

Item No. 01

Court No. 1

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

Original Application No. 95/2018
(M.A. No. 1029/2018 & I.A. No. 326/2019)

Aryavart Foundation

Applicant(s)

Versus

M/s Vapi Green Enviro Ltd. & Ors.

Respondent(s)

Date of hearing: 28.08.2019

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

For Applicant(s): Mr. Raj Panjwani, Sr. Advocate with Mr. Jitendar Singh, Advocate

For Respondent (s): Mr. Gopal Jain, Sr. Advocate, Mr. M.S Kalra, Mr. Sandeep Mishra, Advocates for R-1
Ms. Nidhi Jaswal, Advocate for GPCB
Mr. Ritvij Bhatt, Advocate for R-6
Mr. Shlok Chandra, Advocate for CPCB

ORDER

1. The question for consideration is remedial measures against pollution of river Daman Ganga and drain *Bill Khadi* in District Valsad in Gujarat on account of discharge of effluents by industries and CETP in Vapi Industrial Cluster.
2. The matter was earlier reviewed vide order dated 13.05.2019. It will be appropriate to refer to the relevant part of the said order:

“BACKGROUND

2. According to the applicant, pollution is being caused by discharge of untreated polluting industrial effluents by more than 500 industrial units in Vapi Industrial Cluster. The CETP operator, Respondent No. 1, M/s. Vapi Green Enviro Limited (Old name – Vapi Waste & Effluent Management Co. Ltd.) and the defaulting individual industrial unit are liable to be rendered accountable by way of prohibitory and remedial measures. The river and the drain in question are required to be restored. The applicant has referred to a study carried out in February, 2017 by NEERI finding huge water pollution in the river as follows:-

“The fish bioassay study on the final treated effluent sample discharged from Vapi CETP into the river indicates 100% mortality at 50, 75 and 100% waste water concentrations within 24 h exposure time (Plate 4.56). The experimental results presented in Table 9.6 reveal toxic nature of the treated effluent from Vapi CETP. Thus, it can be concluded from the fish bioassay study that the final treated effluent from Vapi CETP with high colour intensity, organic and inorganic matters is having toxic effect on aquatic life of Daman Ganga River. Therefore, Vapi CETP effluent must be treated adequately to remove the pollution parameters before discharging into Daman Ganga River.

The final treated effluent discharge from the existing Vapi CETP (D-11A) has not only caused deterioration of the river water quality with respect to the colour and recalcitrant parameters but also has imparted toxic effect on aquatic life of Daman Ganga River (segment-II). Therefore, Vapi CETP must be scientifically upgraded for colour and recalcitrant pollutants removal including reject management with a final aim of achieving zero liquid effluent discharge as delineated under Section 11.0. This will result in recovery of good quality water, which can be reused as process water by the industries, leading to fresh water conservation.”

3. The Gujarat Pollution Control Board (GPCB) carried out inspection on several dates which confirmed pollution. Notices were issued under Sections 33A and 25 of the Water (Prevention and Control of Pollution) Act, 1974 (Water Act) and under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (Air Act) to the erring parties but no satisfactory result was received and pollution beyond statutory norms continues.

EARLIER PROCEEDINGS:

4. This Tribunal reviewed the matter at length vide order dated 11.01.2019 for preventive and remedial measures in the matter.

The Tribunal heard the applicant, the CETP Operator, the CPCB, the GPCB and also some of the polluting units who were before the Tribunal. Following questions were framed vide order of this Tribunal dated 11.01.2019:

- i. Whether the CETP operator and its member units have failed to comply with the conditions of consent and norms of environment and caused pollution? If so, the manner in which they are to be held accountable?**
- ii. Does the functioning of CETP in the present case and of CETPs in general in the country calls for review and modification?**
- iii. Whether the State Pollution Control Board in the present case and regulatory authorities have not performed their duties as per the expectation and if so, what are the steps necessary to achieve the objects for which the Pollution Control Boards/Committees have been constituted under the Water Air and the Air Act?**
- iv. What are the conclusions and what are the directions required to be issued by this Tribunal?"**

5. With reference to question no. 1, it was held that CETP operators and member units had failed to comply with the conditions of consent in view of inspection reports dated 28.09.2018 and 10.01.2019 and in the circumstances 'Polluter Pays' principle can be invoked by the statutory regulatory authorities to determine the extent of accountability of the industrial units. The report dated 28.09.2018 showed:-

"It is observed that Inlet quality - COD, NH₃-N and TSS are not meeting with inlet norms whereas COD and TSS at outlet of CETP are not meeting with Outlet norms.

CPCB, RD, Vadodara carry out quarterly monitoring of CETP, Vapi. The latest monitoring carried out on 11.08.2018 and results are provided at Annexure-III. It is observed that Inlet quality - TSS, FDS, BOD, COD and NH₃-N are not meeting with inlet norms whereas TSS, FD, COD, NH₃-N & Phenols at outlet of CETP are not meeting with outlet norms.

M/s VGEL (CETP) reportedly takes internal actions among the defaulting member units as per M/s VGEL monitoring but so far not provided the list of defaulting industries to GPCB though it is expected as per the Hon'ble NGT Order dated 29.08.2018, and also as per notices of direction issued by GPCB.

M/s VGEL (CETP) has not provided any action plan to comply with both inlet as well as outlet norms during the above review."

6. Report dated 10.01.2019 also confirmed non-compliance at frequencies noted in the report with reference to the relevant parameters. The fact that untreated effluents were being discharged into the water bodies was not only reported by CPCB and GPCB but also accepted by the CETP operator. The stand of GPCB was that Notice has been issued to CETP operator as well as defaulting industrial units for remedial action.

Accordingly, a Committee was constituted to hear the individual polluting units and to quantify the amount of liability.

7. **Under the issue no. 2, after referring to several cases considered by the Tribunal, it was held that there was large scale failure of CETP systems in general in the light of observations of the Tribunal, an Expert Committee was required to review the same.**

8. **Under issue no. 3, the Tribunal found failure of mechanism of Pollution Control Boards in ensuring pollution free environment which is the mandate of the Constitution and the object of Water Act, Air Act, the Environment (Protection) Act, 1986 and other such laws. The fact that 351 river stretches are identified as polluted by the CPCB, 102 cities in terms of air quality are identified as non-attainment cities and 100 industrial clusters have been identified as polluted is clear evidence of failure of compliance of environment norms and ineffectiveness of the present statutory bodies constituted with that mandate. Proceedings in the present case established the failure of Gujarat State Pollution Board in performing its duty of preventing pollution and taking adequate remedial action against polluters. In spite of severe pollution, no conviction was reported. Polluters were not shown to have been prosecuted. It was noted that the Hon'ble Supreme Court in *Techi Tagi Tara Vs. Rajendra Singh Bhandari & Ors.*¹ and also the Parliamentary Standing Committee on Science and Technology, Environment and Forest had found the failure of pollution boards. Still, adequate remedial measures were not being taken by the concerned authorities by way of legislative or executive intervention. Clean Environment being part of Fundamental Right and 'Sustainable Development', 'Precautionary principle' and 'Polluter Pays principle' being statutorily required to be enforced by this Tribunal under Section 20 of the National Green Tribunal Act, 2010 (NGT Act), to prevent and remedy the acknowledged level of high pollution in the country resulting in death and diseases, the Tribunal held that there was need for Performance Audit being conducted in respect of functioning of all the PCCs and PCBs of the Country and in the light of such findings, further action was required. The directions issued vide order dated 11.01.2019 include that constitution of a Committee to review functioning of CETPs comprising**

¹ (2018) 11 SCC 734

representatives of MoEF&CC, CPCB and NEERI and Performance Audits by CPCB of all the SPCBs and PCCs, constitution of a three Member Expert Committee by the MoEF&CC to consider compliance of mandate of the law laid down by the Hon'ble Supreme Court in *Techi Tegi Tara (supra)*, to suggest guidelines for effective working of SPCBs to bring air and water quality within norms.

9. Under issue no. 4, it was concluded that the CETP operator and the concerned units had failed to comply with the environmental norms and were required to be made accountable within the framework of the regulatory regime. The Regulatory regime provides for preventive as well as remedial action of prohibiting polluting activities, including closure, prosecution as well as recovery of compensation on 'Polluter Pays' principle. Pending such action, interim amount of damage for the pollution already caused so as to recover cost of restoration based on prima-facie opinion could be recovered. CETP mechanism was required to be reviewed and so was the functioning of the regulatory regime in the form of SPCBs. Accordingly, the Tribunal directed constitution of a Committee to assess the extent of damages, payment of interim compensation by CETP operator as well as erring industries which was to be utilized by the CPCB for restoration. **The Tribunal directed performance audit of all the SPCBs/PCCs and also directed to review of regulatory mechanism in the light of observations of the Hon'ble Supreme Court in *Techi Tagi Tara Vs. Rajendra Singh Bhandari & Ors., (2018) 11 SCC 734.***"

3. The above background shows that based on objective data it was clearly established that the CETP in question was operating in environmental norms and the pollution caused was required to be controlled by stopping the polluting activity and making the polluters accountable on the 'Polluter Pays' principle. Conscious of the fact that large number of industries are connected to the CETP which may be required to be made accountable for causing pollution, the Tribunal made it clear that statutory authorities may give hearing to the affected parties and perform their duties consistent with the principles of *natural justice*. For giving a direction to the statutory authorities in the light of clear evidence of pollution, it was not necessary for the Tribunal to hear individual industries in view of the

fact that such hearing is to be given by the regulatory authority. Since the pollution control board had failed to perform its duty, this Tribunal was required to consider the remedial steps necessary including compliance of observations in the judgement of the Hon'ble Supreme Court with regard to the manning of the regulatory bodies.

4. The Tribunal, in its hearing on 13.05.2019, considered the report dated 09.05.2019 submitted by the joint Committee with regard to the status of compliance of environmental norms by the CETPs as well as individual industrial units. It was observed:

“20. The conclusion of the Committee was that there is increase in concentration of pollutants:

***“As observed from results of CPCB, GPCB and NEERI, there is increase in the concentration of pollutants post CETP discharge at Namdha and Jari Causeway along the Damanganga river vis-a-vis river water quality at GIDC weir (which can be considered as river water without effect of pollution). Aesthetically, the impact of pollution in the river Damanganga is observed for about 13 km from Vapi weir. This is supported by the CSIR-NEERI Report (2016-2017). The report also stresses on the toxicity of the CETP wastewater on the to fish. Based on the Interactions with local community and Fisheries Department of UT of Daman & Diu, it was conveyed that fishing is not carried out on the stretch downstream of CETP discharge due to river pollution. However data on marine fish catch in the sea near Daman is available.*”**

Also based on the historical data of CPCB, the quantum of pollution load indicated decreasing trend of major pollutants such as COD and BOD over the years. This is in line with the improvement in the quality of treated effluent of CETP though CETP is not meeting with outlet standards for parameter COD, TDS, and Colour. Hence, upgradation of CETP treatment scheme is paramount to reduce pollution reaching the river Daman Ganga. There is improvement in the river water quality as per priority categorisation from Priority - II (2010) to Priority - IV (2015 & 2018) as inferred from CPCB report for the river stretch: Kachigaon to Vapi (GIDC weir to Jari Causeway (Priority - I being most polluted and Priority -V being best rating). Though, river stretch falls under Priority IV (based

on BOD), presence of other pollutants discharged from the CETP outlet affected the biological and physicochemical environment of the river.

The impact on the coastal marine environment (4 beaches-Tadgam, Jampore, Devka and Tithal) due to industrial discharges through rivers/drains in the area assessed by National Institute of Oceanography (NIO) (2018) and report has stated that there is no evidence of significant deterioration of environmental quality of the beachfront environment. The waters of these 4 beaches contained high load of fecal coliform (FC) in water and sediment suggesting contamination by sewage. The study conducted by CSIR-NEERI also indicated pesticides concentrations at levels below the detectable levels of instrument analysis.

In view of the consideration of the steps for the restoration of the environment of river Damanganga suggested based on treatment of pollutants and discharge as per environmental norms, the cost of restoration comes about Rs. 751 crore for over ground pipeline network from industries to GIDC manhole/sump, quality & quantity monitoring SCADA system, upgradation of CETP, construction of STPs, management of MSW in the area.

As there are many methods for environment damage estimation and all of them use reasonable assumptions, the committee has used two different approaches to calculate the damage. While Approach - I is based on the economic valuation of eco-services rendered by the river considering a representative critical pollutant (COD) for damage estimation. Approach-II is based on the CETP discharge outlet norms for the pollutants: COD, NH₃-N, TSS, and BOD, independent of river water quality. Using two alternative methods the cumulative economic damages are estimated to be in a comparable range (**INR 41.61 Cr for the Approach-I and INR 67.00 Cr for Approach-II during the year 2013 to 2018**).

Using the recent six years (2013-2018) data and employing two alternate methods, the yearly average economic damages are estimated to be in the comparable range of **INR 6.93 Cr/year (Approach-I) and INR 11.17 cr/Year (Approach-II)**.”

24. Learned Counsel for the applicant also points out that the Committee has not factored in the level of pollution based on category of industries as red, orange and green which depends on pollution protentional. Even a small industry may be causing more pollution than large industry. Merely categorization large, small and medium without considering the extent of pollution on account of nature of activity of such industry is not correct application of the ‘Polluter Pays’ principle. The cost of restoration having been found to be more than Rs. 750 Crores which includes multiple of factors. The cost estimate for River

Restoration Programme which includes CETP upgradation, STP and MSW facility. The Committee has undertaken economic valuation and damage assessment by two methods. By following 'shadow cost of pollution load and benefit transfer method' the cumulative damage of Rs. 67.00 Crores has been estimated due to excess discharge of pollutants in river ecosystem in last six years between 2013-18 with average damage of Rs. 11.17 Crores each year to the environment. However, by following 'Direct Benefit Method' which is based on The Economics of Ecosystem and Biodiversity (TEEB) project set up in 2007 and led by United Nations Environment Programme (UNEP) the damage that can be attributed to pollution from CETP in excess of stipulated standard of COD comes to Rs. 41.61 Crores for six years. Right application of the 'Polluter Pays' principle requires that the polluter should be required to pay the cost of restoration. The compensation to be recovered should be deterrent. In the present case, compensation has been based on a formula worked out by the CPCB which cannot be universally applied without reference to cost of restoration and may be deficient in the present case having regard to the high cost of restoration. The amount of compensation should on account of wide spread pollution broadly also correspond to the cost of restoration which has not been done.

25. The Committee has assessed compensation only for 44 units while the number of polluting units is more than 500. GPCB failed to give list of all the polluting units. GPCB has not acted on 'Precautionary' principles by closing the polluting units. Reliance has been placed on the order of this Tribunal dated 09.04.2019 in O.A. No. 125/2018, Arvind Pundalik Mhatre Vs. Ministry of Environment and Forest & Climate Change & Ors., wherein this Tribunal in similar circumstances directed closure of polluting units to uphold the mandate of the Water (Prevention and Control of Pollution) Act, 1974. It was observed as follows:

"14. Accordingly, we direct the MPCB to forthwith suspend the Consent to Operate to the industries in the area not meeting the norms and permit them to operate only after remedial steps are taken. Steps in this direction be taken within two weeks from today. Whether a particular industry is complying or not complying with the norms is the matter to be decided by the MPCB in accordance with law. Action taken report be furnished to the Committee and the Committee may take a final call in the matter, in case of any surviving issue."

26. In the present case in spite of acknowledged pollution, the polluting units are continuing. There is no material to show launching of prosecution. The approach of the GPCB is, thus, patently soft towards the violators of law which itself shows failure of the regulator to protect and restore the environment.

31. **Accordingly, we direct the Committee to make fresh calculation based on actual period of pollution during five years preceding 26.02.2018, the date on which this application was filed i.e. from 26.02.2013 till the date of calculation.** The Committee has only gone by the category of large, small and medium industry and not by the extent of pollution by the category of the industry concerned as red, orange and green. The Committee may also keep in mind the need to correlate the compensation to be recovered to the cost of restoration in the facts of the present case. The GPCB should furnish list of all the polluting units. We find that the approach of the GPCB has been too soft and adequate action has not been taken against the law violators by way of prosecution and closure of polluting activities which is a failure of the regulator. If cost of restoration is not recovered from polluters, the regulator and not the victim should be responsible for the loss.

32. **In view of the material on record appearing from the report extracted above, prima facie, direction to deposit interim compensation in terms of order dated 11.01.2019 is fully justified and needs no change.** It is patent that the interim amount fixed by this Tribunal may not only be inadequate to meet the loss caused by pollution and the cost of restoration. The prayer for waiving the requirement of interim deposits has no merit and is dismissed. I.A. Nos.176/2019 to 187/2019, I.A. Nos. 190/2019 to 207/2019, I.A. Nos. 227/2019 to 238/2019, I.A. No. 263/2019 said to be for variation of order dated 11.01.2019 will stand dismissed.

33. Fresh report of the Committee may be furnished within two months by e-mail at ngt.filing@gmail.com. Any further submissions of the parties may be given to the Committee through CPCB. We also add a representative of MoEF&CC to the Committee for making the assessment.

34. GPCB may furnish list of all the polluting units in addition to list of 44 units earlier given and online data as may be necessary to determine damages for period from 13.02.2013 till date to the Committee and perform its duties as regulator in respect of CETP as well as all defaulting units by way of closure to stop polluting activities and prosecution for the violation of law which had already done.

35. **In terms of order dated 11.01.2019 and the above order, following steps may be completed:**

- i. **Report be submitted for review of functioning of CETPs in the country as per direction in Para 55 (v) in order dated 11.01.2019. CPCB may coordinate.**
- ii. **Performance audit of SPCBs/PCCs may be completed as per para 55 (vi) in order dated 11.01.2019.**

- iii. MoEF&CC may give status of report of steps to revamp the regulatory bodies as directed in para 55 (vii) and (vii.a) in order dated 11.01.2019.*
- iv. Compliance of requirement of deposits be made in terms of para 55 (ii) of order dated 11.01.2019 forthwith to the extent not made.*
- v. The Committee to assess the compensation and give its revised report within two months. MoEF&CC may nominate its representative as part of Committee constituted in terms of para 55 (i) vide order dated 11.01.2019.”*

Proceedings before the Tribunal on 19.08.2019

5. In the light of the above background we took up the matter on 19.08.2019. After considering the above report dated 14.08.2019 received from the Committee on the subject of performance of CETP, the Tribunal sought information about the units responsible for discharging effluents beyond norms in CETP inlet resulting in CETP outlet not being as per standards. The Tribunal completed the hearing on all other aspects.

Today's Proceedings before the Tribunal

6. Written submissions have been filed in the course of hearing today on behalf of Respondent No.1 with regard to identification of individual contributors to pollution of inlets in the CETP. It is stated that the effluents of the individual are collected in a common drain. CETP has no opportunity to assess the inlet norms of the individual industries. At the same time, list of defaulting industries furnished by the CETP to the GPCB on 01.02.2019 has been filed as an annexure to the written submissions containing names of the following industries:

1. Chemodist Industries
2. Dalmia Poly Pro Industries Pvt. Ltd.
3. Haatkesh Chem & Engind
4. Jayshiv Chemicals Pvt. Ltd.
5. Nylo Speciality Colours
6. Pearl Colour Industries

7. Praveen Industries
8. Rainbow Chemicals
9. Ratna Products
10. Skyline Polycats Pvt. Ltd.

7. No other submissions have been advanced even though the written submissions purport to raise certain objections. We may need to mention that as is clear from the background referred to earlier the grievance being considered by this Tribunal is violation of environmental norms resulting in damage *inter alia* to river and drain and the public health. We have already noted earlier that this Tribunal has to enforce the “Sustainable Development”, “Precautionary” and “Polluter Pays” principles under Section 20 of the NGT Act. In the course of such enforcement, the Tribunal can require the statutory bodies to perform their duties after verifying the data and complying with the natural justice. An aggrieved party has statutory remedies against orders of the statutory regulatory bodies. The reports which have been furnished to the Tribunal can certainly be taken into account in absence of meaningful objection thereto.

8. We now proceed to deal with following reports which have been filed in pursuance of earlier consideration and directions by the Tribunal, as noted above:

- I. Report dated 14.08.2019 from CPCB in respect of performance of CETP;
- II. Report dated 05.08.2019 furnished by the CPCB on behalf of the joint Committee with regard to payment of compensation by the polluting industries;
- III. Report dated 10.07.2019 from the CPCB on the subject of performance audit of the State PCBs/PCCs; and

IV. Report dated 17.08.2019 from the MoEF&CC on the subject of compliance of judgment of the Hon'ble Supreme Court *Techi Tagi Tara Vs. Rajendra Singh Bhandari & Ors.*²

I. Report dated 14.08.2019

9. The report dated 14.08.2019 shows that on analyzing the samples the influent to CETP is not meeting parameters. Final outlet is not meeting the standards for TSS, FDS, COD and BOD parameters. Accordingly, remedial action has been recommended as follows:

“3. RECOMMENDATIONS:

- *CETP should up-grade treatment system/put more efforts in operation for meeting with outlet norms.*
- *The CETP needs to regulate the discharge of member units to meet the inlet standard, especially concentration of FDS parameters is more than 3.5 times than the prescribed standard.*
- *Proper calibration and continual maintenance of OCEMS needs to be done to ensure reliable results of monitored parameters.*
- *List of defaulting industries should be regularly (monthly) share with GPCB for taking suitable action against these industries.*
- *CETP should regularly send the sludge and salt (generated from Common Spray Dryer) to CHWTSDf for proper disposal.”*

10. Thus, there is need to reduce the load of inlet so as to ensure that inlet parameters are complied with by contributing industries. This may require closing identified source of such inlets or reducing the corresponding pollution load of the identified member units. It is not difficult to identify polluting units because there exists monitoring mechanism of outlets of individual units. Moreover, CETP itself claims to have given a list in this regard to the GPCB as already noted. The joint Committee of CPCB and GPCB can determine the

² (2018) 11 SCC 734

source of polluting inlets and take further action to correspondingly reduce the pollution load by issuing appropriate directions. Further, the CETP needs to be upgraded and till such upgradation is done, the inlet quantity and load needs to be reduced as to match the current capacity of the CETP. The same Committee can also determine the manner in which the CETP may reduce its intake so that its outlet complies with the parameters pending steps for further upgradation. The joint Committee may accordingly take appropriate further action in the matter and file a compliance report before this Tribunal before the next date.

II. Report dated 05.08.2019

11. Report dated 05.08.2019 furnished by the CPCB on behalf of the joint Committee refers to visit to CETP and river DamanGanga, sampling of CETP Vapi and different locations of river Damanganga, Information/Data collection from CETP operators, GPCB, CPCB, other departments, reports of NEERI, NIO, hearing to defaulting industrial units and CETP operators. It is found that CETP was not able to meet the outlet norms as some of the member units are discharging effluents without proper treatment. CETP is unable to treat refractory COD & colour on account of high salt concentration. Impact of pollution is observed for about 13 km from Vapi weir. There is toxicity of CETP waste water affecting the fish. The water from the river is not consumed downstream of GIDC weir either for drinking or irrigation. The pollution load. Upgradation of CETP is necessary. Compensation to be recovered from individual industry members has been assessed to be Rs. 25.36 crore and from CETP Rs. 92.36 crore as against the cost of restoration being assessed at Rs. 728.72 crore

which includes laying of pipelines, MSW management, sewage collection system. The relevant part of the report is reproduced below:

“The CETP was commissioned in the year 1997 and has made several upgradations in unit treatment and process operations over the years. Recently, the CETP augmented with Common Multiple Effect Evaporator & Common Spray Dryer for High COD & High TDS wastewater. It was observed from the results of analysis of the inlet and outlet wastewaters from multiple data sets of CPCB, GPCB & VGEL that there was an improvement over the years in treated wastewater quality which is significant in 2016. However, the CETP was not able to meet outlet norms broadly for COD, FDS, Chlorides, Sulphates and Color. Major reasons for the non-compliance of GPCB norms are briefly presented hereunder:

- 1. Some of the member units are discharging without proper treatment to their process wastewaters prior to discharge into the CETP. Failure to adhere to the CETP Inlet quality norms is one of the reasons for the CETP not meeting the final treated effluent quality.*
- 2. The presence of refractory COD & Colour in the presence of high salt concentration becomes difficult to treat and meet statutory norms under the existing treatment scheme.*

Restoration of the environment of river Damanganga requires following broad steps which are suggested based on treatment of pollutants and discharge into river Damanganga as per environmental norms:

- Improvement/up-gradation in the wastewater collection through surface/over ground pipeline from industries to manhole/sump of GIDC drainage network and to remove all underground discharge line of industrial unit to manhole of underground GIDC drainage. Further, it is recommended to lay surface pipeline conveyance system up to CETP, wherever technically feasible by removing underground existing pipeline.*
- Restoration of existing & construction of new storm water drain to prevent entry of wastewater into the natural drains in the industrial estate.*
- Monitoring and analysis of all industries including all streams of wastewater, product wise and shall identify High COD/High TDS (refractory COD) Stream for identification of any discrepancies which will be helpful in taking actions.*
- Quality & Quantity Monitoring with SCADA-PLC system for controlling quantity & quality of the effluent discharged by each of the member units.*
- Proper operation, maintenance and up-gradation of CETP to meet the norms prescribed by GPCB*
- Strict vigilance, identification and action against defaulting industries.*

- Proper design and construction of stormwater drains and sewerage network, STP within the local bodies
- STPs shall be designed to reuse of treated sewage for industrial reuse/ landscaping / firefighting and agriculture purpose.
- Prevent dumping of solid waste from towns and villages on the banks of river.
- Minimum environmental flow of Damanganga river for release of water from the Madhuban Dam.
- Afforestation
- River front development
- Agricultural and farm yard management surrounding the river path.

In view of the consideration of the steps for the restoration of the environment of river Damanganga suggested based on treatment of pollutants and discharge as per environmental norms, the cost of restoration including the projects from concerned departments comes about Rs. 731 - 751 crore for over ground pipeline network from industries to GIDC manhole/sump, quality & quantity monitoring SCADA system, upgradation of CETP, construction of STPs, management of MSW in the area by concerned agencies.

Table 8.1: Compensation and estimated cost of projects from concerns agencies for restoration of Damanganga:

No.	Agency	Amount (in crore)
	Compensation amount from industries and CETP	
1	Compensation from individual industry members (As per Table 7.4, 161 industries)	25.36
2	Compensation from Vapi CETP	92.36
	Cost of the other projects of concern Agencies/Departments	
3	Overground pipe line by GIDC (GIDC Vapi)	95.00
4	MSW Management (Vapi Municipal Council for Vapi Town)	11.00
5	STP Plant & Sewage Collection system in Vapi Area - 60 MLD (Vapi Municipal Council)	233.00
6	STP Plant & Sewage Collection system in Daman area - 70 MLD (Daman Municipal Council)	272.00
	Total	728.72

The above table shows correlation with cost of restoration in consideration of the nature of work and the source of the fund for restoration of river Damanganga is Rs. 728.72 Crore against the total cost of restoration estimated Rs. 731 - 751 Crore (mentioned in Chapter 6, Table 6.1). The total Environmental Compensation from individual industries and CETP (Vapi) is calculated to be Rs. 117.72 Cr (25.36 Cr + 92.36 Cr).

As per the interim order dated 11.01.2019 & 13.05.2019, 41 defaulting industries as per earlier list and CETP has already

paid the interim environment compensation, whereas 3 industries have not submitted the interim environment compensation for whom GPCB have already issued the closure directions.

Based on the Hon'ble NGT directives, various actions have been identified to restore the river Damanganga and reduce environmental damage in the future. Few agencies such as GIDC, VGEL CETP, GPCB, CPCB, Municipality/local bodies are identified which are in concern for restoration. **The committee's major recommendations are summarized below (as detailed given in section 5.1.1 to 5.1.4 Chapter - 5).**

ACTIONS TO BE UNDERTAKEN BY GIDC/NOTIFIED AREA AUTHORITY

- It is recommended to provide the surface/over ground pipeline from industries to CETP for proper conveyance of effluent wherever technically feasible by removing existing underground pipeline.
- Restoration of any damaged stormwater drains to prevent entry of wastewater into the natural drains in the industrial estate and prevention of entry of industrial wastewater in Bill khadi and its flow downstream to GIDC estate.
- Proper design and construction of stormwater drains within the industrial estate where it is not provided particularly in low lying areas to (i) prevent stagnation of storm water contaminated with industrial wastes (ii) to prevent indiscriminate entry of contaminated storm water into natural drains.

ACTIONS TO BE UNDERTAKEN AT CETP LEVEL

- CETP shall carry out monitoring and analysis of all industries including all streams of wastewater, product wise and shall identify High COD/High TDS (refractory COD Stream). Based on that, CETP shall monitor the inlet quantity to CMEE/Spray dryer industry wise and shall submit data to GPCB monthly for identification of any discrepancies which will be helpful in taking actions.
- All the member units have to provide a system for the quantity and quality of the effluent discharge through SCADA-PLC system and shall observe discharge schedule and permitted volume.
- All the sump rooms shall be equipped with auto samplers for controlling the quality of effluent discharged by members, which can be accessible by VGEL. If require, it should also be accessible for GPCB.
- Proper operation, maintenance and up-gradation of CETP to meet the norms as prescribed in **Chapter 6 (Table 6.1)** or equivalent advanced technology related to effluent profile.

ACTIONS TO BE TAKEN AT REGULATORY LEVEL

- Continuous strict vigilance, identification and action against defaulting industries.
- Vapi GIDC to ensure that the process wastewaters from industries do not enter the storm water drains. It may be

achieved through the construction of dykes or tanks by Industry to collect and introduce into the wastewater treatment scheme.

ACTIONS TO BE TAKEN BY LOCAL BODIES (MUNICIPAL COUNCIL)

- *Proper design and construction of stormwater drains and sewerage network within the local bodies where it is not provided particularly (i) in low lying areas to prevent stagnation of storm water contaminated with wastes (ii) to prevent indiscriminate entry of contaminated storm water into natural drains and finally river Damanganga.*
- *Control domestic/commercial wastewater (sewage) discharges into the River through proper collection and treatment from residential and commercial areas and treatment through STPs. The STPs shall be designed to reuse of treated sewage for industrial reuse/ landscaping / firefighting and agriculture purpose.*
- *Prevent dumping of solid waste from towns and villages on the banks of river.*
- *Identification of plots for solid waste landfill development.*
- *The appropriate authority should take care of their concern projects for restoring the environment.”*

12. Learned Counsel or the applicant has referred to the report of the Committee to point out that the Committee has given hearing to the CETP and all individual units and discussed the individual cases for determining the amount of compensation. However, the period for which the compensation has been assessed is not the entire period for which the pollution continued but reckoned only with respect to the date of inspection. It cannot be presumed that there was no pollution earlier. The polluter is to prove the period during which no pollution was being caused. Whatever be the “best judgement assessment” for the past, presumption of no pollution is not justified. The compensation assessed may thus need to be enhanced. We are of the view that this aspect can be revisited by the joint Committee in light of the submission made by the Learned Counsel for the applicant. Till such consideration, the amount assessed can be collected as an interim compensation. Further action may accordingly

be taken jointly by GPCB and CPCB. . Compliance report in this regard may be filed before the next date.

III. Report dated 10.07.2019

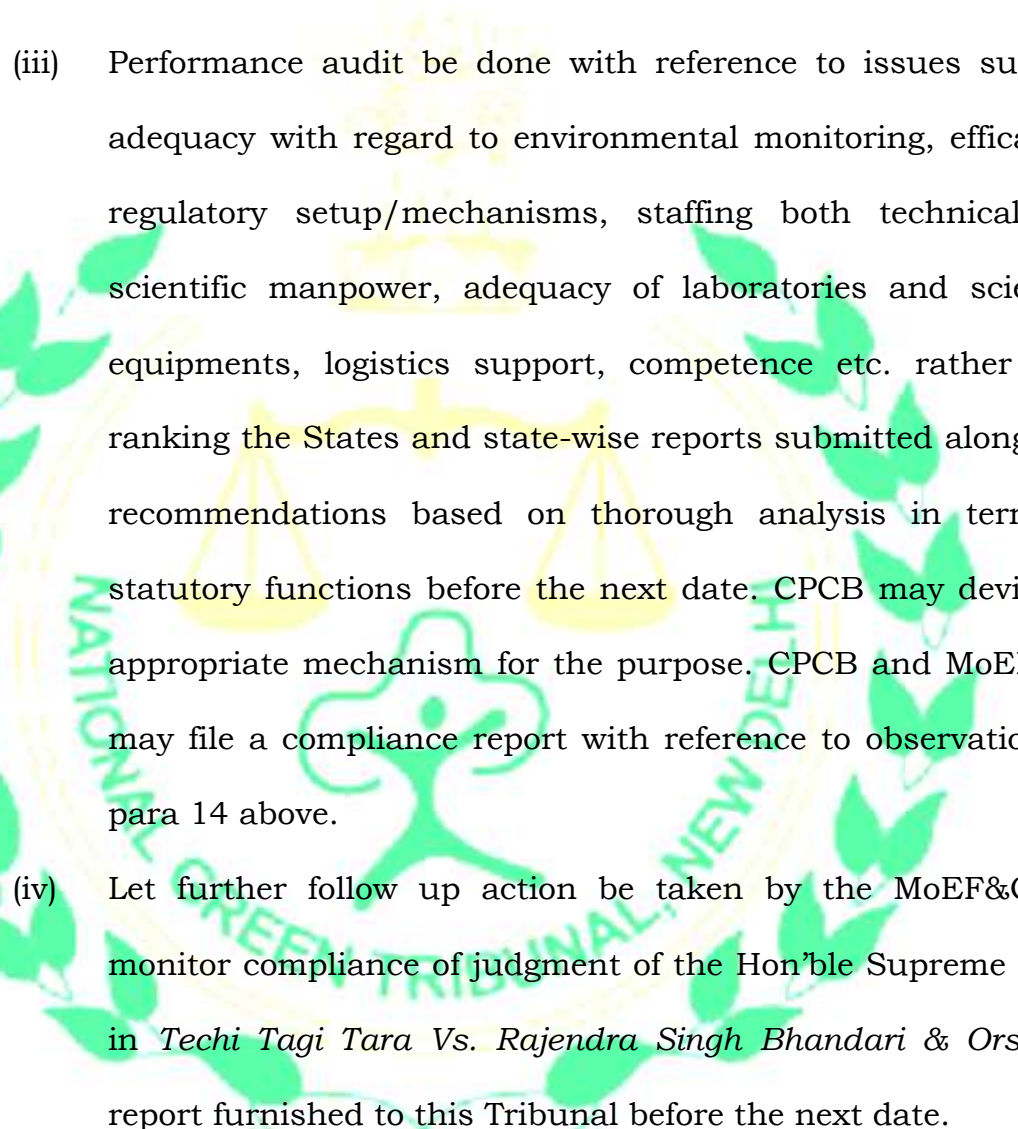
13. Report dated 10.07.2019 filed by the CPCB is on the subject of performance audit of the State PCBs/PCCs. The report merely ranks the PCBs/PCCs, without proper assessment of the functioning.
14. What is expected is performance audit on issues such as adequacy with regard to environmental monitoring, efficacy of regulatory setup/mechanisms, staffing both technical and scientific manpower, scientific equipments, logistics support, competence etc. rather than ranking the States. Let the same be done and state-wise reports submitted based on thorough analysis in terms of statutory functions. CPCB may devise an appropriate mechanism for the purpose. We also direct that all vacant positions in the SPCBs/PCCs may be filled up at the within four months and the Chief Secretaries of the States/UTs may ensure that there is no embargo in doing so, so that effective steps for protection of environment can be taken. It is also necessary to direct that the laboratories established by the SPCBs/PCCs, at headquarters as well as regional centers, are duly recognized for purposed of enforcement of environmental laws. The concerned authorities may take further steps accordingly. The CPCB may compile a report and file before the next date. SPCBs/PCCs may utilize the funds available with them, under EC/Consents or other heads instead of approaching other authorities and on that pretext not performing their essential function. The MoEF&CC may consider constituting an appropriate authority for the purpose with

representatives from Central and State authorities on the pattern of Compensatory Afforestation Fund Management and Planning Authority (CAMPA) or otherwise. A compliance report be filed by the MoEF&CC before the next date.

IV. Report dated 17.08.2019

15. Report furnished on 17.08.2019 by the MoEF&CC is on the subject of compliance of judgment of the Hon'ble Supreme Court in *Techi Tagi Tara Vs. Rajendra Singh Bhandari & Ors.*³. The report shows that further action is required for compliance of judgement of Hon'ble Supreme Court.
16. Let further follow up action be taken by the MoEF&CC to monitor compliance of judgment of the Hon'ble Supreme Court in *Techi Tagi Tara Vs. Rajendra Singh Bhandari & Ors.* and report furnished to this Tribunal before the next date after ascertaining that uniformity in terms of qualifications, experience and special skill sets is adhered to especially with regard to key position of Chairman and Member Secretary of SPCBs/PCCs.
17. In view of the above discussion our directions are summed up as follows:
 - (i) Let the joint Committee take action in terms of para 10 above on the subject of corresponding reduction in load to ensure compliance of norms of inlet in CETP so as to ensure that inlet and outlet of CETP are as per norms and file compliance report before the next date.

³ (2018) 11 SCC 734

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- (ii) With regard to the past violations, compensation as assessed by the Committee in respect of individual units as well as CETP is liable to be recovered as interim compensation on 'Polluter Pays' principle. Further action may be taken jointly by GPCB and CPCB. Compliance report in this regard may be filed before the next date.
- (iii) Performance audit be done with reference to issues such as adequacy with regard to environmental monitoring, efficacy of regulatory setup/mechanisms, staffing both technical and scientific manpower, adequacy of laboratories and scientific equipments, logistics support, competence etc. rather than ranking the States and state-wise reports submitted along with recommendations based on thorough analysis in terms of statutory functions before the next date. CPCB may devise an appropriate mechanism for the purpose. CPCB and MoEF&CC may file a compliance report with reference to observations in para 14 above.
- (iv) Let further follow up action be taken by the MoEF&CC to monitor compliance of judgment of the Hon'ble Supreme Court in *Techi Tagi Tara Vs. Rajendra Singh Bhandari & Ors.* and report furnished to this Tribunal before the next date.

List for further consideration on 11.02.2020.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

August 28, 2019
Original Application No. 95/2018
DV

