

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

Original Application No. 916/2018
(Earlier O.A. No. 101/2014)

(With report dated 29.10.2019)

Sobha Singh & Ors.

Applicant(s)

Versus

State of Punjab & Ors.

Respondent(s)

Date of hearing: 06.12.2019

Date of uploading: 12.12.2019

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

ORDER

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I. Introduction – The issue and the background on the subject of pollution of rivers Satluj and Beas in the State of Punjab:

1. This order may be read in continuation of order dated 16.07.2019. Issue for consideration is pollution of Rivers Satluj and Beas in the State of Punjab and other incidental and allied matters. The subject has been dealt with by this Tribunal in the last five years on several occasions. Background has been elaborately set out in the order dated 24.07.2018. Main sources of pollution are discharge of untreated industrial effluents by industries, discharge of untreated municipal sewage as well as solid or other waste disposal either directly in the said rivers or in the drains or the tributaries of the said rivers.
2. River Satluj also finds mention in the identified polluted river stretches based on data compiled by Central Pollution Control Board (CPCB) which issue is being dealt with separately in O.A. No. 673/2018 to which reference will be made later.

II. Order of this Tribunal dated 24.07.2018 constituting a Committee to prepare time bound action plan for control of

pollution and ensuring the quality of the water as per bathing standards:

3. Vide order dated 24.07.2018, this Tribunal directed the CPCB to constitute a Monitoring Committee with representatives from the Pollution Control Boards of Punjab and Rajasthan and Mr. Balbir Singh Seechewal, a volunteer and to prepare a time bound action plan to be put on the website. Involvement of stake holders was to be sought, apart from undertaking awareness programs.

III. Report of the Committee and order dated 14.11.2018:

4. The report of the Committee which was taken up for consideration vide order dated 14.11.2018 showed huge amount of uncontrolled pollution on account of lack of sewage treatment systems, non-availability of STPs or other appropriate waste water treatment facilities, lack of skilled man power, non-sustainable approach in designing sewage management project which resulted in damage to the health of the inhabitants and the environment.
5. Having regard to the magnitude of the damage and failure of governance in handling the situation, the Tribunal directed the State of Punjab to deposit a sum of Rs. 50 Crores for restoration of the environment which could be recovered from the erring local bodies/officers/individual.

IV. Order of this Tribunal dated 16.01.2019 in O.A. No. 606/2018 requiring the presence of Chief Secretaries of all the States/UTs to appear before this Tribunal after acquainting themselves with the important environmental issues including control of pollution of the polluted river stretches:

6. Vide order dated 16.01.2019 in O.A. No. 606/2018 while dealing with the issue of Solid Waste Management, this Tribunal directed personal appearance of the Chief Secretaries after acquainting themselves with significant environmental issues mentioned therein, including the issue of polluted river stretches in their States/UTs. Accordingly, the Chief Secretaries appeared, interacted with the Tribunal and undertook to take further remedial steps. They have to file further reports and appear again on the dates fixed.

V. Further reports of the Committee dated 21.1.2019 and 30.01.2019 and order of this Tribunal dated 28.02.2019 and directing modification of the Committee to be headed by former Judge of Punjab and Haryana High Court to oversee the execution of the action for control of pollution:

7. Further reports dated 21.01.2019 and 30.01.2019 were filed by the CPCB in respect of restoration of the rivers in question in the present case which were taken up for consideration on the last date of hearing i.e. 28.02.2019. The reports considered the action plan of the State of Punjab which was furnished in pursuance of orders of this Tribunal dated 20.09.2018 and 19.12.2018 in *Original Application No.673 of 2018*, News item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are not critically polluted: CPCB". In view of continuing pollution and highly inadequate steps for remedying the situation, this Tribunal directed that the Monitoring Committee earlier constituted may now be headed by a former Judge of Punjab and Haryana High Court. A former Chief Secretary of Punjab and a former Member Secretary of Punjab PCB were directed to be included as Members. The Tribunal

suggested two Senior IAS officers named in the order, whose contribution in the field of environment was well acknowledged, could be involved in a suitable manner. The Committee was to oversee the remedial measures and also consider closure of polluting activities, prosecution of the polluters and recovery of compensation for damaging the environment, apart from recommending disciplinary and penal action against the erring officers. The Tribunal also suggested that the State Government should record failure of individual officers in the ACRs.

VI. Report of the Committee dated 12.06.2019 and order of this Tribunal dated 16.07.2019:

8. The matter was considered on 16.07.2019 in light of the report dated 12.06.2019 furnished by the Monitoring Committee making following recommendations:-

“Harikelake

- i) *Data at the entry point of river in Punjab indicated that water quality was Class B but at the downstream in the State at Harikelake the water quality deteriorated to Class C. The degradation was due to discharge of sewage of the towns and the industrial effluents. The Committee recommended installations of 7 online continuous monitoring stations at appropriate locations.*
- ii) *Out of 53 STPs monitored by the Committee in January, 2019, 30 were not achieving the norms for which remedial measures were suggested.*
- iii) *CETP for leather complex at Jalandhar was not achieving the norms.*
- iv) *ETPs installed by the industries were not being inspected by senior level officers. The Committee suggested that 15% of the industries should be inspected by senior level officer of the PPCB.*
- v) *The industries in proximity of the water bodies must be selected for inspection having regard to quantity of effluent and toxicity of effluents.*
- vi) *The Committee suggested that the State Government should review the action plan for new STPs and*

- upgradation of existing STPs, particularly, in the catchment areas of the rivers.
- vii) The Municipal Corporation, Ludhiana should finalize firm timelines for the ETPs and bio-gas plants for treatment of dairy effluents. The Committee suggested that treated waste water be utilized for irrigation.
 - viii) CCTV cameras be installed to check dumping of solid waste into the Budha Nallah Drain.

Budha Nallah

- i) STP at Jamalpur was not in operation and the officers of Municipal Corporation, Ludhiana informed that this STP is lying defunct and non-functional.
- ii) The waste water from Dairy complex, Tajpur road (5 MLD) is discharged into Budha Nallah without any treatment.
- iii) Lot of discharge of waste water(60 MLD) coming from Transport Nagar was found entering into Budha Nallah.
- iv) STP at Bhattian with the capacity of 111 MLD was not performing satisfactorily, as the treated sewage was found to be black in color.
- v) Both the STPs at Balloke were not performing satisfactorily as the color of the treated sewage was quite black in color.
- vi) Liquid effluent (10 MLD) in the form of washings and urine of animals is directly discharged into Budha Nallah from Dairy Complex, Haibowal.

STP at Ludhiana

- i) The Municipal Corporation, Ludhiana should rehabilitate the STP based on appropriate technology and sewage flow entering into STP in view of future increase in discharge due to growth in population.
- ii) Municipal Corporation Ludhiana shall prepare concrete and firm proposal for treatment of wastewater from Dairy Complex, Tajpur Road. In case, these dairies are to be shifted to designated area, the firm timelines must be submitted so that the discharge from these dairies may be cut off from entering into Buddha Nallah.
- iii) With respect to CETP, Bahadurke Road, Ludhiana to treat the effluent of 23 dyeing industries, 1.5 MLD CETP is under construction. The committee desired that the CETP must be completed by 30.06.2019.

Holy Bein

- i) Punjab Pollution Control Board shall issue directions under the provisions of Water (Prevention & Control of Pollution) Act, 1974 to the Department of Local Govt. to de-sludge the ponds of the STP, Sultanpur Lodhi and to replace 02 no. lifting pump with new one to lift the sewage to the STP within 02 months.
- ii) Department of Rural Development & Panchayat be directed to make the pumping system operational so as to carry the sewage of Village Kheda Donna to the pond provided to treat the sewage and utilize the same for irrigation and plug the outlet into holy Bein.

- iii) Department of Local Govt. be directed to ask Municipal Council, Kapurthala to operate the existing STP regularly and efficiently and no effluent should be bypassed. The treated sewage should be utilized for irrigation and no leading to Holy Bein. The necessary upgradation in ETP shall be made within the time schedule as mentioned in the Action Plan "Clean River Sutlej."
- iv) PPCB shall issue directions to Jalandhar Development Authority to arrange suitable chunk of land for installation of STP to treat the sewage of Rawal and its Colonies as it a major source of pollution in Holy Bein and it may be directed to install STP within 06 months.
- v) Department of Local Govt. be directed to ask the Municipal Council Kapurthala to disconnect the outlets of some localities of Kapurthala town falling into Wadala Drain and same should be diverted to main sewerage system leading to STP.

CETP Jalandhar

- i) PPCB shall issue directions under the provisions of the Water Act, 1974 to Punjab Effluent Treatment Society (PETS) to upgrade the CETP within the time schedule as mentioned in the Action Plan prepared by the State Government, Department of Environment to achieve all the parameters within the prescribed limits.
- ii) PPCB shall get performance guarantee of Rs. 25 Lakh from PETS for effective operation of equipments to be installed for upgradation of existing CETP to ensure the achievement of standards as prescribed by the Board.
- iii) PPCB shall issue directions under the provisions of the Water Act, 1974 to PETS to install and commission the following systems within one month for effective monitoring of CETP.
 - a. Electromagnetic flow meter at the outlet of CETP.
 - b. pH measuring sensor to be installed in OCEMS.
 - c. Connectivity of OCEMS with CPCB and PPCB servers.
 - d. To ensure regular lifting of sludge from CETP and to send it to TSDF Nimbua.
- iv) PPCB shall issue directions under the provisions of the Water Act 1974 to PSIEC to disconnect all the outlets of storm water drain from Kala Singhian drain, presently carrying Sewage of Leather Complex, into said drain within 15 days. These outlets shall only be operated during rainy season in the presence of officials of PPCB.
- v) PPCB shall lay down primary effluent treatment plant standards of waste water to be further treated into common effluent treatment plant within 15 days.
- vi) Municipal Corporation Jalandhar shall close outlet maintained near STP Peer Daad to discharge untreated sewage into Kala Singhian drain within 15 days.

Municipal Solid Waste Management at SBS Nagar, STPs at SBS Nagar

9. Recommendations of the Committee were noted as follows:-

“It was noted that M/s Punjab Alkalies & Chemical Ltd., Naya Nangal, Distt. Roopnagar claimed to be utilizing RO reject water for irrigation while such water must be taken to Multi Effect Evaporator and dried sludge to be taken to the TSDF site. Observations have also been to withstand the deficiencies in the STP installed by the Punjab Water Supply & Sewerage Board (PWSSB). It was found that a bye-pass drain carrying untreated sewage mixed with treated sewage was being taken to the River Satluj and the Committee was misled in that regard by the Executive Engineer of PWSSB. Deficiencies were noticed in the operation of the STP by the authorities of the BBMB. There was need for effective monitoring of functioning of CETP by having suitable mobile application and GPS system as well as functioning of ETPs installed by the industries. Having regard to the facts ascertained on personal visit, the Committee required that the State PCB should take action against the Municipal Corporation, Ludhiana, Punjab Dyers Association, Ludhiana for unauthorizedly discharging effluents directly into the BudhaNalla. Action was also directed against Assistant Environmental Engineer looking after Tajpur Road for not reporting unauthorized outlet into the Budha Nallah. The Municipal Corporation was to remove all the outlets carrying effluents directly into the Budha Nallah. The Committee directed that the STPs of the Municipal Council be monitored by the State PCB. The Committee visited STP at Budha Nallah at Bhamian Kalan, Ludhiana, Sewage Treatment Plant at Jamalpur, Dairy Complex, Tajpur Road, Ludhiana, Transport Nagar Near Durdwara Gaughat, CETP, Bahadurke Road, Ludhiana, Qasabad and STP at Bhattian, STP at Balloke, Disposal of effluent from Dairy Complex, Haibowal into BudhaNallah and Bio-gas Plant, Haibowal, BudhaNallah at Barnhara Bridge, Confluence point of BudhaNallah with River Satlej, disposal points of sewage of focal point, Jalandhar, second disposal point near M/s Jagran Prakashan Ltd. The Committee visited various industries such as M/s Vishal Tool& Forging Pvt. Ltd, M/s Proxima Steel Forge Pvt. Ltd, M/s Talbro Forging, M/s Doaba Co-operative, The Doaba Cooperative Milk Producers Union Ltd, G.T Road, bye-pass, Jalandhar. Disposal of sewage of Kalia colony, Jalandhar, Disposal points near SabjiMandi, Maqsudan Road, Jalandhar, disposal points of industrial area, Jalandhar, CETP at Leather Complex, Jalandhar, M/s Jay Dee Leather Pvt. Ltd, Plot No. 28, and 29, Leather Complex, Jalandhar, STP Pholriwal, STPs, sewage/sullage disposal points into drains leading to Holy Bein (Kali Bein or West Bein), disposal of sewage/sullage of Village Kheda Donna into

Holy Bein, STP Kapurthala, Bhulana Drain leading to Holy Bein, disposal point into Wadala Drain leading to Holy Bein.”

10. Further recommendations of the Committee were:-

- 1) *The observations of the Monitoring Committee with regard to the STPs and industries be conveyed to PPCB, PWSSB, BBMB and M.C Naya Nangal for further immediate action in the matter.*
- 2) *PWSSB authorities be asked to issue show cause notice to Sh. Rahul Kaushal, Executive Engineer and Sh. Tarun Gupta, Sub Divisional Engineer for misleading the Committee about bye pass drain, carrying untreated sewage, leading to river Sutlej.*
- 3) *BBMB authorities be asked to issue advisory letters to Sh. Manwinderpal Singh, Executive Engineer and Sh. Sukhdev Singh, Sub Divisional Engineer regarding irregular operation and non maintenance of STP and worst condition of sludge drying beds, which were not found used for the last so many days, because these sludge drying beds were found full of wild grass.”*

11. The reports were accepted as follows:-

“Learned counsel for the State of Punjab, Punjab State PCB and Municipal Corporation, Ludhiana suggest that the reports be accepted being based on objective data. We are satisfied that the report of the Committee needs to be implemented fully in letter and spirit. We place on record our gratitude for the massive work undertaken by the Committee. On that basis, in compliance of established environmental principles, identified polluting activities must be stopped/suspended till the norms are met, identified polluters prosecuted and compensation for damage to the environment and public health recovered which should be adequate to meet the cost of restitution and deterrent. Wherever possible, the following formula evolved by the CPCB may be followed for assessing such compensation:

$$EC = (PI \times N \times R \times S \times LF)$$

Where, EC is Environmental Compensation in ₹

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees (Rs) for EC

S = Factor for scale of operation

LF = Location factor

The formula has been quoted and discussed in order of this Tribunal dated 13.05.2019 in O.A No. Original Application No. 95/2018, Aryavart Foundation v. M/s Vapi Green Enviro Ltd. & Ors.¹

The deterrence element should be followed where the default is continuing. Compensation need not be limited to the day on which default is found but should go back to preceding five years unless the polluter establishes that in the past such pollution was not taking place. For doing so, the principle of 'best judgment assessment' ought to be followed by the authority assessing such compensation. The compensation suggested by the Committee in its report may be treated as tentative and on that basis the Pollution Control Board may pass appropriate orders, after following the due procedure of law. It will be open to the State Pollution Control Board to pass an interim order, pending procedure being followed, if the material on record warrants recovery of interim compensation. The State PCB may give a report of the action taken for information of the Committee and may be forwarded to this Tribunal for further orders, wherever necessary.

The next report of the Committee may be in cumulative terms consolidating its conclusions, giving the earlier status, the current status and the recommendations at one place in a tabulated form. Further report may be furnished after three months but before 30.11.2019 at judicial-ngt@gov.in."

12. After noticing the status report furnished in the report with regard to STPs not achieving the norms, need for monitoring stations at appropriate locations, need for inspection of ETPs particularly in respect of industries in the proximity of water bodies, finalization of timelines for treatment equipments, CCTV cameras to check dumping of waste, specific observations with regard to Buddha Nalah and Holy Bein, CETP at Jalandhar, waste management and STPs at S.B.S. Nagar, Kalasinghia drain, violations by specified industries and local bodies, misconduct of certain officers, this Tribunal directed the report be implemented fully in letter and spirit. The Tribunal directed that identified polluting activities be stopped

¹The 'Polluter Pays' principle requires the polluter to pay for the entire period of pollution which needs to be assessed in every individual case in the light of circumstantial evidence and the probabilities.

and compensations recovered from the identified polluters. The compensation may go back upto five years based on assessment of the period for which violation took place. The PCB may recover compensation after following due procedure If law and give an action taken report to the Committee.

VII. Order dated 01.10.2019 modifying the constitution of the Committee and substituting the Chairman of the Committee by Justice Jasbir Singh, former Judge of the Punjab and Haryana High Court:

13. The constitution of the Committee was modified for the reasons mentioned in the order dated 01.10.2019 to the effect that the Committee will now be headed by Justice Jasbir Singh, former Judge of the Punjab and Haryana High Court in place of Justice Pritam Pal, former Judge of the Punjab and Haryana High Court.

VIII. Order of this Tribunal dated 22.11.2019 in O.A. No. 138/2016 dealing with the issue of control of pollution of river Ghagar:

14. We may also refer to order dated 22.11.2019 in O.A. No. 138/2016 to dealing with the control of pollution of river Ghagar wherein following directions have been issued:-

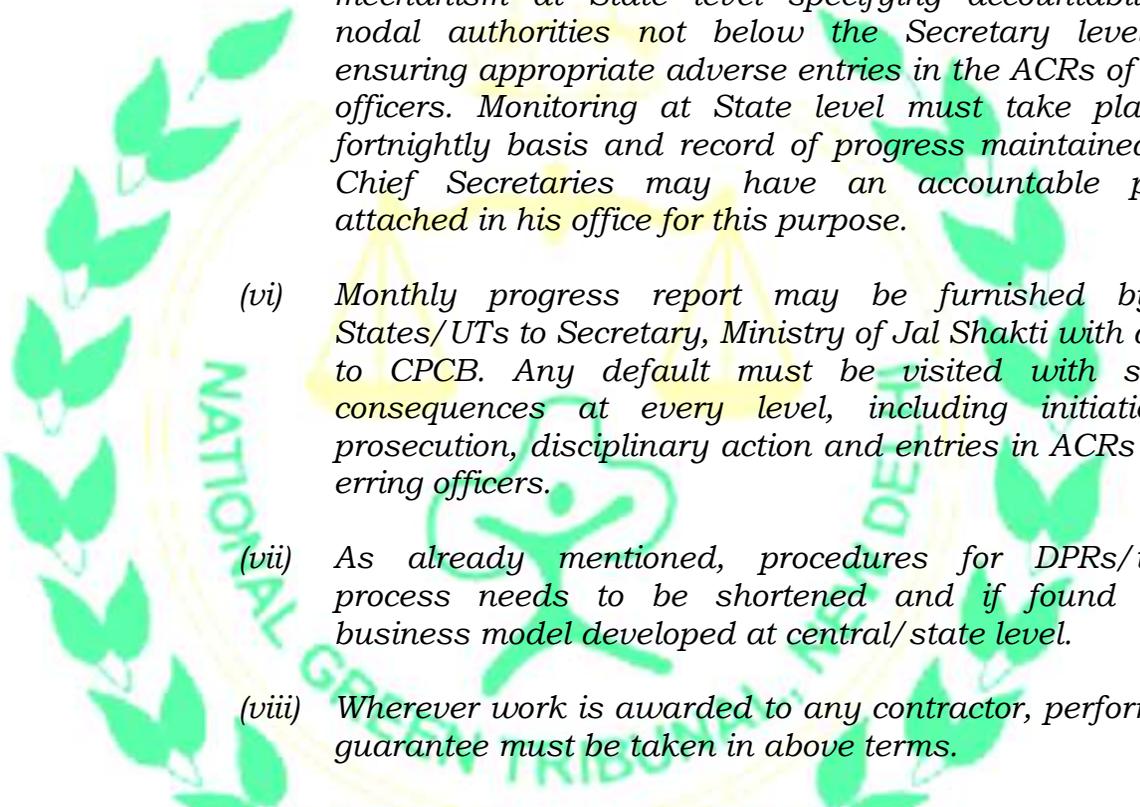
“(i) All the concerned States/UT relevant for River Ghaggar must ensure installation of STPs within the planned timelines subject to the rider that where the timelines goes beyond 31.12.2020, the timeline will be treated to be 31.12.2020. Wherever timeline already laid down by the State/UT is exceeded,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

- (ii) *Let the concerned SPCBs/PCC take steps in terms of observations of the Committee after considering the response of the alleged polluters. If the Committee observes that SPCBs/PCC has not taken necessary and adequate action, report be given to this Tribunal.*
- (iii) *Local bodies in the catchment area may ensure that solid waste is not dumped into the river or its tributaries which aspect may be monitored by the Committee also.*
- (iv) *Future functioning of the Committee will be in terms of clarification as per para 21 above. Incidental issues stands disposed of in terms of para 22 above.*
- (v) *Let steps be taken by concerned States/UTs in terms of the recommendations and for compliance of direction for connecting the drains to the STPs wherever feasible and till then in-situ remediation in terms of para 20 above.*
- (vi) *The Chairmen, Member Secretaries of SPCBs/PCC, Secretaries Urban Development and Secretaries Irrigation and Public Health of the four States/ UT and nodal officer of CPCB may remain present in person for the assistance of the Tribunal so that comprehensive review of progress can be undertaken.”*

IX. Order of this Tribunal dated 06.12.2019 in connected matters dealing with pollution of 351 river stretches – O.A. No. 673/2018 on the subject of preparation and execution of action plan for control of pollution of polluted river stretches:

15. We may also refer to order dated 06.12.2019 in O.A. No. 673/2018, wherein following directions have been issued:-

- “(i) 100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 atleast to the extent of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.
- (ii) Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. Rs. 10 lakhs per month per STP.

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- (iii) We further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by the Chief Secretaries of all the States/UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.
- (iv) For above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/UTs atleast once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01.04.2020.
- (v) The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.
- (vi) Monthly progress report may be furnished by the States/UTs to Secretary, Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers.
- (vii) As already mentioned, procedures for DPRs/tender process needs to be shortened and if found viable business model developed at central/state level.
- (viii) Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.
- (ix) CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31.03.2020. This will not be a ground to delay the execution of the action plans prepared by the States which may start forthwith, if not already started.”

X. Report of Committee dated 29.10.2019 and consideration thereof:

16. Further report dated 29.10.2019 has been filed by the Committee with reference to:
- i. Monitoring of functioning of existing STPs.
 - ii. Functioning of CETPs.

- iii. Monitoring of ETPs.
- iv. Setting up of new and up gradation of STPs.
- v. Setting up of ETP plan for dairy waste.
- vi. Reconciliation of waste water and industrial effluents of Ludhiyana.
- vii. Release of fresh water in Budha Nallla and Holy Bein.
- viii. Reuse of treated water for irrigation.
- ix. Preventing dumping of Solid Waste.
- x. Treatment facilities in villages.
- xi. Shifting of dying industries.
- xii. Organizing health checkups.
- xiii. Direct discharges into drains.

17. The report on above subjects is as follows:

“

(a) Monitoring of functioning of STPs:

The monitoring committee observed that PPCB has monitored 77 STPs out of total 86 STPs during the month of July, 2019. Out of these 77 STPs, 31 STPs have been found non-compliant. However, the %age of non-compliance has decreased during the last 6 months due to effective monitoring and improvement in the operating agencies of STPs. Monitoring Committee directed as under:

- *Concerted efforts may be made by all the concerned Departments to bring down the non-compliance of STPs to significantly low level.*
- *OCEMS along with flow meter shall be installed at inflow, outflow and bye-pass of the STPs and record in this regard may be maintained by the STP operator.*
- *OCEMS and CCTV cameras on all the STPs may be ensured to be installed by 30/11/2019, failing which environment compensation shall be imposed on the defaulting STPs.*

(Para 2.5.2 of the report)

(b) Functioning of CETPs:

With regard to continuous failure of CETP, Leather Complex, Jalandhar to achieve the prescribed standards, PPCB informed that a penalty of Rs. 25 lacs has been imposed on CETP, Leather Complex on account of non-compliance and 3 complaints under the provisions of Water Act, 1974 have been filed in the court of law.

PPCB further informed that pre-treatment standards have been prepared and put up in the Board meeting. The monitoring committee directed as under:

- Pre-treatment standards be notified at the earliest as directed by Hon'ble NGT.
- OCEMS be installed at CETP Leather Complex, Jalandhar for its effective monitoring.
(Para 2.5.3 of the report)

(c) Monitoring of functioning of ETPs:

It was observed by the committee that the number of inspections of industries made by PPCB was very less and the number of inspections are not in consonance with the laid down guidelines of PPCB. Only one inspection has been carried out by Chief Environmental Engineer, but none by Chairman, PPCB.

The Chairman of the Monitoring Committee pointed out in the meeting that during field visits, it has been observed by the Committee that there is no improvement w.r.t. industrial pollution and regulatory agency is not taking effective action. PPCB must take the responsibility for effective check on non-compliance by industries. The monitoring committee further directed that the explanation of Environmental Engineer and Asstt. Environmental Engineer, in whose jurisdiction the committee found the non-compliance, shall be called and responsibility be fixed. The committee further directed that "polluters pays" principle be strictly implemented and environment compensation be imposed in accordance with the orders dated 16/7/2019 of Hon'ble NGT in the case of Sobha Singh Vs State of Punjab & others.
(Para 2.5.4 of the report)

(d) New / upgradation / rehabilitation of STPs:

The Monitoring Committee observed that the progress of setting up of 3 new STPs by Municipal Corporation Jalandhar is slow for which they said Corporation has claimed that DPRs are currently under review at PMIDC Level. The Committee directed Municipal Corporation, Jalandhar to expedite the work as per the timelines given in the Action Plan.

Further, the monitoring committee directed the Dept. of Local Government / PWSSB to install all the STPs within the time schedule as mentioned in the Action Plan already submitted before Hon'ble NGT.
(Para 2.5.5 of the report)

(e) Setting up of New CETPs:

The Monitoring Committee observed that 15 MLD CETP for BahadurKe Road Textile dyeing industries cluster at Ludhiana was to be commissioned by 30.06.2019 but the same has not been commissioned so far. PPCB reported

that environmental compensation has been imposed on SPV with effect from 01.07.2019 and 15 MLD CETP shall be made functional within 3 months.

For installation of 50 MLD and 40 MLD CETPs for dyeing industries of Tajpur Road, Rahon road and Focal Point Ludhiana, PPCB has issued directions under section 33 of Water Act, 1974 and PPCB shall impose environment compensation on SPV's as per Action Plan.

Monitoring Committee directed that PPCB shall ensure that it will put a dedicated team exclusively for monitoring the progress and resolving and escalating the issue of CETP's on day to day basis.

(Para 2.5.6 of the report)

(f) Setting up of ETP's/Biogas Plants for Dairy Waste:

The Monitoring Committee directed Municipal Corporation Ludhiana and Jalandhar to provide firm timelines for setting up of ETP's and Biogas Plants for Management of Dairy Waste. Municipal Corporation Ludhiana was further directed to send a written communication to Punjab Energy Development Agency (PEDA) regarding the decision of not shifting the dairies and setting up of Biogas Plants at Tajpur Road Dairy Complex.

(Para 2.5.7 of the report)

(g) Release of 200 Cusecs of water to Budha Nallah:

Department of Water Resources claimed that project for release of 200 cusecs of water into Budha Nallah shall be completed within one year after the release of the funds.

(Para 2.5.8 of the report)

(h) Release of 150 Cusecs of water from Mukerian Hydel Channel to Holy Bein:

Department of Water Resources reported that necessary funds amounting to Rs. 2.5 Crores have been approved by Govt. of Punjab and project would be completed by 15.10.2019

(Para 2.5.9 of the report)

9.0 Earlier and current status of performance of existing sewage treatment plants (STPs), utilization of treated sewage for irrigation, treatment of sewage of villages, water quality of drains/Nallahs and river Sutlej and Beas, gaps in quantity of sewage to be treated.

(i) River Sutlej

Status of sewage treatment plants installed for the towns

Sr. No	Name of STP	Installed Capacity (MLD)
1	Goniana	3
2	Jalalabad (DWSS)	8
3	Abohar (AMRUT)	25
4	Makhu	4
5	Talwandi Bhai	4
6	Zira	8
7	Hoshiarpur	30
8	Jalandhar	100
9	Jalandhar (Pholriwal-I)	25
10	Jalandhar (Pir Dad)	50
11	Jalandhar	25
12	Jalandhar (Jaitewali)	25
13	Jalandhar (Bambianwali)	10
14	Nakodar	6
15	Phillaur (South)	2.6
16	Phillaur (South)	3
17	Phagwara (North)	20
18	Phagwara (South)	8
19	Phagwara (North)	8
20	Jagraon	16
21	Jagraon	12
22	Ludhiana (Balloke)	152
23	Ludhiana (Bhattian)	111
24	Ludhiana (Jamalpur)	48
25	Ludhiana (Bhattian)	50
26	Ludhiana (Balloke)	105
27	Machhiwara	4
28	Sahnewal	7
29	Moga	27
30	Dharamkot	4
31	Bagha Purana (DWSS)	3.8
32	Shri Mukatsar sahib (DWSS)	8.7
33	Shri Mukatsar sahib (DWSS)	5.7
34	Shri Mukatsar sahib (DWSS)	3.5

35	Malout	3
36	Malout	10
37	Banga	3
38	Nawanshahar	6
39	Morinda	5.5
40	Nangal	8
41	Nangal	5
42	Anandpur Sahib (DWSS)	8
43	Ropar	10
44	Ropar	2.5
45	Ropar	2
46	Kurali (GMADA)	5
47	Jaito	6
48	Ferozepur	18
	Total	1014.3

(Para 9.1 of the report)

(j) Status of STPs under construction:

Sr. no.	Name of the town	STP Capacity (MLD)	Target date of completion/comm issioning	% work done	
				Earlier status as on 31/12/2018 (% work done)	Current status as on 30/9/2019 (% work done)
1.	Guru Har Sahai	4	31.03.2020	1	2
2.	Guru Har Sahai	1	31.03.2020	1	2
3.	Kotkapura	8	30.11.19	62	75
4.	Kotkapura	6	30.11.19	60	73
5.	Gidderbaha	7	31.3.2021	-	Completed. Electric connection under progress.
	Total	26			

(Para 9.1.5 of the report)

(k) Status of STPs under planning and funds tied up:

Sr. no.	Name of the town	STP Capacity (MLD)	Target date of completion /comm issioning	Current status as on 30.9.2019

1.	Balachaur	4	31.10.2020	Tender called. To be opened on 3.10.2019
2.	Gharshankar	3	31.10.2020	Tender called. To be opened on 23.10.2019
3.	Maluka	1	31.10.2020	DNIT is being revised as per new eligibility criteria.
4.	Rahon	3	31.10.2020	Tender called. To be opened on 23.10.2019
5.	Faridkot	14	Land issue to be resolved	STP land — Price fixation done on 29.6.2019. Final approval of payment under approval. Land for approach road —Social Impact Assessment Study is being conducted.
6.	Patti	8	Land issue to be resolved	Advertisement given on 9.7.2019. No application received. Advertisement process will be again initiated.
7.	Jalandhar	100	-	DPR under preparation. Funds tied up in AMRUT and Smart City Scheme, State share yet to be arranged.
8.	Ludhiana	200	-	DPR under preparation. Funds tied up in AMRUT and Smart City Scheme, State share yet to be arranged.
9.	Raikot	7	30.10.2020	Tender not received two times. Third time, corrigendum issued and now to be opened on 30.10.19
10.	Ferozepur	1	-	Land not available.
11.	Sri Mukatsar Sahib	10	-	Funds tied up in AMRUT. DNIT approval under process.
12.	Kiratpur Sahib	2	03.11.2021	DNIT under preparation.
	Total	353		

(Para 9.1.6 of the report)

(1) STPs under planning but funds yet to be tied up

Sr. no.	Name of the town	STP Capacity	Current status as on 30.9.2019
1.	Bhagta Bhaika	3	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.

2.	Bhai Roopa	4	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
3.	Kotha Guru	3	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
4.	Arniwala	2	Funds not tied up. Case sent to Government of Punjab for arrangement of funds.
5.	Malian Wala	3	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
6.	Mamdot	3	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
7.	Mudki	3	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
8.	Mahilpur	2	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
9.	Nihal Singh Wala	3	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
10.	Barriwala	2	Sewerage system do not exist and funds not tied up. Case sent to Government of Punjab for arrangement of funds.
	Total	28	

(Para 9.1.7 of the report)

(m) STPs which require technologically upgradation and funds tied up:

Sr. no.	Name of the town	Present capacity of STP (MLD)	Capacity to be upgraded technologically	Target date for completion/ commissioning	Current status as on 30.9.2019
1.	Jalandhar (1 STP)	235	100	No target date given	DPR under preparation. Funds tied up in AMRUT and Smart City Scheme, State share yet to be arranged.

2.	Ludhiana (5 no. STPs)	466	466	No target date given	DPR under preparation. Funds tied up in AMRUT and Smart City Scheme, State share yet to be arranged.
	Total	701	566		

(Para 9.1.8 of the report)

(n) Gaps in treatment of sewage of the towns located on river Sutlej:

Sr. No	Name of Town	Total Discharge (MLD)	Present Capacity of STP (MLD)	Gap in sewage quantity to be treated (MLD)
1.	Bhagta Bhaika	3	0	3
2.	Bhai Roopa	4	0	4
3.	Goniana	3	3	0
4.	Kotha Guru	3	0	3
5.	Maluka	1	0	1
6.	Faridkot	14	0	14
7.	Jaito	6	6	0
8.	Kotkapura	14	8	0
			6	
9.	Arniwala	2	0	2
10.	Jalalabad (DWSS)	8	8	0
11.	Abohar (AMRUT)	25	25	0
12.	Ferozepur	19	18	1
13.	Guru Harsahai	5	4	0
			1	
14.	Makhu	4	4	0
15.	Malian Wala	3	0	3
16.	Mamdot	3	0	3
17.	Mudki	3	0	3
18.	Talwandi Bhai	4	4	0
19.	Zira	8	8	0
20.	Hoshiarpur	30	30	0
21.	Garhshankar	3	0	3
22.	Mahilpur	2	0	2
23.	Jalandhar	335	100	100
			25	
			50	
			25	

			25	
			10	
24.	<i>Nakodar</i>	6	6	0
25.	<i>Phillaur (South)</i>	5.6	2.6	0
			3	
26.	<i>Phagwara</i>	36	20	0
			8	
			8	
27.	<i>Jagraon</i>	28	16	0
			12	
28.	<i>Ludhiana</i>	666	152	200
			111	
			48	
			50	
			105	
29.	<i>Machhiwara</i>	4	4	0
30.	<i>Raikot</i>	7	0	7
31.	<i>Sahnewal</i>	7	7	0
32.	<i>Moga</i>	27	27	0
33.	<i>Dharamkot</i>	4	4	0
34.	<i>Bagha Purana (DWSS)</i>	3.8	3.8	0
35.	<i>Nihal Singh wala</i>	3	0	3
36.	<i>Barriwala</i>	2	0	2
37.	<i>Gidderbaha</i>	7	7	0
38.	<i>Shri Mukatsar sahib</i>		8.7	10
		27.9	5.7	
			3.5	
39.	<i>Malout</i>	13	3	0
			10	
40.	<i>Balachaur</i>	4		4
41.	<i>Banga</i>	3	3	0
42.	<i>Nawanshahar</i>	6	6	0
43.	<i>Rahon</i>	3	0	3
44.	<i>Kiratpur Sahib</i>	2.0	0.0	2
45.	<i>Morinda</i>	5.5	5.5	0
46.	<i>Nangal</i>	13.0	8.0	0
			5.0	
47.	<i>Anandpur Sahib (DWSS)</i>	8.0	8.0	0
48.	<i>Ropar</i>	14.5	10.0	0
			2.5	
			2.0	

49.	Kurali (GMADA)	5.0	5.0	0
50.	Patti	8	0	8
	Total	3 1421.	1040.30	381

(Para 9.1.9 of the report)

(o) Treatment of sewage of villages:

The Department of Rural Development and Panchayat has submitted that in the first phase, 75 villages have been selected for treatment of sewage. The status of installation of treatment facilities for these villages is mentioned as under:

(Para 9.1.10 of the report)

(p) Status of CETPs for treatment of effluent of dyeing industries of Ludhiana and effluent of electroplating industries of Jalandhar:

Sr. no.	Project	Target date	Progress upto	Current status as on
1.	Setting up of 15 MLD CETP at Ludhiana	30.6.2019	80 %	93.5 %
2.	Setting up of 40 MLD CETP at Ludhiana	31.8.2019	62 %	40 %
3.	Setting up of 50 MLD CETP at Ludhiana	31.1.2020	20 %	67 %
4.	Up-gradation of 5 MLD CETP and setting up of 6 MLD at leather complex, Jalandhar	No time schedule mentioned	DPR under vetting with CLRI	-
5.	Setting up of 0.15 MLD CETP for electroplating industries of Jalandhar	No time schedule mentioned	CETP work was started but due to public resistance, work has been stopped.	As per decisions taken by the Deputy commissioner, Jalandhar, work of CETP shall be started after obtaining necessary permission from the concerned department and with the help of Punjab police.

(Para 9.1.14 of the report)

(q) Identification of new CETPs to treat the effluent from focal points of the State:

There is need to install the CETP across all the focal points for which department industries has constituted committee.

However, no progress has been submitted by the department.

(Para 9.1.15 of the report)

(r) Installation of ETPs/Biogas power plant for treatment of dairy wastewater:

In Ludhiana, 2 dairy complexes located at Tajpur road and Haibowal, generate about 5 MLD and 10 MLD wastewater, respectively, in addition to generation of cow dung.

(Para 9.1.16 of the report)

(s) In dairy complex at Haibowal:

In this complex, about 400 TPD animal dung is generated, out of which 180 TPD is given to bio-gas power plant Haibowal. PEDDA has already installed bio-gas power plant of capacity 1 MW. It was proposed by PEDDA that power plant based on bio-gas shall be operated at capacity 0.5 MW and rest of the bio-gas to be generated using animal dung, shall be converted into CBG, which shall be sold in open market. Besides, liquid effluent about 10 MLD in the form of washings and urine of animal is directly discharged into Budha Nallah.

The State government/ Municipal Corporation, Ludhiana has not taken any action to treat the wastewater containing high value of BOD and COD from dairy complex located at Tajpur road and Haibowal, Ludhiana.

No steps have been taken to manage the cow dung, of diary complex, Tajpur Road, Ludhiana, which is big source of further degradation of Budha Nallah effluent.

(Para 9.1.16.1 of the report)

(t) Desilting of Budha Nallah:

The status is submitted as under

Sr. no.	Activity to be carried out as per the Recommendations of Monitoring Committee during its visit to Ludhiana on 1.5.2019	Action Taken report of department
1.	Department of water resources shall take immediate steps to desilt the Budha Nallah within city area within 2 months i.e. before monsoon	Report is yet to be submitted by the department of water resource.

(Para 9.1.17 of the report)

9.2 River Beas

9.2.1 Background

River Beas has total length of 460km and originates from Beas kund and Beas Rishi within north western Himalaya. After leaving Himachal Pradesh, it enters Punjab at Talwara and joins river Sutlej at Harike.

As per the Action Plan for clean river Beas, prepared by Directorate of Environment & Climate Change, Department of Science Technology and Environment, Government of Punjab, 16 Local Bodies have been identified discharging their wastewater either directly or indirectly into river Beas. Besides, 2 industrial focal points and 1 Jalandhar Development Authority discharge their wastewater directly or indirectly into river Beas.

With regard to discharge from the villages, 75 villages have been identified, of which 17 villages have discharge more than 300 KLD, 43 villages have discharge of 100 KLD to 300 KLD and 15 villages have discharge less than 100 KLD.

12 water polluting industries are located in the catchment area of river Beas which are located at Pathankot, Gurdaspur, Mukerian and Dasuya.

Status of Sewage treatment plants for the towns

S. No	Name of STP	Installed Capacity (MLD)
1.	Sri Hargobindpur	1
2.	Dasuya	4
3.	Mukerian	5
4.	Sham Churasi	1
5.	Tanda	4
6.	Begowal	2.5
7.	Bhulath	4
8.	Kapurthala	25
9.	Sultanpur Lodhi	2.6
10.	Pathankot	27
Total		76.1

(Para 9.2.1 of the report)

9.2.7 Status of STPs under construction (Beas)

- Presently, no STP is under construction

(u) Status of STPs under planning and funds tied up:

S.No	Name of the town	Capacity of STP	Likely date of completions	Current status as on 30.9.2019
1.	Kartarpur	4	31.10.2020	Tender called and to be opened on 30.10.2019
2.	Dhilwan	2.5	Land issue	Case of land pending in DC Office at DRO level
3.	Kothi Pandita, Pathankot	2	31.05.2020	DNIT under preparation
4.	Adarsh Nagar.	1.7	31.05.2020	DNIT under preparation
5.	Hariana	2	31.10.2020	Tender called and to be opened on 30.10.2019
6.	Sultanpur Lodhi (2 NO.)	1+4	31.10.2020	-Land for 4 MLD is being identified. -1 Mld- Land available. Tender under process.
	Total	16.7		

(v) Status of STPs under planning but funds yet to be tied up:

S.N	Name of the town	Discharge (MLD)	Current status as on 30.9.2019
1.	Talwara	4	Funds Not tied up Case sent to Govt. of Punjab for arrangement of funds
2.	Sujanpur (2 No.)	2+3.5	Funds Not tied up. Land issue. Case sent to Government of Punjab for arrangement of funds.
3.	Rawal & Colonies, Kapurthala	3	Land purchased through PUDA. Funds for STPs to be given by MC.
	Total	12.5	

(Para 9.2.9 of the report)

(w) STPs which require technologically upgradation and funds not tied up so far:

Sr. no.	Name of the town	Present capacity of STP (MLD)	Capacity to be upgraded technologically	Target date for completion/ commissioning	Current status as on 30.9.2019
1.	Sri Hargobind pur	1	1	No target date given	Funds not tied up. Case sent to Government of Punjab for arrangement of funds.
2.	Dasuya	4	4	No target date given	Funds not tied up. Case sent to Government of Punjab for arrangement of funds.
3.	Sham Chaurasi	1	1	No target date given	Funds not tied up. Case sent to Government of Punjab for arrangement of funds.
4.	Bhulath	4	4	No target date given	Funds not tied up. Case sent to Government of Punjab for arrangement of funds.
5.	Kapurthala	26	26	No target date given	Funds not tied up. Case sent to Government of Punjab for arrangement of funds.
	Total	36	36		

(Para 9.2.10 of the report)

(x) Gap Analysis of Sewage of the towns located on River Beas:

Sr. No.	Name of the Town	Total Discharge (MLD)	Present capacity of STP (MLD)	Gap in sewage quantity to be treated (MLD)
1.	Sri	1	1	0
2.	Dasuya	4	4	0
3.	Hariana	2	0	2
4.	Mukerian	5	5	0
5.	Sham Churasi	1	1	0
6.	Talwara	4	0	4
7.	Tanda	4	4	0
8.	Kartarpur	4	0	4
9.	Begowal	2.5	2.5	0
10.	Bhulath	4	4	0
11.	Dhilwan	2.5	0	2.5
12.	Kapurthala	28	25	3
13.	Sultanpur Lodhi	7.6	2.6	5

14.	Sujanpur	5.5	0	5.5
15.	Pathankot	30.2	27	3.2
	Total	105.3	76.1	29.2

(Para 9.2.11 of the report)

(B) Conclusion as per report are:-

“10.0. Conclusions and recommendations

Based on the meetings and discussions held with the officers of concerned departments of State of Punjab and concerned District Level officers, visit to the industries and other pollution sources and data collected from concerned departments with regard to performance of existing STPs, installation of new STPs, STPs under planning, STPs which require technology up gradation and gap in treatment of sewage, utilization of treated sewage or irrigation, treatment of sewage of villages, water quality of drains/nallah and River Sutlej and Beas, the following conclusions and recommendations are made.

A) RIVER SUTLEJ

- Punjab Pollution Control Board is regularly carrying out monitoring of sewage treatment plants (STPs) of the towns. STPs monitoring data prepared for the period January, 2018 to June, 2018 and July, 2018 to Dec, 2018 indicate that 33-51% of existing STPs were complying with the norms w.r.t. BOD, TSS and F. coli parameters and 75-84% of the STPs were found complying with norms of TSS parameters and 33-51% of STPs were found complying with norms of F.coli parameters and 62% of STPs were found complying with the norms of BOD parameter.
- The monitoring data, prepared by PPCB, for the period Jan, 2019 to June, 2019 and July, 2019 to Sep, 2019 indicate that 47-62% of STPs have been found complying with BOD, TSS and F.coli parameters. 73-78% of STPs have been found complying with BOD parameter, 84-93% of STPs are found complying with TSS parameter and 47-62% of STPs have been found complying with F.coli parameter.
- ✓ The comparison of monitoring data of STPs prepared for the period Jan to Dec, 2018 and Jan to Sep, 2019 indicate that there is improvement in the performance of STPs w.r.t BOD, TSS and F.Coli parameters. In order to further improve the performance of STPs, the Monitoring Committee recommends as under:
- ✓ Municipal Corporations/ Municipal Councils/ PWSSB or any other agency operating the STPs,

should operate their STPs as per the operation and maintenance manual prepared by PWSSB.

- ✓ These departments should impart trainings to the Supervisory staff.
- ✓ In order to bring down the F. coli parameter within the norms, adequate dosing of disinfectant with proper disinfectant contact mechanism should be provided.
- ✓ Concerted efforts may be made by all the concerned departments to bring down the non compliance of STPs to significantly low level.
- ✓ OCEMS along with flow meters shall be installed at inflow, outflow and bye-pass of the STPs and record in this regard may be maintained by the STP operator.
- ✓ OCEMS and CCTV cameras on all the STPs may be ensured to be installed by 30/11/2019, failing which environment compensation may be imposed by PPCB on the defaulting STPs.

2. For 50 towns located on River Sutlej, 75 STPs are required, 48 STPs in 29 towns have been provided. As per the current status, 5 STPs for the 3 towns namely Guru Har Sahai, Kotkapura and Giddadbaha are under construction and, these are likely to be completed within next 2 months.

3. For the 12 towns having sewage discharge of 353 MLD, for which STPs were under planning, now as per current status, funds have been tied up for STPs to be constructed in Jalandhar and Ludhiana. These funds have been tied up in AMRUT and Smart City Schemes, of which Govt. of Punjab share is yet to be arranged and these STPs are likely to be completed by 31.03.2022.

The monitoring Committee recommends that these STPs should be completed by 31.3.2021.

4. Sewage treatment plants for 10 towns (sewage discharge 28 MLD) namely Bhagta Bhaika, Bhai Roopa, Kotha Guru, Arniwala, Malian Wala, Mamdot, Mudki, Mahilpur, Nihalsinghwala and Barhiwala are under planning and funds (Rs 284.93 crore) for the same have not been tied up by the department of local Govt.

The committee recommends that funds for installation of STPs for these towns should be tied up by 31.12.2019 and these STPs should be completed and commissioned by 31.3.2021.

5. As per the data provided by PPCB, there is a gap of 381 MLD sewage of 22 towns (out of 50 towns) for which no arrangements have been made to provide the funds to treat the sewage so that water quality of river Sutlej is improved. **The Deptt. of local Government should**

make arrangements to provide funds for treatment of gap discharge of 381 MLD sewage in a time bound manner so that STPs may be completed by 31.3.2021.

6. Existing sewage treatment plants of Jalandhar of capacity of 100 MLD and Ludhiana of capacity 466 MLD, there is need to make technological up gradation to achieve the latest norms.

The department of Local Govt. should make arrangements to provide adequate funds so that up gradation of these STPs may be completed in a time bound manner.

7. PSIEC shall submit complete timelines including tendering, installation and commissioning of CETPs for various focal points located in the different town of the State by 30.11.2019.
8. Sewage treatment facilities for the treatment of sewage of 75 villages, selected in the first phase, may be installed by 31.01.2020. The Govt. of Punjab may release the funds amounting to Rs. 22.50 crore timely.
9. For utilization of treated sewage for irrigation, irrigation network for 23 STPs has been laid. Some of the irrigation schemes have been commissioned. The Department of Soil and Water conservation shall ensure to commission all the irrigation schemes immediately so that treated Sewage may be utilized for irrigation purpose.
10. Regarding reuse of treated wastewater of STPs at Jamalpur, Balloke and Bhattian of total capacity 466 MLD, department of soil and water conservation has already been directed to carry out feasibility studies but the

Department of Soil and Water conservation shall submit feasibility study for reuse of treated sewage of STPs at Jamalpur, Bhattian and Balloke by 30.11.2019.

11. Though the textile dyeing industries of Ludhiana have installed their individual effluent treatment plants but in order to maintain one outlet and achieve the stringent standards, 3 CETPs of capacity 15 MLD, 40 MLD, 50 MLD are under construction. 15 MLD CETP for treatment of effluent of dyeing industries of Bahadurke road Ludhiana, was proposed to be commissioned by 30.06.2019 but the same has not been commissioned so far.

- The Monitoring Committee in its 5th meeting held on 23.07.2019 has directed Punjab Pollution Control Board to ensure to operationalize 40 MLD and 50 MLD CETPs for cluster of dyeing industries of Ludhiana as per the time schedule mentioned in the Action Plan, failing which action including environment

compensation shall be imposed by Punjab Pollution Control Board.

- Punjab Pollution Control Board has been further directed by the Monitoring Committee in its 6th meeting held on 20.08.2019 to put a dedicated team exclusively for monitoring the progress and resolving and escalating the issue of CETP's on day to day basis.

Therefore, the Monitoring Committee recommends that Punjab Pollution Control Board shall make concerted efforts to get commission these CETPs as per the time schedule mentioned in the action plan, failing which environment compensation of suitable amount may be imposed on the Special Purpose Vehicles (SPVs) of these CETPs.

- PPCB shall issue necessary directions under the provision of Water Act, 1974 to the textile dyeing industries located in non designated areas which have no Connectivity with the CETPs (under Constructions) to shift at some suitable location in the designated areas which may have connectivity to these CETPs.

12. All the large scale textile dyeing industries of Ludhiana should upgrade their effluent treatment plants to achieve the standards at par with the standards prescribed for CETPs for small and medium scale textile industries of Ludhiana by 30.06.2020.

13. The Monitoring Committee in its 6th meeting held on 20.8.2019 has directed Municipal Corporations Ludhiana and Jalandhar to provide firm timelines for setting up of ETP's and Biogas Plants for Management of Dairy Waste, which is a big source of contamination w.r.t BOD, TSS and F. Coli parameters.

However, no steps have been taken to install ETPs to treat the liquid effluent from these dairy complex (Tajpur Road and Haibowal dairy complex). To manage the cow dung, part of it is utilized at Haibowal dairy complex, Ludhiana for running of biogas plant but no steps have been taken to install biogas plant at Tajpur road. Therefore, treatment facilities including biogas plants at these dairy complex should be installed by 31.3.2021.

14. During the 5th meeting of the Monitoring Committee held on 23.7.2019 with the officers of concerned departments, it was observed that %age of inspection of industries conducted by the Punjab Pollution control Board has been reduced and no inspection has been carried out at the level of senior officers of PPCB.

Therefore, PPCB was directed to ensure the compliance. Punjab Pollution Control Board should increase the inspection of industries by way of making surprise inspections and through Environment Protection squads.

15. Regarding continuous failure of CETP, leather complex, Jalandhar, Punjab Pollution Control Board has imposed a penalty of Rs 25 lac on account of noncompliance along with filing of 3 cases in the court of law for violating the provisions of Water Act, 1974.

PPCB shall also issue necessary directions under the provisions of Water Act, 1974 to the Special Purpose Vehicles (SPVs) to upgrade the existing CETP (based on zero liquid discharge technology) within the particular time schedule.

- PPCB shall ensure that the quantity of effluent discharged from the leather tanning industries of Jalandhar, should not be increased more than 5 MLD. No additional quantity of effluent may be allowed to discharge by these leather tanning industries without enhancing the capacity of CETP based on Zero Liquid Discharge Technology. No effluent should be allowed to be discharged into Kala Singhian drain from the proposed CETP

16. PPCB shall notify pretreatment standards for CETP at the earliest as directed by the Hon'ble NGT vide its order dated 28.2.2019.

17. Punjab Pollution Control Board shall comply with the recommendations made by the Monitoring Committee during its visit to the industries of Ludhiana area on 16.8.2019 and action taken report be submitted to the Committee.

18. Punjab Pollution Control Board shall comply with the recommendations made by the Monitoring Committee during its visit to 25 MLD CETP, Baddi (Himachal Pradesh) on 9.9.2019 and action taken report be submitted to the Committee.

19. Punjab Pollution Control Board shall comply with the recommendations made by the Monitoring Committee during its visit to industries of Gaunspur (Ludhiana) on 11.9.2019 and action taken report be submitted to the Committee.

20. The concerned departments of State of Punjab shall comply with the directions given/recommendations made by the Monitoring Committee in its meeting held on 1.8.2019 at Jalandhar, 8.10.2019 at Sultanpurlodhi and 17.10.2019 at Kapurthala to control pollution sources into Kala

Singhian drain and Holy Bein as mentioned at point no. 4.0, 7.0 and 8.0 of this report.

21. Regarding desilting of Budha Nallah, Department of Water Resources, Govt. of Punjab was directed in the meeting of the Monitoring Committee held on 1.5.2019 at Ludhiana to desilt the Budha Nallah within city area within 2 months. **No Progress report has been submitted by the department of Water Resource.**

22. Water quality monitoring data of river Sutlej for the period Jan, 2018 to Dec, 2018 and Jan, 2019 to June, 2019 and Sep, 2019 indicate that there is improvement w.r.t DO, BOD, TSS and F.coli parameters.

In order to further improve the water quality of river Sutlej, the department of Local Govt./PWSSB or other executing agency of State of Punjab should install and commission all the STPs for the towns/habitation areas located in the catchment area of river Sutlej within the time schedule as mentioned in the Action Plan.

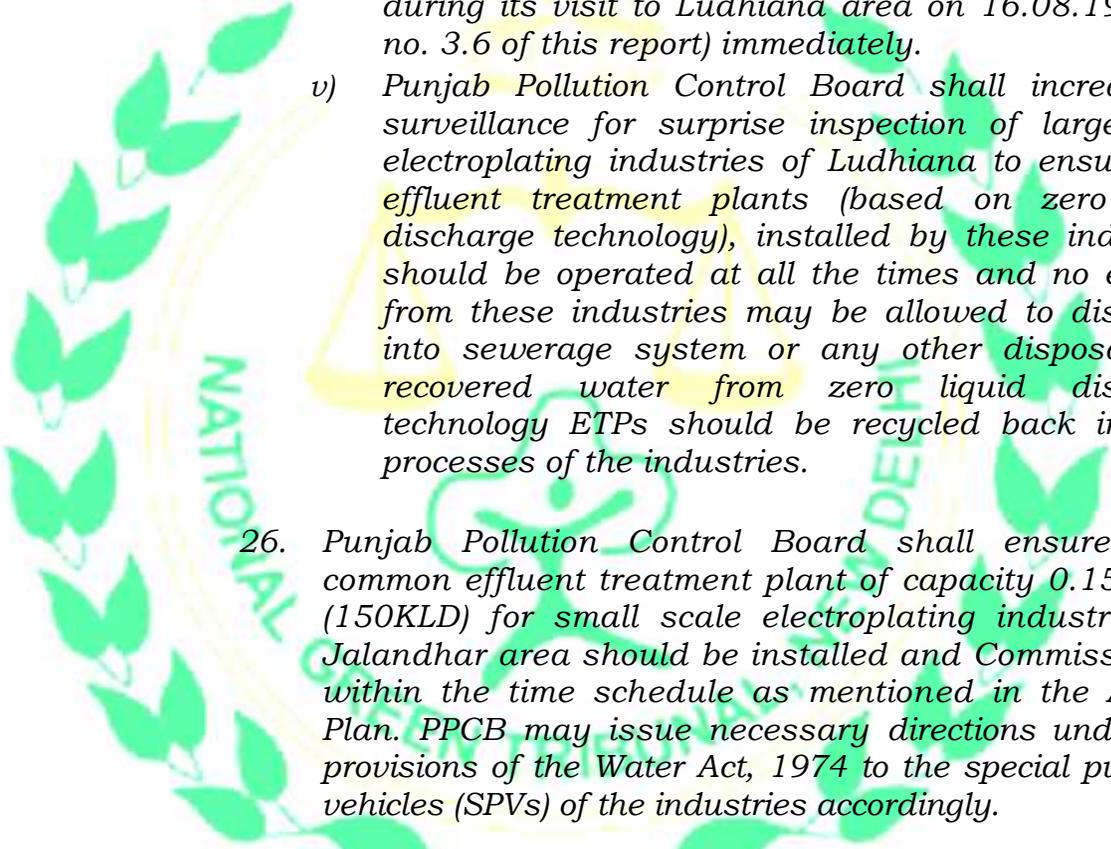
23. PPCB is monitoring the quality of pollution sources entering into Budha Nallah but no water quality of Budha Nallah is monitored.

PPCB should start monitoring water quality of Budha Nallah immediately bimonthly except monsoon period.

24. Monitoring data w.r.t water quality of kala Singhian drain indicate that there is improvement with respect to heavy metals like T.Cr, Ni, Zn, Fe and Pb. No improvement has been made with respect to BOD, COD and TSS parameters.

Therefore, Municipal Corporation, Jalandhar should close all the outlets carrying untreated sewage of colonies into Kala Singhian drain and the untreated sewage of these colonies be diverted to nearby STPs.

25. Though there is improvement in the quality of water in river Sutlej w.r.t DO, BOD, TSS and F. coli parameter up to the upstream of Buddha Nallah before its confluence to river Sutlej (Point No. 9.1.18.1 and 9.1.18.2) but after the mixing of Buddha Nallah wastewater with river Sutlej, the quality of river water is degraded due to fall in DO level from 7.5 mg/l to 2.7 mg/l and increase in value of F. Coli parameter from 915 MPN/100ml to 46000 MPN/100ml, it indicates that the contaminated effluents, generated due to discharge of untreated / partially treated sewage of Ludhiana city and industrial effluents into Buddha Nallah, has degraded the quality of river Sutlej water. **Therefore monitoring committee recommends as under:**

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- i) *Municipal Corporation, Ludhiana should install new STPs to treat 200 MLD gap in sewage treatment as per the latest norms by 31.03.2021.*
 - ii) *Municipal corporation, Ludhiana should upgrade their existing STPs (466 MLD capacity) to meet with the latest norms by 31.03.2021.*
 - iii) *The Municipal Corporation Ludhiana should plug all the 16 direct outlets, carrying untreated domestic sewage of Ludhiana City, presently being discharged into Budha Nallah and divert the same to nearby STPs. These outlets should be closed by 30.6.2020.*
 - iv) *Special Purpose Vehicle (SPV) and operator of Common Effluent Treatment Plant (CETP) based on Zero liquid discharge technology installed at Ludhiana, for small scale electroplating industries of Ludhiana and other areas should comply with the recommendations made by the monitoring committee during its visit to Ludhiana area on 16.08.19 (point no. 3.6 of this report) immediately.*
 - v) *Punjab Pollution Control Board shall increase its surveillance for surprise inspection of large scale electroplating industries of Ludhiana to ensure that effluent treatment plants (based on zero liquid discharge technology), installed by these industries should be operated at all the times and no effluent from these industries may be allowed to discharge into sewerage system or any other disposal. The recovered water from zero liquid discharge technology ETPs should be recycled back into the processes of the industries.*

26. *Punjab Pollution Control Board shall ensure that common effluent treatment plant of capacity 0.15 MLD (150KLD) for small scale electroplating industries of Jalandhar area should be installed and Commissioned within the time schedule as mentioned in the Action Plan. PPCB may issue necessary directions under the provisions of the Water Act, 1974 to the special purpose vehicles (SPVs) of the industries accordingly.*

27. *Municipal Corporation Jalandhar shall install new sewage treatment plants for treatment of 100 MLD gap in sewage quantity by 31.03.2021.*

28. *PPCB shall install Real Time Water Quality Monitoring System (RTWQMS) at the appropriate locations by 15.12.2019.*

B) River Beas

1. *Punjab Pollution Control Board is regularly carrying out monitoring of sewage treatment plants of the towns.*

- ✓ *STPs monitoring data prepared for the period January, 2018 to June, 2018 and July, 2018 to Dec, 2018 indicate that 29-30% of existing STPs were complying*

with the norms w.r.t. BOD, TSS and F.coli parameters and 86.90% of the STPs were found complying with norms of TSS parameter and 29-30% of STPs were found complying with norms of F.coli parameter and 50-71% of STPs were found complying with the norms of BOD parameter.

- ✓ STPs monitoring data prepared for the period Jan, 2019 to July, 2019 and July, 2019 to Sep, 2019 indicate that 30% of STPs have been found complying with BOD, TSS and F.coli parameters. 60-70% of STPs have been found complying with BOD parameter, 80% of STPs are found complying with TSS parameter and 30% of STPs have been found complying with F.Coli parameter.

In order to improve the performance of STPs, the Monitoring Committee recommends as under:

- Municipal Corporations/ Municipal Councils/ PWSSB or any other agency operating the STPs, should operate their STPs as per the operation and maintenance manual prepared by PWSSB.
- These departments should impart trainings to the Supervisory staff.
- In order to bring down the F. coli parameter within the norms, adequate dosing of disinfectant with proper disinfectant contact mechanism should be provided.
- Concerted efforts may be made by all the concerned departments to bring down the non compliance of STPs to significantly low level.
- OCEMS along with flow meters shall be installed at inflow, outflow and bye-pass of the STPs and record in this regard may be maintained by the STP operator.
- OCEMS and CCTV cameras on all the STPs may be ensured to be installed by 30/11/2019, failing which environment compensation may be imposed by PPCB on the defaulting STPs.

2) As per water quality monitoring data of river Beas, prepared by PPCB, for the period January 2018 to June 2018, Sep, 2018 to Dec 2018, Jan 2019 to June, 2019 and Sep 2019, the value of BOD was observed as 1-2 mg/I, which is low. The values of F. coli has been found to be varied between 37 to 790 MPN/100 ml. The overall water quality of River Beas at Harike becomes 'C' grade as per water quality criteria prescribed by CPCB. Water with quality of 'C' grade can be used for drinking purposes with conventional treatment followed by disinfection.

3) Water quality monitoring data of Holy Bein (Kali Bein) monitored by PPCB for the period of Jan 2018 to Sep, 2019 indicated that at Gurudwara Ber Sahib, the value of BOD remains between 3-4 mg/I and F-coli: 238-315 MPN/100ml. As per Water quality criteria prescribed by CPCB, the Water of Holy Bein can be utilized for bathing

purposes but it can also be utilized for drinking purpose only after conventional treatment followed by disinfection.

- 4) *For total 15 towns located on River Beas, 21 STPs are required, 10 STPs in 10 towns have been provided. As per the current status, no STP is under construction.*
- 5) *For the remaining 5 towns having sewage discharge of 16.7 MLD, for which STPs were under planning, as per current status, funds have been tied up and these STPs are likely to be completed by 31.03.2022.*

However, the monitoring Committee recommends that these STPs for 5 towns should be completed by 31.3.2021.

- 6) *Sewage treatment plants for additional 3 towns (sewage discharge 12.5 MLD) namely Talwara, Sujanpur and Rawal and its colonies, (Kapurthala) are under planning but the funds (Rs 73 crore) for the same have not been tied up by the department of local Govt.*

The committee recommends that the department of Local Govt. should tie up the funds by 31.12.2019 and these STPs should be completed and commissioned by 31.3.2021.

- 7) *As per the data, there is a gap of untreated sewage of 29.2 MLD from 8 towns (out of total 15 towns) for which no arrangements have been made to provide the funds to treat the sewage so that water quality of river Beas is further improved.*

The monitoring committee recommends that the department of Local Government should make arrangement to provide funds to treat the gap sewage discharge of 29.2 MLD in a time bound manner.

- 8) *For utilization of treated sewage of towns for irrigation, the department of soil & water conservation has completed irrigation schemes for 6 towns up to 31.12.2018 to utilize 20.5 MLD treated sewage in command area of 716 hectares of land.*
- 9) *In the year, 2019 (upto 30.9.2019), the department of Soil & Water Conservation has laid irrigation schemes to utilize treated sewage discharge of 30.2 MLD in a command area of 655 hectares of land.*

The department of Soil & Water Conservation shall commission these irrigation schemes immediately.

- 1) *In order to check the performance of effluent treatment plant and the compliance of standards by the industries, Punjab Pollution Control board should increase the inspection of industries by way of making surprise inspections and through Environment Protection Squads.*

- 2) *Municipal Council, Kapurthala and Sultanpur Lodhi should close all the outlets, carrying untreated sewage, falling into Holy Bein. The untreated sewage of these outlets may be treated either in the nearby STPs or separate treatment facilities may be provided and the treated sewage may be utilized for irrigation. No treated/untreated sewage may be allowed to discharge into Holy Bein leading to river Beas.*
- 3) *The treated sewage of Municipal Council, Kapurthala and Sultanpur Lodhi may be utilized for irrigation purposes and no treated/untreated sewage may be allowed to discharge into Holy Bein.*
- 4) *PPCB shall install Real Time Water Quality Monitoring System (RTWQMS) at the appropriate locations by 15.12.2019.”*

Consideration of the Report:

18. River Rejuvenation monitoring may generally involve following components:
 - a. Environmental Flow
 - b. Quality of the River and groundwater
 - c. Sewage Treatment Plants and Online Monitoring
 - d. Use of treated Waste Water
 - e. Septage and Faecal Sludge Management
 - f. Industrial Pollution and CETPs
 - g. Solid Waste Management and issues of Legacy Waste in micro-watersheds of vicinity
 - h. Creating public awareness through Information, Education and Communication (IEC)

However, in the present case, the data available is with reference to items c to f which we may consider but the Committee may in its subsequent reports give information with reference to the remaining items also. Possibility of setting up of biodiversity parks including wetlands at appropriate locations may also be explored.

19. Further steps need to be taken by the State of Punjab, regulatory authorities and concerned local bodies in

accordance with law after following the due procedure. The authorities may ensure that there is no discharge of untreated or partially treated pollutants or dumping of other waste in the rivers in violation of statutory provisions under the Water (Prevention and Control of Pollution) Act, 1974 (Water Act). The concerned authorities may take further action in the light of the report.

20. The Satluj and Beas rivers being identified river stretches by CPCB, directions of this Tribunal in O.A. No. 673/2018 dated 06.12.2019 will apply to the said river stretches particularly with regard to adherence to the timelines to ensure atleast in-situ remediation as an interim arrangement till 31.03.2020 failing which compensation will be payable from 01.04.2020 by the State which may be recovered from the concerned erring polluters/officers and ensuring full compliance of the action plans by 31.03.2021 failing which compensation will be payable in terms of the said order.

Letter of the Committee dated 26.11.2019 regarding non-seriousness of the officers of Government of Punjab:

21. This Tribunal also received letter dated 26.11.2019 pointing out non-seriousness of the officers of the State of Punjab and not responding to the notice of the Committee to attend significant meeting. By way of e-mail it was informed that a meeting was scheduled on 25.11.2019, Principal Secretaries, Local Government and Water Resources, Punjab along with other officers were requested to attend personally for important decision at responsible level. Not only officers did not attend,

no response was sent on account of which the meeting had to be adjourned and lead the Committee to pass a resolution as follows:-

“Serious issues regarding discharge of untreated wastewater into the Holy Bein and non-compliance to the directions issued by the Committee have been raised from time to time. the senior officers i.e. the Principal Secretary, Local Government and Principal Secretary, Water Resources were requested vide letter No. CEC/SB/2019/169, dated 25.11.2019 to participate in the meeting personally on 26.11.2019 at 11.30 AM at Forest Complex, Sector 68, Mohali so that commitment could be made at responsible level. Intimation was also sent to them on 25.11.2019 through email and telephonic message was also conveyed. No communication was received that they are unable to attend this meeting on account of their pre-occupations. The officers from other departments are available. We waited upto 11.45 AM. No message has been received from the office of the above said officers. Their attitude show non-seriousness about this extremely important issue which concerns the future generation. It also shows their disrespect to the directions issued by the Committee constituted by the Hon’ble NGT.

On account of their non-availability meeting is adjourned. Let a report be sent to Hon’ble National Green Tribunal, New Delhi to take appropriate action.”

Learned counsel for the State of Punjab has made a statement that the issue to be looked into at the highest level in the State and remedial action taken. Let the Chief Secretary, Punjab look into the matter and take further remedial action in this regard.

XI. Incidental issues:

22. We consider it necessary to clarify the procedure for functioning of the Committee henceforth. The Committees may consider all relevant issues and give its reports preferably once in two months to this Tribunal with a copy to all the concerned Chief Secretaries and SPCBs/PCC. The concerned Chief

Secretaries/SPCBs/PCC may look into the said report and give their response to this Tribunal within two weeks thereafter. The response may include the action taken by the statutory bodies or other authorities. Since the Committee constituted by this Tribunal is a Fact Finding/Executing/ Monitoring Committee and has to give status report to this Tribunal, its functioning may not be viewed as giving final directions to the regulatory bodies. However, the State regulatory body may take into account the observations of the Committee in their functioning and act their own after considering the response of the alleged polluter. The Committee will be at liberty to point out to this Tribunal that action taken by the regulatory authority was not adequate. These observations are consistent with the Orders of this Tribunal dated 21.10.2019 in O.A. No. 670 of 2018 with regard to the procedure and functioning of a similar Committee in the State of UP. Dr. Babu Ram will act as Technical Expert to the Committee henceforth.

XII. Directions:

23. Accordingly, following directions are issued:

- (i) Let the concerned authorities in the State of Punjab take steps in terms of observations and recommendations of the Committee particularly in the matter of setting up of requisite treatment plants in the State, compliance to standards by the existing STPs and fixing responsibility on officials for non-performance of duties, compliance to standards by CETP leather complex, inadequate inspections by officials of SPCB, slow pace with regard to

new/upgradation/rehabilitation of STPs, setting up of new CETPs textile and dyeing industrial cluster, setting up of new ETP for dairy waste, bridging of gap in terms of sewage quantity to be treated, interception of the drains, maintaining flow/release of fresh water in Buddha Nallah and Holy Bein, dealing of Buddha Nalla utilization of treated waste water, treatment facilities for villages, laying down pretreatment standards, desilting of drains, shifting of dyeing industries, organizing health check ups, preventing direct discharges into the drains, increased surveillance of polluting industries, training of the staff. If the timelines laid down in the order of this Tribunal dated 06.12.2019 in O.A. No. 673/2018 are crossed, compensation in terms of the directions in the said order will be payable.

- (ii) Local bodies in the catchment area may ensure that solid waste is not dumped into the rivers or the drains connected to the rivers.
- (iii) Future functioning of the Committee will be in terms of clarification as per para 22 above.
- (iv) Let the Chief Secretary, Punjab look into the matter as mentioned in Para 21 above and take further remedial action.

List for further consideration on 22.04.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

December 12, 2019
Original Application No. 916/2018
(Earlier O.A. No. 101/2014)
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