

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
WESTERN ZONE BENCH, PUNE
ORIGINAL APPLICATION NO. 197 OF 2017

Vanashakti & Anr. ...Applicants

Versus

Municipal Corporation of Greater Mumbai & Ors. ...Respondents

NOTE OF WRITTEN ARGUMENTS ON BEHALF OF APPLICANTS

1. The present Application is filed by a Mumbai-based environmental organisation, Vanashakti, that is actively engaged in the work of protecting and preserving forests, coasts, wetlands, mangroves and rivers in Maharashtra. (*Description of parties, OA @Pg. 4, Para 3*). It has actively taken steps in cleaning creeks and rivers of Mumbai (*Photographs of rejuvenation work of Applicant at Annexure A-19 @Pgs.78-79*)
2. The Application concerns discharge of untreated waste from storm water drains (nullahs) directly into seas and creeks in the city of Mumbai, which impacts mangroves, beaches, saltwater lakes, salt pan lands, mudflats and other coastal wetlands and contaminates such natural coastal areas and therefore, the Application seeks the following:
 - (a) To permanently stop sewage and non-biodegradable solid waste from entering the creek and Arabian sea;
 - (b) To immediately install removable nets (simple and easy to clean) at the outfall of all storm water/discharge drains/creeks/creeklets to obstruct large solid waste from entering the Arabian sea and creeks of Mumbai and maintain the same;
 - (c) To implement Maharashtra Non-Biodegradable Garbage Control Act, 2006 in letter and spirit;
 - (d) To construct toilets and connect them with sewer lines to Treatment Plants to avoid direct untreated discharge of raw sewage into Mumbai's creeks and shorelines.

(Prayer Clause @Pg. 17)

3. Issues involved in the present Application are two-fold:

(a) Failure of proper collection of solid waste, including plastic waste, by Municipal Corporation of Greater Mumbai (R-1) in the city of Mumbai has resulted into choking of storm water drains (*nallahs*) and that such solid waste, alongwith sewage, ultimately ends up finding its way into the Arabian Sea, affecting the beaches, all creeks of Mumbai and its coastal wetlands such as mangroves, mudflats, saltpans and saline water bodies and thereby, leading to creation of unhygienic environment causing terrestrial and marine pollution. (*Photographs of solid waste in creeks at Annexure A-1 to A-6 @Pgs. 27 to 40*).

(b) Untreated sewage water being discharged into the Arabian Sea and creeks and coastal wetlands of Mumbai on account of inadequate number of Sewage Treatment Plants and release of polluted solid particles and contaminants directly into the sea. Thane Creek located on the eastern coast of Mumbai has been declared as “*Thane Creek Flamingo Sanctuary*” under Wildlife Protection Act, 1972 as it is home to various threatened, migratory and endemic species of birds. That massive ecological harm in creeks of Mumbai is underway on account of such wide-scale presence of plastics and large solid waste particles in the creeks of Mumbai. (*Study of Bombay Natural History Society, 2015 with Photographs, Annexure A-7, A-8 & A-9 @ Pgs. 41-48*)

4. Applicants have suggested that R-1 may implement the 2006 report of IIT Bombay and MPCB’s direction dated 11.12.2013 to construct 37 Sewage Treatment Plants (STPs) in Mumbai and in the interim, install nets at the point of outfall of every storm water drain that discharges sewage into the creek/sea so as to restrain solid particles from entering the creek/sea and that R-1 can periodically collect and dispose of such solid particles.

A. LARGE-SCALE CREEK AND COASTAL POLLUTION IN COASTAL WATERS OF MUMBAI DUE TO IMPROPER MANAGEMENT OF UNTREATED SEWAGE BY R-1

5. A study conducted in 2017 by Alfred Wegener Institute Helmutz Center for Polar and Marine Research, Germany found high quantity of plastic debris in the 4 beaches of Mumbai. Further, representatives of Respondent No. 1 state that Mumbai's coastline is now considered amongst the most polluted in the world. (*Media Report, Annexure A-11 @Pg. 51-52*)
6. CPCB's (Respondent No. 6) study of November 2005 states that Class-I cities in Maharashtra are lagging the most in cleaning sewage and an abnormally high gap of 5223 MLD sewage in Maharashtra is mostly attributed to improper sewage management in Mumbai as the sewage therein is mostly discharged into sea untreated or after primary treatment. (*CPCB's Report on STPs in India, Annexure A-12 @Pg. 56, Para 2.10*)
7. In 2017, CAG (Comptroller and Auditor General) issued a Report on Sewerage management by Municipal Corporation of Greater Mumbai (MCGM) for the year ending 31.03.2016 wherein CAG categorically states that Mumbai generates 2,146 MLD sewage of which only 1,098 was being treated and 1,048 MLD (49% of total sewage) was directly discharged to sea and creeks without any kind of treatment as of July, 2016. It records that there was severe contamination of sea water around Mahim Creek and that there is a shortage of 20, 195 toilet seats in Mumbai that need to be constructed and be connected to Sewer lines. It records that R-1 engaged IIT Mumbai to provide suggestions to resolve the issue, who suggested in its June, 2006 report that 37 STPs need to be constructed and that CAG reports that till date (as on July, 2016), R-1 has failed to implement the IIT Mumbai's report citing financial problems. (*CAG Report of 2016, Annexure A-14, Pgs. 64-69*)

B. STAND OF RESPONDENT PARTIES AND THEIR SUPPORT TO THE PRESENT CAUSE OF APPLICATION WITH EXPERT REPORTS

8. *Municipal Corporation of Greater Mumbai (Respondent No. 1)* – Despite the OA pending for over 3 years and being the most concerned party in the proceedings and having filed its legal representation

through Mr. Sameer Khale before this Hon'ble Court, MCGM has preferred to not file an Affidavit-in-reply in the proceedings. In fact, MCGM sought time to file its response on two occasions, i.e. on 02.07.2018 & 11.07.2018 and this Hon'ble Tribunal granted such time by way of last two opportunities and even then, MCGM has remained evasive. Unfortunately, MCGM did not even provide oral instructions to its standing counsel until the day of reserving of the present matter for final judgment. It is submitted that ample opportunity has already been provided by the Hon'ble Tribunal to MCGM, who has deliberately and evasively chosen to not respond to the present application has therefore, failed to discharge its obligations under Article 48-A and Article 243W r/w Schedule-XII of the Constitution of India, 1950.

9. *Urban Development Department, State of Maharashtra (Respondent No. 2)* – R-2 has filed its affidavit-in-reply dated 25.01.2019 stating that R-1 is the authority responsible under the Constitution of India and under the powers vested through the Mumbai Municipal Corporation Act, 1888 (“MMC Act, 1888”) (under Sections 220 to 225) to perform all works concerning drainage and draining works and to perform all works concerning sewage disposal under Section 239 and 259-A of MMC Act, 1888. (*Affidavit dated 25.01.2019 @ Pg. 194, Paras 2 to 4*)

10. *Maharashtra Pollution Control Board (Respondent No. 3)* – MPCB has filed its affidavit-in-reply dated 02.04.2018 wherein it states that despite having 8 functioning STPs in Mumbai, presently, 655 Million Litres of sewage continues to be discharged into the creek on a daily basis. (*@Pg. 83, Para 3*). At Para 4 of its affidavit, MPCB states that R-1's sewer lines are inadequate and that it has issued various directions to R-1 for upgradation of sewer network. Further, MPCB points out that monitoring results of coastal water in Mumbai show that the quality of water in the creek and sea are well-below the prescribed minimum standards, which have been corroborated with the quality assessment reports attached to the affidavit. (*@Pg. 83, Para 5*). MPCB states that it has written a letter dated 29.10.2013 to R-1 citing severely inadequate sewage treatment facilities provided in Mumbai.

(Letter dated 29.10.2013, Annexure-V @Pg. 111-113 of Affidavit of MPCB dated 02.04.2018)

11. Most importantly, since no steps were taken by R-1 on the aforementioned letter of MPCB dated 29.10.2013, MPCB was constrained to issue directions under Section 33A of the Water Act, 1974 & Air Act, 1981 dated 11.12.2013 specifically directing it to (i) install 37 STPs at Mumbai as recommended by IIT Mumbai, (ii) remove industrial establishments to remove unauthorised units near Mithi river, (iii) provide adequate infrastructure for collection & segregation of solid waste near Mithi river, (iv) abatement of dumping of construction debris in and around Mithi river, (v) illegal slaughtering near the creek and (vi) furnish an irrevocable bank guarantee of Rs. 25 lakhs. *(MPCB's Notice dated 11.12.2013, Annexure-VI @Pg. 114-116 of Affidavit of MPCB dated 02.04.2018)*. MPCB states that despite issuing such a stringent Show Cause Notice under Section 33A of Water Act, 1974 and further communications thereafter, R-1 has failed in performing its statutory and constitutional obligations till date. MPCB states at Para 20 of its affidavit that "..Applicants' suggestions about installation of nets in storm water drains to stop solid waste from entering the creeks and water bodies would be the welcome move after conducting feasibility study of the same." *(Affidavit of MPCB dated 02.04.2018, @Pg. 91, Para 20)*

12. *Deputy Salt Commissioner (Respondent No. 4)* – R-4 is a necessary party as it has administration and control over all salt pan lands (that form a part of coastal wetlands) which continue to remain polluted due to disposal of untreated sewage and solid particles. That this Hon'ble Court, *vide* order dated 11.07.2018, directed to proceed *ex parte* against R-4 on account of non-representation despite having notice been duly served upon it.

13. *Chief Conservator of Forest, Mangrove Cell (Respondent No. 5)* – R-5 filed an affidavit dated 10.07.2018 stating that mangroves are facing widespread contamination and pollution due to discharge of untreated sewage and solid particles and that it has written a letter dated 15.04.2017 to R-1 highlighting the issue of solid waste in mangroves and sought R-1's help in addressing the issue. *(CCF Mangrove Cell's*

letter dated 15.04.2017, Affidavit of CCF dated 10.07.2018, Annexure– B @Pgs. 184–185). That R–1 responded to the letter stating that it will extend due cooperation in removing the garbage in mangrove areas. (Affidavit of CCF dated 10.07.2018, Para 8 @Pg. 178). Subsequently at Para 9 of the affidavit at Pg. 178, R–5 states that “..Segregation of waste at source is absolutely necessary. Till this happens the measures suggested by the applicant can serve as an intermediate and partial solution the problem.”

14. **Central Pollution Control Board (Respondent No. 6)**– While replying upon various provisions of Solid Waste Management Rules, 2016, CPCB, in its affidavit dated 05.07.2018, has annexed a chart at Annexure–III providing details of water quality of creeks, sea (beaches) and Marine Water in Maharashtra pursuant to a quality–check survey carried out in 2017. As far as creeks and beaches of Mumbaiis concerned, CPCBhas carried out survey at 12 locations and the relevant portion is being reproduced herein below in a tabular form for the sake of convenience of this Hon’ble Tribunal:

Station Code	Location in Mumbai	Dissolved Oxygen levels (mg/l) (Prescribed standard – <i>Greater than 4 Mg/L</i>)	BOD (mg/l) (Prescribed Standard – <i>Less than 3 Mg/L</i>)	Faecal Coli Form (mg/l) (Prescribed Standard – <i>Less than 100 mg/l</i>)
1318	Mahim Creek at Mahim Bay	3.2	18.0	920
2165	Sea water at Gateway of India	3.1	20.0	920
2166	Sea water at Charni Road, Choupathy	3.2	20.0	1600

2167	Sea water at Worli Sea Face	3.5	20.0	1600
2169	Sea water at Versova	3.0	20.0	1600
2184	Vashi Creek at Airoli Bridge	3.0	20.0	540
2185	Vashi Creek at Vashi Bridge	3.1	18.0	920
2808	Sea water at Nariman Point, Colaba	3.0	20.0	920
2809	Sea water at Malabar Hill, Walkeshwar	3.1	20.0	1600
2810	Sea water at Haji Ali, Worli	3.0	20.0	1600
2811	Sea water at Shivaji Park, Dadar	3.1	20.0	1600
2812	Sea water at Juhu Beach, Santacruz	3.0	42.0	1600

The above details reveal that DO levels at all 12 locations are far below the minimum standard of >4 mg/l. Further, BOD levels are 6 times higher than maximum prescribed standard of 3mh/L and at Juhu beach, it is 12 times higher. Further, Faecal Coli form is abnormally

high at 16 times the prescribed standards at atleast 7 locations and at more than 9 times higher at remaining locations. This shows the seriousness of the quality levels of coastal waters in Mumbai. (*CPCB's affidavit dated 05.07.2018, Annexure-III @ Pg. 150*).

18. CPCB has further issued directions dated 15.12.2016 under Section 17 of Water Act, 1974 to MPCB to ensure that adequate STPs are set up by all Municipal Corporations to prevent deterioration of coastal waters. (*CPCB's directions to MPCB dated 15.12.2016, CPCB's affidavit dated 05.07.2018, Annexure-VI@ Pg. 164*)

19. *Environment Department, State of Maharashtra (Respondent No. 7)* – The affidavit dated 04.06.2018 filed by Secretary, Environment Department states that R-1 is the authority responsible for management, handling and implementation of solid waste, sewage and plastic waste under Solid Waste Management Rules, 2016, Plastic Waste Management Rules, 2016 and Maharashtra Non-Biodegradable Garbage (Control) Act, 2006. It further states that R-1 is duty bound to prevent pollution of beaches, coastal waters, creeks and water bodies in Mumbai. It further states that “..what the Applicants have suggested is the welcome move it it can be adopted by Respondent No. 1, i.e installation of nets in storm water drains to stop solid waste from entering the creeks and water bodies after conducting full-fledged feasibility study for installation of the same.” (*Affidavit of Under Secretary, Environment Department, MH dated 04.06.2018 @Pgs. 128-129, Paras 2-5*).

20. *Joint report of Divisional Forest Officer, Mangrove Cell and MPCB dated 18.09.2020* – Join Report prepared by DFO and MPCB in terms of this Hon'ble Tribunal's order dated 07.07.2020 recommends installation of Trash Boom Trap Technology for floating particles in the creek and that all sewage should be treated before being released into the creek. It further relies upon an IIT Mumbai's report giving choices of technology for floating matter removal and sediment removal respectively and reiterates Applicant's suggestions that nets must be installed on the banks of both sides of the creek and the Mithi river.

C. APPLICANT'S SHORT SUBMISSIONS IN FACTS AND IN LAW

21. That it is an admitted position amongst all Respondent authorities who have filed their responses that coastal waters of Mumbai alongwith its associated creeks, coastal wetlands such as mudflats, mangroves, beaches, brackish areas and salt pan lands are extremely polluted due to untreated sewage flowing into it and are extremely contaminated due to large solid waste/particles and plastics flowing into the creek and that R-1 is responsible for such continuing increase in pollution relating to sewage and solid waste in Mumbai. As stated earlier, despite given ample opportunity by this Hon'ble Tribunal to R-1 *vide* orders dated 02.07.2018 and 11.07.2018 to file its affidavit, R-1 has remained largely evasive and has chosen not to file its reply, despite being duly represented in court through its authorised legal representative.
22. That this Hon'ble Tribunal has the benefit of following reports and directions as submitted by the Applicant and various Respondent authorities to satisfactorily allow the present application:
- (a) CPCB's 2005 Report states that improper sewage management in Mumbai is attributed to R-1's failure in providing adequate number of STPs.
 - (b) MCGM (R-1) engaged IIT-Bombay in 2006 to provide suggestions to resolve the issue of sewage and solid waste pollution in creeks whereby IIT-Bombay suggested construction of 37 STPs in Mumbai.
 - (c) MPCB in its letter dated 11.12.2013 cites the IIT Mumbai's report to establish 37 STPs, amongst other directions (all directions stated above).
 - (d) Bombay Natural History Society (BNHS) states in its 2015 report that massive ecological and Avifaunal harm (on migratory birds) is underway in Mumbai due to contamination of Thane creek Flamingo Sanctuary and mangroves in Mumbai.
 - (e) CPCB provides 2017 data on water quality of creeks, beaches and coastal waters of Mumbai that show 12 times higher BOD levels and 16 times higher Faecal Coli form levels than the prescribed standards.

(f) CAG report of 2017 on Sewerage Management of R-1 states that 49% of total sewage generated in Mumbai is directly discharged to sea and creeks without any treatment and suggested implementation of IIT Mumbai's report to establish 37 STPs.

23. That R-1 is the implementing authority responsible for effectuating the directions sought by the Applicants in view of the following mandatory constitutional and legal provisions:

- (a) Article 243W r/w Twelfth Schedule of Constitution of India, 1950 obligates Municipality to deal with public health, sanitation conservancy and solid waste management.
- (b) Article 48-A of the Constitution of India, 1950 enshrines that it is the fundamental duty of the State to preserve and protect the environment and water bodies.
- (c) Section 61 of Mumbai Municipal Corporation Act, 1881 makes it incumbent upon R-1 to construct, maintain and clean drains and drainage works, public latrines and similar conveniences. Section 220 to 225 of MMC Act, 1888 deal with drainage works and Sections 239 and 259A of MMC Act, 1888 deal with disposal of sewage.
- (d) Section 5 of Maharashtra Non-Biodegradable Garbage (Control) Act, 2006 mandates R-1 to provide for public receptacles, depots or places for deposit or collection of non-biodegradable garbage and arrange for recycling of such non-biodegradable garbage.
- (e) Rule 15(g) of Solid Waste Management Rules, 2016 mandates the local authority to direct and ensure waste generators not to litter, dispose of any waste such as plastic materials, paper, water bottles, liquor bottles, cans, tetra packs, wrappers, etc. in drains and waste bodies.
- (f) Rule 15(k)(l) of SWM Rules, 2016 mandates local authorities to facilitate construction, operation and maintenance of solid waste processing facilities
- (g) Rule 6 of Plastic Waste Management Rules, 2016 makes R-1 responsible for ensuring that no damage is caused to the environment while processing and managing plastic waste.

24. In *M.C. Mehta v/s Union of India & Ors. [1988 (1) SCC 471]*, the Hon'ble Supreme Court has directed that concerning untreated and

raw sewage in water bodies such as Ganga, statutory provisions concerning municipal bodies need to be strictly enforced to stop discharge of untreated sewage and effluents.

25. In *Manoj Mishra v/s Union of India (2015 SCC OnLine NGT 840)*, a 5 judge-bench of this Hon'ble Tribunal dealt with the issue of pollution in river Yamuna and observed that dumping of untreated sewage and solid waste was a major source of pollution whereby the faecal coliform was observed at 30 times the prescribed standards and that this Hon'ble Tribunal had passed a slew of directions including setting up of STPs to tackle the problem.
26. In *Meera Shukla v/s Municipal Corporation, Gorakhpur (2014 SCC OnLine NGT 2504)*, the Hon'ble NGT considered pollution of Ramgarh Lake, Ami River, Rapti River and Rohani River in and around District Gorakhpur on account of discharge of untreated sewage and it was noted that there was no proper management of solid waste disposal, leading to various vector borne diseases and health problems.
27. In *Subhash Kumar v/s State of Bihar [AIR 1991 SC 420]*, the Hon'ble Supreme Court has declared that right to a wholesome environment including right to a pollution-free water and air formed an integral part of right to life enshrined under Article 21 of the Constitution of India, 1950.
28. In *Dr. B.L. Wadehra v/s Union of India & Ors. [(1996) 2 SCC 594]* which concerned dumping of untreated sewage into Yamuna river, the Hon'ble Supreme Court, while directing that collection and disposal of garbage needs to be taken seriously to keep the city clean, it has also declared that non-availability of funds, inadequate staff and insufficient machinery to implement the law cannot be pleaded as grounds for non-performance of statutory duties by local authority.
29. As far as protection of mangroves is concerned, the Hon'ble Supreme Court in *Krishnadevi Malchand Kamathia and Ors. v/s Bombay Environmental Action Group and Ors [(2011) 3 SCC 363]* has held that mangroves and other wetlands in CRZ-I area cannot be disturbed

and that courts cannot be blind to the reality of such a situation. Further, Bombay HC in *Bombay Environmental Action Group v/s State of Maharashtra & Ors. (PIL No. 87 of 2006, decided on 17.09.2018)* has held that mangroves enjoy utmost protection under the CRZ Notification and that mangroves cannot be destroyed or continued to remain polluted.

30. Therefore, in view of the above legal position and the fact that there is an uncontroverted position between all Respondent Authorities that creek, coastal waters, beaches and coastal wetlands of Mumbai remain polluted due to discharge of untreated sewage and solid particles/plastics, wholly due to failure of R-1 in implementing its above-stated statutory obligations. Handling and disposal of waste is the sole responsibility of R-1 and the Forest department cannot be expected to do the work of removing garbage that comes in from urban areas administered and controlled by R-1.

D. APPLICANT'S SUGGESTIONS AND RELIEFS PRAYED:

- (i) To permanently stop untreated sewage from entering the creek and Arabian sea by constructing 37 STPs in Mumbai in a time-bound manner;
- (ii) To immediately install nets at the outfall of all storm water/discharge drains to obstruct large non-biodegradable solid waste from entering the Arabian sea/creek and maintain the same;
- (iii) To enforce MPCB's directions dated 11.12.2013 issued to R-1 under Section 33A of Water Act, 1974 (annexed at Pg. 114 of affidavit dated 02.04.2018) *in toto*;
- (iv) To implement the report of DFO, Mangrove Cell and MPCB dated 18.09.2020 by giving a specific time-frame;
- (v) To implement Maharashtra Non-Biodegradable Garbage Control Act, 2006 in letter and spirit;
- (vi) To construct toilets and connect them with sewer lines to Treatment Plants to avoid direct untreated discharge of raw sewage into Mumbai's creek;

- (vii) To appoint a Court Commissioner to effectively monitor the implementation of all the above works and direct R-1 to file monthly compliance reports;
- (viii) To allow Applicants to participate in the process to provide assistance to R-1.
- (ix) To pay the charges or expenses incurred by Forest department to remove the existing garbage from the Sanctuary and mangrove sites or undertake to do the same under the supervision of the Forest department..
- (x) To periodically list the matter for compliance until all compliances and substantive satisfaction of this Hon'ble Tribunal's directions are achieved;

Prepared by:



Zaman Ali,
Advocate for Applicants

09.10.2020