

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

(By Video Conferencing)

Original Application No. 138/2016 (T<sub>NHRC</sub>)  
(Case No. 559/19/11/14)

(With report dated 15.02.2021)

Stench Grips Mansa's Sacred Ghaggar River

Date of hearing: 16.03.2021

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

Applicant/  
Amicus Curiae: Ms. Katyayni, Advocate

Respondents: Mr. Raj Kumar, Advocate for CPCB  
Ms. Richa Kapoor, Advocate for PPCB  
Mr. Rahul Khurana, Advocate for HSPCB  
Mr. Sanjay Kumar, Advocate for HPSPCB

**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 has been 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 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, 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 six reports dated 28.02.2019, 14.06.2019, 01.10.2019, 8.1.2020, 16.04.2020 and 07.09.2020 which were dealt with by this Tribunal vide earlier orders.

6. We may only refer to the last order dated 28.10.2020 dealing with the Sixth Report dated 07.09.2020 as follows:

*“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](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.”

7. Accordingly, Seventh Report has been filed by the Executing Committee on 15.02.2021 as follows:

**“3.0 Consolidated report of the Executing Committee based on compliance report submitted by the States/ UT; Chandigarh.**

**3.1 State of Himachal Pradesh**

The State of Himachal Pradesh has submitted the compliance of recommendations made by the Executing Committee in its 6<sup>th</sup> report, which is mentioned as under.

**3.1.1 Compliance of the recommendations made by the Executing Committee in its 6<sup>th</sup> report as per order dated 28.10.2020 in OA No. 138 of 2016.**

Sr. No.	Conclusions and Recommendations in 6 <sup>th</sup> Report.		Compliance Status
1	<p><b>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</b></p>	<p>The Executing Committee recommends that <b>01 STP of capacity 1 MLD at Sector-2 Parwanoo</b> should be installed by 31.03.2021.</p> <p>The concerned department of the State should make immediate arrangements to get the land transferred so that work of <b>STP located in village Tipra</b>, may be started and should be installed by 31.03.2021.</p>	<ul style="list-style-type: none"> <li>• Sewer pipes have been procured. As on 26-01-21, 4100m sewer line of dia 150mm, 900m sewer line of dia 200mm has been laid and 151 manholes have been constructed.</li> <li>• <b>Equalization Tank:</b> - PCC and Raft foundation work has been <b>completed</b>. 1st and 2nd Lift has been completed.</li> <li>• <b>MBBR I and MBBR II:</b> - PCC and Raft foundation work has been completed. 1st and 2nd Lift has been completed, 3rd lift is in progress.</li> <li>• <b>Sludge Sump:</b> - PCC and Raft foundation work has been completed, 1st lift has been completed, 2nd lift is under is in progress.</li> <li>• Filtrate Sump all civil work completed.</li> <li>• <b>STP at Tipra:</b> Tender work of both STPs has been awarded <b>on</b> 19.03.2020. The land transfer case for STP Tipra is <b>pending at</b> CCF, Forest Department. The Forest Department has also given permission for the site clearance/development to the Jal Shakti Vibhag.</li> </ul>
2	<p><b>The executing committee recommends that STP of capacity 1.5 MLD in Kala Amb and 1 MLD in</b></p>	<p><b>STP of capacity 1.5 MLD in Kala Amb</b> should be completed by</p>	<p>Work has been awarded on 7.03.2020. Pipes for the sewer line have <b>been</b> procured. Approx. 4.6 km sewer line has been laid.</p> <p><b>The completion time schedule of STP Kala Amb is as below:-</b></p>

	<p><b>Trilokpur should be completed by 31.03.2021</b></p>	<p>31.03.2021</p> <p><b>STP of 1.5 MLD capacity in Trilokpur should be completed by 31.03.2021</b></p>	<table border="1" data-bbox="824 317 1481 577"> <tr> <td><b>Approval of Design</b></td> <td>Approved</td> </tr> <tr> <td>Site Development</td> <td>Completed</td> </tr> <tr> <td>Completion of civil works</td> <td>31.01.2021 (U)</td> </tr> <tr> <td><b>Installation of</b></td> <td>20.02.2021</td> </tr> <tr> <td><b>Pipe tank and networking</b></td> <td>28.02.2021</td> </tr> <tr> <td>Project completion and trial</td> <td>31.03.2021</td> </tr> </table> <p>Sewer pipes procured for sewer line. The land handed over to contractor. The hydraulic design has been approved by the competent authority. Approx. 5 km sewer line has been laid as on 26.01.2021. <b>The Civil Construction</b> work started on site.</p> <p>The completion time schedule of STP Trilokpur is as below:-</p> <table border="1" data-bbox="824 889 1481 1150"> <tr> <td>Approval of Design</td> <td>Approved</td> </tr> <tr> <td>Site Development</td> <td>Completed</td> </tr> <tr> <td>Completion of civil works</td> <td>31.12.2020 (Still under)</td> </tr> <tr> <td>Installation of machineries</td> <td>31.01.2021</td> </tr> <tr> <td>Pipe tank and networking</td> <td>28.02.2021</td> </tr> <tr> <td>Project completion and trial</td> <td>31.03.2021</td> </tr> </table>	<b>Approval of Design</b>	Approved	Site Development	Completed	Completion of civil works	31.01.2021 (U)	<b>Installation of</b>	20.02.2021	<b>Pipe tank and networking</b>	28.02.2021	Project completion and trial	31.03.2021	Approval of Design	Approved	Site Development	Completed	Completion of civil works	31.12.2020 (Still under)	Installation of machineries	31.01.2021	Pipe tank and networking	28.02.2021	Project completion and trial	31.03.2021
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3	<p>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.</p>	<p>The two 70 KLD STPs have been installed and commissioned at Khadeen and Sector 5 Parwanoo.</p>																									
4	<p>The executing committee recommends that <b>CETP of capacity 5 MLD in Kala Amb area</b> should be completed by 30.06.2021.</p>	<p>Land for the construction of CETP has been allotted and tender has been awarded on 31st August, 2020. Process design for the CETP has also been approved by NIT Bhopal. Land levelling/ site development work has been started on 20.11.2020.</p> <p>The completion time schedule of CETP Kala Amb is as below:</p> <table border="1" data-bbox="824 1876 1481 2239"> <tr> <td>Approval of design drawing by competent authority (IIT Roorkee or any other IIT/NIT)</td> <td>Approved</td> </tr> <tr> <td>Site Development</td> <td>Completed</td> </tr> <tr> <td>Completion of civil</td> <td>31.01.2021 (Under)</td> </tr> <tr> <td>Installation of</td> <td>20.02.2021</td> </tr> <tr> <td>Project completion and trial run</td> <td>31.03.2021</td> </tr> </table>	Approval of design drawing by competent authority (IIT Roorkee or any other IIT/NIT)	Approved	Site Development	Completed	Completion of civil	31.01.2021 (Under)	Installation of	20.02.2021	Project completion and trial run	31.03.2021															
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5	<p>The executing committee recommends that HPPCB shall</p>	<p><b>Details of Inspections and Sampling carried out in Sukhna and Markanda Catchment from October 2020 to 31.01.2021</b></p>																									

	<p>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.</p>		<table border="1"> <tr> <td data-bbox="808 284 1167 344"><b>Parwanoo</b></td> <td data-bbox="1167 284 1481 344"><b>Kala Amb</b></td> </tr> <tr> <td data-bbox="808 344 1167 567">           No. Of Inspections- 93            No. Of Samples- 42  <b>Show Cause Notices issued- 4</b> </td> <td data-bbox="1167 344 1481 499">           No. Of Inspections- 72            No. Of Samples- 41  <b>Show Cause Notices issued- 3</b> </td> </tr> <tr> <td data-bbox="808 567 1167 655">Environmental</td> <td data-bbox="1167 499 1481 655"><b>Environmental Compensation- Rs. 668750/-</b></td> </tr> <tr> <td data-bbox="808 655 1167 728">Compensation- Nil</td> <td data-bbox="1167 655 1481 728"></td> </tr> </table>	<b>Parwanoo</b>	<b>Kala Amb</b>	No. Of Inspections- 93 No. Of Samples- 42 <b>Show Cause Notices issued- 4</b>	No. Of Inspections- 72 No. Of Samples- 41 <b>Show Cause Notices issued- 3</b>	Environmental	<b>Environmental Compensation- Rs. 668750/-</b>	Compensation- Nil		
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6	<p>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</p>		<p>All the villages in the catchment of Sukhna Nallah at Parwanoo and Markanda at Kala Amb have been covered in the Action Plan for the sewage treatment and industrial wastewaters treatment of proposed STPs and CETPs at Parwanoo and Kala Amb respectively</p> <table border="1"> <thead> <tr> <th data-bbox="824 1104 938 1212">S/No.</th> <th data-bbox="938 1104 1192 1212">Name of Work /</th> <th data-bbox="1192 1104 1481 1212">Name of Villages</th> </tr> </thead> <tbody> <tr> <td data-bbox="824 1212 938 1736">i)</td> <td data-bbox="938 1212 1192 1736">Sewage Treatment Plants for <b>Parwanoo Town.</b></td> <td data-bbox="1192 1212 1481 1736">Villages Nariyal, Ambota, Dhagged , Taksal, Gumma of GP Taksal will be connected with the STP and the other villages of GP Jabli, Dharampur, Gulhari, Jangeshu, Garkhal Sanawar, Kasauli Garkhal, Madhala and Kalu Jhanda have been mapped with the proposed STPs management.</td> </tr> <tr> <td data-bbox="824 1736 938 2169">ii)</td> <td data-bbox="938 1736 1192 2169">Providing sewerage system for <b>Kala Amb and Moginand</b> area Laying of sewerage network and pre treatment plant.</td> <td data-bbox="1192 1736 1481 2169">Villages Moginand, Jattan, Kala Amb of GP Kala Amb will be connected with the CETP at Kala Amb. Other surrounding Rural Areas have achieved ODF status and double pit treatment shall be provided in these areas.</td> </tr> </tbody> </table>	S/No.	Name of Work /	Name of Villages	i)	Sewage Treatment Plants for <b>Parwanoo Town.</b>	Villages Nariyal, Ambota, Dhagged , Taksal, Gumma of GP Taksal will be connected with the STP and the other villages of GP Jabli, Dharampur, Gulhari, Jangeshu, Garkhal Sanawar, Kasauli Garkhal, Madhala and Kalu Jhanda have been mapped with the proposed STPs management.	ii)	Providing sewerage system for <b>Kala Amb and Moginand</b> area Laying of sewerage network and pre treatment plant.	Villages Moginand, Jattan, Kala Amb of GP Kala Amb will be connected with the CETP at Kala Amb. Other surrounding Rural Areas have achieved ODF status and double pit treatment shall be provided in these areas.
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			iii)	Providing sewerage system for <b>Trilokpur and Kheri area:</b> Laying of sewerage network and Setting up of sewerage treatment plant.	Villages Trilokpur, Kheri, Johron of GP Trilokpur will be connected with the STP. Other surrounding Rural Areas have achieved ODF status and double pit treatment shall be provided in these areas.
8	The State of HP should install STP's and CETP in Kala Amb area and Parwanoo area by 31.03.2021, so that organic parameters and F. Coli are always within the prescribed norms and water quality of the drains/ river may be further improved.	Compliance is being ensured as per detail in point number 1, 2 & 4.			
9.	The <b>concerned department of State</b> of Himachal Pradesh should <b>prepare a detailed scheme to utilize the treated sewage for construction activities, toilet flushing, industrial usage, plantation, road cleaning, watering of green belt</b> or any other use within 02 months	<b>Reuse of Treated Waste Water (Action plan proposed under OA No 593)</b> <ul style="list-style-type: none"> <li>• For reuse of Treated Waste Water (TWW), tertiary treatment of effluent is proposed to enable the bulk water users for utilization.</li> <li>• Arrangement for collection of the TWW will be provided at all STPs for bulk users by JSV.</li> <li>• No user charges shall be levied, however, the users have to make their own arrangements to carry the treated waste water either through tankers or pipe lines.</li> <li>• The bulk water users will be identified by Industries Department/ HPSPCB.</li> </ul>			
10	<b>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</b>	<p>HPSPCB is regularly monitoring the ground water quality.</p> <p>2 nos. Sampling locations are in catchment of Sukhna Nallah: 1. Hand Pump near Shiwalik Cafe 11 Bore well at HPMC 3 nos. Sampling locations are located in catchment of Markanda:</p> <p>i. Well at Residential Area Kala Amb. ii. Well at Industrial Area Kala Amb iii. Hand Pump at Kala Amb</p> <p>Comparative analysis of Ground water monitoring results is appended as Annexure-A.</p>			

	<i>drinking purposes"</i>										
11	In order to <b>maintain environmental flow (e-flow) in Sukhna Nallah and Markanda</b> river, more check dams and water retaining structures may be provided <b>so as to retain and store the excess rain water flow and discharge the same in a regulated manner in the drains/nallahs</b> Monsoon periods.	<p>The following steps have been taken to maintain environmental flow in the river/ Nallah</p> <ul style="list-style-type: none"> <li>• <b>Total 27 nos. of Check Dams</b> have been <b>constructed by the Forest Department in Sukhna (Priority-I) at Parwanoo.</b></li> </ul>									
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.	<ul style="list-style-type: none"> <li>• 2 Nos of Joint Inspection at regional level (HPPCB, Gram Panchayat, Industries Department) has been carried out each in Sukhna Nallah and River Markanda on 16-07-2020 and 1-07-2020 respectively and no such incidence of discharging of septage and faecal sludge from septage tank in these Nallahs was observed.</li> <li>• Total 10 nos. of inspection has been carried out by Surveillance Squad constituted by HPSPCB.</li> <li>• No illegal discharge of septage or faecal sludge has been observed.</li> <li>• All proposed STPs in the catchment has been equipped with septage management.</li> <li>• Further it is pertinent to mention here that during routine surveillance and monitoring conducted by the Regional offices, HPSPCB, this aspect is regularly checked as well.</li> </ul>									
12B	Policy/guidelines for management of septage and faecal sludge from rural areas and other un-sewered areas may be framed within 3 months.	<p>Himachal Pradesh has achieved Open Defecation Free status, therefore, in rural areas toilet facilities with septic tanks for each household are available and in use.</p> <p>Further, an action plan for septage management for rural areas in compliance of Hon'ble NGT order in O.A. No. 593 of 2017 has been prepared which will incorporate the mapping of STPs for the management of the septage in the semi-urban/ peri-urban areas. Total 166 Gram Panchayats in State have been covered for Septage management under existing STPs and proposed STPs all over State. As regard the STPs in the catchment of Sukhna Nallah and River Markanda, the proposed STP of Parwanoo has been mapped for the septage management in nearby areas.</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Name of Work</th> <th>Name of Villages</th> </tr> </thead> <tbody> <tr> <td>i)</td> <td>Laying of Sewerage Network &amp; Setting up of Sewage Treatment Plants for Parwanoo Town.</td> <td>Villages Nariyal, Ambota, Dhagged, Taksal, Gumma of GP Taksal will be connected with the STP and the other villages of GP Jabli, Dharampur, Gulhari, Jangeshu, Garkhal Sanawar, Kasauli Garkhal, Madhala and Kalu Jhanda have been mapped with the proposed STPs for septage management.</td> </tr> <tr> <td>ii)</td> <td>Providing sewerage system for Kala Amb and</td> <td>Villages Moginand, Ogli, Rampur Jattan, Kala Amb of GP Kala Amb will be connected with the CETP at</td> </tr> </tbody> </table>	Sl. No.	Name of Work	Name of Villages	i)	Laying of Sewerage Network & Setting up of Sewage Treatment Plants for Parwanoo Town.	Villages Nariyal, Ambota, Dhagged, Taksal, Gumma of GP Taksal will be connected with the STP and the other villages of GP Jabli, Dharampur, Gulhari, Jangeshu, Garkhal Sanawar, Kasauli Garkhal, Madhala and Kalu Jhanda have been mapped with the proposed STPs for septage management.	ii)	Providing sewerage system for Kala Amb and	Villages Moginand, Ogli, Rampur Jattan, Kala Amb of GP Kala Amb will be connected with the CETP at
Sl. No.	Name of Work	Name of Villages									
i)	Laying of Sewerage Network & Setting up of Sewage Treatment Plants for Parwanoo Town.	Villages Nariyal, Ambota, Dhagged, Taksal, Gumma of GP Taksal will be connected with the STP and the other villages of GP Jabli, Dharampur, Gulhari, Jangeshu, Garkhal Sanawar, Kasauli Garkhal, Madhala and Kalu Jhanda have been mapped with the proposed STPs for septage management.									
ii)	Providing sewerage system for Kala Amb and	Villages Moginand, Ogli, Rampur Jattan, Kala Amb of GP Kala Amb will be connected with the CETP at									

			<p>Moginand area. Laying of sewerage network and pre-treatment plant.</p> <p>Kala Amb. Other surrounding Rural Areas have achieved OFD status and double pit treatment shall be provided in these areas.</p>
		iii)	<p>Providing sewerage system for Trilokpur and Kheri area: Laying of sewerage network and Setting up of sewerage treatment plant.</p> <p>Villages Trilokpur, Kheri, Johron of GP Trilokpur will be connected with the STP. Other surrounding Rural Areas have achieved OFD status and double pit treatment shall be provided in these areas.</p>
		<p>A policy/ guideline for management of septage &amp; faecal sludge from rural areas in r/o of District Sirmaur has been formulated.</p>	
13	<p><b>No STP</b> along Sukhna Nallah and Markanda river has been constructed therefore, <b>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.</b> 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.</p>	<p><b>River Markanda catchment in Kala Amb:</b></p> <ul style="list-style-type: none"> <li>The tender for installation of phyto-remediation in Jattanwala Nallah at 2 locations has been awarded. Jal Shakti Vibhag has started the construction work of phyto-remediation in Jattanwala nallah at 1st site.</li> <li>Weir construction on both the sites has been completed. Construction of reed bed was initiated at Site No. 1, which was stopped due to land dispute with local residents. <ul style="list-style-type: none"> <li>Construction of reed beds has been initiated at Site No. 2 for which work is in progress.</li> </ul> </li> </ul> <p><b>Sukhna Nallah catchment in Parwanoo:</b></p> <ul style="list-style-type: none"> <li>The civil work &amp; plantation of plants has been completed and facility has been made operational.</li> <li>Water sampling will be done after replacing dried out plants. More plants will be planted in upcoming months.</li> </ul>	
14	<p><b>HPPCB shall install Real Time Water Quality Monitoring Stations in Jattan Wala Nallah, Markanda River and Sukhna Nallah</b> by 31.12.2020</p>	<p>2 (Two) Real Time Water Quality Monitoring Stations are installed at</p> <ol style="list-style-type: none"> <li>River Markanda</li> <li>River Kaushalaya at village Kamli</li> </ol> <ul style="list-style-type: none"> <li>The systems are also connected to HPSPCB server and the Real Time data is being transmitted to State Board Server regularly.</li> <li>The Parameters DO, BOD, TSS, pH, Temp. and Flow Rate are being monitored and the equipment installed are functioning properly.</li> </ul> <p>Sukhna Nallah and Jattanwala Nallah are seasonal drains, hence installation of RTWOMS is not feasible.</p>	

### 3.1.2 Visit to the pollution sources and control thereof in Kala Amb area on 28.12.2020 by the Executing Committee.

The Executing Committee has visited the pollution sources and control thereof in Kala Amb area on 28.12.2020 and the report alongwith recommendations of the Executing Committee is Annexed as per Annexure-6.

### **3.1.3 Visit to pollution sources and control thereof in Parwanoo area on 27.1.2021 by the Executing Committee.**

The Executing Committee has also visited the pollution sources and control thereof in Parwanoo area on 27.1.2021 and the report alongwith recommendations of Executing Committee is annexed as per **Annexure-7**.

### **3.1.4 Water quality of Sukhna Nallah, river Kaushalya, Jattan Wala Nallah and river Markanda**

The water quality of Sukhna Nallah, river Kaushalya, Jattan Wala Nallah and river Markanda, as monitored by HPSPCB in the month of September 2020 to November 2020, indicates as under.

- The values of BOD and F.coli in Sukhna Nallah have been found varied between 0.4-2.2 mg/I and 14-21 MPN/100ml.
- The water quality of river Kaushalya indicates the value of BOD varying between 0.4-0.8 mg/I and F.coli between 11-21 MPN/100 ml.
- The values of BOD and F.coli in Jattan Wala Nallah were found between 18-25 mg/I and 13000-17000 MPN/100 ml.
- The water quality of river Markanda d/s of Jattan Wala Nallah indicates the value of BOD varying between 8-9 mg/I and F.coli between 1700-3300 MPN/100 ml.

### **3.1.5 Ground water quality in catchment area of Sukhna Nallah and Jattan Wala Nallah**

The analysis results of ground water samples, analyzed by HPSPCB in the month of August, 2020 to November, 2020, indicate that all the values are within the norms except slightly higher value of Total Alkalinity, Total hardness and TDS in the catchment area of Sukhna Nallah at Parwanoo, which may be due to geogenic reasons.

### **3.1.6 Recommendations of the Executing Committee.**

- 1. STP of capacity 1 MLD, being installed in sector-2, Parwanoo, should be completed by 31.3.2021.**
- 2. Sewerage network shall be completed simultaneously with the completion of STP, Sector-2, Parwanoo.**
- 3. The treated sewage of STP, sector-2 of capacity 1 MLD shall be utilized for construction activities, road cleaning, green belts and other useful usage.**
- 4. Jal Shakti Bibhag shall get land transferred from department of forests for installation of 2nd STP of capacity 1 MLD at Tipra within 15 days.**
- 5. STP, Tipra of capacity 1 MLD may be completed by 30.6.2021**
- 6. CETP of capacity 2.5 MLD shall be completed by 31.3.2021.**

7. **CETP of capacity 2.5 MLD, proposed to be installed in 2<sup>nd</sup> phase shall be started constructing at the earliest possible to ensure that no untreated effluent is discharged into Jattan Wala Nallah and River Markanda further leading to river Ghaggar.**
8. **Effluent Treatment Plant of capacity 0.15 MLD for electroplating industries may be based on Zero Liquid Discharge (ZLD) technology as the metal contents may contaminate the surface water quality of the river.**
9. **STP of capacity 1.5 MLD for treatment of sewage of villages Trilokpur, Kheri and Johron, Kala Amb area, may be completed by 31.3.2021.**
10. **The treated sewage of STP shall be utilized for industrial usage, construction activities, gardening and other useful purposes.**
11. **The dried sludge of STP shall be disposed of in an environmentally sound manner.**
12. **In-situ bio remediation/ Phyto remediation technology set up in Jattan Wala Nallah (Kala Amb area), shall be made operational within 15 days.**
13. **In the in-situ bio remediation system installed in Samtel Nallah, the plants, which have become dry, should be replaced with new plants within 1 month and ensure that adequate number of plants are planted, which may function as Phyto-remediation system in the drain to treat sewage/wastewater as an interim measure.**
14. **Himachal State Pollution Control Board shall collect the effluent samples at the inlet and outlet of the Phyto remediation technology setup in Jattan Wala Nallah and Samtel Nallah within 15 days to assess effectiveness of the system.**
15. **The water quality of Sukhna Nallah and Kaushalya river is meeting with class-B as per water quality criteria prescribed by CPCB. Efforts may be made to upgrade the quality of these Nallahs/river to class A or otherwise atleast it may be maintained to class B.**
16. **The water quality of Jattan Wala Nallah and river Markanda has been found contaminated due to presence of high value of BOD and F.coli, therefore, in order to improve the water quality of Jattan Wala Nallah and river Markanda, the recommendations are reiterated as under :**
  - **CETP of capacity 2.5 MLD shall be completed by 31.3.2021.**
  - **CETP of capacity 2.5 MLD, proposed to be install in 2<sup>nd</sup> phase shall be started constructing at the earliest possible to**

**ensure that no untreated effluent is discharged into Jattan Wala Nallah and River Markanda further leading to river Ghaggar.**

- Effluent Treatment Plant of capacity 0.15 MLD for electroplating industries may be based on Zero Liquid Discharge (ZLD) technology as the metal contents may contaminate the surface water quality of the river.**
- STP of capacity 1.5 MLD for treatment of sewage of villages Trilokpur, Kheri and Johron, Kala Amb area, may be completed by 31.3.2021.**
- The treated sewage of STP shall be utilized for industrial usage, construction activities, gardening and other useful purposes.**

- 17. HPSPCB shall continue to make surprise inspection of the industries as per the time schedule prescribed by HPSPCB/CPCB and action against the defaulting industries may be taken under the provisions of Water Act, 1974.**
- 18. 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 STPs and CETP being installed in these areas.**
- 19. 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.**
- 20. HSPCB shall continue to monitor ground water quality of ground water sources in catchment area of river Ghaggar as per the frequency maintained by it and in case any ground water sample is found contaminated, the same may be sealed and a display board mentioning that " Ground water is not fit for drinking".**
- 21. The Executing Committee held its 19<sup>th</sup> meeting w.r.t control of pollution in river Ghaggar with the State Level Officer of State of Himachal Pradesh on 26.11.2020 and minutes of the meeting have been conveyed to the Member Secretary, HPSPCB vide no. CEC/2020/1130 dated 27.11.2020 (copy enclosed as per Annexure-8). The Executing Committee recommends that the various departments of State of Himachal Pradesh may also implement the recommendation made/direction given by the Executing Committee as per the time schedule mentioned in the minutes of the meeting.**

## **3.2 U.T, Chandigarh**

### **3.2.1 Sources of pollution in river Ghaggar from Chandigarh area and control thereof**

#### **3.2.1.1 Domestic wastewater, its treatment and Mode of disposal**

*Total quantity of domestic wastewater of Municipal Corporation, Chandigarh is about 243 MLD and for treatment of sewage, following STPs have been installed:*

- i) BRD: 49.5 MLD,*
- ii) Raipur kalan: 22.5 MLD,*
- iii) Diggian: 135 MLD,*
- iv) Raipur Khurd: 5.63 MLD,*
- v) Dhanas: 7.5 MLD and*
- vi) Maloya: 22.5 MLD*
- vii) 2<sup>nd</sup> STP at Raipur Kalan: 5.625 MLD, which is under trial.*

*Out of total 243 MLD treated sewage, about 45 MLD treated sewage is utilized for watering of various parks, green belts and individual houses of Chandigarh. For the discharge of remaining quantity of treated / untreated sewage of Chandigarh, there are following 03 main sources.*

- i) Sukhna Choe*
- ii) N-Choe*
- iii) Patiala-ki-rao*

*Sukhna Choe and N-Choe further lead to river Ghaggar, which is 7 Km away from Chandigarh.*

#### **3.2.1.2 Industrial wastewater and treatment.**

*It has been reported that all the industrial units of Chandigarh area have installed their individual ETPs and treated wastewater of the industries is discharged into sewerage system which further leads to sewage treatment plants. Most of the industries are located in industrial area, Phase-1 and industrial area Phase-II and Hotels/Restaurants/hospitals in Sectors. CPCC has claimed that consent to operate under the provisions of the Water Act, 1974 is granted to only those industries which have proper effluent treatment plant and/ or air pollution control device. Therefore, all the industries of Chandigarh, which are in operation, have installed effluent treatment plants and/or air pollution control devices*

#### **3.2.1.3 Closing of outlets falling into Sukhna Choe and N-Choe**

**It has been reported as under:**

- All the 11 discharge outlets, falling into Sukhna Choe, where untreated wastewater was being discharged, have*

been plugged except one point near Raipur Khurd, which is expected to be plugged on 7.2.2021.

- All the 08 discharge outlets, falling into N-Choe, where untreated wastewater was being discharged, have been plugged. Now, no untreated wastewater is discharged into N-Choe in Chandigarh.

#### **3.2.1.4 Gap between Wastewater generation and treatment capacity**

It has been reported that by installing a 2<sup>nd</sup> STP at Raipur Kalan of capacity 5.625 MLD and completion of STP of capacity 1.8 MLD at Kishangarh alongwith existing 6 STPs, there is more than 100% treatment capacity (treatment capacity is 248 MLD against wastewater generation of 243 MLD) and as such there shall be no gap in generation of wastewater and treatment capacity.

#### **3.2.1.5 Performance of existing Sewage Treatment Plants**

Out of 7 operational STPs, 3 STPs (Raipur Kalan, Raipur Khurd and Diggian) fail to achieve the desired BOD level and 4 STPs (3 BRD, Raipur Kalan, Raipur Khurd and Diggian) fail to achieve the desired level of F.Coli, 02 STPs at Maloya and Dhanas are meeting with the desired level of BOD and F.Coli.

#### **3.2.1.6 Installation of new STP and Upgradation of existing STPs**

The status w.r.t new STPs and upgradation of existing STPs is as under:

- STP of capacity 1.8 MLD (0.4 MGD) at village Kishangarh is under construction and likely to be completed by 30.6.2021.
- The work of upgradation/rehabilitation of 05 STPs (Diggian, 3 BRD, Raipur Kalan, Raipur Khurd and Dhanas) has been started and shall be completed between September, 2021 to August, 2022.
- Online monitoring system (OCEMS) shall be installed simultaneously with the completion of the upgradation work of 5 STPs.

#### **3.2.1.7 Installation of in-situ bio remediation technology in Sukhna Choe and N-Choe**

The report indicates that in-situ bio remediation technology work in both the drains (Sukhna Choe and N-Choe) shall be completed by 28.2.2021.

#### **3.2.2 Installation of Real Time Water Quality Monitoring Stations (RTWQMS) in river Ghaggar**

It has been mentioned as under:

- Real Time Water Quality Monitoring Station (RTWQMS) has been installed in N-Choe and is under trial run.

- *Tender for installation of RTWQMS at Sukhna Choe has been opened. The work shall be completed by 28.2.2021.*

### **3.2.3 Groundwater quality**

*The groundwater quality, monitored by CPCC in the year, 2020, indicates that total alkalinity, total hardness, calcium, magnesium and TDS in the ground water samples have been found higher than the desirable limits.*

### **3.2.4 Water quality of Sukhna Choe, N-Choe at their exit points and river Ghaggar**

*The monitoring of water quality of Sukhna Choe and N-Choe, conducted by CPCC in the year, 2020, indicates as under:*

- *The values of BOD (113-202 mg/I), COD (193-499 mg/I) and F.coli (2,400007000000 MPN/100 ml) in Sukhna Choe are higher than the permissible limits.*
- *The values of BOD (33-210 mg/I), COD (63-428 mg/I) and F.coli (93000-7900000 MPN/100 ml) in N-Choe are higher than the permissible limits.*
- *The water quality of river Ghaggar monitored by CPCC in the year, 2020 indicates that the value of TSS (166-3545 mg/I) and F.coli (2000-2200000 MPN/100 ML), which are higher than the permissible limits.*

*The analysis results of wastewater flowing into Sukhna Choe and N-Choe, which further lead to river Ghaggar, indicate that either the sewage treatment plants are not operated properly and untreated sewage is discharged into these choes or some of the outlets, carrying untreated sewage, are directly falling into these Choes, which ultimately lead to river Ghaggar and contaminating the water quality of the river.*

### **3.2.5 Recommendations of the Executing Committee**

- 1. Out of total 08 STPs [3 BRD: 49.5 MLD, Raipur Kalan: 22.5 MLD, Diggian: 135 MLD, Raipur Khurd: 5.63 MLD, Dhanas: 7.5 MLD, Maloya: 22.5 MLD, Raipur Kalan 2"STP : 5.625 MLD (under trial run) and Kishangarh: 1.8 MLD (under construction)], 06 STPs are in operation, whereas 2<sup>nd</sup> STP Raipur kalan: 5.625 MLD has been constructed but under trial run. STP Kishangarh of capacity 1.8 MLD is under construction and is likely to be completed by 30.6.2021.**

**The Executing Committee recommends as under:**

- **2<sup>nd</sup> STP Raipur kalan of capacity 5.625 MLD should be made operational by 28.2.2021**
- **New STP at Kishangarh of capacity 1.8 MLD, which is under construction, should be completed by 31.3.2021.**

2. *It has been reported that all the 11 outlets, falling into Sukhna Choe, have been plugged except 01 outlet near Raipur khurd, which is likely to be plugged by 7.2.2021 and all the 08 outlets, falling into N-Choe, have been plugged. Moreover, there is no gap in treatment capacity. However, the analysis results of water quality of Sukhna Choe and N-Choe and subsequently river Ghaggar indicate that the values of BOD, COD and F.coli are higher than the permissible limits. These facts indicate that there are some of the outlets which are carrying untreated sewage of Chandigarh area and are directly falling into these choes or the Municipal Corporation Chandigarh is not operating their sewage treatment plants properly.*

*Therefore the Executing Committee recommends as under:*

- *Chandigarh pollution control committee shall make detailed survey along Sukhna Choe and N-Choe within 01 month and ensure that no outlet carrying untreated sewage/wastewater is discharged into Sukhna Choe and N-Choe.*
  - *The upgradation work of 05 STPs (3 BRD: 49.5 MLD, Raipur Kalan: 22.5 MLD, Diggian: 135 MLD, Raipur Khurd: 5.63 MLD and Dhanas: 7.5) should be completed by 30.6.2021.*
  - *2" STP of capacity 5.625 MLD at Raipur kalan should be made operational by 28.2.2021 and CPCC shall monitor the performance of STP by 15.3.2021.*
  - *STP of capacity 1.8 MLD (0.4 MGD) at Kishangarh should be completed by 31.3.2021.*
3. *The data w.r.t monitoring of groundwater quality indicate that ground water sources at some locations in the catchment area of Sukhna Choe and N-Choe have been found containing higher values of parameters namely total hardness, calcium and TDS.*

*The Executing Committee recommends that CPCC in association with officers of Municipal Corporation Chandigarh shall identify such ground water sources, whose ground water has been found containing higher values of total hardness, calcium and TDS parameters and these points may be sealed and display boards mentioning "Ground water is not fit for drinking, may be erected at these sites.*

4. *In order to improve the water quality of Sukhna Choe and N-Choe, the work of installation of in-situ bio remediation technology in both the Choes has*

*been started and these may be completed by 28.2.2021.*

- 5. For the monitoring of water quality of Sukhna Choe and N-Choe, real time water quality monitoring Station has been installed in N-Choe and is under trail run. Tender for installation of RTWQMS at Sukhna Choe has been opened and under allotment. The Executing Committee recommends that real time water quality monitoring stations at N-Choe may be commissioned by 15.2.2021 and in Sukhna Choe, RTWQMS may be installed by 28.2.2021.*
- 6. Presently, as per the report, treated wastewater about 45 MLD, out of total 243 MLD, is utilized in various parks, green belts and houses in Chandigarh.  
It is recommended that Municipal Corporation, Chandigarh shall prepare plan for utilization of tertiary treated sewage after upgradation of all the existing STPs to utilize the same for road cleaning, bus stand and railway stations for cleaning purposes so as to reduce the quantity of treated sewage to discharge into Sukhna Choe and N-Choe.*
- 7. CPCC shall continue to monitor the water quality of Sukhna Choe , N-Choe and river Ghaggar on monthly basis so that improvement, if any, in water quality of these Choes may be observed.*
- 8. The Executing Committee held its 19th meeting w.r.t control of pollution in river Ghaggar with the State level officers of U.T Chandigarh on 2.11.2020 and minutes of the meeting have been conveyed to the Member Secretary, CPCC vide no. CEC/2020/1101 dated 3.11.2020 (copy enclosed as per Annexure-9).*

*The Executing Committee recommends that the various departments of U.T Chandigarh may also implement the recommendations made/directions given by the Executing Committee as per the time schedule mentioned in the minutes of the meeting.*

### **3.3 State of Punjab.**

*The State of Punjab has submitted the compliance of recommendations made by the Executing Committee in its 6<sup>th</sup> report, which is mentioned as under:*

#### **3.3.1 Compliance of recommendations of Executing Committee made in its 6th report as per order dated 28.10.2020 in OA 138 of 2016**

Sr. No.	Conclusions & Recommendations of Executive Committee	Concerned Department	Status of Compliance as on 31st January, 2021
1.	<p>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.</p> <p>Punjab Pollution Control Board should take legal action under the provisions of Water Act, 1974 against the operating agencies of the STPs namely Sardulgarh, Baretta, Bhikhi, Mohali, Rajpura, Patiala, Bhudhlada and Zirakpur which were found non-compliant during monitoring by PPCB from March, 2020 to July, 2020. 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.</p>	Punjab Pollution Control Board (PPCB)	<p>(i) Action taken By PPCB during the month of March to July, 2020 are as under:</p> <ul style="list-style-type: none"> <li>➤ Environmental Compensation of Rs.4,60,000/- &amp; Rs. 9,20,111/- imposed to the operating agencies of Sardulgarh and Baretta, respectively. However, same is yet to be deposited by respective MCs.</li> <li>➤ Complaint filed against Nagar Panchayat, Bhikhi at Hon'ble Court of OM, Mansa under Water Act.</li> <li>➤ Advisory issued to STPs at Mohali, Rajpura, Patiala &amp; Zirakpur.</li> <li>➤ Action under process against STP Bhudhlada &amp; Zirakpur.</li> </ul> <p>(ii) The updated status of these 8 STPs from August, 2020- January, 2021 is annexed at Annexure-I.</p> <p>(iii) The STPs of Baretta, Bhikhi &amp; Sardulgarh based on WSP technology, found consistently non-compliant. The Department has planned the upgradation of these STPs. DPR for upgradation of these STPs is under approval and these STPs likely to be upgraded by 31.12.2023</p>

2.	<p>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.</p> <p>The State of Punjab should accelerate the progress of under construction 11 STPs so that these may be completed by 31.3.2021.</p>	Punjab Water Supply & Sewerage Board (PWSSB)	<p>(i) The status of under construction STPs is as under:</p> <table border="1"> <thead> <tr> <th>Name of STP</th> <th>% completion of work</th> <th>Timeline as per Deptt.</th> </tr> </thead> <tbody> <tr> <td>Boha (2 MLD)</td> <td>70%</td> <td>30.06.21</td> </tr> <tr> <td>Patiala (15 MLD)</td> <td>80%</td> <td>30.04.21</td> </tr> <tr> <td>Sirhind (5MLD)</td> <td>20%</td> <td>30.09.21</td> </tr> <tr> <td>Sangrur (4 MLD)</td> <td>45%</td> <td>30.11.21</td> </tr> <tr> <td>Dhuri (5 MLD), BassiPathana (3 MLD), Sirhind-2 No. (6 MLD)</td> <td>10-30%</td> <td>31.12.21</td> </tr> <tr> <td>BanurIssey Khan (0.5 MLD)</td> <td>20%</td> <td>31.03.21</td> </tr> <tr> <td>Nabha (12 MLD)</td> <td>Design to be submitted by agency</td> <td>31.12.21</td> </tr> <tr> <td>Longowal (5 MLD)</td> <td>-do-</td> <td>31.01.22</td> </tr> <tr> <td>Sanour(4 MLD)-</td> <td>Work allotted of Badinadi and chotinad I at Patiala where sanour waste water Will be treated</td> <td>30.09.22</td> </tr> </tbody> </table>	Name of STP	% completion of work	Timeline as per Deptt.	Boha (2 MLD)	70%	30.06.21	Patiala (15 MLD)	80%	30.04.21	Sirhind (5MLD)	20%	30.09.21	Sangrur (4 MLD)	45%	30.11.21	Dhuri (5 MLD), BassiPathana (3 MLD), Sirhind-2 No. (6 MLD)	10-30%	31.12.21	BanurIssey Khan (0.5 MLD)	20%	31.03.21	Nabha (12 MLD)	Design to be submitted by agency	31.12.21	Longowal (5 MLD)	-do-	31.01.22	Sanour(4 MLD)-	Work allotted of Badinadi and chotinad I at Patiala where sanour waste water Will be treated	30.09.22
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3.	<p>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 (Amloh: 3 MLD, Lalru Mandi: 1 112 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</p>	Dept. of Local Govt. (DLG)	<p>(i) Land identified for Amloh and Lalru Mandi  (ii) Land for Dhuri and Bassi Pathana identified and possession is being taken.  (iii) ) Efforts are being made to acquire land in Sangrur.  Nano Bubble Technology being explored for the treatment of sewage at Cheema.</p>																														

	<p>sewerage in the town. 01 STP of capacity 3 MLD for Bhadson town, DPR is under preparation.</p> <p>The senior functionaries of Department of Local Government should resolve the issue of land for the STPs namely Amluh (3 MLD), Lalru Mandi (1.5 MLD), Dhuri (6 MLD), Sangrur (11 MLD) and BassiPathana (0.2 MLD) so that the work of these STPs may be started timely and construction work of these STPs should be completed by 30.6.2021.</p> <p>The Department of Local Government/Punjab Water Supply &amp; Sewerage Board should finalize the technology to be provided to treat the sewage of Cheema town within 15 days</p>		
4.	<p>3 STPs (Bareta: 3 DLG/PWSSB 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.</p> <p>The old technology based 03 STPs should be upgraded based on new technology by 30.6.2021.</p> <p>The work of enhancement of STP of 46 MLD of Patiala town to 61 MLD should be completed by 31.12.2020.</p>	DLG/PWSSB	<p>DPR for Technology upgradation of 3 old technology based STPs namely Baretta (3MLD), Bhikhi (3MLD), &amp;Sardulgarh (4MLD) is under approval. These STPs are likely to be upgraded by 31.12.23.</p> <p>80% of work completed for capacity enhancement of STP Patiala. The said STP is likely to be completed by 31.03.21.</p>
5	<p>The 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.</p>	PWSSB	<p>(i) 30 new STPs are being set up to cover the gap of 73.47 MLD with details as under:</p> <ul style="list-style-type: none"> <li>- 17 STPs (88.70 MLD) are under Construction</li> <li>- 12 STPs (31.40 MLD) are at Tender Stage</li> <li>- 1 STPs (3 MLD) is at DPR Stage</li> </ul> <p>(ii) Timelines for Completion of STPs:</p> <ul style="list-style-type: none"> <li>- 31.03.21: 2 STP (15.5 mid)</li> <li>- 31.03.22: 11 STPs (47.20 mid)</li> <li>- 31.03.23: 15 STPs (55.9 mid)</li> <li>- 31.12.23: 2 STPs (4.5 mid)</li> </ul>
6.	<p>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</p>	PPCB and Department of Soil & Water Conservation	<p>PPCB verified that irrigation schemes at 10 towns i.e. Banur, Bareta, Bhikhi, Samana, Sardulgarh, Sunam, Lehragagga, Moonak, Patran and Khanauri to utilize the treated sewage for irrigation in 1541 hectares command</p>

	<p>different towns.</p> <p>Punjab Pollution Control Board should verify correctness of irrigation schemes of 10 towns (Banur, Baretta, Bhikhi, Samana, Sardulgarh, Sunam, Lehragagga, Moonak, Patran and Khanauri) to utilize 47 MLD treated sewage in command area of 1541 hectare within 1 month.</p> <p>Irrigation schemes for Rajpura town should be completed by 31.12.2020.</p>	(DSWC)	<p>area has been commissioned and operating successfully.</p> <p>Irrigation Project for STP Rajpura (7 mld) has been commissioned.</p>
7.	<p>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 (Mandi Gobindgarh (25 MLD), Patiala (10 MLD), Dhuri (5 MLD) and Sangrur (11 MLD)) of 3 towns have been commissioned and work for 20 STPs of 14 towns is under progress. The irrigation schemes for these towns should be completed simultaneously with the completion of STPs of the Towns i.e. by 31.03.21.</p>	DSWC	<p>(i) Funds released for irrigation project of Mandi Gobindgarh.</p> <p>(ii) Funds sanctioned for 3 irrigation projects of Patiala, Dhuri &amp; Sangrur under RIDF-25.</p> <p>(iii) The proposal for laying irrigation scheme for 20 STPs in 14 towns amounting to Rs 28.84 crores submitted to the State Govt. under State Plan Scheme on 18.09.2020. The proposal is under consideration.</p>
8.	<p>For 4 towns DLG (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.</p>	DLG	<p>The Department reported that various techniques are being explored to reuse treated wastewater in other areas under Municipal Committees.</p>
9.	<p>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.</p>	PPCB	<p>57 industries were visited from August, 2020 to January, 2021, out of which 5 industries were found non-compliant. Show Cause Notices issued to 4 industries to take remedial measures and act against one industry is under process.</p>

10.	<p>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.</p> <p>The Department of Rural Development &amp; Panchayats should take effective steps to get install Sewage Treatment Plants in 87 villages, covered in Phase-1 by 31.12.2020.</p> <p>The treatment facilities for 152 villages covered under Phase-2 and 150 villages covered under Phase3, should be installed by 31.3.2021.</p>	Department of Rural Development & Panchayats (DRDP)	Treatment facilities provided in 42 villages and work in progress in 37 villages.
11.	<p>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.</p> <p>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 &amp; Sanitation may be asked to supply safe drinking water to the inhabitants of these areas.</p>	PPCB	<p>(i) One Hand pump and one dugwell sealed in Village Lachuru Kalan, Dist. Patiala and village Issapur, Distt. SAS Nagar, respectively.</p> <p>(ii) 26 samples of ground water collected in the month of September &amp; October 2020 out of which 3 were found not meeting with the permissible limits laid down in IS 10500-2012.</p>
12.	<p>A Technical Committee DSTE/PPCB 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.</p> <p>Department of Science Technology &amp; Environment (DSTE) may be directed to</p>	DSTE/PPCB	<p>(i) Draft policy/guidelines for Management of Septage and Faecal Sludge has been prepared.</p> <p>(ii) The comments invited from the stakeholder Departments such as Department of Rural Development &amp; Panchayats, Department of Local Govt., Department of Water Resources and Department of Water Supply &amp; Sanitation on Draft policy/guidelines.</p>

	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.		
13.	<p>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 phytoremediation and supplemented by Nano bubble technology.</p> <p>The in-situ bio remediation technology should be installed in other drains, carrying untreated sewage and not connected to STPs by 31.10.2020</p>	DLG/PWSSB	<p>(i) In-situ remediation technology already installed at Bhadson Drain, Distt. Patiala by PWSSB and on Bulana Drain, Distt Kaprthala by PPCB as pilot projects.</p> <p>(ii) The performance of these technologies is under evaluation and would be replicated in rest of the drains depending upon its success.</p>

### **3.3.2 Recommendations of the Executing Committee.**

Based on the compliance of recommendations, made by the Executing Committee in its 6th report, submitted by the State of Punjab, the following recommendations are made by the Executing Committee.

- 1. The analysis results of the treated effluent samples collected and analyzed by Punjab Pollution Control Board indicate that STPs Sardulgarh, Baretta, Bhikhi and Budhladha are not meeting with the prescribed standards. Therefore, Punjab Water supply & Sewerage Board should upgrade these STPs by 31.3.2021 so that these STPs may meet with the prescribed standards by the Punjab Pollution Control Board.**
- 2. Punjab Water supply & Sewerage Board should operate STPs for the towns Mohali and Zirakpur, properly and effectively. Punjab Pollution Control Board shall collect the effluent samples of these STPs within 15 days and in case these STPs are found not meeting with the standards, necessary directions may be issued for upgradation of these STPs by 31.3.2021.**
- 3. With regard to installation of 11 STPs, Punjab Water supply & Sewerage Board has submitted that STPs Boha (2 MLD: 70% progress), Patiala (15 MLD: 80% progress), Sirhind (5 MLD: 20% progress), Sangrur (4 MLD: 45% progress),**

*progress between 10-30% in case 4 STPs [Dhuri (5 MLD), Bassi Pathana (3 MLD), Sirhind-2 No. (6 MLD) and Banur (0.5 MLD)], has been achieved. In case of STPs Nabha (12 MLD) and Longowal (5 MLD), design is yet to be submitted by the agency. For STP of capacity 4 MLD for Sanour town, the work of Badi Nadi and Chhoti Nadi at Patiala, where Sanour wastewater will be treated, has been allotted. However, the timelines for completion of STPs have been given beyond 30.9.2021, whereas, as per the directions of the Hon'ble NGT, these STPs should be completed by 31.3.2021 as the Hon'ble NGT has declined the request of State of Punjab for extension in time period for installation of STPs.*

4. *Regarding installation of STPs for the town namely Amloh (3 MLD), Lalru Mandi (1.5 MLD), Dhuri (6 MLD), Sangrur (11 MLD), Bassi Pathana (0.2 MLD), in the last report, it was mentioned that land issues for the said STPs are to be resolved. However, as per current status upto 31.1.2021, land has been identified for STPs at Amloh, Lalru Mandi, Dhuri and Bassi Pathana. Whereas, for STP for Sangrur town, land is yet to be acquired. For Cheema town, Nano-Bubble is being explored.*

*The Executing Committee recommends that STPs for the town Amloh, Lalru Mandi, Dhuri and Bassi Pathana should be completed by 30.6.2021. For the installation of STPs for Sangrur town, land is yet to be acquired, therefore, Punjab Water supply & Sewerage Board shall install STP by 30.6.2021.*

*For treatment of sewage of Cheema town, Punjab Water supply & Sewerage Board shall install STP with suitable technology by 30.6.2021.*

5. *The capacity enhancement of STP 46 MLD of Patiala town to 61 MLD should be completed by 31.3.2021 as presently 80% of the enhancement work has been completed.*

6. *It order to cover the gap of 73.47 MLD through treatment system, it has been mentioned that 17 STPs (88.7 MLD) are under construction, 12 STPs (31.4 MLD) are at tending stage and 1 STP (3 MLD) is at DPR stage. Timelines for completion of 28 STPs (107.6 MLD) has been mentioned between 30.3.2022 to 31.12.2023 and only 2 STPs (15.5 MLD) have been claimed to be completed by 31.3.2021.*

*The Executing Committee recommends that all the 28 STPs (107.6 MLD) should be completed by 30.6.2021 and 2 STPs of capacity 15.5 MLD by 31.3.2021.*

7. *Regarding verification of irrigation scheme of 10 towns (Banur, Bareta, Bhikhi, Samana, Sardulgarh, Sunam, Lehragagga, Moonak,*

**Patran and Khanauri), Punjab Pollution Control Board has reported that these irrigation scheme catering 1541 hectares have been commissioned and are operating successfully. Also, irrigation project for STP Rajpura (7 MLD) has been commissioned.**

**It is recommended that department of Soil & Water conservation shall continue to operate these irrigation schemes to utilize treated sewage of 10 towns for irrigation.**

- 8. Funds for laying of irrigation network to utilize treated sewage of Mandi Gobindgarh have been released, whereas, funds for 3 irrigation projects of Patiala, Dhuri and Sangrur have been sanctioned under RIDF-25. Further, for laying irrigation network to utilize treated sewage of 20 STPs in 14 towns, proposal of irrigation schemes amounting to Rs. 28.84 Crores has been sent to the State Govt., which is under consideration.**

**The Executing Committee recommends that irrigation network to utilize treated sewage of Mandi Gobindgarh and other towns (Patiala, Dhuri and Sangrur) should be laid by 30.6.2021 and 30.9.2021, respectively. Irrigation network for utilization of treated sewage of 20 STPs in 14 towns may be provided by 30.9.2021**

- 9. In order to utilize treated sewage of STPs of 4 towns ( Budhlada: 6.5 MLD, Zirakpur: 17 MLD, SAS Nagar: 45.4 MLD and Dera Bassi: 4 MLD, Dept. of Local Govt. has reported that various techniques are being explored to reuse treated wastewater in other areas. The Executing Committee recommends that treated sewage of these towns may be utilized for construction activities, gardening, toilet flushing, and washing of vehicles and nearby railway yards by 30.6.2021.**

- 10. With regard to inspection of industries in odd hours to check the operational status of ETPs, it has been informed that 57 industries were visited from August, 2020, to January, 2021, out of which 5 industries have been found non-complying and Show Cause notices have been issued to these industries. It is recommended that Punjab Pollution Control Board shall continue to make surprise inspections of the industries and legal action may be taken against violating industries under the provisions of Water Act, 1974.**

- 11. For installation of treatment facilities to treat sewage of villages, department of Rural Development & Panchayat has reported that in 42 villages, treatment facilities have been provided and 37 villages, it is in progress.**

**It is recommended that treatment facilities for the remaining 45 villages covered under phase-I,**

**should be completed by 31.3.2021 and treatment facilities, for treatment of sewage of 152 villages covered in phase-II and 150 villages covered in phase-III should be completed by 30.6.2021.**

- 12. The ground water samples of 01 hand pump and 01 dugwell were found contaminated and these have been sealed by Punjab Pollution Control Board. Besides, 26 more ground water samples were collected in the month of September and October, 2020, out of which 03 were found beyond the permissible limits.**

**It is recommended that Punjab Pollution Control Board should seal the ground water samples which have been found contaminated in the month of September and October, 2020 and display boards, mentioning "Ground water is not fit for drinking", may be erected at these sites. Punjab Pollution Control Board shall also continue to monitor ground water sources located in the catchment area of river Ghaggar with the frequency as prescribed by CPCB.**

- 13. For framing policy/guidelines for management of septage and Faecal sludge, Deptt. of Environment has informed that comments in the matter have been sought from stake holder departments namely Dept. of Local Govt., Deptt. of Water resources and Dept. of Water Supply and Sanitation on draft policy/ guidelines.**

**It is recommended that these policy guidelines should be finalized by the Dept. of Environment by 31.3.2021.**

- 14. Deptt. of Local Govt. and Punjab Water supply & Sewerage Board have reported that in situ remediation technology has been installed at Bhadson Drain, District Patiala and Bhulana Drain, District Kapurthala as pilot project. The performance evaluation of these technologies is under process and accordingly upon its success, it will be replicated for other drains.**

**The Executing Committee is of the view that Dept of Local Govt. and Punjab Water supply & Sewerage Board in consultation with Punjab Pollution Control Board shall install insitu remediation technology in other drains, which are carrying untreated sewage and not connected to STPs by 30.6.2021.**

- 15. It is submitted that in the report submitted by the State of Punjab, the conclusions and recommendations part, as mentioned in 6<sup>th</sup> report submitted by the Executing Committee to the Hon'ble National Green Tribunal on 7.9.2020, is missing w.r.t. the following points for which the Executing Committee again recommends as under: -**

- i) 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.***

***The Executing Committee recommends that 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.***

- ii) 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 Executing Committee recommends that the State of Punjab and State of Haryana should take adequate steps to upgrade STPs to bring faecal coliform, which is high at almost all the points, within the norms by 31.3.2021.***

- iii) 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 2<sup>nd</sup> 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. The Executing Committee recommends that Punjab Pollution Control Board shall 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.***

- iv) 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.***

- v) 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, Bareta and Budhladha) have been found noncompliant w.r.t. achievement of the standards 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.***

***16. The Executing Committee held its 19<sup>th</sup> meeting w.r.t control of pollution in river Ghaggar with the State level officers of State of Punjab on 19.11.2020 and minutes of the meeting have been conveyed to the Member Secretary, PPCB vide no. CEC/2020/1125 dated 20.11.2020 (copy enclosed as per Annexure-10).***

***The Executing Committee recommends that the various departments of State of Punjab may also implement the recommendations made/directions given by the Executing Committee as per the time schedule mentioned in the minutes of the meeting.***

### **3.4 State of Haryana**

*The State of Haryana has submitted the status report w.r.t. each activity for cleaning of river Ghaggar, which is annexed as per **Annexure-5**. The report in brief is mentioned as under*

#### **3.4.1 Performance of existing sewage treatment plants.**

***The data submitted by State of Haryana indicate that out of 59 STPs, 43 STP (72.9%) are complying with prescribed norms. The remaining 16 STPs (27.1%) are not complying with the prescribed norms. Further, only 7 STPs out of 59 STPs complying with F. Coli parameter.***

#### **3.4.2 Status of STPs which are under construction.**

*The data indicates as under:*

- 9 STPs (Nangal & Alipur: 0.5 MLD, Khangesara & Toka: 0.5 MLD, Kot: 0.75 MLD, Barala: 4 MLD, Jind: 7 MLD, Urban Estate, Thanesar: 15 MLD, Kurukshetra: 25 MLD, Sirsa 20 MLD, Fatehabad: 3 MLD) of total capacity 73.75 MLD, have been completed.
- The percentage work of 12 new STPs (12 Cross Road, Ambala: 12 MLD, Khatoli: 0.75 MLD, Sukhdarshanapur : 0.75 MLD, Billa : 0.75 MLD, village Dabra: 8 MLD, Ambala: 5 MLD, Khuda Khurd, Ambala : 12 MLD, Bhuna: 8 MLD, Babyal : 10 MLD, Shahpur Machhonda: 7.5 MLD, Saketri : 1.5 MLD and Sirsa: 7.5 MLD) has been completed to 10-97%.

**The Executing Committee recommends as under:**

- i) 8 STPs, which have been completed between 52% to 97%, may be completed by 31.3.2021.**
- ii) 4 STPs, where the progress between 10-28% has been achieved, may be completed by 30.6.2021.**

#### **3.4.3 STPs under planning but funds yet to be tied up**

*In the report, it has been mentioned that presently at 7 locations, there is almost no discharge is in the area due to less population and it will take 4-5 years to come with full population. However, the State of Haryana has prepared scheme for installation of STPs of capacity 39 MLD. These STPs are likely to be completed between 31.12.2024 to 31.12.2027.*

**The Executing Committee recommends as under:**

- **Some temporary arrangements should be made to divert the sewage of these areas to nearby STPs for its treatment or in-situ remediation in the drain carrying untreated sewage in a time bound manner.**
- **For all the proposed 7 STPs, funds may be tied up immediately by the State of Haryana and these STPs may be setup in a time bound manner.**

#### **3.4.4 STPs which required technologically upgradation and funds have been tied up.**

*Out of total 9 STPs of capacity 79.5 MLD, 2 STPs of capacity 10 MLD and 3.5 MLD for Kaithal and Bhundri towns, respectively, have been completed. The remaining 6 STPs of capacity 15 MLD, 7.5 MLD, 10 MLD, 6.5 MLD, 10 MLD and 15 MLD for the towns Jind, Ellanabad, Fatehabad, Ratia, Sirsa and Uchana, respectively, have been completed ranging between 55-90%. The work of 1 STP of capacity 2 MLD for Uchana town has just been started.*

**The Executing Committee recommends as under:**

- **3 STPs for the towns namely Jind (15 MLD), Ellanabad (7.5 MLD) and Sirsa (2 MLD), the construction work of which has been completed 85.90%, may be completed by 31.3.2021.**
- **3 STPs for the towns namely Fatehabad (10 MLD), Ratia (6.5 MLD) and Tohana (10 MLD), which have been completed between 55-60% may be completed by 30.6.2021.**
- **1 STP of capacity 2 MLD for Uchana town may be completed by 30.6.2021.**

**3.4.5 STPs which required technologically upgradation and funds are yet to be tied up.**

*19 STPs of capacity 78 MLD required technologically upgradation, out of which DPRs have been approved in case of 17 STPs of capacity 67.5 MLD and in case of 02 STP of capacity 10.5 MLD, DPRs have been approved but land is not available for upgradation.*

**The Executing Committee recommends as under:**

- i) The concerned departments of State of Haryana shall get the funds tied up for 19 STPs by 15.3.2021.**
- ii) Upgradation work of 17 STPs should be completed by 30.6.2021 so that these may meet with the standards prescribed by Haryana State Pollution Control Board.**
- iii) 02 STP (for Model Town, Ambala city, 6 MLD capacity and Kalka 4.5 MLD), out of total 19 STPs, where land is not available for upgradation, may also be upgraded at the existing sites with a suitable technology by 30.6.2021.**

**3.4.6. Status of laying of sewerage system for 27 towns**

*It has been submitted that out of 27 towns, where sewerage network is under construction, 100% sewerage network has been completed in case of 21 towns, whereas in case of 6 towns (Pinjore, Ambala city, Ambala Sadar, Kaithal, Jakhal Mandi, Hisar and Mandi Dabhwali) sewerage network has been completed ranging between 20.9 - 96.2%.*

**The Executing Committee recommends that sewerage network for 6 towns (Pinjore, Ambala city, Ambala Sadar, Kaithal, Jakhal Mandi, Hisar and Mandi Dabhwali) may be completed by 30.6.2021.**

**3.4.7 Water quality of river Ghaggar in terms of parameter namely DO, BOD and F.Coli parameter.**

*The water quality of river Ghaggar monitored by Haryana State Pollution Control Board during the period July, 2020 to*

January, 2021 indicates that the values of F.Coli parameter for values are quite high (35110-352500 MPN/100 ml). Also, the value of BOD (4.7 Mg/l- 7.2 Mg/l) has been observed in the month of June, 2020 to January, 2021. These data indicate that the water quality of river Ghaggar is Class D, as per water quality criteria prescribed by CPCB.

**In order to improve the water quality in river Ghaggar in the stretch in Haryana area, the following recommendations are made by the Executing Committee.**

- i) All the Executing Agencies (HSPVP, Department of Local Government, Department of Panchayats and Public Health Engineering Department) shall upgrade the existing STPs to meet with the prescribed standards w.r.t. BOD and F.Coli parameter by 30.6.2021.**
- ii) All the STPs which are under construction shall be completed by 31.3.2021.**
- iii) STPs which are under planning shall be completed by 30.6.2021.**
- iv) The sewerage network of all the towns leading to STPs should be completed by 30.6.2021.**
- v) Irrigation scheme for utilization of treated sewerage of the towns may be implemented by 30.6.2021.**

#### **3.4.8 Installation of Real Time Water Quality Monitoring Station (RTWQMS)**

*It has been mentioned in the report submitted by State of Haryana that the action is under process and permission in principle of the concerned departments has been granted for the location for installation of Real Time Water Quality Monitoring Stations (RTWQMS).*

**The Executing Committee recommends that Haryana State Pollution Control Board shall take immediate steps to install Real Time Water Quality Monitoring Stations (RTWQMS) in river Ghaggar at appropriate locations by 31.3.2021.**

#### **3.4.9 Ground water quality in the catchment area of river Ghaggar**

*The ground water quality of ground water sources, located in the catchment area of river Ghaggar, is monitored by Haryana State Pollution Control Board on quarterly basis.*

- In Panchkula town, 8 ground water samples have been analyzed and all these ground water samples have been found complying with the prescribed standards.*
- In Ambala town, 7 ground water samples have been analyzed, out of which 6 ground water samples have been found non-compliant.*

- In Kurukshetra Town, only 1 ground water sample has been analyzed and same has been found compliant w.r.t. prescribed standards.
- In Jind, 2 ground water samples have been analyzed and out of which 01 ground water sample has been found non-compliant.
- In District Kaithal, 15 ground water samples have been collected and analyzed and out of these 14 ground water samples have been found non-compliant.
- In District Hisar, 5 ground water samples have been analyzed and out of which 3 ground water samples have been found non-compliant.
- In Sirsa area, 23 ground water samples have been analyzed and out of which 13 ground water samples have been found non-compliant.
- In Fatehabad area, 18 ground water samples have been collected and out of which 14 ground water samples have been found non-compliant.

**The Executing Committee recommends as under:**

- Haryana State Pollution Control Board shall seal ground water sources, which have been found non-compliant w.r.t various parameters and display board mentioning "Water is not fit for drinking" may be erected at these sites.**
- Haryana State Pollution Control Board shall continue to monitor the groundwater quality of groundwater sources located in the catchment area of river Ghaggar as per the frequency maintained by it.**

#### **3.4.10. Status of irrigation schemes for utilization of treated sewage of STPs.**

The status w.r.t. irrigation schemes to utilize the treated sewage for irrigation has been submitted as under: -

#### **A) Towns/STPs where Irrigation Projects Commissioned as on 30.6.2020**

<b>Sr. no.</b>	<b>Town</b>	<b>Name of STP</b>	<b>Capacity (MLD)</b>	<b>Command Area (ha)</b>
1	Pehowa	STP Pehowa, Kurukshetra	1.47	76
2	Ladwa	STP Ladwa, Kurukshetra	1.22	63
3	Shahbad	STP Shahbad, Kurukshetra	3.00	151

- Presently, no irrigation project for utilization of treated sewage of the towns is under progress.
- A consolidated project estimate costing Rs. 1098.25 Cr. has been prepared for utilization of 1828 MLD (747 Cs) treated waste water, out of 2795.20 MLD from 207 STPs

(Ghaggar and Yamuna) of various departments for irrigation of 1.62 lakh hectare. The project estimate stands discussed in the Standing Technical Committee of the departments on 26.08.2019 and approved. The approval accorded by Govt. on 04.01.2020. The project is likely to be completed in 5 years time which after further depends upon the availability of funds. Further action in the matter to prepare DPR of individual projects, its approval, preparation of estimates, tenders etc. will be taken afterwards. As far as, the quantity of treated sewage is concerned which can be spared for irrigation with the quality parameters as finalized by Agriculture dept, the same will be provided by the department which owns the STP, so as to enable the Department of Irrigation and Water Resources to formulate specific scheme for such quantity.

- D) Out of 207 STPs, 35 STPs have been selected for installation of micro-irrigation projects, out of which 15 projects fall under Ghaggar action plan and irrigation schemes for these 15 STPs (Ambala: 6 MLD, Ambala: 5 MLD, Panchkula: 4.75 MLD, Panchkula: 5 MLD, Kaithal: 10 MLD, Kaithal: 10 MLD, 4 STPs of Fatehabad: 10 MLD, 3 MLD, 6.5 MLD and 10 MLD, Sirsa: 15 MLD, Hisar 2 STPs of capacity: 7.5 and 4 MLD. Jind 2 STPs : 15 MLD and 5 MLD) shall be completed during June, 2021 to December, 2022.

**The Executing Committee recommends as under:**

- **All the 15 irrigation projects to utilize the treated sewage of STPs located in the towns namely Ambala, Panchkula, Kaithal, Fatehabad, Sirsa, Hisar and Jind, which are located in the catchment area of river Ghaggar should be completed by 31.3.2021.**
- **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.**

**3.4.11 Action against the operating agencies w.r.t non compliance of STPs during the period July, 2020 to January, 2021.**

It has been reported that 39 STPs of Panchkula, Jind, Narwana, Kaithal, Pundri, Hisar, Sirsa and Fatehabad have been monitored by Haryana State Pollution Control Board in the past and all these STPs were found non complaint. However, during the monitored of these STPs carried out in the month of November, 2020 to January, 2021, these STPs have been found complying with the prescribed norms except the STPs namely 4.5 MLD Kalka, 3.75 MLD Narwana, 2 MLD Uchana, 5 MLD Jind, 5 MLD Kalayat, 3.5 MLD Pundri, 5

*MLD Azadnagar, Hisar, 5 MLD village Nattar-1, Sirsa, 5 MLD Nattar-2, Sirsa and 5 MLD Ellandabad.*

**The Executing Committee recommends as under:**

- **Haryana State Pollution Control Board shall initiate action against the non compliant STPs, which have been monitored by it during the period November, 2020 to January, 2021.**
- **The concerned executive agency of State of Haryana shall make necessary upgradation in the existing STPs by 31.3.2021 so that these may meet with the prescribed standards.**

**3.4.12 Inspection of the industries by District Level Special Task Force during the period July, 2020 to January, 2021 and action against the defaulting industries**

*It has been mentioned in the report that District level Special Task Force has carried out inspections of 7 industries in Panchkula area, 5 in Ambala, 6 in Kaithal and 4 in Hisar, out of which 02 industries in Panchkula have been found non complaint with the prescribed standards, whereas the analysis results of the effluent samples collected from the 05 industries in Ambala region are awaited.*

**The Executing Committee recommends that Haryana State Pollution Control Board and District Level Special Task Force shall continue to make surprise inspections of the industries located in the catchment area of river Ghaggar and action against the defaulting industries may be taken as per the provisions of the Water Act, 1974 in a time bound manner.**

**3.4.13 Status of installation of STPs for the villages.**

*It has been mentioned in the report that out of total 45 villages selected for installation of STPs, 35 villages have been taken in Phase-I and 10 villages in Phase-II. The funds requirement for STPs for 45 villages is Rs.24.9 crore. The timelines for completion of STPs in 35 village has been mentioned as 30.6.2021 and for STPs in 10 villages, timelines have been mentioned as 31.3.2022.*

**The Executing Committee recommends that STPs for treatment of sewage of 45 villages, falling in catchment area of river Ghaggar, should be completed by 30.6.2021.**

**3.4.14 Status of Health Check-up camps organized during the month July, 2020 to January, 2021.**

*The data submitted by the Health Department, State of Haryana indicate that 102 Health Check up camps (0 in Panchkula, 87 in Kaithal, 0 in Sirsa and 15 in Fatehabad)*

have been organized during the month July, 2020 to January, 2021 and in these camps 4302 patients were examined, out of which 453 patients were found suffered with water borne diseases.

**The Executing Committee recommends as under: -**

- i) Department of Health, State of Haryana shall continue to organize Health Check up camps in the areas falling under the catchment area of river Ghaggar on monthly basis and list of the patients found suffered with water borne diseases may be prepared and necessary remedial action may be taken accordingly.**
- ii) In the areas where the patients suffering from water borne diseases are identified, these areas may be supplied with potable drinking water by the Department of Public Health Engineering Department as well as Department of Urban Local Bodies.**

#### **3.4.15 Information, Education and Communication activities (IEC activities) (July, 2020 to January, 2021).**

*It has been reported that in order to conduct IEC activities in District Panchkula, Jind, Kaithal, Hisar and Sirsa, awareness programs regarding environment pollution and especially in river Ghaggar have been organized. Tree Plantation drive has also been made in Jind and Kaithal area.*

**The Executing Committee recommends that Haryana State Pollution Control Board and the Department of Urban Local Bodies shall continue to organize IEC activities to make the public aware about environment pollution, pollution in river Ghaggar and not allowing the people for throwing any solid waste, plastic waste or Pooja material in the drains/nallahs/rivers/canals so as to maintain the water quality of drains/nallahs/canals and river Ghaggar.**

#### **3.4.16 Environmental Flow**

*It has been mentioned in the report that river Ghaggar is non-perennial river and discharge varies from zero to maximum during flood seasons. Practically, during normal season water flows only in creek and is not measurable. Around 15-20% of the lowest possible discharge in the lean season is required for maintaining E-flow. It has been claimed that maintaining of E-flow in river Ghaggar is not possible by the State of Haryana.*

**The Executing Committee recommends 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.**

#### **3.4.17 Septage and Faecal sludge management.**

*It has been reported as under.*

- *State level policy for Septage management has already been framed and many ULBs have also adopted at local level, but its implementation and monitoring mechanisms are yet to be framed.*
- *Chief Secretary advised the ULBD to immediately implement the system through special efforts and further directed that District level drives be initiated by ULBD along with district administration and District Level Task Forces and such tankers, engaged in illegal discharge may be seized by the concerned authorities after following due procedure.*
- *MCs have started challaning of the tankers disposing septage illegally. From the month of June, 2020 to till date, 285 nos. of tankers have been challaned by MC, Gurugram, Yamunanagar, Hisar, Ambala Cantt & Nissing and penalty of Rs. 71,43,000/- has been recovered from the violators, out of which 20 Challans amounting to Rs. 3,22,500/- were issued in month of December, 2020.*
- *87 tankers have been deployed for disposal through tankers in the nearby STPs. Out of these, 31 tankers have installed GPS system for tracking. 102 MLD of sewage has been disposed through tankers since Jan,2020 to Jan, 2021.*

**The Executing Committee recommends as under:**

- **The Department of Urban Local Bodies, Municipal Corporations and Haryana State Pollution Control Board shall continue to make surprise inspections along the drains/nallahs/rivers/canals in each month and tankers, if found discharging faecal sludge/septage into these water bodies, the same may be challaned with heavy fine alongwith legal action under the provisions of the Water Act, 1974.**
- **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.**

#### **3.4.18 Watershed management**

*It has been reported as under:*

- *The Action Plan amounting to Rs. 2368.68 lakh for construction of 1174 number of soil & water*

conservation structures in the catchment area of Ghaggar has been approved for the year 2020-21.

- Water Harvesting Structures, Check Dams, Earthen gully Plugs, Earthen Embankments, Percolation Ponds, Farm Ponds, Wire Structures and Retaining Wall in the Districts namely Panchkula, Ambala, Kurukshetra, Fatehabad and Sirsa with number of such structures as 468, 195, 219, 237 and 55 (total 1174) amounting to Rs.23.68.68 lakh, have been proposed, out of which 276, 45, 51, 25 and 18 projects have been completed in the Districts Panchkula, Ambala, Kurukshetra, Fatehabad and Sirsa. The cost of these completed projects is Rs.1527.53 lakh.

**The Executing Committee recommends that all the remaining 759 structures (Water Harvesting Structure, Check Dams, Earthen gully Plugs, Earthen Embankments, Percolation Ponds, Farm Ponds, Wire Structures and Retaining Wall) may be completed at the earliest so as to manage the watershed in the catchment area of river Ghaggar.**

#### **3.4.19 In-situ bio remediation in the drains carrying untreated sewage and not connected to STPs.**

The data submitted by the State of Haryana w.r.t in-situ bio remediation technology to be setup in the drains carrying untreated sewage and not connected to STPs as under.

- The Nodal Department for execution of phyto-remediation/bio-remediation technology has been identified. The SPV also asked the Department to submit the locations where the phyto remediation/bio-remediation may be set up.
- ULB Department has started phyto-remediation/insitu bio remediation works in the drains in Municipal Corporation, Yamuna Nagar — Jagadhri, as a pilot project, which will be replicated at other places. Municipal Corporation of Sonapat has also invited tenders for the bio/phyto remediation of drains.
- Municipal Corporations, Gurugram and Faridabad are in the process of preparing the proposal for phyto-remediation/insitu bio remediation technology.
- Municipal Corporation of Panipat has already floated the tenders for the process in their jurisdiction.
- GMDA has also initiated a pilot project as an interim treatment for untreated discharge of Leg I via geo-synthetic dewatering tubes in consultation with CPCB.
- PHED has undertaken the in-situ phyto/bio remediation in its new STPs at Indri and Beri.
- Chief Secretary, during the review meeting has also directed that all concerned Departments shall

*expedite the work on phyto-remediation/insitu bio remediation*

**The Executing Committee recommends as under:**

- i. In-situ remediation technology to be setup in the drains carrying untreated sewage and not connected to STPs by the Urban Local Bodies department in Yamunanagar, Sonapat, Gurugram, Faridabad, Panipat may be completed by 31.3.2021.***
- ii. Pilot project as an interim treatment for untreated discharge of Leg I shall be completed by 31.3.2021.***
- iii. In-situ Phyto/bio remediation technology in its new STPs at Indri and Beri shall be completed by PHED by 31.3.2021.***

*However, the report, submitted by the State of Haryana, is missing w.r.t. following points, which are required to be addressed by the various departments of State of Haryana. These points are as under.*

#### **3.4.20 255 Points identified as pollution sources entering into main drains and ultimately into river Ghaggar**

*255 points have been identified as pollution sources, which are entering into main drains and ultimately into river Ghaggar, out of which 153 points relate to department of Panchayat, 78 points to Urban Local Bodies, 5 points to HSVP, 5 Points to PHED and remaining 14 points to other departments.*

*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 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.***

#### **3.4.21 Diversion/tapping of sewage from 92 locations**

*Earlier in the meeting with State Level Officer of State of Haryana held on 19.8.2020, it was informed that 92 locations have been identified from which 183 MLD*

effluent is generated and in order to divert this effluent to nearby STPs, steps have been taken and accordingly 19.17 MLD effluent has been diverted from 12 locations, whereas, the diversion works of 56.3 MLD effluent from 10 locations is under progress. Further, there is need to divert the remaining 107.53 MLD effluent from 70 locations.

The Executing Committee observed that since 107.53 MLD effluent is still to be diverted from 70 locations, as such, there is gap in treatment of the sewage of 107.53 MLD and the matter needs to be taken up with the concerned departments by Haryana State Pollution Control Board.

**The Executing Committee recommends as under:**

**Haryana State Pollution Control Board shall issue necessary directions to PHED, ULB, HSVP, D&P and HSIIDC or any other concerned department to divert sewage from remaining 70 locations carrying 107.53 MLD effluent and ensure that 107.53 MLD effluent should also be treated in the nearby STPs or by installing separate STPs by 30.6.2021.**

#### **3.4.22 Gap in treatment of sewage of the towns located on river Ghaggar**

In the meeting with the State Level Officer held on 19.8.2020, it was submitted that the present capacity of STPs in these 27 towns is 514 MLD. However, there is gap of 0.7 MLD in Ambala town only. The Executing Committee was also informed 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.

**Therefore, 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 direction 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.**

#### **3.4.23. Recommendations made by the Executing Committee in its 19th meeting held on 12.11.2020 with the State level officers of State of Haryana**

**The Executing Committee held its 19<sup>th</sup> meeting w.r.t control of pollution in river Ghaggar with the State level officers of State of Haryana on 12.11.2020**

***and minutes of the meeting have been conveyed to the Member Secretary, CPCC vide no. CEC/2020/1122 dated 13.11.2020 (copy enclosed as per annexure-11).***

***The Executing Committee recommends that the various departments of State of Haryana may also implement the recommendations made/directions given by the Executing Committee as per the time schedule mentioned in the minutes of the meeting.”***

8. We have heard learned Counsel for the parties present and considered the matter. Learned Amicus pointed out that while the recommendations of the Committee need to be accepted and directions issued in terms thereof, further directions are required on some of the issues on which the Committee has not made any express recommendation. It is submitted that most of the existing STPs do not meet the faecal coliform parameters. The Committee has not adverted to the in-situ remediation, bio-medical waste, municipal waste management, flood plain zoning and mining activities. There is no opposition to the suggestion of learned Amicus.

9. We find that the recommendations of the Committee with respect to further action by the States of Himachal Pradesh, Punjab, Haryana and UT Chandigarh need to be acted upon with regard to setting up and maintaining treatment plants, use of treated water, use of sludge and septage management, in relation to industries, installation of STPs/treatment facilities in Hotels/Ashrams and Dharmshalas, water quality monitoring of the river and its tributaries, maintenance of environmental flow, action against identified polluters, law violators and officers responsible for failure and for vigorous monitoring. The concerned States also need to take remedial action for disposal of Bio-medical waste, compliance of Solid Waste Management (SWM) Rules, 2016, preparation of maps and zoning of flood plains, mining activity

under supervision of the concerned authorities and in-situ remediation. The STPs need to be duly maintained and comply with the faecal coliform standards also. We do not find it necessary to refer to each individual recommendation of the Executing Committee already quoted above.

10. **From the report of the Monitoring Committee, it can be seen that there are still huge gaps in capacity and functioning of the STPs, CETPs as well as the ETPs, reuse of treated water for irrigation, preventing dumping of Solid Waste, industrial pollution, preventing direct discharge of pollution in the drains and the rivers, irrigation scheme for using treated sewage water, in situ remediation of drains, maintaining e-flow of rivers and septage management. There is need to set up CCTV cameras, more monitoring stations, creating awareness and organizing health check-ups, apart from other administrative measures, as suggested by the Committee. This requires sustained efforts at different levels of the administration, local bodies, District Administration and of the State.** Further action on the basis of the recommendations of the Committee will go a long way in restoration of the river. Accordingly, we direct acceptance of the recommendations of the Committee and further action on that basis. As river Ghaggar flows interstate, its water quality is required to be maintained at least of 'C' category, when it finally enters in the State of Rajasthan. There is need to conduct regular health checkups with reference to water born health ailments. Data of RTWQMS be placed on websites of SPCBs and CPCB. Drains carrying sewage, joining river Ghaggar and its tributaries, be intercepted and diverted to the STPs to control fecal coliform and to monitor micro-pollutants.

11. As already noted, the general issue of restoration of 351 river stretches, including the rivers in question has been separately dealt with in OA 673/2018, (In Re: News item published in “The Hindu” authored by Shri Jacob Koshy, titled “More river stretches are now critically polluted: CPCB”). The matter was last considered on 22.02.2021 in the light of report of the CPCB and the Central Monitoring Committee (CMC), headed by the Ministry of Jalshakti, in pursuance of earlier orders in the said matter. **The matter was considered with OA 593/2017, in pursuance of directions of the Hon’ble Supreme Court in (2017) 5 SCC 326, requiring all the States in the country to ensure requisite water treatment devices in time bound manner by 31.3.2018, after which coercive measures must be taken. Following the orders of the Hon’ble Supreme Court, the Tribunal directed that the River Rejuvenation Committees and the Chief Secretaries of all States/UTs must ensure preventing of any pollution of the rivers by enforcing the statutory law and norms and Constitutional obligation of providing pollution free environment.** The said directions are:

***“37. In view of the above, we are of opinion that the monitoring by the Tribunal cannot be unending and must now be taken over by the concerned authorities. The roadmap stands laid out. Action plans have been prepared for remediation of all the 351 identified polluted river stretches. Gaps have been identified for ETPs/CETPs/STPs (including modular STPs wherever necessary). Timelines are clear. Sources of funding are clear in the Supreme Court order. HAM model is also available as per Govt. of India Policy mentioned in the report of the CMC. Alternative conventional methods of bio/phytoremediation are also available as mentioned in the report of the CMC. Existing treatment capacity is not fully utilised. New projects, already ongoing or those yet to commence need to be expedited. Consequences for delay in terms of compensation and administrative measures have been clearly mentioned. The river rejuvenation committees in the States/UTs, as per directions of the Chief Secretaries may perform their obligations accordingly which may be monitored by the Central Monitoring Committee, headed by Secretary, Jal Shakti, as directed earlier.*”**

38. We find that the monitoring mechanism introduced as per directions of this Tribunal in the form of RRCs at the States level and CMC at the Central level is to an extent identical to the monitoring mechanism laid down under the River Ganga Rejuvenation, Protection and Management Authorities Notification 2016. **However, mechanism under the 2016 notification being statutory and exhaustive, it will be better that the same is adopted for all the river stretches as issues involved are common. The Empowered Task Force on river Ganga headed by Union Minister of Jal Shakti may exercise all powers and discharge all functions in relation to all the polluted river stretches in the same manner as the functions entrusted to it under the River Ganga 2016 order for control of pollution and rejuvenation of polluted river stretches.** This is necessary so that the Nation/Central Monitoring Mechanism can be effective, in view of continuing failure of statutory mechanism under the Water Act for preventing pollution of water, resulting in pollution of almost all the rivers and water bodies in the country, posing serious threat to availability of potable water for drinking purposes as well as for safety of food chain. Hardly any accountability has been fixed for such serious failures. **It will be open to the MoJS to issue any further appropriate statutory order to give effect to the above directions under the EP Act. The National/Central Mechanism may enforce the earlier directions of this Tribunal for collecting compensation for the failure to commence or complete the projects for setting up of sewage treatment equipments or taking steps for interim remediation measures. This is necessary for accountability for the failure to obey the law. The compensation so assessed may be deposited in a separate account to be used for rejuvenation of the polluted river stretches in the same manner as directed in the case of Ganga quoted above. As directed vide order dated 19.12.2018 in OA 673/2018, responsibility to pay compensation on behalf of the States/UTs will be of the Chief Secretaries. As per scheme of the NGT Act, every order of NGT is executable as a decree of Civil Court<sup>1</sup>. Further, failure to comply order of the NGT is an offence punishable with imprisonment upto three years or fine upto Rs. 10 crores with additional fine for continuing offence after conviction.<sup>2</sup> If the offence is by a Government Department, Head of the Department is deemed to be guilty.<sup>3</sup> Cognizance of the offence can be taken by a Court on a complaint of Central Government or any other person who has given notice to the Central Government or its authorized representative. The complaint can be filed before a Court of Magistrate of first class. It is, thus, necessary in view of continuing violation of NGT order, requiring payment of compensation to reiterate the direction of responsibility for payment of compensation, to be of the Chief Secretaries and in default, their liability to**

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<sup>1</sup> Section 25 of the NGT Act, 2010 read with Section 51 of the CPC providing for mode of execution which include civil imprisonment.

<sup>2</sup> Section 26

<sup>3</sup> Section 28

**be proceeded against for coercive measures for execution or by way of prosecution as per NGT Act, 2010.**

39. Our directions are summed up as follows:

- (i) In the light of observations in Para 38 above, MoJS may devise an appropriate mechanism for more effective monitoring of steps for control of pollution and rejuvenation of all polluted river stretches in the country. The said mechanism may be called “National River Rejuvenation Mechanism” (NRRM) or given any other suitable name. NRRM may also consider the observations with regard to setting up of National/State/District Environment Data Grid at appropriate levels as an effective monitoring strategy.
- (ii) Chief Secretaries of all States/UTs and PCBs/PCCs must work in mission mode for strict compliance of timelines for commencing new projects, completing ongoing projects and adopting interim phyto/bio-remediation measures, failing which compensation in terms of earlier orders be deposited with the MoJS, to be utilised in the respective States as per action plan to be approved by the NRRM. Other steps in terms of action plans for abatement of pollution and rejuvenation of rivers, including preventing discharge or dumping of liquid and solid waste, maintaining eflow, protecting floodplains, using treated sewage for secondary purposes, developing bio-diversity parks, protecting water bodies, regulating ground water extraction, water conservation, maintaining water quality etc. be taken effectively. The process of rejuvenation of rivers need not be confined to only 351 stretches but may be applicable to all small, medium and big polluted rivers, including those dried up.
- (iii) The Chief Secretaries of all States/UTs may personally monitor progress at least once every month and the NRRM every quarter.
- (iv) Directions of this Tribunal in earlier order, the last being dated 21.9.2020 are reiterated.
- (v) The NRRM and the Chief Secretaries of all the States/UTs may take into account the observations in Paras 24 to 38 above.
- (vi) In view of discussion in para 38 above, it is made clear that accountability for failure to comply with the direction for payment of compensation will be of the concerned Chief Secretaries under Sections 25, 26, 28 and 30 of the NGT Act, 2010. The MoJS or any other aggrieved person will be free to take remedies by way of initiating prosecution or execution.”

**12. The case in hands has been pending for the last almost seven years and after transfer to this Tribunal for about five years. There have been several orders passed finding pitiable condition of the**

river and the drains connected thereto due to inadequate steps by the administration to perform its obligation. The Monitoring Committee, constituted by this Tribunal, first of statutory regulators (like CPCB, State PCB) and later with a former Judge of the High Court, a former Chief Secretary of the State and a former Member Secretary of the State PCB, has functioned for more than two years. Monitoring by the Tribunal or the Tribunal appointed Committee cannot be a permanent feature. It is only a last resort for some period. It is finally for the States to take ownership of the subject and take stern measures and evolve effective monitoring mechanism to remedy the situation to give effect to its Constitutional obligation to provide clean environment to the citizens and protect natural and scarce environmental resources like water, air and soil for current and future generations. Violators of environmental norms need to be sternly dealt with in the same manner as other criminals threatening the safety of the citizens.

13. Accordingly, as already directed earlier, the ownership of the issue may now be taken over by the respective Chief Secretaries, who may, having regard to seriousness of the issue, affecting health and environment, personally monitor progress of compliance atleast once in a month and also evolve an appropriate administrative mechanism to handle the grim situation. We may also note that the RRCs headed by Environment Secretaries in all the States/UTs have already been directed to prepare and monitor execution of action plans for the polluted river stretches on continuous basis. The RRCs of concerned States may accordingly monitor execution of action plans for Ghaggar river, in continuation of 7<sup>th</sup> report of the Monitoring Committee, referred to above, subject to overall

**oversight of the respective Chief Secretaries. The Chief Secretaries while reviewing the status of various issues may focus on timely completion of the ongoing works.** Quarterly reports be sent by the Chief Secretaries to the CMC in terms of the order dated 22.02.2021 in OA 673/2018 which deals with the subject of restoration of 351 polluted river stretches, including the rivers in question.

14. **We place on record our appreciation for the significant contribution of the Committee in monitoring the control of pollution of river Ghaggar and setting a direction by its recommendations.** With the taking over of further monitoring by the concerned Chief Secretaries, the proceedings of the Committee on the subject will stand concluded subject to further monitoring being continued by the State Authorities as above. Consistent with earlier directions, the Chief Secretaries may also hold joint meetings periodically to share best practices and strategies on this complex and long ending issue.

15. However, we request the Monitoring Committee to render such further assistance as may be considered necessary by the Chief Secretaries and found possible by the Committee in the transitional period. The Committee may continue to monitor other important issues, as requested by the Tribunal, for some more time and give its reports to this Tribunal by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

16. **Before parting, we also place on record our appreciation for the valuable services rendered by learned Amicus by utmost dedication and sincerity.**

The application is disposed of.

A copy of this order be forwarded to MoEF&CC, MoJS, GoI, CPCB, the Chief Secretaries and the Secretaries Environment Departments, heading the RRCs, and State PCBs/PCC of Himachal Pradesh, Haryana, Punjab and UT Chandigarh, by e-mail.

A copy of this order be also sent to Justice Pritam Pal, former Judge of the Punjab and Haryana High Court now at Chandigarh by e-mail.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

March 16, 2021  
Original Application No. 138/2016 (T<sub>NHRC</sub>)  
(Case No. 559/19/11/14)  
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