Item No. 6 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 426/2018

(With Report dated 19.06.2020)

Mohammed Nayeem Pasha & Anr. Applicant(s)

Versus

The State of Telangana & Ors. Respondent(s)

Date of hearing: 22.06.2020
Date of uploading of order: 29.06.2020

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

ORDER

1. The issue raised in this application relates to remedial action against pollution of river *Musi* at Hyderabad (Telangana) which is reported to be contaminated due to industrial and domestic sewage discharged into the river or into the drains connected thereto. The industries in the catchment areas are bulk drug and pharmaceutical units. Further allegation is that the flood plain zones are encroached and there is also dumping of Construction and Demolition Waste ("C&D Waste") and solid waste. Water quality is not even fit for irrigation as per water quality criteria of Central Pollution Control Board ("CPCB") as per reports of samples of water.

2. The proceedings were initiated by way of *O.A. No. 426/2018* filed on 05.07.2018. Notice was issued on 06.07.2018. The Tribunal noted that as per water quality assessment report of the State Pollution Control Board ("SPCB") during 2014-18, water was not fit even for irrigation (Class-E). The matter was then considered on 05.04.2019 in the light of pleadings on record. The Tribunal noted the stand of the Municipal Administration/Urban Development Department of the State that steps taken included construction of Sewage Treatment Plants ("STPs") and laying of sewer lines but the existing capacity of the STPs was inadequate. There was plan to set up more STPs. Detailed Project Reports ("DPRs") were being prepared for the purpose which will also cover control of pollution of 23 lakes in the area. The Telangana High Court has also dealt with the matter. The observations of this Tribunal are:

> *"With regard to sewage treatment and disposal which is the main cause of pollution of river Musi it is to be noted that total sewerage generated is about 1400 mld which is being discharged in the catchment area of Musi river from either of the banks through Nalas. Already 592 mld capacity sewerage treatment plant have been built along the river Musi.* ***DPRs are also prepared at a cost of Rs. 1200 crores for creation of additional STPs at 10 locations, to treat total sewage so as to prevent pollution into river Musi. Since there is no regular sever network system, the board is said to have undertaken a survey with a technical expertise and prepared the DPRs for sewerage system of the peripheral areas****.*
>
> *According to MAUD, HMWSSB has appointed Shah Technical consultant to prepare a detailed Project Report (DPR) for the master sewage plan, duly reviewing the available DPRs for integration covering the entire GHMC area up to ORR plus 4 IT hubs. The consultants are preparing DPRs for 27 STPs at 23 lakes in the GHMC area for the combined capacity of 450 mld under Phase-I, along the Musi river and further upgradation of the existing STPs will be taken up in Phase-III. The Phase-I STPs are planned to be taken up in 4 month's time, depending upon the funds availability and Phase-II in one year time. The up- gradation of STPs from the secondary level to the tertiary level 3 in one year time including the policy on recycling of water for the usage for the purpose of non-drinking, construction activity, gardening, industrial etc.* ***Due to financial constraint, the possibility of private investments through the transaction advisor under PPP mode is being***

explored. *The HMWSSB is planning to implement the comprehensive sewage master plan within one and half year time.*

In view of the aforesaid facts and circumstances, we order that as has been made clear in the order dated 19.12.2018 passed in OA no. 673/2018 BOD will not be the sole criteria to determine whether a particular river stretch is a polluted one. Other parameters including Faecal Coliform (FC) bacteria will also be the criteria for classifying a stretch as polluted or otherwise. CPCB may devise within two weeks a mechanism for classification wherein two criteria pollutants that is BOD and FC shall henceforth be the basis of classification in priority classes.

Therefore, we direct CPCB and Telangana Pollution Control Board to carry out a quick hygienic survey of the River by engaging Professor Suman Kapur, Dean, International Programmes and Collaborations and Senior Professor, Department of Biological Sciences, BITS- Pilani, Hyderabad Campus, Jawahar Nagar, Shameer Pet, Hyderabad-500078, skapur@hyderabad.bits-pilani.ac.in and submit a report for river Musi and any other clean river in the state falling in the category of 'A' and or 'B.' For this survey we request Professor Suman Kapoor to execute the survey at a cost 9.5 lakhs which will be paid by CPCB out of its environment compensation fund. The scientist of CPCP and TSPCB will be associated during the survey and field testing of pathogenic bacteria."

3. The matter was thereafter considered vide order dated 06.12.2019 in the light of report of the CPCB dated 28.06.2019 noticing the violation of environmental norms and suggesting remedial action. The Tribunal also referred to the report filed by the CPCB with regard to 351 polluted river stretches which include River Musi at Hyderabad and it was observed:

"6. ***The report of CPCB dated 28.6.2019 clearly indicates that only 49% of the sewage generated in the city is treated and remaining 51% of untreated sewage is discharged directly into the River Musi. The STPs are not granted with the Consents under the Water Act and the 5 STPs are found to be not complying with the discharged norms out of 20 operational STPs. The STPs need up-gradation as applicable to meet with the standards with reference to faecal coliform and the treated water will have to be utilized for the non-portable use.***

The report of CPCB dated 18.11.2019 describes about the Quick Hygienic Survey carried out by engaging Birla Institute of Technology and Science (BITS). The purpose of the survey was to design quick method of detection of

pathogenic bacteria as the existing methods are time consuming and also involves, long transportation distances in many cases. The method developed by BITS which has been witnessed by Scientists of CPCB and Telangana SPCB, may now further workout appropriate mechanism to adopt the Method and widely practice to carry out such survey of Indian Rivers following the standardized protocol and its procedures which may remain inconsonance and matchable with the Internationally adopted Standard Methods.

7. *We have heard the matter along with O.A. No. 673/2018. While general directions to the extent relevant for the above case will govern the present matter as river Musi is one of the 351 polluted river stretches and for this purpose this matter need not be heard along with O.A. No. 673/2018 henceforth, the individual issue relating to Musi River raised in this application is being dealt with by this separate order without prejudice to the general order in O.A. No. 673/2018. Relevant part of the directions in the said case is as follows:*

"47. We now sum up our directions as follows:

i. 100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 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."

8. ***In view of status report of CPCB dated 28.06.2019, let necessary remedial steps be taken by the Urban Development Department, Telangana, Municipal Corporation, Hyderabad and the TSPCB. The nodal agency will be TSPCB for the purpose. The CPCB may itself validate the Right Biotic system for Quick Hygienic Survey of rivers by seeking opinion of experts on the subject rather than referring it to the Department of Science and***

Technology, Government of India for its adoption in the country.

9. Further reports may be filed by CPCB and TSPCB in above terms before the next date by e-mail at judicial-ngt@gov.in."

4. Accordingly, further report dated 19.06.2020 has been filed by the State PCB giving the compliance status as follows:

"The compliance on the orders of the Hon'ble NGT are as follows:

Directions of the Hon'ble NGT	***Compliance***
Interim measures for In situ Phyto remediation / bio-remediation etc., for 100% sewage to reduce pollution load on recipient water bodies	*There are 27 drains joining the main river stretch of Musi from starting point of Osmansagar and confluence at Wadepally. Out of 27 drains, the following 7 drains falling within the GHMC jurisdiction were identified to take up insitu remediation.* *1. Sirimallenagar* *2. Baputghat* *3. Miralam* *4. Musinagar-Dhobigalli* *5. Shastrinagar-Golnaka* *6. Saroornagar* *7. Gayatrinagar* *For its compliance, HMWSSB has engaged the services of NEERI to provide suitable technology for In-Situ Remediation of sewage for the drains joining river Musi for submission of Detailed Project Reports.* *Accordingly, the Director, NEERI, has made a detailed presentation and initially submitted budget estimate at Rs.45 Lakhs per MLD for implementation of the NEERI technology(RENEU).* *The Government was requested to provide budget for 100% In-situ Remediation of treatment of sewage (about 1174 MLD flowing through 185 drains to water bodies amounting Rs.528.30 Crores at Rs.45 Lakhs per MLD.* *Further after detailed survey, planning and design, NEERI has submitted the DPR for one drain on 16.03.2020 and work order was issued for In-situ remediation implementation at Kokapet Lake. But, work could not be taken up by NEERI due to Lockdown situation.* *Further, Efforts were also made for the*

	technical support of IARI on the in-situ remediation. The details submitted by IARI are as follows: • *The proposed waste water treatment technology has zero energy, zero chemical and a zero skilled manpower demand.* • *Unlike the conventional technologies the proposed technology can take care of multi pollutant and a pathogen loads, along with salt — remediation, specific economically important noncompetitive, (Halophytic/non halo phytic) with microphytes planted in either solo or mixed culture design.* • *The technology is capable of reducing turbidity By 99%, Pathogen load by 99.9%, BOD by 87% and nutrients and heavy metals by 80 to 99%.* • *It has about 80 to 85% lower capital expenditure (CAPEX) demand than conventional waste water treatment technology as it requires just Rs.50 to 65 Lakhs per 1 MLD capacity in comparison to Rs.4.0Crore or more per MLD for the conventional waste water treatment technology* • *Extremely low i.e, maximum Rs.0.6 per kilolitre operational expenditure (OPEX) demand in comparison to the conventional waste water treatment technologies with Rs.20 or more per kilo of operational expenditure* • *The technology is at least 1500 times more sustainable and causes at least 33 times lesser environmental stress that any conventional sewage treatment technology* *IARI informed that due to COVID pandemic they are not in a position for making a site visit in the next 3 to 4 months.* *In view of the above, it is humbly submitted that the in-situ remediation* ***will be taken up on restoration of the normal conditions*** *(post COVID) followed by a technical visit to obtain proposals for execution.*
Commencement of STPs shall be taken up by 31.03.2020 and commissioned by 31.03.2021	*Existing STPs capacities:* ➢ *GHMC- 24 STPs with 774.8 MLD.* ➢ *Miryalaguda (11.5 MLD - Commissioned and 5.45 MLD — Nearing completion)* ➢ *M/s Shah Technical Consultants, Mumbai were appointed for preparation of Comprehensive Sewerage Master Plan for Hyderabad City upto ORR. The consultants have carried out detailed planning, survey,*

	investigation, designs, estimates and submitted the draft Sewerage Master Plan to HMWSSB. The consultants have proposed construction of STPs for year 2036 requirement, laying of lateral sewers, branch sewers and trunk sewers for 2051 requirement at a tentative cost of Rs.15,884 Crores with 65 numbers of STPs (2060 MLD). ➢ *The Govt has submitted the Pre-feasibility Reports of Sewerage Master Plan costing Rs.15,884 Crores to NMCG / NRCD, GoI.* ➢ *The NMCG / NRCD, GoI, during appraisal advised to take up the 5 DPRs proposals under Hybrid Annuity Mode (HAM) Contract for implementation with 60% investment by the agency and 40% by State Government / ULB. The cost of 5 DPRs is Rs.4237 Crores and the bidders investment at 60% will be Rs.2542.20 Crores and Government share at 40% will be Rs.1694.80 Crores.* ➢ *As per suggestions of NMCG / NRCD, the following 5 Detailed Project Reports (DPRs) for priority segments at a cost of Rs.4237 Crores were submitted for financial assistance and technical appraisal:* • *DPR-1- STPs on North of Musi (354 MLD) with conveying mains with a cost of Rs.995 Cr (4 STPs).* • *DPR-2- STPs Project for South of Musi (381.5 MLD) with conveying mains of Rs.995 Cr (3 STPs).* • *DPR-3- STPs Project for H.S. Lake (Kukatpally) (257 MLD) with conveying mains of Rs.963 Cr (8 STPs).* • *DPR-4- STPs Project for H.S. Lake (Jeedimetla) (66 MLD) with conveying mains of Rs.297 Cr (5 STPs).* • *DPR-5- STPs Project for Nakkavagu catchment (River Manjera) (262 MLD) with conveying mains of Rs.987 Cr (8 STPs).* ➢ *The estimated cost for 28 STPs (1320.5 MLD) for priority segments is Rs.4237 Crores.* ➢ *72 Nos. of septage collection vehicles (gulpers) are empaneled by HMWS&SB and consultants M/s. ASCI, Hyderabad to collect the septage from septic tanks upto ORR and convey to the existing STPs at 4 locations for co-treatment.* ➢ *The installation of co-treatment process at other existing 18 STPs is being undertaken in phased manner.*

	➢ *Hyderabad City Comprehensive Sewerage Master Plan Details (Musi, Nakkavagu/ Manjeera stretch):* ➢ *Project Area (upto ORR) - 1452 Sq. km.* ➢ *Expected Sewage Generation —* • *2021 — 1975 MLD* • *2036 — 2848 MLD* • *2051 — 3759 MLD* ➢ *Project Planning:* • *No. of STPs - 65 Nos* • *STPs capacities proposed - 2061 MLD (2036 year)* ➢ *Proposed STPs Locations:* • *Along bank of river Musi - 7 Nos - Capacity 760 MLD* • *Near the Water Bodies (GHMC) - 30 Nos- Capacity 728 MLD* • *Near the Water Bodies (ORR Villages)- 28 Nos – Capacity 573 MLD* ➢ *Tentative Cost for Construction of STPs, Laying Sewer Network and O&M for 10 Years:* • *For River Musi Catchment area components - Rs.13480 Crores* • *For Nakkavagu Catchment (River Manjeera) area components - Rs.2405 Crores*
In view of status report of CPCB dated 28.06.2019, let necessary remedial steps be taken by the Urban Development Department, Telangana, Municipal Corporation, Hyderabad and the TSPCB. The nodal agency will be TSPCB for the purpose.	*The details of the enhancement of the STPs to treat the total sewage generated in the catchment of the River Musi is submitted in the action plan prepared and submitted to CPCB in compliance to the Hon'ble NGT orders in OA No.673/2018.* ***Further, directions on the functioning of the STPs, obtaining of consents, engaging technical manpower etc. are under different stages of execution and are delayed due to COVID pandemic.*** *An action plan for utilisation of the treated waste water from STPs was prepared by the Government for the total state and submitted to CPCB on 22nd January, 2020.* ***The same is under implementation.***

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5. It is clear from the above that no concrete step has been taken on the ground to stop pollution and all steps are merely proposed action which means that violation of law continues, without any preventive or

punitive action as per law. Mere proposal without resulting in stoppage of pollution or punishing the polluters is failure of law, calling for accountability of the authorities either on account of lack of concern for public duty to enforce right to clean environment and access to water and health or collusion. Excuse of Covid is lame excuse as pollution is continuing since long as noticed in earlier orders. The situation remains where it was. It is also not shown that prosecution has been initiated as per directions of the Hon'ble Supreme Court in (2017) 5 SCC 326 which fixed deadline of 31.3.2017, nor compensation recovered for continued pollution. This may call for action against the State and the regulators unless they discharge their duties as per law.

6. Let remedial action be taken in the light of further orders of this Tribunal today in *O.A. No. 673/2018* and a compliance report filed on or before 15.09.2020 by e-mail at judicial-ngt@gov.in (preferably in the form of searchable/OCR PDF and not image PDF). A copy of the report may be placed on the website of the CPCB for comments, if any, by the affected parties within two weeks thereafter.

List for further consideration on 21.09.2020.

Adarsh Kumar Goel, CP

Sheo Kumar Singh, JM

Dr. Nagin Nanda, EM

June 29, 2020
OA No. 426/2018
A&DV