Item No. 02 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 593/2017
(arising from W.P. (Civil) No. 375/2012 on the file of the Hon'ble Supreme Court)

Paryavaran Suraksha Samiti & Anr. Applicant(s)

Versus

Union of India & 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 Respondent (s): Mr. Shlok Chandra, Advocate for CPCB

ORDER

Issue for consideration- Remedial action against water pollution in absence of ETPs/CETPs/STPs

1. The issue for consideration is establishment and functioning of ETPs/CETPs/STPs to prevent untreated sewage/effluents being discharged in water bodies, including rivers and canals meeting such rivers or otherwise. The magnitude of the problem is well acknowledged. In the year 1962 GoI set up a Committee for prevention of water pollution. The recommendations led to enactment of the Water (Prevention and Control of Pollution) Act, 1974 ("Water Act") in pursuance of Article 252 of the Constitution. The Water Act provides for the constitution of a Central Board and

State Boards/Committees. No polluted matter can be discharged into a stream or well or on land, and no industry, operation or process can be established and no out-let for discharge of sewage used without consent of the State Board. The Water Act provides powers to give directions for closing any such activity as well as for prosecution. Power to give directions implicitly includes recovery of compensation on 'Polluter Pays' principle.

2. Inspite of above statutory regime we are faced with serious problem of water pollution. The Hon'ble Supreme Court noted[1] that the water pollution caused serious diseases, including Cholera and Typhoid. Water pollution could not be ignored and adequate measures for prevention and control are necessary. Polluting industries were directed to be shifted on 'Precautionary' principle. It is not necessary to refer to all the judgments of the Hon'ble Supreme Court dealing with the significance of water and need to prevent pollution of water. We may only refer to the observations that everyone has right to have access to drinking water in quantum and equality equal to the basic needs. This is fundamental to life and part of Article 21.[2]

3. As per CPCB's report 2016[3], it has been estimated that 61,948 million liters per day (mld) sewage is generated from the urban areas of which treatment capacity of 23,277 mld is currently

[1] (1988) 1 SCC 471

[2] APPCB vs. Prof. M.V Nayudu (2001) 2 SCC 62 at para 3, 4, State of Orissa Vs. Government of India (2009) 5 SCC 492, at para 58 "Rivers in India are drying up, groundwater is being rapidly depleted, and canals are polluted. Yamuna in Delhi looks like a black drain. Several perennial rivers like Ganga and Brahmaputra are rapidly becoming seasonal. Rivers are dying or declining, and aquifers are getting overpumped. Industries, hotels, etc. are pumping out groundwater at an alarming rate, causing sharp decline in the groundwater levels."

[3] http://www.sulabhenvis.nic.in/Database/STST_wastewater_2090.aspx July 16, updated on December 6, 2016

existent in India. Thereby the deficit in capacity of waste treatment is of 62%. There is no data available with regard to generation of sewage in the rural areas.

4. We may note that discharge of untreated effluents and sewage is the principal cause of water pollution in the country as noted in cases relating to pollution of rivers.[4] Similarly, in the case of 100 polluted industrial clusters being dealt with by this Tribunal[5], water pollution is one of the factors polluting the said industrial clusters. As already noted, official data of CPCB is to the effect that 351 river stretches in the Country are polluted. The Tribunal held that remedial action for restoration of the said river stretches is necessary.[6] In the said order, it was observed:

> *"As already noted, well known causes of pollution of rivers are dumping of untreated sewage and industrial waste, garbage, plastic waste, e-waste, bio-medical waste, municipal solid waste, diversion of river waters, encroachments of catchment areas and floodplains, over drawl of groundwater, river bank erosion on account of illegal sand mining. In spite of directions to install Effluent Treatment Plants (ETPs), Common Effluent Treatment Plants (CETPs), Sewage Treatment Plants (STPs), and adopting other anti-pollution measures, satisfactory situation has not been achieved. Tough governance is the need of the hour. If pollution does not stop, the industry has to be stopped. If sewage dumping does not stop, local bodies have to be made accountable and their heads are to be prosecuted. Steps have to be taken for awareness and public involvement."*

[4] O.A No. 673 of 2018 this Tribunal is considering remedial action to rejuvenate 351 polluted river stretches. Therein, other cases of river pollution are mentioned thus "This Tribunal also considered the issue of pollution of river Yamuna, in Manoj Mishra Vs. Union of India, river Ganga in M.C. Mehta Vs. Union of India, river Ramganga which is a tributary of river Ganga in Mahendra Pandey Vs. Union of India & Ors., rivers Sutlej and Beas in the case of Sobha Singh & Ors. Vs. State of Punjab & Ors., river Son in Nityanand Mishra Vs. State of M.P. & Ors., river Ghaggar in Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto Case)", river Hindon in Doaba Paryavaran Samiti Vs. State of U.P. & Ors., river Kasardi in Arvind Pundalik Mhatre Vs. Ministry of Environment, Forest and Climate Change & Ors., River Ami, Tapti, Rohani and Ramgarh lake in Meera Shukla Vs. Municipal Corporation, Gorakhpur & Ors., rivers Chenab and Tawi in the case of Amresh Singh Vs. Union of India & Ors. and Subarnarekha in Sudarsan Das Vs. State of West Bengal & Ors. and issued directions from time to time"

[5] O.A No. 1038/2018

[6] O. A No.673/2018, order dated 08.04.2019

5. All the States and UTs where polluted river stretches exist are required to constitute River Rejuvenation Committees to prepare actions plans for restoration (which are to be reviewed by the highest authority in the States, i.e Chief Secretary) to be monitored by CPCB and thereafter to be further monitored by this Tribunal. Accordingly, the action plans have been prepared which broadly envisage action to prevent discharge of untreated effluent/sewage. The same are being monitored by the CPCB and by this Tribunal and the matter is now listed for hearing on 29.11.2019. In O.A 606/2018 while dealing with the compliance of Solid Waste Management Rules, 2016, this Tribunal vide order dated 16.01.2019 directed personal appearance of all the Chief Secretaries with their monitoring reports on major environment issues including the rejuvenation of polluted river stretches. The Chief Secretaries of all States/UTs have accordingly appeared and furnished their reports which envisages steps for setting up of ETPs/CETPs/STPs to prevent water pollution. The Chief Secretaries have to appear before this Tribunal with further progress reports on the subjects.

6. Further, control of pollution of river Ganga is being monitored by this Tribunal in O. A No. 200/2014 after transfer from the Hon'ble Supreme Court. Therein timelines have been prescribed to the effect that STPs be set up in time bound manner and no a drop of pollution be discharged in the river. The Tribunal observed

> "*Bioremediation and/or phytoremediation or any other remediation measures may start as an interim measure positively from 01.11.2019, failing which the State may be liable to pay compensation of Rs. 5 Lakhs per month per drain to be deposited with the CPCB. This however, is not to be taken as an excuse to*

delay the installation of STPs. For delay of the work, the Chief Secretary must identify the officers responsible and assign specific responsibilities. Wherever there are violations, adverse entries in the ACRs must be made in respect of such identified officers. For delay in setting up of STPs and sewerage network beyond prescribed timelines, State may be liable to pay Rs. 10 Lakhs per month per STP and its network. It will be open to the State to recover the said amount from the erring officers/contractors.

With regard to works under construction, after 01.07.2020, direction for payment of environmental compensation of Rs. 10 lakhs per month to CPCB for discharging untreated sewage in any drain connected to river Ganga or its tributaries and Rs. 10 lakhs per month to CPCB per incomplete STP and its sewerage network will apply. Further with regard to the sectors where STP and sewerage network works have not yet started, the State has to pay an Environmental Compensation of Rs. 10 lakhs per month after 31.12.2020. The NMCG will also be equally liable for its failure to the extent of 50% of the amount to be paid. Till such compliance, bioremediation or any other appropriate interim measure may start from 01.11.2019."

Background of the present case before this Tribunal

7. The Hon'ble Supreme Court vide order dated 22.02.2017 in Paryavaran Suraksha Samiti Vs. Union of India[7] transferred the matter for monitoring by this Tribunal in the light of the directions of the Hon'ble Supreme Court requiring establishment and functioning of requisite ETPs/CETPs/STPs and in default to close industrial activities discharging effluents without treatment and to take action against local bodies for failing to install STPs and discharging sewage without treatment. Some of the observations in the judgment of the Hon'ble Supreme Court are:

> " ***7.*** *Having effectuated the directions recorded in the foregoing paragraphs, the next step would be, to set up common effluent treatment plants. We are informed, that for the aforesaid purpose, the financial contribution of the Central Government is to the extent of 50%, that of the State Government concerned (including the Union Territory concerned) is 25%. The balance 25%, is to be arranged by way of loans from banks. The above loans, are to be repaid, by the industrial areas, and/or*

[7] (2017) 5 SCC 326

industrial clusters. We are also informed that the setting up of a common effluent treatment plant, would ordinarily take approximately two years (in cases where the process has yet to be commenced). The reason for the above prolonged period, for setting up "common effluent treatment plants", according to the learned counsel, is not only financial, but also, the requirement of land acquisition, for the same.

10. *Given the responsibility vested in municipalities under Article 243-W of the Constitution, as also, in Item 6 of Schedule XII, wherein the aforesaid obligation, pointedly extends to "public health, sanitation conservancy and solid waste management", we are of the view that the onus to operate the existing common effluent treatment plants, rests on municipalities (and/or local bodies). Given the aforesaid responsibility, the municipalities (and/or local bodies) concerned, cannot be permitted to shy away from discharging this onerous duty. In case there are further financial constraints, the remedy lies in Articles 243-X and 243-Y of the Constitution. It will be open to the municipalities (and/or local bodies) concerned, to evolve norms to recover funds, for the purpose of generating finances to install and run all the "common effluent treatment plants", within the purview of the provisions referred to hereinabove. Needless to mention that such norms as may be evolved for generating financial resources, may include all or any of the commercial, industrial and domestic beneficiaries, of the facility. The process of evolving the above norms, shall be supervised by the State Government (Union Territory) concerned, through the Secretaries, Urban Development and Local Bodies, respectively (depending on the location of the respective common effluent treatment plant).* ***The norms for generating funds for setting up and/or operating the "common effluent treatment plant" shall be finalised, on or before 31-3-2017, so as to be implemented with effect from the next financial year. In case, such norms are not in place, before the commencement of the next financial year, the State Governments (or the Union Territories) concerned, shall cater to the financial requirements, of running the "common effluent treatment plants", which are presently dysfunctional, from their own financial resources.***

11. *Just in the manner suggested hereinabove, for the purpose of setting up of "common effluent treatment plants", the State Governments concerned (including, the Union Territories concerned) will prioritise such cities, towns and villages, which discharge* ***industrial pollutants and sewer, directly into rivers and water bodies.***

12. *We are of the view that in the manner suggested above,* ***the malady of sewer treatment, should also be dealt with simultaneously.*** *We, therefore, hereby direct that "sewage treatment plants" shall also be set up and made functional, within the timelines and the format, expressed hereinabove.*

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

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

8. Accordingly, on 25.05.2017, notice was issued to the Central Pollution Control Board (CPCB), the State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) and the Ministry of Environment, Forest and Climate Change (MoEF&CC). They filed their status reports showing gaps in waste generated and treatment capacity. It was further stated that action had been initiated to remedy the situation. After considering the status

report, the Tribunal, vide orders dated 04.07.2017, 18.09.2017 and 11.10.2017, sought information about the steps taken by the SPCBs/PCCs.

9. Vide order dated 03.08.2018, the matter was reviewed and after noting that in absence of functional ETPs/CETPs/STPs, untreated effluents were being discharged in water bodies leading to contamination of surface and ground water which causes various diseases and also has adverse consequence on aquatic organism due to decreased level of oxygen. The Tribunal directed the CPCB to prepare an action plan. Direction was also given for monitoring by a Committee of two officers – one each representing MoEF&CC and CPCB at least once in every month. CPCB was required to place the progress report every three months on the website and take penal action for failure by way of recovery of compensation for damage to the environment, apart from other steps.

10. Vide order dated 19.02.2019, after considering the status report furnished by the CPCB, based on the reports furnished by the States/UTs, this Tribunal after referring to orders passed in O.A NO. 673/2018 for remedial action in respect of 351 polluted river stretches, which had direct nexus with the steps for ETPs/CETPs/STPs and order passed in O.A No. 606/2018 requiring Chief Secretaries to monitor progress *inter alia* on the subject of control of pollution ion the river stretches, directed that the Chief Secretaries may look into the subject of setting up and proper functioning of ETPs/CETPs/STPs in their respective States/ UTs. Further direction issued was to prepare a report on

assessment of compensation on account of discharge of untreated sewage and dumping of solid waste, loss to ecological services due to illegal mining, deforestation, after taking inputs from expert bodies. The Tribunal also directed the CPCB to compile its monitoring report with regard to 97 CETPs (assuming the total number of CETPs in the country to be 97) installed in different States. CPCB was also directed to furnish its report in *O.A. No. 95/2018, Aryavart Foundation Vs. M/s Vapi Green Enviro Ltd. & Ors.* which concerned the issue of inadequate functioning CETP leading to water pollution.

Reports filed by the CPCB

11. Accordingly, two reports filed by CPCB, have been put up for consideration today :-

(i) Report dated 30.05.2019, updated on 19.07.2019, giving status of setting up of ETPs/CETPs/STPs and methodology for assessing environment compensation for discharge of pollutants in water bodies.

(ii) Report dated 14.08.2019 with regard to monitoring of CETPs.

12. We proceed to consider the above reports.

I. <u>Report dated 30.05.2019 updated on 19.07.2019</u>

13. According to updated report dated19.07.2019, out of 62,897 number of industries requiring ETPs, 60,944 industries are operating with functional ETPs and 1949 industries are operating without ETPs. 59,258 industries are complying with environmental standards and 1,524 industries are noncomplying. There are total 192 CETPs, out of which 133 CETPs are complying with

environmental standards and 59 CETPs are non-complying. There are total 13,709 STPs (Municipal and other than municipal), out of which, 13,113 STPs are complying with environmental standards and 637 STPs are non-complying 73 CETPs in construction/proposal stage, whereas, for STPs, 1164 projects (municipal and non-municipal) are under construction/proposal stage.

14. A report has also been prepared on the scale of environmental compensation to be recovered from individual/authorities for causing pollution or failure for preventing causing pollution, apart from illegal extraction of ground water, failure to implement Solid waste Management Rules, damage to environment by mining and steps taken to explore preparation of an annual environmental plan for the country. Extracts from the report which are considered significant for this order are:

> "**I. Environment Compensation to be levied on Industrial Units**
>
> ***Recommendations***
> *The Committee made following recommendations:*
>
> *1.5.1 To begin with, Environmental Compensation may be levied by CPCB only when CPCB has issued the directions under the Environment (Protection) Act, 1986. In case of a, band c, Environmental Compensation may be calculated based on the formula "EC= Pl x N x Rx S x LF", wherein, Pl may be taken as 80, 50 and 30 for red, orange and green category of industries, respectively, and R may be taken as 250. Sand LF may be taken as prescribed in the preceding paragraphs*
>
> *1.5.2 In case of d, e and f, the Environmental Compensation may be levied based on the detailed investigations by Expert Institutions/Organizations.*
>
> *1.5.3 The Hon'ble Supreme Court in its order dated 22.02.2017 in the matter of Paryavaran Suraksha Samiti and another v/s Union of India and others {Writ Petition {Civil) No. 375 of 2012), directed that all running industrial units which require "consent to operate" from concerned State Pollution Control Board, have a primary effluent*

treatment plant in place. Therefore, no industry requiring ETP, shall be allowed to operate without ETP.
1.5.4 EC is not a substitute for taking actions under EP Act, Water Act or Air Act. In fact, units found polluting should be closed/prosecuted as per the Acts and Rules.

II. Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in NCR.

Table No. 2.1: Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in Delhi-NCR.

Activity	***State Of Air Quality***	***Environmental Compensation ()***
Industrial Emissions	*Severe +/Emergency*	*Rs 1.0 Crore*
	Severe	*Rs 50 Lakh*
	Very Poor	*Rs 25 Lakh*
	Moderate to Poor	*Rs 10 Lakh*
Vapour Recovery System (VRS) at Outlets of Oil Companies		
i. Not installed	*Target Date*	*Rs 1.0 Crore*
ii. Non functional	*Very poor to Severe +*	*Rs 50.0 Lakh*
	Moderate to Poor	*Rs 25.0 Lakh*
Construction sites (Offending plot more than 20,000 Sq.m.)	*Severe +/Emergency*	*Rs 1.0 Crore*
	Severe	*Rs 50 Lakh*
	Very Poor	*Rs 25 Lakh*
	Moderate to Poor	*Rs 10 Lakh*
Solid waste/ garbage dumping in Industrial Estates	*Very poor to Severe +*	*Rs 25.0 Lakh*
	Moderate to Poor	*Rs 10.0 Lakh*
Failure to water sprinkling on unpaved roads		
a) Hot-spots	*Very poor to Severe +*	*Rs 25.0 Lakh*
b) Other than Hot-spots	*Very poor to Severe +*	*Rs 10.0 Lakh*

III. Environmental Compensation to be levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules:

Table No. 3.3: Minimum and Maximum EC to be levied for untreated/partially treated sewage discharge

Class of the City/Town	***Mega-City***	***Million-plus City***	***Class-I City/Town and others***
Minimum and Maximum values of EC (Total Capital Cost Component)	*Min. 2000*	*Min. 1000*	*Min. 100*

recommended by the Committee (Lacs Rs.)	*Max. 20000*	*Max. 10000*	*Max. 1000*
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	*Min. 2* *Max. 20*	*Min. 1* *Max. 10*	*Min. 0.5* *Max. 5*

Table No. 3.4: Minimum and Maximum EC to be levied for improper municipal solid waste management

Class of the City/Town	***Mega-City***	***Million-plus City***	***Class-I City/Town and others***
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	*Min. 1000* *Max. 10000*	*Min. 500* *Max. 5000*	*Min. 100* *Max. 1000*
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	*Min. 1.0* *Max. 10.0*	*Min. 0.5* *Max. 5.0*	*Min. 0.1* *Max. 1.0*

3.3 Environment Compensation for Discharge of Untreated/Partially Treated Sewage by Concerned Individual/ Authority:

BIS 15-1172:1993 suggests that for communities with population above 100,000, minimum of 150 to 200 lpcd of water demand is to be supplied. Further, 85% of return rate (CPHEEO Manual on Sewerage and Sewage Treatment Systems, 2013}, may be considered for calculation of total sewage generation in a city. CPCB Report on "Performance evaluation of sewage treatment plants under NRCD, 2013", describes that the capital cost for 1 MLD STP ranges from 0.63 Cr. to 3 Cr. and O&M cost is around Rs. 30,000 per month. After detail deliberations, the Committee suggested to assume capital cost for STPs as Rs. 1.75 Cr/MLD (marginal average cost). Further, expected cost for conveyance system is assumed as Rs. 5.55 Cr./MLD (marginal average cost) and annual O&M cost as 10% of the combined capital cost. Population of the city may be taken as per the latest Census of India. Based on these assumptions, Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC= Capital Cost Factor x [Marginal Average Capital Cost for Treatment Facility x (Total

Generation-Installed Capacity) *+* ***Marginal Average Capital Cost for Conveyance Facility x (Total Generation -Operational Capacity)]+ O&M Cost Factor x Marginal Average O&M Cost*** *x (Total Generation- Operational Capacity) x No. of Days for which facility was not available*
+ Environmental Externality x No. of Days for which facility was not available

Alternatively;

EC (Lacs Rs.)= [17.S{Total Sewage Generation - Installed Treatment Capacity)+ 55.S{Total Sewage Generation-Operational Capacity)] *+* ***0.2(Sewage Generation-Operational Capacity) x N*** *+* ***Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) X N***

Where; N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority

Quantity of Sewage is in MLD

Table No. 3.5: Sample calculation for EC to be levied for discharge of untreated/partial treated Sewage

City	Delhi	Agra	Gurugram	Ambala
Population (2011)	1,63,49,831	17,60,285	8,76,969	5,00,774
Class	Mega-City	Million-plus City	Class-I Town	Class-I Town
Sewage Generation (MLD) *(as per the latest data available with CPCB)*	4195	381	486	37
Installed Treatment Capacity (MLD) (as per the latest data available with CPCB)	2500	220	404	45.5
Operational Capacity (MLD) (as per the latest data available with CPCB)	1900	140	300	24.5
Treatment Capacity Gap (MID)	2295	241	186	12.5
Calculated EC (capital cost component for STPs) in Lacs Rs.	29662.50	2817.50	1435.00	0.00

Calculated EC (capital cost component for Conveyance System) in Lacs. Rs.	127372.50	13375.50	10323.00	693.75
Calculated EC (Total capital cost component) in Lacs Rs.	157035.00	16193.00	11758.00	693.75
Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 2000 Max. 20000	Min. 1000 Max. 10000	Min. 100 Max. 1000	Min. 100 Max. 1000
Final EC (Total Capital Cost Component) in Lacs Rs.	**20000.00**	**10000.00**	**1000.00**	**693.75**
Calculated EC (O&M Component in Lacs Rs./day	459.00	48.20	37.20	2.50
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 2 Max. 20	Min. 1 Max. 10	Min. 0.5 Max. 5	Min. 0.5 Max. 5
Final EC (O&M Component) in Lacs. Rs./Day	**20.00**	**10.00**	**5.00**	**2.50**
Calculated Environmental Externality (Lacs Rs .Per Day)	2.0655	0.2049	0.1395	0.0094
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)	Min. 0.60 Max. 0.80	Min. 0.25 Max. 0.35	Min. 0.05 Max. 0.10	Min. 0.05 Max. 0.10
Final Environmental Externality (Lacs Rs. Per day)	**0.80**	**0.25**	**0.10**	**0.05**

3.4 Environment Compensation to be Levied on Concerned Individual/Authority for Improper Solid Waste Management:

Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

EC = Capital Cost Factor x Marginal Average Cost for Waste Management x (Per day waste generation-Per

day waste disposed as per the Rules) + O&M Cost Factor x Marginal Average O&M Cost x (Per day waste generation-Per day waste disposed as per the Rules) x Number of days violation took place + Environmental Externality x N

Where;

Waste Quantity in tons per day (TPD)

N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority

Simplifying;

EC (Lacs Rs.) = 2.4(Waste Generation - Waste Disposed as per the Rules) +0.02 (Waste Generation Waste Disposed as per the Rules) x N + Marginal Cost of Environmental Externality x (Waste Generation - Waste Disposed as per the Rules) x N

Table No. 3.6: Sample calculation for EC to be levied for improper management of Municipal Solid Waste

City	Delhi	Agra	Gurugram	Ambala
Population (2011)	1,63,49,831	17,60,285	8,76,969	5,00,774
Class	Mega-City	Million-plus City	Class-I Town	Class-I Town
Waste Generation (kg. per person per day)	0.6	0.5	0.4	0.4
Waste Generation (TPD)	9809.90	880.14	350.79	200.31
Waste Disposal as per Rules (TPD) *(assumed as 25% of waste generation for sample calculation)*	2452.47	220.04	87.70	50.08
Waste Management Capacity Gap (TPD)	7357.42	660.11	263.09	150.23
Calculated EC (capital cost component) in Lacs. Rs.	17657.82	1584.26	631.42	360.56
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 1000 Max. 10000	Min. 500 Max. 5000	Min. 100 Max. 1000	Min. 100 Max. 1000

Final EC (capital cost component) in Lacs. Rs.	**10000.00**	**1584.26**	**631.42**	**360.56**
Calculated EC (O&M Component) in Lacs. Rs./Day	147.15	13.20	5.26	3.00
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./Day)	Min. 1.0 Max. 10.0	Min. 0.5 Max. 5.0	Min. 0.1 Max. 1.0	Min. 0.1 Max. 1.0
Final EC (O&M Component) in Lacs. Rs./Day	**10.00**	**5.00**	**1.00**	**1.00**
Calculated Environmental Externality (Lacs Rs. Per Day)	2.58	0.18	0.03	0.02
Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. per day)	Max. 0.80	Min. 0.25 Max. 0.35	Min. 0.01 Max. 0.05	Min. 0.01 Max. 0.05
Final Environmental Externality (Lacs Rs. per day)	**0.80**	**0.25**	**0.03**	**0.02**

ompensation in Case of Illegal Extraction of Ground Water

4.5 Formula for Environmental Compensation for illegal extraction of ground water

The committee decided that the formula should be based on water consumption (Pump Yield & Time duration) and rates for imposing Environmental Compensation for violation of illegal abstraction of ground water. The committee has proposed following formula for calculation of Environmental Compensation (EC_{Gw}):

EC_{GW} = Water Consumption per Day x No. of Days x Environmental Compensation Rate for illegal extraction of ground water {ECR_{Gw})

Where water Consumption is in m^3/day and ECRGw in Rs./m^3

Yield of the pump varies based on the capacity/power of pump, water head etc. For reference purpose, yield of the pump may be assumed as given in ***Annexure-VI.***

Time duration will be the period from which pump is operated illegally.

In case of illegal extraction of ground water, quantity of discharge as per the meter reading or as calculated with assumptions of yield and time may be used for calculation of EC_{Gw}.

4.6 Environmental Compensation Rate (ECRGw) for illegal use of Ground Water:

The committee decided that the Environmental Compensation Rate (ECR_{Gw}) for illegal extraction of ground water should increase with increase in water consumption as well as water scarcity in the area. Further, ECR_{Gw} are kept relaxed for drinking and domestic use as compared to other uses, considering the basic need of human being.

As per CGWB, safe, semi-critical, critical and over-exploited areas are categorized from the ground water resources point of view (CGWB, 2017). List of safe, semi-critical, critical and over-exploited areas are available on the website of CGWB and can be accessed from- http://cgwa-noc.gov.in/LandingPage/NotifiedAreas/Categorization0fAssessmentUnits.pdf#ZOOM=150.

Environmental Compensation Rates (ECR_Gw) for illegal use of ground water (ECR_Gw) for various purposes such as drinking/domestic use, packaging units, mining and industrial sectors as finalized by the committee are given in tables below:

4.6.1 ECRGw for Drinking and Domestic use:

Drinking and Domestic use means uses of ground water in households, institutional activity, hospitals, commercial complexes, townships etc.

Sl. No.	***Area Category***	***Water Consumption (m^3/day)***			
		<2	***2 to <5***	***5 to <25***	***25 & above***
		Environmental Compensation Rate (ECRGw) in Rs./m^3			
1	*Safe*	*4*	*6*	*8*	*10*
2	*Semi Critical*	*12*	*14*	*16*	*20*
3	*Critical*	*22*	*24*	*26*	*30*
4	*Over-Exploited*	*32*	*34*	*36*	*40*
Minimum EC_{Gw}=Rs 10,000/- (for households) and Rs. 50,000 (for institutional activity, commercial complexes, townships etc.)					

4.6.2 ECRGw for Packaged drinking water units:

Sl. No.	***Area Category***	***Water Consumption (m^3/day)***			
		<200	***200 to <1000***	***1000 to <5000***	***5000 &***
		Environmental Compensation Rate (ECR_{Gw}) in Rs./m^3			
1	*Safe*	*12*	*18*	*24*	*30*
2	*Semi critical*	*24*	*36*	*48*	*60*
3	*Critical*	*36*	*48*	*66*	*90*
4	*Over-exploited*	*48*	*72*	*96*	*120*

Minimum EC_{Gw}=Rs 1,00,000/-

4.6.3 ECR_{Gw} for Mining, Infrastructure and Dewatering Projects

Sl. No	***Area Category***	***Water Consumption (m^3/day)***			
		<200	***200 to <1000***	***1000 to <5000***	***5000 &***
		Environmental Compensation Rate (ECR_{Gw}) in Rs./m^3			
1	*Safe*	*15*	*21*	*30*	*40*
2	*Semi critical*	*30*	*45*	*60*	*75*
3	*Critical*	*45*	*60*	*85*	*115*
4	*Over-exploited*	*60*	*90*	*120*	*150*
Minimum EC_{Gw}=Rs 1,00,000/-					

4.6.4 ECRGw for Industrial Units:

Sl. No.	***Area Category***	***Water Consumption (m^3/day)***			
		<200	***200 to <1000***	***1000 to <5000***	***5000 &***
		Environmental Compensation Rate (ECRGw) in			
1	*Safe*	*20*	*30*	*40*	*50*
2	*Semi critical*	*40*	*60*	*80*	*100*
3	*Critical*	*60*	*80*	*110*	*150*
4	*Over-exploited*	*80*	*120*	*160*	*200*
Minimum EC_{Gw} = Rs 1,00,000/-					

4.8 Recommendations

The committee has given following recommendations:

- *The minimum Environmental Compensation for illegal extraction of ground water for domestic purpose will be Rs. 10,000, for institutional/commercial use will be 50,000 and for other uses will be 1,00,000.*
- *In case of fixation of liability, it always lies with current owner of the premises where illegal extraction is taking place.*
- *Time duration may be assumed to be one year in case where no evidence for period of installation of bore well could be established.*
- *For Drinking and Domestic use, where metering is not present but storage tank facility is available, minimum water consumption per day may be assumed as similar to the storage capacity of the tank.*
- *For industrial ground water use, where metering is not available, water consumption may be assumed as per the consent conditions. Further, where in case industry is operating without consent, water consumption may be calculated based on the plant capacity (on the*

recommendation of SPCB/PCC, if required). SPCB/PCC may bring the issue of illegal extraction of ground water in industries in to the notice of CGWA for appropriate action by CGWA.

- *Authorities assigned for levy EC and taking penal action are listed below:*

S. No.	***Actions***	***Authority***
1.	*To seal the illegal bore-well/tube-well to stop extraction of water and further closure of project*	*District Collector*
2.	*To levy EC_{Gw} as per prescribed method*	*District Collector,*
3.	*To levy EC on water pollution, as per the method prescribed in report of CPCB- "EC on industrial pollution"*	*CPCB/SPCB/PCC*
4.	*Prosecution of violator*	*CGWA under EP Act*
		SPCB/PCC under Air and Water Act

- *CGWA may maintain a separate account for collection and utilization of fund, collected through the prescribed methodology in this report."*

Discussion on the report dated 30.05.2019 updated on 19.07.2019

15. It is clear from the order of the Hon'ble Supreme Court[8] that the responsibility of operating STPs under Article 243W and item 6 of Schedule XII to the Constitution is of local bodies who have to evolve norms to recover funds for the purpose which is to be supervised by the States/UTs. The norms were to be finalized upto 31.03.2017 to be implemented from the next year, i.e 01.04.2018. In absence thereof, the States/UTs have to cater to the financial requirement from its own resources. The States/UTs are to prioritize the cities, towns, villages discharging effluents/sewage directly into the water bodies. Industrial activity without proper treatment plants (ETPs and CETPs) is not to be allowed by the State PCBs and the Secretaries, Environment of the States/UTs are

[8] Para 10-13 in *Paryavaran Suraksha Samiti Vs. Union of India, Supra*

to be answerable. Thus, the source for financial resources for the STPs, stands finalized under the binding judgment of the Hon'ble Supreme Court. Authorities and persons accountable are identified. Rigid implementation has been laid down. This Tribunal has been required to monitor compliance of the directions and timelines.

16. It is in this background that the present report needs to be appraised and further directions given. As regards the Environmental compensation regime fixed for industrial units, GRAP, solid waste, sewage and ground water is accepted as an interim measure. With regard to setting up of STPs, while we appreciate the extensive work of the CPCB based on information furnished by States/UTs, the challenge remains about verification of the said data on the one hand and analysis of the steps taken and required on the other. There is already a database available with the CPCB with regard to ETPs, CETPs, STPs, MSW facilities, Legacy Waste sites. This needs to be collated and river basinwise macro picture needs to be prepared by the CPCB in terms of need for interventions, existing infrastructure and gaps therein. The States have given timelines which need to be effectively monitored both by the CPCB and the Chief Secretaries in terms of its execution.

17. As already noted, prevention of pollution of water is directly linked to access to potable water as well as food safety. Restoration of pristine glory of rivers is also of cultural and ecological significance. This necessitates effective steps to ensure that no pollution is

discharged in water bodies. Doing so is a criminal offence under the Water Act and is harmful to the environment and public health. 'Precautionary' principle of environmental law is to be enforced. Thus, the mandate of law is that there must be 100% treatment of sewage as well as trade effluents. This Tribunal has already directed in the case of river Ganga that timelines laid down therein be adhered to for setting up of STPs and till then, interim measures be taken for treatment of sewage. There is no reason why this direction be not followed, so as to control pollution of all the river stretches in the country. The issue of ETPs/CETPs is being dealt with by an appropriate action against polluting industries. Setting up of STPs and MSW facilities is the responsibility of Local Bodies and in case of their default, of the States. Their failure on the subject has to be adequately monitored. Recovery of compensation on 'Polluter Pays' principle is a part of enforcement strategy but not a substitute for compliance. It is thus necessary to issue directions to all the States/UTs to enforce the compensation regime, latest with effect from 01.04.2020. We may not be taken to be condoning any past violations. The States/UTs have to enforce recovery of compensation from 01.04.2020 from the defaulting local bodies. On failure of the States/UTs, the States/UTs themselves have to pay the requisite amount of compensation to be deposited with the CPCB for restoration of environment. The Chief Secretaries of all the States may furnish their respective compliance reports as per directions already issued in *O.A. No. 606/2018*.

II. <u>Report dated 14.08.2019 with regard to monitoring of CETPs</u>

18. The Committee inspected 127 CETPs in 14 States. Figure of CETP assumed to be 97 was not correct. 66 CETPs were found to be non-compliant. CPCB directed SPCBs to take following steps:

> *"1. SPCBs shall direct non-complying CETPs to take immediate corrective actions to comply with the environmental standards.*
> *2. CETP should be directed to take action as per the recommendations provided at Annexure A-N within a time frame.*
> *3. In case of non-complying CETPs, action as deemed fit including levying of environmental compensation may be taken.*
> *4. In case, OCEMS are not connected with CPCB & SPCB servers, ensure a robust system of physical inspections to verify compliance by drawing samples."*

Discussion on the report dated 14.08.2019

19. We accept the recommendation of the CPCB and direct the Chief Secretaries, State Governments, Union Territories and the SPCBs/PCCs to take further action accordingly and furnish an action taken report accordingly. The CPCB to meanwhile compile and collate information with regard to ETPs, CETPs, STPs, MSW Facilities, Legacy Waste dump sites and complete the pending task on the subject before the next date and furnish a report.

20. The environmental compensation regime for CETP not meeting the prescribed norms need to be evolved by the CPCB.

Directions

21. We may now sum up our directions:

(i) The Environmental compensation regime fixed for industrial units, GRAP, solid waste, sewage and ground water in the report dated 30.05.2019 is accepted and the same may be acted upon as an interim measure.

(ii) SPCBs/PCCs may ensure remedial action against non-compliant CETPs or individual industries in terms of not having ETPs/fully compliant ETPs or operating without consent or in violation of consent conditions. This may be overseen by the CPCB. CPCB may continue to compile information on this subject and furnish quarterly reports to this Tribunal which may also be uploaded on its website.

(iii) All the Local Bodies and or the concerned departments of the State Government have to ensure 100% treatment of the generated sewage and in default to pay compensation which is to be recovered by the States/UTs, with effect from 01.04.2020. In default of such collection, the States/UTs are liable to pay such compensation. The CPCB is to collect the same and utilize for restoration of the environment.

(iv) The CPCB needs to collate the available data base with regard to ETPs, CETPs, STPs, MSW facilities, Legacy Waste sites and prepare a river basinwise macro picture in terms of gaps and needed interventions.

(v) The Chief Secretaries of all the States/UTs may furnish their respective compliance reports on this subject also in *O.A. No. 606/2018*.

List for further consideration on 21.05.2020, unless required earlier. A copy of this order be placed on the file of O.A. No. 606/2018 relating to all States/UTs and be sent to Chief Secretaries of all States/UTs, Secretary MoEF&CC, Secretary Jal Shakti and Secretary, MoHUA.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

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Dr. Nagin Nanda, EM

August 28, 2019
Original Application No. 593/2017
(W.P.(Civil) No. 375/2012)
DV