 and PWSSB or any other Executing Agency shall ensure that after 31.03.2021 there shall be no gap in sewage to be treated.

7. *Punjab Pollution Control Board is monitoring the water quality of river Ghaggar on monthly basis. The monitoring data for the month December, 2019 to February, 2020 and March 2020 to July 2020 indicate that there is improvement in water quality of river Ghaggar at Bhankharpur, Chattbir, downstream of Jharmal Nadi, upstream of Dhakansu Nallah, downstream of Dhakansu Nallah, Rattanheri, before mixing Sagarpara drain, after mixing of Sagarpara drain, Khanauri, Moonak and at Sardulgarh.*

The State of Punjab and State of Haryana should take adequate steps to upgrade STPs bring faecal coliform, which is high at almost all the points, within the norms by 31.3.2021.

8. *Punjab Pollution Control Board has carried out groundwater sampling of ground water sources at 7 locations in the catchment area of river Ghaggar. Out of 2 groundwater samples, in 01 sample total alkalinity and in 2nd sample TDS has been found higher than the permissible limits. Punjab Pollution Control Board should seal these ground water sources and a display board mentioning that "**water is not fit for drinking**" should be erected at the site.*

Punjab Pollution Control Board has already been directed in 18th meeting of the Executing Committee held on 19.8.2020 to increase the number of ground water samples in proportion to the length of the river Ghaggar passing through State of Punjab and ground water samples should be collected as per the frequency already described.

9. Presently, 21 STPs are in operation. In order to divert the treated effluent entering into river Ghaggar and utilize the same for irrigation, the State of Punjab has prepared irrigation schemes to utilize the treated sewage. As per the data provided by the State, irrigation schemes for 10 towns to utilize 47 MLD in command area of 1541 hectare have been commissioned. 01 irrigation scheme to utilize treated sewage of Rajpura Town (7 MLD) is under construction and 80% of work has been completed. For 4 towns namely Mandi Gobindgarh (25 MLD), Patiala(10 MLD), Dhuri (5 MLD) and Sangrur (11 MLD), irrigation projects have been sanctioned and funds are yet to be released by the State Government.

For 03 towns, 04 STPs have been commissioned. For 14 towns, 20 STPs are under progress. For these towns, irrigation projects have been prepared to utilize the treated sewage but the funds have not been tied up so far. In case of 4 towns (Budhladha: 6.5 MLD, Zirakpur : 17 MLD, SAS Nagar : 45.4 MLD, Dera Bassi : 4 MLD), irrigation schemes are not feasible due to urbanization of land and non-availability of irrigation command area near the towns.

The Executing Committee recommends as under:

- Punjab Pollution Control Board should verify commissioning of irrigation schemes of 10 towns to utilize 47 MLD treated sewage in command area of 1541 hectare within 1 month.
- Irrigation schemes for Rajpura town should be completed by 31.12.2020.
- The Department of Soil & Water Conservation shall pursue the matter with Department of Finance, State of Punjab to release the funds to utilize the treated sewage of 4 towns namely Mandi Gobindgarh (25 MLD), Patiala (10 MLD), Dhuri (5 MLD) and Sangrur (11 MLD) for irrigation.
- The State of Punjab should tie up the funds for laying of irrigation network to utilize the treated sewage of 24 STPs of 17 towns, out of which 4 STPs of 3 towns have been commissioned and work of 20 STPs of 14 towns is under progress. The irrigations schemes for these towns should also be completed simultaneously with the completion of sewage treatment plants of the towns i.e. by 31.3.2021.
- For 4 towns (Budhladha: 6.5 MLD, Zirakpur: 17 MLD, SAS Nagar: 45.4 MLD, Dera Bassi: 4 MLD), where the irrigation schemes are not feasible due to urbanization of land and non-availability of irrigation command area near the towns. The Department of Local Government should prepare action plan to utilize the treated sewage of these towns for construction activities, gardening, toilet flushing, washing of vehicles and nearby railway yards etc. by 31.10.2020.

10. Punjab Pollution Control Board is carrying out the monitoring of all the existing 21 STPs of the State on monthly basis. The monitoring data for the period March to June, 2020 indicate that 12 STPs of 12 towns (Zirakpur, Mohali, Lalru, Zirakpur, Mohali, Banur, PUDA, Rajpura, Bhikhi, Sardulgarh, Baretta and Budhladha) have been found non-compliant w.r.t. achievement of the standard for the parameters. Accordingly, Punjab Pollution Control Board has taken action against these STPs under the provisions of the Water Act, 1974.

The Executing Committee recommends as under:

Punjab Pollution Control Board should send the non-compliance of these 12 STPs to the concerned operating agency/responsible authority and get the compliance be made from these agencies in a time bound manner, so that these STPs may start functioning effectively and efficiently.

In case, the non-compliances are not removed, Punjab Pollution Control Board shall take legal action against concerned operating agencies.

11. Punjab Pollution Control Board has carried out the inspection of 31 industries during March, 2020 to July, 2020 and all these industries have been found compliant. However, none of the industry has been inspected by District Level Special Task Force of Distt. SAS Nagar, Patiala, Sangrur and Mansa during the period March to July, 2020.

Punjab Pollution Control Board should increase the surveillance of the industries in odd hours to check the operational status of ETPs of the industries and their performance. Similarly, District Level Special Task Force of the Districts in the catchment area of river Ghaggar should visit the industries on surprise basis from time to time.

12. There are 389 villages located in the catchment area of river Ghaggar and 87 villages have been covered under Phase-1 for installation of sewage treatment facilities in these villages. In Phase-2, 152 villages have been taken and in Phase-3, 150 villages have been covered for setting up of sewage treatment plant. Out of 87 villages covered under Phase-1, STPs in 28 villages have been installed and treatment systems in 14 villages are under construction.

The Executing Committee recommends as under:

- i) The department of Rural Development & Panchayats should take effective steps to get install sewage treatment plants in 87 villages, covered in Phase-1 by 31.12.2020.**

ii) The treatment facilities for 152 villages covered under Phase-2 and 150 villages covered under Phase-3, should be installed by 31.3.2021.

13. The Department of Health has organized the 21 Health Check up camps during the period March, 2020 to June, 2020 and in these camps, 575 patients have been checked and out of these patients, 8 patients have been found suffering with water borne diseases.

Punjab Pollution Control Board should identify the ground water sources where 8 patients have been found suffering with water borne diseases and the ground water samples of these sources may be analyzed and in case these are found contaminated, the same may be sealed and the department of Water Supply & Sanitation may be asked to supply safe drinking water to the inhabitants of these areas.

14. For maintaining environmental flow and watershed management in river Ghaggar, the Department of Irrigation should construct check dams water retaining structures to store the excess rain water during rainy season and the stored water may be released in a regulated manner in river Ghaggar, so that it may contribute dilution at downstream of river Ghaggar to restore aquatic life.
15. A Technical Committee has been constituted by the Govt. of Punjab for providing various technological options for treatment of wastewater of rural areas. This committee has been entrusted with the work of framing guidelines for management of Septage and Faecal sludge. The committee is in the process of framing regulation for management of septage.

The department of Science Technology & Environment may be directed to ask the Committee to frame policy/guidelines for management of septage and faecal sludge by 30.9.2020 and action plan may be prepared for the management of the same by 30.11.2020 and shall start implementation of the same by 31.12.2020.

16. Presently, in-situ bio remediation technology has been provided in the drain carrying sewage of Bhadson town, which is consisting of facultative pond followed by free water constructed wet land system. The second system of In-situ bio remediation has been installed in Bholana drain to treat the sewage of villages and other colonies. The technology is based on bio remediation followed by phyto-remediation and supplemented by Nano bubble technology. **The Executing Committee recommends that such in-situ bio remediation technology should be**

installed in other drains, carrying untreated sewage and not connected to STPs by 31.10.2020.”

STATE OF HARYANA

4.4.6 Conclusions and recommendations

1. 27 towns are located in the catchment area of river Ghaggar and 59 STPs of capacity 514 MLD have been installed, out of which 49 STPs of capacity 373.5 MLD by Public Health Engineering Department, 9 STPs of capacity 131.5 MLD by HSVP and 1 STP of capacity 9 MLD by MES have been installed.

Haryana State Pollution Control Board is monitoring the performance of all the STPs on monthly basis. The analysis results of the effluent samples collected from STPs during the month of December, 2019 to June, 2020 indicate that all the STPs are meeting with prescribed limits for BOD and TSS parameters, whereas, none of the STP is complying with faecal coliform parameter and the value of faecal coliform is much higher than the permissible limits.

The Executing Committee recommends that all the concerned departments namely PHED, HSVP and Garrison Engineer, MES shall make adequate arrangement to provide appropriate technology/upgrade the existing STPs with mechanism to disinfect F.Coliform and ensure that these STPs should also achieve the prescribed standard for F.coli parameter by 31.12.2020.

2. Out of 21 STPs, which are under construction/planning, 6 STPs of capacity 74 MLD have been completed. The construction work of 13 new STPs of capacity 65.5 MLD is under progress and progress varying between 5-98% has been achieved. The work of 01 STP of capacity 1.5 MLD shall be started within 15 days and whereas 01 STP of capacity 1 MLD to be installed at Khanguwal has been dropped.

The Executing Committee recommends that all the remaining 11 STPs of capacity 67 MLD should be completed by 31.3.2021. Special efforts should be made to accelerate the construction work of 03 STPs of capacity 31.5 MLD at 12 Cross Road Ambala, Khuda Khurd, Ambala and Shahpur Machhonda so that these STPs should be completed by 30.6.2021.

3. 10 STPs of capacity 51.5 MLD are under proposal, out of which 7 STPs of capacity 41.5 MLD belong to HSVP, 2 STPs of capacity 10 MLD belong to ULBs and 01 STP to PHED. The timelines for completion of these STPs have been mentioned between 31.12.2021 to 30.6.2025.

The Executing Committee observed that such a huge quantity of untreated discharge of 51.5 MLD should not be allowed to be discharged, as such, there is need to complete these STPs by 30.6.2021.

4. *The Executing Committee observed that as per data provided by Haryana State Pollution Control Board, 255 points have been identified as pollution sources entering into main drains and ultimately into river Ghaggar, out of which 153 points relate to Development and Panchayat Department, 78 points to Urban Local Bodies, 5 points to HSVP, 5 points to PHED and remaining 14 points to other department.*

The Executing Committee further observed that there is possibility that these points might have been covered under STP projects but still there is need to analyze the data w.r.t the points which have been connected to STPs and the points where no action has been taken to divert the points into sewerage system further leading to STPs.

The Executing Committee recommends that Haryana State Pollution Control Board shall analyze the data of 255 disposal points joining to main drains w.r.t following points:

- i. Details of the disposal points carrying treated sewage and quality of treated sewage.*
- ii. Details of disposal points carrying untreated sewage.*
- iii. Details of the points proposed to be connected to sewerage system and further to STPs.*

5. *8 STPs of capacity 46.5 MLD in 7 towns have been planned to be constructed, where, presently either no discharge is there due to less population or discharge is not reaching to out fall and it is expected that 6-7 years will be taken to come with full population. These STPs are likely to be completed by 30.6.2024. **The Executing Committee observed that some temporary arrangements are required to be made to either divert the sewage of these areas to nearby STPs for its treatment or provide in-situ remediation in drains carrying untreated sewage.***
6. *8 STPs of capacity 77.5 MLD are required to be technologically upgraded and funds for the same have been tied up. The progress varying between 25-95% has been made w.r.t. upgradation of these STPs. The likely date of commissioning of these STPs has been mentioned as 30.12.2020 and 30.6.2021.*

The Executing Committee recommends that all the 8 STPs of capacity 77.5 MLD should be technologically upgraded by 31.12.2020.

7. *There are 20 STPs which are also required to be technologically upgraded but the funds have not been tied up so far. Out of these 20 STPs, 18 STPs are at DPR stage and in case of 2 STPs [Kalka: (4.5 MLD), Ambala city: (6 MLD)], no land is available for upgradation.*

The Executing Committee recommends that all 20 STPs should be technologically upgraded by 30.6.2021.

8. *Out of 27 towns in catchment of River Ghaggar, sewerage network has been completed in 20 towns. 430 Km of sewer line is being laid in 7 towns, out of which 318 Km sewerage has been laid, so far. In these 7 towns, progress w.r.t laying of sewerage network has been achieved to 51.5-98.8%.*

It is recommended that sewerage system in all the remaining 7 towns should be completed by 31.3.2021 or till the commissioning of STPs whichever is earlier.

9. *With regard to gap in treatment of sewage of the towns located in the catchment area of river Ghaggar, it was observed that total sewage discharge of 27 towns of river Ghaggar is 258 MLD, whereas, the present capacity of STPs in these 27 towns is 514 MLD. However, there is gap of 0.7 MLD in Ambala town only. However, it has been observed by the Executing Committee that as per the data provided by HSPCB, the untreated sewage of 107.53 MLD through 70 locations is being discharged into river Ghaggar, as such, the discharge of 107.53 MLD should also covered under gap in sewage to be treated.*

The Executing Committee recommends that Haryana State Pollution Control Board shall reanalyze the data w.r.t gap in treatment of sewage in the towns as well as 107.53 MLD sewage through 70 locations being discharged untreated into river Ghaggar within 15 days and necessary directions be issued to the Executing agency (PHED/ULB/HSVP/D&B/other department) to connect the untreated discharge of these 70 locations with sewerage system leading to STPs or install new STPs of adequate capacity by 30.6.2021.

10. *The Haryana State Pollution Control Board is monitoring the water quality of river Ghaggar at various locations. The data indicate that the value of BOD at various locations has been found varying between 2.6-110 mg/I and though there is slight change in the value of total coliform and still it is much higher than the permissible limits, **as such, there is need to upgrade all the existing STPs located in the catchment area of river Ghaggar to control faecal coliform and the source of pollution which are directly entering into river Ghaggar contributing high value of faecal coliform may also be identified and these sources should be connected to nearby STPs.***

11. *Haryana State Pollution Control Board is in the process of fixing the specifications for Real Time Water Quality*

Monitoring Stations and these RTWQMS are likely to be installed by 31.12.2020.

It is recommended that Haryana State Pollution Control Board shall take immediate action to install Real Time Water Quality Monitoring Stations (RTWQMS) by 31.12.2020 at appropriate locations.

12. Haryana State Pollution Control Board is monitoring the ground water quality of ground water sources located in the catchment area of river Ghaggar on quarterly basis at 72 locations. As per the latest report, the groundwater quality of 40 locations has not been found complying due to high values of TDS and calcium, whereas, the groundwater quality of 32 locations is meeting with the prescribed standards for drinking water. Accordingly, all these contaminated sites have been closed and display boards mentioning "**water is not fit for drinking**" have been erected.

It is recommended that Haryana State Pollution Control Board shall continue to monitor groundwater sources in the catchment area of river Ghaggar as per the frequency maintained by it and in case the contaminated sites are observed, the same shall be sealed by the Board and display board mentioning "water is not fit for drinking" may be erected at these sites.

13. 15 irrigation projects to utilize the treated sewage of the towns costing Rs. 184.97 crore, which are part of Rs. 500 crore micro irrigation project under NABARD scheme, have been approved.
35 STPs located in 21 districts to irrigate CCA of 23,359 hectares of land to utilize 338.85 MLD of treated sewage have also been covered under the project of Rs. 500 crore.

As per the latest directions from the State Government, the project is to be completed within 2 years.

The Executing Committee recommended as under:

- i) **All the 15 irrigation projects to utilize the treated sewage of STPs located in the catchment area of river Ghaggar should be completed by 31.3.2021.**
- ii) **Out of total 207 STPs located in the catchment area of river Ghaggar and Yamuna, for which action plan has been approved by Government of Haryana in the month of January, 2020 for Rs 1098.25 crore to utilize 1828 MLD sewage, priority may be given to the remaining 44 STPs (59-15) of Ghaggar catchment area to utilize their treated sewage for irrigation.**
14. Haryana State Pollution Control Board has inspected 6 MLD STP at Barwala, Hisar during the period March to June 2020, whose analysis results have been found higher than the permissible limits, as such, environmental compensation

of Rs. 3.25 crore has been imposed alongwith launching of prosecution against the agency.

No inspection of industries has been carried out by District Level Special Task Force during March, 2020 to June, 2020.

The Executing Committee recommends that HSPCB shall continue to monitor the existing STPs and industries located in river Ghaggar catchment area on monthly basis and action against the violators may be taken in a time bound manner. District Level Special Task Force shall also conduct surprise inspection of industries from time to time.

15. The Department of Rural Development & Panchayats has identified 45 villages in the catchment area of river Ghaggar, out of which work for STPs has been sanctioned for 36 villages and work of STPs in 31 villages has been started.

It is recommended that treatment facilities in all the 45 villages falling in the catchment area of river Ghaggar should be completed by 31.3.2021.

16. River Ghaggar is a non-perennial river and maintaining E-flow by keeping 15-20% of lowest possible discharge in lean season is not possible. However, monthly flow of all the major drains joining river Ghaggar is measured regularly on monthly basis.

It is recommended that the Department of Irrigation shall provide check dam/water retaining structures in the catchment area of river Ghaggar to retain excess flow of water during rainy season and discharge the same in a regulated way during non-monsoon period so as to maintain eco system and aquatic life in the river.

17. 27 ULBs in Ghaggar river catchment area have notified their policy and septage and faecal sludge is disposed of at STPs through tanker system. As per the data supplied by the Department, septage/faecal sludge from 12 ULBs varying between 6-50 KI has been disposed of through tankers into STPs in the month of January-2020.

It is recommended that Urban Local Bodies department, PHED, HSVP, D & P in consultation with Haryana State Pollution Control Board shall quantify the discharge of septage and faecal sludge to be disposed of at particular STPs keeping in view the capacity of STPs and quantity of sewage being treated at the STPs so that disposal of such sludge may not hamper the functioning of STPs.

18. The officers of Haryana State Pollution Control Board, Urban Local Bodies, HSVP, PHED and Panchayat Department have visited the sites of phyto remediation system in Punjab area on 11.8.2020. Accordingly, it has been decided to start such in-situ bio remediation technology in drains carrying untreated sewage and not connected to STPs in the

catchment area of river Ghaggar in the State of Haryana within 2 months.

It is recommended that executing agencies like ULB department, HSVP, PHED and Panchayat Departments shall identify the drains carrying untreated sewage and not connected to STPs within 15 days and provide appropriate in-situ bio remediation technology in the drains by 31.10.2020. Haryana State Pollution Control Board shall coordinate the matter immediately.

19. *Plan has been prepared for Watershed Management in catchment area of river Ghaggar by the Department of Agriculture but it is to be implemented by the Department of Development & Panchayat.*

It was recommended that the Department of Panchayat and Department of Agriculture shall jointly take steps to provide Watershed Management in the catchment area of river Ghaggar by 31.12.2020.”

Our Observations

10. From the above, it is seen that there is hardly any significant improvement. The States of HP, Haryana, Punjab and UT Chandigarh continue to contribute water pollution which is a criminal offence. It is breach of public trust under public trust doctrine. We are left with a feeling that there is no commitment to the rule of law and no concern for the environment and health of the citizens on the part of the concerned authorities in the States of HP, Haryana, Punjab and UT Chandigarh. As already observed, inspite of enactment of Water (Prevention and Control of Pollution) Act, 1974 making discharge of untreated effluents into a water body a criminal offence, the States are still struggling with preventing untreated sewage from being discharged into the water body **at a huge cost to the environment and health and lives of citizens who have fundamental right to clean environment under the Constitution.** Water pollution is a serious threat to the health of the citizens as well as other living beings who consume the water and also to the food safety for growth of which the water is used for irrigation. After

the Hon'ble Supreme Court fixed a deadline of 31.03.2018 in *Paryavaran Suraksha Samiti (supra)* for ensuring that all requisite equipment for treatment of water pollution were in place, there can be no justification whatsoever for the State to have failed in complying with the law. If the State finds that they are unable to manage the sewage directly, there is no bar to other options being explored but there cannot be any justification not to comply with the mandate of law and protecting the health of the citizens in accordance with the Constitutional mandate. No action is being taken against the erring officers and it gives an impression that there is collapse of Environmental rule of law. Who is to pay the cost of damage to the environment and public health of large number of unidentified citizens and other living creatures? Is such cost being calculated. How officers responsible for damage by their inaction or otherwise are being dealt with. Should the State be held liable vicariously for such failure and failure to punish the guilty. This Tribunal has been passing repeated orders and as many as six reports have been submitted by a Monitoring Committee headed by a former High Court Judge and a former Chief Secretary, clearly recording failure of the State authorities but the higher authorities are also conveniently ignoring their responsibility. Advocates for the authorities only maintain silence before this Tribunal. **If the State itself fails in implementing the law, it is nothing but breakdown of the system itself. Is this Tribunal to just remain silent spectator for such gross failure or hold highest authorities accountable by directing their prosecution for their criminal failure and indirectly being party to the crime against the law of the land? How the law of the land is to be meaningfully enforced. We expect answers to these questions from the States.**

11. We hope that the States realise their responsibility to function according to the Constitution and take immediate remedial measures in punishing the guilty involved in failing to comply with the law and also take prompt measures instead of repeatedly taking the same plea of being engaged in tender process or DPRs. It should not be difficult at this length of time to overcome such procedural requirements and to effectively prevent discharge of the untreated effluents after 46 years of enactment of Water Act and repeated orders of the Hon'ble Supreme Court and other Courts. **For delay and continued violation, realistic compensation has to be recovered from the erring officers, apart from other action or in default, the compensation has to be quantified and recovered. The Executing Committee may make its recommendation in this regard.**

Directions

12. We accordingly direct the Chief Secretaries of the Himachal Pradesh, Punjab, Haryana and UT Chandigarh must meet (physically or online) within one month for brainstorming with reference to the recommendations of the Executing Committee for meaningful prompt action and fixing of the accountability for the erring officers. Such meeting may be convened and facilitated as per further direction in this order. Remedial action should not only include setting up of requisite equipment and interim measures but also making persons to whom the job is entrusted personally accountable in terms of their performance. After first meeting also, the four Chief Secretaries must meet atleast once in a month to take stock of the situation. First such meeting may be held on or before 30.11.2020 and meaningful action must be taken latest by

31.01.2021. In case of default, the Tribunal may have no option except to take coercive measures against the erring authorities.

13. We also direct that the Secretary, Ministry of Jal Shakti (MoJS) may also attend such meetings with a view to facilitate the deliberations and to remove bottlenecks, if any. Since the issues involve different States, the Secretary of MoJS will be the nodal agency for calling the meetings and coordinating with the Chief Secretaries. Similarly, NMCG and CPCB who are also involved in monitoring abatement of pollution of 351 river stretches may also attend such meetings.

14. As earlier mentioned, in OA 673/2018, the issue of abatement of pollution in the 351 river stretches is being dealt with by this Tribunal and last order was passed on 21.09.2020 in the light of reports of the CPCB and Central Monitoring Committee headed by the Secretary, MoJS. Ghaggar is also one such highly polluted stretch and is governed by the said order. In the said order, it was inter-alia observed:

“24. We have duly considered the CPCB, CMC and OC reports as above and noted the gaps and recommendations. We accept the recommendations of the Committees already quoted above that the States should furnish quality information and comply with the directions of this Tribunal in terms of orders dated 06.12.2019 and 29.06.2020. The violation of mandate of 100% treatment of sewage may be visited with the assessment and recovery of compensation and violation of timelines for setting up of pollution control devices may also be likewise strictly enforced with the compensation regime in place. There is also need for fully utilizing and augmenting the existing infrastructure as already noted above.

25. The States/UTs may consider using HAM as a business model as well as OCOP concept, FSSM Policy, alternative models for treatment of sewage/faecal sludge, decentralized STPs and also strengthen the online monitoring system. We are also of the view that flood plain zones of all the rivers need to be mapped and demarcated and encroachments removed therefrom. The same be utilized for plantation, creation of bio-diversity parks and constructed wetlands or other recreational purposes, consistent with the

environmental concern. We agree with the OC that river side mining needs to be regulated. To reduce the timelines for setting up of STPs, many States/UTs are consuming time in preparing DPRs whereas model DPRs can be prepared and used for shortening the timelines. Similarly, SOPs need to be prepared for the timeline to be taken in setting up of STPs as well as for maintenance and operation of existing STPs particularly those not meeting the norms. Number of monitoring stations also needs to be suitably increased. We are also of the view that the State RRCs must function effectively and the Chief Secretaries must hold monthly meetings as it is found from the report of the OC for the State of UP that the Chief Secretaries may not be doing so. Huge failures of the States/UTs may show poor governance as far as environment is concerned which may need to be remedied. As found by the CMC, neither delay is explained nor accountability is fixed for the failure of the concerned officers which is not a happy situation.

26. While dealing with the control of pollution of River Ganga, the Tribunal noted that following action points for monitoring:

- i. Setting up of STPs, Interception and Division (I&D) of drains and preventing untreated sewage and effluents
- ii. Use of treated water
- iii. Use of sludge manure
- iv. Status of septage management
- v. Compliance in relation to industries
- vi. Installation of STPs/treatment facilities in Hotels/Ashrams and Dharmshalas.
- vii. Water quality monitoring of river Ganga and its tributaries.
- viii. Maintenance of environmental flow in river Ganga.
- ix. Disposal of Bio-medical waste.
- x. Compliance of Solid Waste Management (SWM) Rules, 2016.
- xi. Preparation of maps and zoning of flood plains.
- xii. Mining activity under supervision of the concerned authorities.
- xiii. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring.

CMC/RRCs/ OC for UP may conduct further monitoring keeping in mind the above action points.”

Covid-19 and Water Pollution

15. Needless to mention that the water pollution can magnify health issues in the wake of Covid-19 pandemic. If the State authorities continue to ignore the issue, it will have alarming adverse effect on the lives of the citizens.

16. The Chief Secretaries may give the status of compliance as on 31.01.2021 to the Executing Committee as well as to the MoJS on or before 15.02.2021 and the Executing Committee may give its consolidated report, considering the said status reports and its own recommendations on or before 28.02.2021 by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

List for further consideration on 16.03.2021.

A copy of this order be forwarded to the Chief Secretaries of Himachal Pradesh, Punjab, Haryana and Chandigarh, Secretary, MoJS, CPCB and NMCG by mail for compliance.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. S.S. Garbyal, EM

Dr. Nagin Nanda, EM

October 28, 2020
Original Application No. 138/2016 (TNHRC)
(Case No.559/19/11/14)
DV