

BEFORE THE NATIONAL GREEN TRIBUNAL

Western Zone Bench, Pune

ORIGINAL APPLICATION NO. 193/2024(WZ)Earlier O.A. No. 1157 / 2024 (PB)

IN THE MATTER OF:

News Item titled "Gujarat: Mugger crocodiles in Vadodara's polluted Vishwamitri are stressed; those in rural Charotar are not, finds study" appearing in Down to Earth dated 14.08.2024

REPLY ON BEHALF OF THE RESPONDENT No. 01:CENTRAL POLLUTION CONTROL BOARD (CPCB)

1. That, Hon'ble National Green Tribunal (hereinafter referred to as "Hon'ble Tribunal") Principal Bench (P.B.), New Delhi vide order dated 12.09.2024 has sought the reply of Answering Respondent (hereinafter referred to as CPCB) in the present matter. As the matter transferred to Western Zonal Bench, hence the reply is being submitted herewith before the Western Zonal Bench of the Tribunal at Pune. Thereby, the reply is made in succeeding paragraphs.
2. That, CPCB is a statutory Board constituted under Section 3 of The Water (Prevention and Control of Pollution) Act, 1974. It performs the functions under The Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986.

PRELIMINARY SUBMISSIONS:-

3. That, the matter is registered in the Hon'ble NGT (PB) suo-motuo on the basis of the news item titled "Gujarat: Mugger crocodiles in Vadodara's polluted Vishwamitri are stressed; those in rural Charotar are not, finds study" appearing in Down to Earth dated 14.08.2024.
4. That, the matter relates to a recent study that has found that pollution and human conflict significantly increase stress hormone levels among mugger crocodiles (*Crocodylus palustris*). As per the article, mugger crocodiles also known as marsh crocodiles, which are listed as 'vulnerable' by the IUCN and protected under India's Wildlife (Protection) Act, 1972. The article states that stress hormones, or glucocorticoids, are released by organisms in response to challenging conditions, serving as an adaptive mechanism to mobilize energy. However, prolonged high levels of these stress hormones can lead to long term issues such as reproductive failure and weakened immune function.
5. That, the article highlights that over the past two decades, incidents of human-mugger conflict in India have increased five fold, rising from 57 cases between 2001 and 2010 to 338 cases from 2011 to 2020. As per the research conducted by the Centre on Climate Change of HIMCOSTE which compared mugger crocodiles in Vadodara, an urban area with high pollution and frequent human-crocodile conflicts, with those in the rural Charotar region of Gujarat, which is less industrialized and has fewer conflicts. The key findings are as follows:

- o Mugger crocodiles in Vadodara exhibited stress hormone levels four times higher than those in Charotar and captive crocodiles at the Madras Crocodile Bank Trust (MCBT) in Chennai. This suggests that crocodiles in

Vadodara are facing a more challenging environment, leading to heightened stress.

- o Vadodara reported 23 out of 55 Human-Mugger Conflict (HMC) incidents in Gujarat between 2019 and 2023, whereas Charotar reported only two incidents. This disparity underscores the impact of urbanization and industrialization on crocodile stress and conflict levels.
 - o The study highlights the adverse effects of pollution and human encroachment on mugger crocodiles, which are classified as 'vulnerable' by the IUCN and protected under Indian law. Increased stress levels can lead to reproductive and immune system problems in these crocodiles.
 - o That, the order mention that the above news item indicates violation of the provisions of the Water (Prevention and Control of Pollution) Act, 1974, Biological Diversity Act, 2002 and the Environment (Protection) Act, 1986
6. That, CPCB in association with the State Pollution Control Boards (SPCBs) in the States and Pollution Control Committees (PCCs) in Union Territories has established a water quality monitoring network under National Water Quality Monitoring Programme (NWMP) to assess status of water quality of water resources in the States/UTs to facilitate for prevention and control of pollution in the water bodies. Under National Water Quality Monitoring Programme (NWMP) Gujarat Pollution Control Board (GPCB) monitors water quality at 2 locations on River Vishwamiti. Water Quality data of River Vishwamatri at said locations during the year 2024 is provided as Annexure.
 7. That, upon comparison of the water quality data with the Primary Water Quality Criteria for Bathing Waters (as notified by the Ministry of Environment, Forest and Climate Change vide G.S.R. 742 (E) dated 25.09.2000 under The Environment (Protection) Amendment Rules, 2000), it is seen that the location at Asod Bridge at NH 8 is meeting the said Criteria while the location at Downstream of Khalipur is not meeting the same.
 8. That, in year 2018, based on water quality data of year 2016 & 17, 351 polluted river stretches (PRS) were identified by CPCB. Of the identified PRS, 20 have been identified in Gujarat State. The PRS were distributed into five priority classes. In Gujarat, PRS were identified in Priority I (5), Priority II (1), Priority III (2), Priority IV (6) & Priority V (6). PRS at River Vishwamitri was identified from Vadodara to Asod under Priority Class II (BOD is 20 - 30 mg/L).
 9. That, for rejuvenation of identified PRS, comprehensive action plans have been prepared by River Rejuvenation Committee (RRC) constituted by the respective State Government/ UT Administration, under the overall supervision and coordination of Principal Secretary, Environment of the concerned State /Union Territory for bringing all the polluted river stretches identified by CPCB fit for bathing purposes
 10. That, the action plans for rejuvenation of PRS under Priority I to IV including polluted strctch of River Vishwamitri under Priority Class II were reviewed and approved by CPCB Task Team in 2019. The action plan is being implemented by Gujarat State Government Departments and regularly monitored by Central Monitoring Committee (CMC) headed by Secretary, Ministry of Jal Shakti.
 11. That, the action plans cover relevant aspects such as Source control (Municipal sewage management, Industrial pollution control, Waste management), River catchment/Basin Management (Adoption of good irrigation practices, Utilization of treated sewage, ground water recharge aspects), Flood Plain Zone protection

and its management (Setting up of bio-diversity parks, Removal of encroachments, rainwater harvesting and Plantation on both sides of the river).

12. That, in the year 2022, based on water quality data of year 2019 & 21, 311 polluted river stretches (PRS) were identified by CPCB. Of the identified PRS 13 have been identified in Gujarat State. PRS were identified in Priority I (6), Priority II (1), Priority III (1), Priority IV (1) & Priority V (4). River Vishwamitri was identified along Khalipur Village under Priority Class I (BOD is >30 mg/L).
13. The answering respondent craves reply of the Hon'ble Tribunal to file additional reply, in future, if required.
14. That in light of the above submission, it is respectfully submitted that this Answering respondent i.e. CPCB, shall abide by any order(s) or direction(s) passed by this Hon'ble tribunal in the instant OA.

P. Gargava

(Prasoon Gargava)

Scientist 'F' & RD (Vadodara)

Central Pollution Control Board

प्रसून गार्गव / PRASOON GARGAVA

क्षेत्रीय निदेशक / REGIONAL DIRECTOR

केन्द्रीय प्रदूषण नियंत्रण बोर्ड/Central Pollution Control Board

(पर्यावरण, वन एवं जल. मंत्रालय, भारत सरकार)

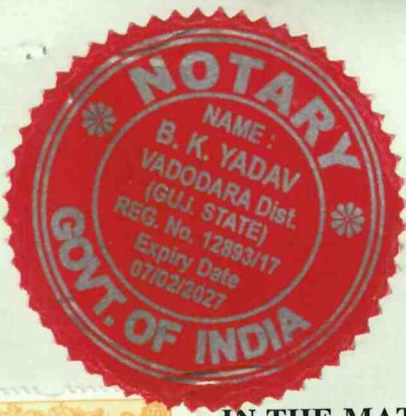
(Ministry of Environment, Forest & Climate Change, Govt. of India)

क्षेत्रीय निदेशालय (पश्चिम), वडोदरा-390023.

Regional Directorate (West), Vadodara-390023.

Annexure

Sampling Month (2024)	Name Of Monitoring Location	Dissolved Oxygen (mg/L)	pH	BOD (mg/L)	Fecal Coliform (MPN/100ml)	Fecal Streptococci (MPN/100ml)
Primary Water Quality Criteria for Outdoor Bathing		5.0 or more	6.5 to 8.5	3.0 or less	2500 (Maximum permissible)	500 (Maximum permissible)
Jan	RIVER VISHWAMITRI	0.3 (BDL)	8.1	8	1600	1600
Feb	DOWNSTREAM OF KHALIPUR VILLAGE,	0.3 (BDL)	7.78	8	1600	1600
Mar	BEFORE MEETING JAMBUVA	0.7	7.75	7	1600	1600
Apr	RIVERKHALIPUR BRIDGE-VADODAR	0.3 (BDL)	7.78	6	1600	1600
May		0.3 (BDL)	8.4	8	1600	1600
Jun		0.3 (BDL)	8.48	8	1600	1600
Jul		0.5	7.39	7	1600	1600
Aug		6.8	8.14	1.6	1600	1600
Sep		6.4	7.86	1 (BDL)	1600	1600
Jan	RIVER VISHWAMITRI UPSTREAM AT ASOD BRIDGE	6.8	8.25	1 (BDL)	11	1.8 (BDL)
Feb	AT N.H. 8, NEAR GOLDEN CHOKDI, ASOD VEMALI ROAD	7.3	7.85	1 (BDL)	7	1.8 (BDL)
Jul		6.9	7.84	1 (BDL)	17	1.8 (BDL)
Aug		7.2	7.9	1 (BDL)	13	1.8 (BDL)
Sep		6.6	8.02	1 (BDL)	7	1.8 (BDL)



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AFFIDAVIT

I Praseon Gargava, aged 51 years, having office at the Regional Directorate (Vadodara), Central Pollution Control Board (CPCB), Nr. VMC Ward No. 10 Office, High Tension Road, Subhanpura, Vadodara, 390023, do hereby solemnly affirm, declare on oath and state as under: -

1. That the deponent is authorized representative to represent the Respondent CPCB in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent and authorized to verify, sign and swear this affidavit on behalf of the Respondent CPCB.
2. That the accompanying reply may be read part and parcel of the present affidavit as I am competent to swear this affidavit.
3. That the accompanying reply has been drafted and filed under my instructions and the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.



P. Gargava
DEPONENT

VERIFICATION

Verified at Vadodara on this day of 04th November 2024 that the contents of the above reply are correct and true on the basis of the record of the cases as mentioned in the day to day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Verified at Vadodara on this the 04th Day of November 2024.



P. Gargava
DEPONENT

प्रसून गार्गव / PRASEON GARGAVA
क्षेत्रीय निदेशक / REGIONAL DIRECTOR
केन्द्रीय प्रदूषण नियंत्रण बोर्ड / Central Pollution Control Board
(पर्यावरण, वन एवं जल, संघ, (पं. भारत सरकार)
Ministry of Environment, Forest & Climate Change, Govt. of India)
क्षेत्रीय निदेशक, अधिसूचना नं. 390023,
Regional Directorate (West), Vadodara-390023.



Solemnly Affirmed / Declared
Sworn Before me by Self.....

B. K. YADAV
B. K. YADAV
NOTARY
04/11/2024.