



GUJARAT POLLUTION CONTROL BOARD

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24 AUG 2021

To,

The Registrar,

Hon. National Green Tribunal,
Principal Bench,
Faridkot House,
Copernicus Marg,
New Delhi-110001.

Sub: - Submission of Quarterly Report in O.A. No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 (State of Gujarat).

Ref: - Hon. National Green Tribunal Order Dated 09/04/2019.

Respected Sir,

Vide order dated 9th April 2019 a direction was passed by the Hon'ble Tribunal, a quarterly report to be furnished by the Chief Secretary every three months.

IN COMPLIANCE THEREOF, please find attached herewith eighth quarterly report for your kind perusal.

Thanking You,

(A.V. Shah)

Member Secretary,
Gujarat Pollution Control Board,
Gujarat State

Encl: - As above

Copy to:

The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan,
East Arjun Nagar,
New Delhi-110 032

For information with respect to Hon. NGT order
dated 14.12.2020 in O.A. 606/2018

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

Gujarat

**Compliance Status Report
Hon'ble NGT in the matter of O.A.
606/2018, order dated 16/01/2019
and 09/04/2019.**

Eighth Quarterly Report

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PREFACE:

Pursuant to the directions given in the order of Hon'ble Tribunal dated 09/04/2019, the State of Gujarat is filling this report.

Gujarat has acquired Statehood from the erstwhile Bombay State on May 1, 1960. Gujarat is located on the western coast of India over an area of 75,685 square miles (196,024 square km) and has the longest coastline of 1,600 km among all states in the country. The state shares its borders with Rajasthan, Madhya Pradesh, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli. The Arabian Sea borders the state both to the west and the south-west. Gujarat stands at 10th rank amongst the States in the country in respect of population and at 21st rank in population density. As per Census 2011, Gujarat has population of 6.038 Crore showing a decadal growth rate of 19.17% as compared to all India growth rate of 17.64%. The growth rate of population in rural and urban areas was 9.23% and 35.83% respectively. Gujarat has been one of the most urbanized states in the country with about 46% population resides in urban areas. Significant urbanization in the State has posed the issues of sewage and municipal solid waste management in Municipal Corporations and Nagarpalikas in the State.

Gujarat is having total 8 Municipal Corporations and 156 Nagarpalikas. For satisfying the treatment requirement of the rising sewage generation in urban areas, Gujarat is providing / augmenting the necessary infrastructure as reflected in the table below:

ULB	Present Wastewater Generation	Existing STPs	Under Construction STPs	STP Under Tender stage	STP Under Planning
Municipal Corp (8 nos)	2900 MLD	48 STPs (3178 MLD)	18 STPs (990 MLD)	13 STPs (550MLD)	
Nagarpalikas (156 nos)	1011 MLD	30 STPs (472 MLD)	95 STPs (665 MLD)	44 STPs (445MLD)	

Gujarat has implemented 100% Door to Door collection in all the 8 Municipal Corporations & 156 Nagarpalikas in the State having total waste collection about 9,846 Ton/Day (TPD). About 88.8% of the collected waste is treated and reused as Compost, Refused Derived Fuel etc.

There are total No. 594 of Plants for Vermi / Aerobic/ anaerobic Composting of installed processing capacity 6118.59 TPD. There are 205 plants Material Recovery Facilities (MRF) with processing capacity of 3921.5 TPD installed capacity. There are 5 plants of RDF with processing of 1020 TPD. Biogas/Bio-

Methenation 34 plants with capacity of 148.30 TPD and 1 plant under Construction of Junagadh Municipal Corporation 15 TPD. 7 Waste to Energy (WTE) plant (Mass incineration) are under construction, the total capacity is 5500 TPD.

Total 51.39 Lacs MT of legacy waste of 8 municipal corporations is planned to be cleared within next 12 Months and total 42.17 Lacs MT of legacy waste of 156 Nagarpalikas is planned to be cleared within next 9 Months.

Gujarat has total 31,368 registered Health Care Facilities generating total 36.42 MT/day of biomedical waste. For proper scientific disposal of biomedical wastes, the State has total 20 operational Common Biomedical Waste Treatment Facilities (CBWTFs) with total installed capacity of 126 MT/day. GPCB directed all CBWTFs to implement of Barcode system vigorously vide letter dated 06/08/2019 and CBWTFs have started implementation of Bar Code system. In nutshell, entire quantity of bio-medical waste in the State is handled scientifically through 20 CBWTFs.

Gujarat has diversified its industrial base substantially over a period of 60 years ever since it has acquired Statehood. Textiles and Auxiliary sectors were the major contributor to industrial economy of the state during 1960s. The industrial spectrum has completely transformed in the span of over 50 years. At present 12 major industry groups together account for 86% of factories, 96% of fixed capital investment, 94% of value of output and 95% of value addition in the states industrial economy.

Recently, refined petroleum products have emerged as one of the largest industrial groups having 33% share, followed by chemicals having 21% share of entire industrial sectors (Industries Commissionerate, 2012). Gujarat occupies a prominent niche in progressive and industrial development of the country. Gujarat has an inventory of 186 industrial estates spread over 36,000 Hectares of land comprising of over 40,000 industrial units across the State.

In terms of its presence across sectors, Gujarat contributes significantly to the country's soda ash production (98%), salt production (78%), diamond processing (80%), plastic industry (65%), petrochemical production (62%), onshore crude oil (53%), onshore natural gas (31%), mineral production (10%), chemicals (51%), groundnut (37%), pharmaceuticals (35%), cotton (31%) and textiles (31%).

Gujarat has always been a forerunner not only in industrial development but also in areas of pollution control and environmental protection. Gujarat is leading in the country in terms of provision of Common Effluent Treatment Plants

(CETPs) and presently having 35 operational CETPs with hydraulic capacity of approx. 767 Million Liter / Day (MLD).

Treatment of non-biodegradable / concentrated waste water is not feasible in the ETPs. In last few years Multiple Effect Evaporator (MEE) widely used in process plant of the industry has now found its place as an important unit for disposal of such non-biodegradable / concentrated waste water. Gujarat known for its strong cooperative base in the country has made progress by adopting this concept through cooperative model as Common Environment Infrastructure at industrial cluster level. Gujarat has total 12 operational common MEEs. Industrial units are segregating its concentrated effluent and send it to Common MEEs for evaporation.

With respect to polluted river stretches in the State, River Rejuvenation Committee (RRC) was constituted on 29/11/2018. Action plans of Priority-I & II have been prepared by RRC and got approved by the Central Pollution Control Board (CPCB) and action plans for Priority III to V have been prepared and approved by River Rejuvenation Committee (RRC) and submitted to the CPCB. Action plans are presently under implementation. Performance bank guarantee (PBG) of Rs. 15 Crore from Gujarat Urban Development Mission (behalf of all ULBs), Panchayat, Rural Housing & Rural Development Department (PRH & RDD), various CETPs/ Industry and Notified Area Authorities was received & submitted to the CPCB. Monthly monitoring of all Polluted River Stretches (PRS) is being done by concerned Regional Offices (ROs) of GPCB.

An unprecedented initiative, three deep sea effluent disposal pipeline projects envisaged by the GPCB have got government approval, viz. Ahmedabad region (For Sabarmati in Priority I PRS) at the cost of Rs. 1478 Cr., Jetpur region (For Bhadar in Priority I PRS) at the cost of Rs. 669 Cr. and for Vadodara region at the cost of Rs. 128 Cr. Deep sea disposal pipeline projects will further improve River Water quality of Sabarmati & Bhadar Rivers, which are included in Priority-I of Polluted River Stretches.

Gujarat was the first state to address hazardous waste issue and brought about a novel concept of common Treatment, Storage and Disposal Facility (TSDF) for cluster of industries. Development of TSDF by individual industry is commonly unviable due to small quantity of hazardous waste generated. Gujarat is leading in the country for the development of TSDF site. Gujarat is the first with 14 sites (8 are in operation and 6 are proposed facility) amongst all other states. In addition to that there are 11 captive operation TSDF sites in Gujarat.

New Initiatives by the Gujarat Pollution Control Board (GPCB):

Hon'ble NGT has issued directions in matter of different environmental issues in State of Gujarat from time to time. While complying these directions and for the betterment of environment as well as to resolve environmental issues, Gujarat Pollution Control Board (GPCB) has initiated imperative steps which are summarised below:

1. Emission Trading Scheme:

- ✓ GPCB announced "Pilot project on Emission Trading Scheme for Particulate Matter (ETS-PM Pilot Project) in Surat Region" on World Environment Day, 2019 which was launched by Hon'ble Chief Minister, Govt. of Gujarat.
- ✓ The ETS-PM pilot project of Gujarat is the first scheme of its kind in world for particulate matter to achieve the goal of environmental regulation while incentivizing industries to improve plant efficiency and reduce abatement costs.
- ✓ The MoEF&CC, Govt. of India has sanctioned the ETS-PM pilot project. GPCB has developed the project in collaboration with leading international researchers from University of Chicago, Yale University, J-PAL at Massachusetts Institute of Technology (MIT).
- ✓ Emissions trading or cap-and-trade is a market-based approach used to control pollution by providing economic incentives for achieving reductions in the emissions of pollutants; wherein the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions.
- ✓ GPCB jointly with J-PAL (MIT) has successfully implemented the pilot project of Emission Trading Scheme in Surat.
- ✓ For the pilot project in Surat industrial cluster, about 342 industries having high potential of PM emission and situated in 30 km radius of Surat city have been selected.
- ✓ In phase-1 of Surat pilot project, live emission trading has been started among 156 industries since 16th of September 2019.
- ✓ GPCB allots permits in terms of Particulate Matter (PM) mass emission to these industries for the decided compliance period. These permits would therefore limit the total quantum of PM emission from these industries.

- ✓ During compliance period, industries can buy or sell permits on the trading platform to settle their permits. Industries emitting less than the permitted emissions shall have surplus permits to sell in market, whereas industries emitting more than the permitted emissions shall buy the shortfall permits from other units.
- ✓ If industry fail to settle their permit at the end of compliance period, necessary amount at pre-decided rate is deducted from environmental damage compensation deposit submitted by the industry.
- ✓ The trading platform has been developed by NCDEX e –Market Ltd. (NeML) for permit exchange, which would administer all permit trading, auctioning, registry maintenance, and information sharing, providing both back-end functionality and the industry-facing front end.
- ✓ Till July 2021 total fourteen live emission trading sessions (compliance periods) have got completed, giving encouraging results.
- ✓ Trading scheme benefits to a regulator:
 - Provide environmental protection by placing a binding cap on total emissions.
 - Switch over from conventional “Command and Control” system to market based regulation based on “Cap and Trade”.
 - Strengthening of monitoring using modern technology of CEMS
 - Polluter exceeding permitted emission limit has to pay.
- ✓ Benefits to industries:
 - Allow low-cost reduction in emissions
 - Providing flexibility to industries for compliance
 - Industries rewarded for having reduced emissions
- ✓ GPCB’s efforts was appreciated by Dr. Sanjay Jaiswal, Hon’ble Member of Parliament, Paschim Champaran, Bihar on the fourth day of the Winter Session of the Parliament.
- ✓ Due to COVID-19 pandemic, emission trading in Surat was suspended on 26/03/2020 and it has been resumed later on from 01/12/2020 when industry operations got normalized.
- ✓ In view of the encouraging results of Surat pilot project, a decision was taken in the 9th Market Oversight Committee held on 24/11/2020 to expand the ETS (PM) to Ahmedabad cluster.
- ✓ Approximately 230 industrial units having high potential of PM emission and situated in 30 km radius of Ahmedabad city have been selected for the Ahmedabad Pilot Project

- ✓ GPCB has provided technical knowledge and necessary guidance to the selected industrial units of Ahmedabad through a series of capacity building workshops and webinars.
- ✓ Notification for installation of CEMS is already issued to the industrial units selected for Ahmedabad pilot project and total 143 industrial units have already placed orders till the date for purchase for CEMS.

2. Hazardous Waste Management System:

- ✓ Hazardous waste generated from industries is being disposed in scientifically designed secured landfill i.e. Treatment, Storage and Disposal Facility (TSDF) having liners and leachate collection system in the State.
- ✓ Gujarat is having 8 nos. of operational Common TSDFs.
- ✓ In addition to that, State is having 11 Nos of Captive (industrial private use) TSDFs.
- ✓ Further, 6 new common TSDFs having total capacity of 63.25 Lac MT are at different stages of development.

3. Sewage Treatment Plants for large industries:

- ✓ In some area of the State ground water table is very high and it is not feasible to dispose large quantity of domestic sewage into soak pit and septic tank system.
- ✓ If sewage is properly treated it can be reused in different sector like horticulture, industrial activities or other ancillary activities.
- ✓ Therefore, it is felt necessary to adopt mechanisms and to utilise treated domestic wastewater,
- ✓ GPCB has framed a policy and passed resolution in 246th Board meeting dated 22/04/2019 and mandated to provide sewage treatment plant by industries having more than 200 persons working and / or sewage generation more than 20 KL/Day has to provide Sewage Treatment Plant either individually or jointly with other units or with CETPs and utilise treated domestic wastewater.

4. Policy for Utilization of Environment Damage Compensation Fund:

- ✓ Earlier GPCB was collecting Bank Guarantee from violating industrial units and forfeiting bank guarantee amount on non-compliance. Till July – 2018, Rs. 9.46Cr was collected and this amount was lying idle with GPCB.

- ✓ Thus, GPCB has formulated a new policy with the approval of Board meeting – 234th dated 16/03/2018.
- ✓ Collected funds is to be utilised for approved project like innovative technology for reduction of cost and energy to improve environment, like establishment of spent acid plant, common steam boiler, common solar sludge drying system, etc. Resolution is at Annexure-I.
- ✓ Now GPCB has started implementation of concept of Environment Damage Compensation vigorously and in case of non-compliance Environment Damage Compensation is levied.
- ✓ From April-2010 to 30/06/2021 GPCB has collected total Rs. 118.34 Cr as Interim Environment Damage Compensation.
- ✓ GPCB plans to synergise action with Central Pollution Control Board and it will be in the fitness at this stage that the amount which is being collected by CPCB as per the directions of the Hon'ble NGT may be utilized for the up gradation of Environmental Infrastructure as mentioned above.
- ✓ In this context, Chairman GPCB has also requested CPCB vide letter dated 30/03/2019 to transfer the money to the GPCB so that it can be utilised expeditiously in ongoing Scheme. Letter is attached as Annexure-II

5. Deep Sea Disposal Pipeline:

- ✓ An unprecedented initiative, three deep sea disposal pipeline projects for the State of Gujarat worth Rs. 2275 Crore as stated below have been given approval by State Government:
 1. Ahmedabad (Priority I) (300 MLD) (Rs. 1478 Cr.)
 2. Jetpur (Priority I) (80 MLD) (Rs. 669 Cr.)
 3. Vadodara (60 MLD) (Rs. 128 Cr.)
- ✓ The project is implemented in PPP mode and for Ahmedabad and Vadodara, 70% contribution of Capex will be from State Government and 30% from industries. For Jetpur, 80% contribution of Capex will be from State Government and 20% from industries. Opex will be entirely borne by the industries.
- ✓ The benefit of this scheme will be given to total 4400 industrial units in 13 industrial estates in Ahmedabad, Vadodara and Jetpur area out of which about 92% are small scale industries. Thus, the maximum benefits of this scheme will be to the small scale industries.

- ✓ State Government has allotted budget of Rs. 500 Cr. for the financial year 2019-2020 for the pipeline project.
- ✓ State Government has allotted pipeline project to Industries & Mines Department by and execution of the project will be done by Gujarat Water Infrastructure Ltd. (GWIL) as depository work.
- ✓ GWIL has floated the tender for Ahmedabad region pipeline on 14/10/2020 which is on hold and Jetpur region pipeline on 02/10/2020. Tender for Jetpur region is finalized and work order has been issued.
- ✓ Final disposal point of Ahmedabad region deep sea effluent disposal pipeline project falls on the upstream of the proposed Kalpasar Reservoir Project.
- ✓ The matter is under active consideration of Government of Gujarat and Meetings convened under the chairmanship of Chief Secretary (CS) to find an alternative for disposal of effluent and to discuss the issues in implementation of deep sea effluent disposal pipeline project.

6. Impact on Air Quality of Gujarat due to Nationwide COVID-19 Lockdown:

- ✓ Pursuant to COVID-19 guidelines issued by Government during Covid-19 Lockdown period between March'2020 to May'2020, restrictions have been imposed on various industrial activities, vehicular movement and other such activities other than activities related to essential services. In normal circumstances, these activities are major contributors of air pollution in either direct or indirect way.
- ✓ COVID-19 Lockdown period was among the rarest one during which curbs have been put on such activities contributing to air pollution.
- ✓ In such scenario, Gujarat Pollution Control Board took an initiative to prepare a study report highlighting impact of lockdown on air quality of Gujarat.
- ✓ This study comprises of sample collection at different locations of state, analysis of collected samples, compilation of result data and make comparison based on such data.
- ✓ As Board has already been monitoring air quality at different locations of State through NAMP, SAMP and CAAQMS projects prior to lockdown, those data have been considered as reference data for comparison.
- ✓ This exercise has been conducted for entire lockdown period which comprises of total 4 phases between 22nd March'2020 to 31st May' 2020.

- ✓ The finding of this study report suggests that during the lockdown period, air quality has significantly improved across state.
- ✓ In Gandhinagar, Air Quality Index (AQI) of 85 before lockdown has come down to 66 during May'2020.
- ✓ This AQI downward trend is steeper in cities having greater industrial activities and vehicular movement. For example, in Vapi, AQI of 177 before lockdown has considerably reduced to 59 during May'2020.
- ✓ The similar trend of air quality improvement during lockdown period has been seen across entire state of Gujarat.
- ✓ This study report enables to evaluate the cumulative impacts of various industrial, transportation and other activities on ambient air quality and therefore can be utilized as one of the tool for determining future set of policy to combat air pollution.

7. Impact on Water Quality of Gujarat due to Nationwide COVID-19 Lockdown:

- ✓ Pursuant to COVID-19 guidelines issued by Government during Covid-19 Lockdown period between March'2020 to May'2020, restrictions have been imposed on various industrial activities other than activities related to essential services. In normal circumstances, these activities are major contributors of water pollution in either direct or indirect way.
- ✓ COVID-19 Lockdown period was among the rarest one during which curbs have been put on such activities contributing to water pollution.
- ✓ In such scenario, Gujarat Pollution Control Board took an initiative to prepare a study report highlighting impact of lockdown on surface water quality of Gujarat.
- ✓ This study comprises of sample collection at different locations of state, analysis of collected samples, compilation of result data and make comparison based on such data.
- ✓ As Board has already been monitoring surface water quality at different locations of State through GEMS and MINARS projects prior to lockdown, those data have been considered as reference data for comparison.
- ✓ This exercise has been conducted for entire lockdown period which comprises of total 4 phases between 22nd March'2020 to 31st May' 2020.
- ✓ During the course of this study, various water quality parameters such as Dissolved Oxygen (DO), Biochemical Oxygen Demand (BOD),

Chemical Oxygen Demand (COD) and Ammonical Nitrogen (NH₃-N) have been analyzed.

- ✓ The finding of this study report suggests that during the lockdown period, surface water quality has significantly improved across state.
- ✓ Water quality of River Sabarmati, River Mindhola, River Khari, River Vishwamitri, River Kolak, River Bhadar has improved due to curbs on industrial activities.
- ✓ The similar trend of surface water quality improvement during lockdown period has been seen across entire state of Gujarat.
- ✓ This study report enables to evaluate the cumulative impacts of various industrial and other activities on surface water quality and therefore can be utilized as one of the tool for determining future set of policy to combat surface water pollution.

8. To add Dry Scrubbing System as one of the APCM measures to control SO₂ Emission:

- ✓ Earlier, Board vide its Office Order dated 15/05/2019 made it mandatory to install water scrubber as APCM to control SO₂ emission.
- ✓ However, Board has now vide its Office Order dated 03/06/2021 has included Dry Scrubbing System (Lime Dosing) as an alternative APCM measure to control SO₂ emission.
- ✓ This will lead to reduction in fresh water consumption. Moreover, generated gypsum from this scrubbing system will be utilized in other industries, which can eventually reduce the burden on TSDF facilities.

9. Plan for utilization of amount levied as EDC:

- ✓ Recently, Plan prepared by GPCB for utilization of amount levied from industries as Environmental Damage Compensation (EDC) for Environmental Conservation and Restoration; has been approved by CPCB. According to this plan, the amount levied as EDC will be utilized for following measures:
- ✓ To upgrade and enhance Capacity of On-field Monitoring and Analysis cell of Board
- ✓ Remediation of Polluted Sites
- ✓ To develop Hotspots to control Noise Pollution
- ✓ To develop Dev Bhumi Dwarka as Model Village for Solid Waste Management.

10. Effective implementation of 'Waste to Wealth' Concept

- ✓ Board has given upmost emphasis on Waste to Wealth concept and has taken several policy level decisions to promote implementation of this concept.
- ✓ As a result of these measures, till now, @ Total 30-million-ton waste has been co-processed in 6 pre-processing facilities and 12 cement mills across State.
- ✓ This has not only helped to establish Circular Economy in this sector but also helped to reduce burden on common waste disposal facilities and common waste incinerator facilities; therefore, reducing overall greenhouse emission.

11. Other Initiatives:

- ✓ Standard Operating Procedure for disposal of De-inking Sludge of Paper Mills in to abandon mines following site selection, design, operational and monitoring aspects:
 - Board has prepared Standard Operating Procedure for alternative disposal of De-inking Sludge generated from Paper Mills which has been categorized as non-hazardous waste by MoEF&CC. This will help to reduce burden on TSDF site.
- ✓ Strengthening of Online Manifest System for disposal of Hazardous Waste:
 - To avoid fraudulent activities during transportation and disposal of hazardous waste, Board has strengthened Online Manifest System which is more precise, transparent and easy to operate.

Compliance of directions issued in the matter of O.A. No - 606/2018 vide order dated 09/04/2019, in Para (41).

Direction 41(i):

Steps for compliance of Rules 22 and 24 of SWM Rules be now taken within six weeks to the extent not yet taken. Similar steps be taken with regard to Bio-Medical Waste Management Rules and Plastic Waste Management Rules.

1(a) Compliance of Solid Waste Management Rules, 2016

- Total: 9846 MT/day waste is collected from 8 Municipal Corporations & 156 Nagarpalikas.
- Gujarat State has 99% Door to Door collection in 164 ULBs. State has given Handcart with 4 bins, Tricycle with bin, Community Bins/Litter Bins (Single/Double) Tractor (35 HP), Tipping Container Mounted Mini Truck total no. 20251 of Rs.56 Cr.
- In Gujarat Total: 107 ULBs out of 164 to have GPS fitted in their garbage collection and transportation vehicles with ICT based monitoring for collection and transportation of municipal waste.
- About 88.8% of the collected waste is treated and reused as Compost, Refused Derived Fuel etc. There are total No. 594 of Plants for Vermi / Aerobic/ anaerobic Composting of installed processing capacity 6118.59 TPD. There are 205 plants Material Recovery Facilities (MRF) with processing capacity of 3921.5 TPD installed capacity. There are 5 plants of RDF with processing of 1020 TPD. Biogas/Bio-Methanation 34 plants with capacity of 148.3 TPD and 1 plant under Construction of Junagadh Municipal Corporation 15 TPD. 7 Waste to Energy (WTE) plant (Mass incineration) are under construction, the total capacity is 5500 TPD.
- Remaining Processing facilities is 11.2 % waste will be provided in next one year.
- MoHUA Criteria for Sustainable sanitation, Gujarat First state as declared "Open Defection free". Now, upgrade in sanitation components Gujarat "38 Cities declared ODF+", and "93 Cities declared ODF++" and also Five big corporation applied for Water Plus certificate.

- Municipal Corporations - 4 Land fill sites are operational while 4 are under progress and Municipalities- 7 Land fill sites are operational, while another 27 are under planning which covers 156 Nagarpalikas. 27 SLF are under planning stage.
- There are total 7 High Power Committee Meetings and 6 State level steering Committee (SLAC) has been conducted for approval of SWM DPR. State has approved total Rs. 1532 Cr. for Solid Waste Management (SWM). Swachchh Bharat Mission Urban has released Rs. 784.11 Cr. without ULB share till date.
- Due to continuously spreading COVID-19 pandemic some Committee are not held and will be organize in upcoming days.
- State Level Advisory Body (SLAB) was constituted on 01/02/2018 and there are total 9 meeting were held on 17/02/2018, 08/03/2018, 18/05/2018, 24/05/2018, 27/02/2019, 27/03/2019, 13/09/2019, 17/02/2020 and 05/08/2020.
- State policy of Solid Waste Management was published by state on 31/07/2018.
- In 164 ULBs among out of 8 Municipal Corporation, 7 Municipal Corporation has published the Public Health Bye Laws and out of 156 Nagarpalikas 155 Nagarpalika has published the Public Health Bye Laws. One new ULB has formatted and its administration is started working so one Nagarpalika preparing Public Health By-laws.
- Legacy waste:

Corporation/ Nagarpalika	Total Quantity of Legacy Waste(approx.)	Tentative Time Limit for Remediation
8 Corporations	51.39 Lacs MT	12 Months
156 Nagarpalikas	42.17 Lacs MT	09 Months

- Ahmedabad Municipal Corporation has published new tender for bio-mining work for 300 TPD Trommel machines and 1000 TPD automated segregation machines to clear dump site tentative in next year. AMC cleared around 10.04 Lakh MT in this quarter.
- As per GOG, UD&UHD order 18th June,2020 Bopal-Ghuma ULB merged with Ahmedabad Municipal Corporation.
- Bopal-Ghuma dump site is cleared by AMC approx. More than 2,32,000 MT legacy waste has been cleared and started to develop Ecological park.

- Gandhinagar Municipal Corporation has started Clearing of Legacy Waste by 3 Trommel machines, each having capacity of 300 TPD. 84,000 MT has been processed.
- Rajkot Municipal Corporation has installed and started working on legacy waste with 4 Trommel Machines, each having capacity of 250 TPD and during this quarter its cleared around 13,405 MT.
- Bhavnagar Municipal Corporation has installed 1 Trommel with capacity of 300 TPD and started working during this quarter total 49,823 MT has processed.
- Junagadh Municipal Corporation start legacy waste bio-remediation work with installing two trommels machine each having capacity 300 TPD and during this quarter its cleared around 35,000 MT.
- The legacy waste remediation work has been undergoing in the various ULBs of the state. As per the directions of the Hon'ble tribunal, other ULBs of the state are also in the process of remediation their dumpsites, however delays have been observed in the implementation due to covid-19 situation and extra work burden on ULBs as COVID warriors has derailed most of their routine and urgent functions drastically.
- ULBs has notified Public health by-laws and collected Rs.33.08 Lakhs penalty for violation during April-June 2021(January-June, 2021 total Rs. 104.02 Lakhs).
- Add. Chief Secretary (ACS), Urban Development Department conducts meeting with all Municipal Commissioners and Regional Municipal Commissioners covering all Urban Local Bodies to review progress in Solid Waste Management monthly and review the status of implementation of Solid Waste Management Rules 2016.
- State has prepared a policy for construction and Demolition Waste Processing Facilities are at final approval stage. The State is ensuring all the ULBs have the required infrastructure to manage C&D Waste can be similar to the waste hierarchy of Solid Waste (Solid Waste Management Rules, 2016 – Rules 3). The waste hierarchy is prioritized and managed in the following order- reduction, reuse, recycling, recovery and disposal, with reduction and reuse being the most preferred option and disposal at the landfill being the least.
- State Gujarat launch “RAG PICKERS SHRAMJIVI ARTHIK VIKAS YOJANA” for rag pickers (Safai sathi) to make plastic free Gujarat.

Give subsidy to Rs.03/- per kg against collection of multi-layered plastic.

- RDF is included in approved fuel as per provisions of the SWM Rules-2016 (copy attached as Annexure-III).
- Gujarat Pollution Control Board has submitted Annual Report to Central Pollution Control Board on 30/07/2020.

1(b) Compliance of Plastic Waste Management Rules, 2016

GPCB Compliance:

- Action Taken by GPCB for non-compliance of Plastic Waste Rules, 2016 and amended thereof (March 2018 – June,2021):
 - Closure direction issued under Section 5 of EPA: 151
 - Notice of Direction issued under Section 5 of EPA: 263
 - Show Cause Notice issued: 264

UDD Compliance:

- State level Committee under the Chairmanship of Additional Chief Secretary/ Secretary (Housing & Nirmal Gujarat), Urban Development conducted 14 meetings.
 - Action plan reviewed by Committee : 663
 - Action plan rejected : 381
 - Action Plan approved so far : 132
 - Action Plan asked to Revise : 126
- ULBs framed by-laws and collected penalty of Rs. 6.20 lakh. During April-June, 2021(January – June, 2021 total Rs.15.41 Lakhs).
- UDD has constituted a Committee of three members to scrutinize an action plan for plastic waste management of producer's/ brand owners/importers on 14/12/2018 and conducted 20 meetings.
- The Committee meetings are regularly organizing once in a month and total 33(Nagarpalika) + 5(Corporation) ULBs are covered under EPR of 132 Producer/ Brand Owners by 5 (Abellon, Eco vision, Nepra, Akshar and Aztac recycling Hub) Waste Management agencies. The advice regarding the same has been given to all Urban Local Bodies through by-laws para no. 11.3 (b).
- The Urban Development & Urban Housing Department (UD&UHD), Gujarat is now trying to cover all 164 ULBs for EPR and utilize 100%

present facilities of Material Recovery Facilities (MRF). The various processing of the Plastic Waste are recycling, Recycling in Road Construction, Co-processing, Production of RDF, Waste to oil etc. The date during April-June 2021 recycling waste approxi. amount is 13734.21 MT, Recycling in road construction is approxi. 1.01 MT, Co-processing in cement kiln is approxi. 4579.85 MT, plastic waste quantity in production of RDF is approxi. 36263.85 MT (fresh waste) & 93947.07(legacy waste), Quantity in Waste to Oil 2.2 MT etc.

- Total plastic waste generation is about 954 TPD and as per Action plan approved 284.44 TPD is recycled through EPR.
- Letter to ban the usage of plastic material less than 50 microns has issued a letter to all urban local bodies on 15/02/2018 by Secretary, Urban Development Department. In Plastic Waste Management by-laws, the no plastic carry bags/films <50 microns thickness is stocked, sold and used in cities/towns term has been covered. Urban Development & Urban Housing Department (UD &UHD) has imposed penalties by plastic waste by-laws which regulates the use of <50 microns thickness plastic carry bags stocked, sold and used by para no.11.2 (f), 13 (a) in Plastic Waste by-laws.
- Use of single use plastic in government offices and services is banned by DoEF vide order dated: 19/03/2019 by Swachchh Bharat Mission Urban Gujarat. Urban Development & Urban Housing Department (UD &UDD) has imposed penalties by plastic waste by-laws which regulates the not used extensively as are not haphazardly littering of thermocol /polystyrene cups, plates etc. by plastic waste by-laws para no. 13.
- Action Plan prepared by all local authorities for collection, segregation and environmentally safe disposal of Plastic waste incorporating infrastructure for plastic waste collection, storage, transportation and disposal.
- All ULBs are regularly submitting their quarterly plastic action plan.
- Urban Development & Urban Housing Department has published the Gujarat Sanitation Policy on 31st July 2018. In the policy it has 10 goals. Among 10 the 9th goal was "All water bodies within the ULB limits should be free of solid and liquid waste". Annexure-IV. The monitoring of all ULB is taking by Urban Development & Urban Housing Department (UD&UHD) and on basis on NGT O.A. No. 606/2018 the instructions has been given to all Urban Local Bodies by Department on Dt. 20th February, 2019. The "no burning of waste" and "no dumping of waste on drains river bank" has been by

all ULBs implemented and enforced under Public Health by-laws for implementation of Solid Waste Management Rules 2016.

- We draft one booklet for EPR. This booklet tries to detail out different aspects involved in the implementation of “Extended Producer’s Responsibility”, the different stakeholders involved, the reporting and monitoring framework as prescribed in the prevailing Rules but it’s not finalized.

1(c) Compliance of Bio-medical Waste Management Rules, 2016

- Numbers of Registered Health Care Facilities-31,368.
- Total Waste Generation – 36.42 MT/day.
- Numbers of Common Biomedical Waste Treatment Facilities (CBWTF): 20
- Installed capacity: 126 MT/Day against waste generation of 36.42 MT/day.
- Entire waste is handled scientifically through CBWTF.
- Gujarat Pollution Control Board is regularly inspecting the health care units. Board also conducts public awareness program to aware medical and Para-medical staff.
- Gujarat has played an integral role in compliance with the provision of Bio-Medical Waste Management Rules for setting up the CBWTF, to facilitate the hospital, nursing home, clinic, dispensary, veterinary, institution, animal house, pathological laboratory, blood bank for the collection, reception, storage, transport, treatment and disposal of their BMW in stipulated time limit and in environmentally sound manner.
- State advisory Committee and district level monitoring Committee are Constituted.
- Gujarat Pollution Control Board has submitted Annual Report to Central Pollution Control Board on 30/07/2020.
- Compliance is done as per Bio-medical Waste Management Rules, 2016.
- Inventorisation of Health Care Facility (HCF) is being undertaken by Gujarat Pollution Control Board through 27 regional offices.
- In the state of Gujarat there is extensive network of collection and disposal of the waste through Common Biomedical Waste Treatment Facilities. Total 20 Existing operational Common Bio-Medical Waste Treatment and Disposal Facility run by Private Operator.
- GPCB has directed all Common Biomedical Waste Treatment Facilities to implement Barcode system vigorously vide letter dated 06/08/2019.
- Common Biomedical Waste Treatment Facilities have started implementation of Bar Code system.

- GPCB has requested all District Magistrates to constitute Committee and to prepare District Environment Plans vide letter dated 14/08/2019 (copy attached as Annexure-V).
- District Environment Committee in all 33 Districts have been constituted.
- District Environment Plans for 33 districts have been prepared.
- GPCB has published public notice on 18/08/2019 and 20/02/2020 in two wide spread vernacular News Paper to aware HCFs about compliance of provisions of the Rules (copy attached as Annexure-VI).
- Action taken for non-compliance (January-2020 to June-2021):
 - Interim EDC Imposed: Rs.27.72 Lakh
 - Show Cause Notice: 6635

Direction 41(ii)& (iii)

At least three major cities and three towns in the State and at least three Panchayats in every District may be notified on the website within two weeks from today as model cities/towns/villages which will be made fully compliant within next six months.

The remaining cities, towns and Village Panchayats of the State may be made fully compliant in respect of environmental norms within one year.

1(d) Identification and Development of Model Cities & Towns in the First Phase

• Model City identified in the 1st phase:

1. Surat,
2. Vadodara
3. Rajkot

1. Surat City:

- Achieved 100% door to door collection and waste segregation at household level.
- 100% of wet, dry, sanitary hazardous and domestic hazardous waste processing has been achieved.
- Under India Smart Cities Award-2020 Consent Surat MC achieved below mentioned awards:
 - 1st award in “Overall Winner”
 - 1st award in “Round one” round wise recognition.
 - 2nd award in “Urban Mobility Project Dynamic Scheduling of Buses”
 - 2nd award in “Built Environment Project Canal Corridor”
 - 3rd award in “Integrated and Sustainable Water Supply System”.
 - 3rd award in “Sanitation Project Conservation through Treated Wastewater”.
- Also Surat Corporation awarded “4 Star rating” under Climate Smart Cities Assessment Framework.
- Surat becomes the “2nd Best performing city in Municipal Performance Index” released by Ministry of Housing and Urban Affairs, Government of India on 4th March, 2021.
- Achieved 2nd Rank in Swachhta Survekshan-2020 across India.
- 1200 TPD plant working for Solid waste management processing.
- C & D Waste 300 TPD is operational.
- Plastic Waste processing and recycling plant of 70 TPD.
- For Sanitary hazardous waste and domestic hazardous waste 1 TPD plant installed for processing.
- “Swachchh Suraksha Kavach Samiti” formed to effectively implement COVID-19 appropriate behavior and its monitoring.

- Surat Municipal Corporation utilizes around 115 Nos. Mechanized Drainage Cleaning machines for the cleaning of Drains located in city.
- Surat Municipal Corporation has 200 MT MRF facility. SMC is in planning to convert 180 TPD in Mechanical MRF plant.
- SMC has installed 50 MT Bio-Methenation Plant
- In all SMC garden there are 80 nos. of OWC machine to process garden waste.
- Bio-mining of old Sanitary land fill cell also started to make city landfill free city
- Achieved ODF++ Certificate (All households have individual toilets and all public toilets are equipped) and now apply for Water Plus Certificate.
- 100 % Centralized Public Grievance is Resolved within SLA (Service level benchmark) Timeline.
- SWM / PWM Bye-laws are strictly implemented by ULB.
- Night sweeping is carried out.
- Modern 115 MLD sewage recycling plant is functional treat water.
- City has achieved 5 Star in Garbage Free Protocol of Year 2020 held by Gol and now, applied for 7 Star rating.

2. Vadodara City :

- Achieved 100% door to door collection and waste segregation at household level.
- 100% of wet, dry, sanitary hazardous and domestic hazardous waste processing has been achieved.
- Under India Smart Cities Award-2020 Consent Vadodara Corporation “1st award achieved for Governance project GIS” category.
- Also Vadodara Corporation awarded “4 Star rating” under Climate Smart Cities Assessment Framework.
- Plastic Waste processing and recycling plant of 200 TPD.
- E-Waste Plant with segregation of it and then it will supply to recycler.
- Vadodara Municipal Corporation has 50 MT MRF facility.
- VMC has installed 3 Lakh MT Bio-Methenation Plant at vora site.

- In all VMC garden there are 12 nos. of OWC machine to process garden waste.
- Also, Mechanized drainage cleaning perform with, Jetting Machine-18 no's, Duct. Rickshaw- 30 no's, and Dewatering Pump- 20 nos.
- In SS-2021, Surat Corporation applied for "Water+" and "Five Star" rating certification.
- Achieved "ODF++ Certificate" (All households have individual toilets and all public toilets are equipped).
- 100% Centralized Public Grievance is Resolved within SLA (Service level benchmark) Timeline.
- SWM / PWM Bye-laws are strictly implemented by ULB.
- Night sweeping is carried out.
- City has achieved "3 Star" in Garbage Free Protocol of Year 2020 held by Gol

3. Rajkot city:

- Achieved 100% door to door collection and waste segregation at household level.
- 100% of wet, dry, sanitary hazardous and domestic hazardous waste processing has been achieved.
- Also Rajkot Corporation awarded "4 Star rating" under Climate Smart Cities Assessment Framework.
- Plastic Waste processing and recycling plant of 50 TPD.
- E-Waste Plant with segregation of it and then it will supply to recycler.
- Capping of 1.24 Lakhs MT Sokhda site.
- During this quarter (Jan-March 2021) 16000 MT legacy waste remediated.
- Rajkot Municipal Corporation has 50 MT MRF facility. RMC is in planning to convert 40 TPD in Mechanical MRF plant and 10 TPD in Manual MRF plant
- RMC has installed 5 MT Bio-Methenation Plant.
- In all RMC garden there are 2 nos. of OWC machine to process garden waste.

- Also, Mechanized drainage cleaning perform with, Jetting Machine-18 no's, Duct. Rickshaw- 30 no's, and Dewatering Pump- 20 nos.
- In SS-2021, Surat Corporation applied for “Water+” and “Seven Star” rating certification.
- Achieved “ODF++ Certificate” (All households have individual toilets and all public toilets are equipped).
- 100% Centralized Public Grievance is Resolved within SLA (Service level benchmark) Timeline.
- SWM / PWM Bye-laws are strictly implemented by ULB.
- In Rajkot Corporation, Night sweeping is carried out using 18 mechanised sweeper machines.
- City has achieved “5 Star” in Garbage Free Protocol of Year 2020 held by Gol.
- Model Town identified in the 1st phase:
 1. Petlad
 2. Vyara
 3. Bagasara
- 1. Petlad Town:
 - Achieved 100% door to door collection and 99% of waste segregation at household level.
 - 98% of wet, dry, sanitary hazardous waste processing has been achieved.
 - COVID-19 waste collected in separate yellow box and processing as per Ministry guideline. Distribute Triple layered Mask, Sanitizer bottle and aware to all citizen.
 - 93% Centralized Public Grievance is Resolved within SLA (Service level benchmark) Time line.
 - City segregated all C&D waste at Processing plant area and utilize in filling law lying area in city.
 - “Mechanized Drainage Cleaning” by using Jetting Machine.
 - Petlad Municipality also selected in Janaagrah City Governance Award 2020 in the Best Municipality category in Decentralized Solid Waste Management.

- In Swachhta Survekshan-2020 city achieved first awards in “Innovation and Best Practices” Category population between (50,000 to 1 lakh) in west Zone.
- Also, Night sweeping is carried out in city area.
- SWM / PWM Bye-laws are strictly implemented by ULBs.

2. Vyara Town:

- Achieved 100% door to door collection and 99% of waste segregation at household level.
- 97% of wet, dry & sanitary hazardous waste processing has been achieved and cleared dumpsite.
- Garbage Free City Protocol Vyara town achieved “1 (One) Star” award and now, apply for “3 Star” certificate”.
- “Mechanized Drainage Cleaning” by using Jetting Machine.
- For Construction and Demolition waste city has segregated waste in different categories and utilize for filling low lying area in city and other construction work.
- City Performing two type sweeping in residential area as well as in commercial area.
- Achieved ODF+ Certificate and applied for ODF++ certificate (All households have individual toilets and all public toilets are equipped).
- 90% Centralized Public Grievance is Resolved within SLA (Service level benchmark) Time line.
- Also, Night sweeping is carried out in city area.
- SWM / PWM Bye-laws are strictly implemented by ULBs.
- Completely solid waste is treated through most innovative eco-friendly various treatment plants.
- Vyara Town Selected “Semi-Finalist Skoch Order of Merit” award-2020 for “Transformation of Dumpsite into resource recovery station based on zero waste – No landfill” category.
- Multilayered and other waste plastic is used to make Fuel oil through eco-friendly non-chimney based pyrolysis technology.
- Completely zero waste- no discharge of any residual waste.

- Re-use single use plastic and sell it to agency and manufacturing various product like bench, chair etc.

3. Bagasara Town:

- Achieved 100% door to door collection and waste segregation at household level.
- 97% of wet, dry and sanitary hazardous waste processing has been achieved.
- City has achieved “3 Star Certificate” in Garbage Free Protocol of Year 2020 held by GoI
- Achieved ODF++ status, all households have individual toilets and all public toilets are equipped.
- “Mechanized Drainage Cleaning” by using Jetting Machine.
- City removed all GVP (Garbage vulnerable Point) and doing plantation work and make healthy environment.
- 100% Centralized Public Grievance is Resolved within SLA (Service level benchmark) Time line.
- SWM / PWM Bye-laws are strictly implemented by ULBs.
- Vermi Compost Plant (VCP) fully Functional.
- Also, Night sweeping is carried out in city area.

• Model Village identified in the 1st phase:

- 95 villages are identified as model village
- Collection of solid waste in 90 Village
- Transportation of solid waste in 87 Village
- Segregation facility developed in 45 Village

Direction 41(iv):

A quarterly report be furnished by the Chief Secretary, every three months. First such report shall be furnished by July 10, 2019

- Noted and submitting herewith eighth report.

Direction 41(v):

The Chief Secretary may personally monitor the progress, at least once in a month, with all the District Magistrates

- The Chief Secretary has conducted a review meeting with all District Magistrates on 23/01/2020 for the progress.

Direction 41(vi):

The District Magistrates or other Officers may be imparted requisite training.

- Swachchh Bharat Mission Urban has organized virtual Workshops in 6 Regional Municipal Corporations covering 156 Nagarpalika for understanding of Plastic Waste and Solid Waste Rules 2016 and other Swachchh Survekshan activity.

Direction 41(vii):

The District Magistrates may monitor the status of compliance of environmental norms, at least once in two weeks

- District Collector Committee has conducted meeting in districts.
- Special Task Force (STF) meetings have been conducted by Resident Additional Collector in all Districts every month Annexure -VII attached.

Direction 41(viii):

Performance audit of functioning of all regulatory bodies may be got conducted and remedial measures be taken, within six months

- CPCB has carried out performance audit of Gujarat Pollution Control Board on 22/05/2019.

Direction 41(ix):

The Chief Secretary may remain present in person before the Tribunal with the status of compliance in respect of various issues mentioned in para 20 as well as any other issues discussed in the above order on 22/01/2021.

a. Status of compliance of SWM Rule, 2016, Plastic Waste Management Rules, 2016 and Bio-Medical Waste Management Rules, 2016 in their respective areas.

- As per the compliance of Direction 41(i)
- Page No: 14 to 21.

b. Status of functioning of Committees constituted by this order.

- State Level Committee under Chairmanship of Hon'ble Former Chief Justice, High Court of Delhi, Shri B. C. Patel has been constituted vide G.R. dated 16/02/2019 as per Para 28 of the order.
- State Level Committee conducted 1st meeting on 12/02/2019 and submitted report to Hon'ble NGT on 02/03/2019.
- Pirana dump site, Ahmedabad, was visited by Chairman and Member Secretary of Committee on 04/03/2019 and report submitted to Hon'ble NGT on 22/03/2019.
- Vadodara Municipal Corporation and waste processing/Recycling sites were visited by Chairman and Member Secretary of State Level Committee on 24/04/2019 and report submitted to Hon'ble NGT on 10/05/2019
- Surat Municipal Corporation's dumping site, waste processing facility and domestic wastewater recycling facility, plastic waste recycling facility and C&D waste facility were visited by Chairman and Member Secretary of State Level Committee on 09/05/2019 and report submitted to Hon'ble NGT on 20/6/2019
- The Chief Secretary has conducted a review meeting with all District Magistrates on 23/01/2020.
- State Level Advisory Body for Solid Waste Management has been formed and 9 meetings conducted till now.
- District Collector Committee has conducted meeting in districts.

- Special Task Force (STF) meetings have been conducted by Resident Additional Collector in all Districts Annexure-VII attached.
- Hon'ble Chief Minister, Gujarat arranged workshop and seminar program on 6th July, 2021 with all Regional Municipal Commissioner and Chief officer of Nagarpalika for review various schemes and work.
- Chief Secretary arranged meeting on 30th June, 2021 with Ahmedabad Municipal Corporation regarding to Clearance of Pirana dumpsite status and planning.
- Additional Chief Secretary arranged meeting on 18th June, 2021 with 8 Commissioner, Municipal Corporation review all progress work.
- The monthly review meeting of all 6 Regional Municipal Commissioners and 8 Municipal Corporations are regularly conducted by ACS, UD&UHD for Implementation of Solid Waste Management Rules-2016 and Plastic Waste Management Rule-2016.

c. Status of the Action Plan in compliance vide order dated 20/09/2018 in the News Item published in “The Hindu” authored by Shri Jacob Koshy Titled “More river stretches are now critically polluted: CPCB (Original Application No. 673/2018)

Directions:

- i. 100% treatment of sewage may be ensured as directed by the Tribunal vide order dated 28/08/2019 in O.A. No. 593/2017 by 31/03/2020 at least 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.
- iii. Hon. NGT further direct that an institutional mechanism be evolved for ensuring compliance of above directions. For this purpose, monitoring may be done by the Chief Secretaries of all the States/UTs at State level and at National level by the Secretary, Ministry of Jal Shakti with the assistance of NMCG and CPCB.
- iv. For the above purpose, a meeting at central level must be held with the Chief Secretaries of all the States/UTs at least once in a month (option of video conferencing facility is open) to take stock of the progress and to plan further action. NMCG will be the nodal agency for compliance who may take assistance of CPCB and may give its quarterly report to this Tribunal commencing 01/04/2020.
- v. The Chief Secretaries may set up appropriate monitoring mechanism at State level specifying accountability of nodal authorities not below the Secretary level and ensuring appropriate adverse entries in the ACRs of erring officers. Monitoring at State level must take place on

fortnightly basis and record of progress maintained. The Chief Secretaries may have an accountable person attached in his office for this purpose.

- vi. Monthly progress report may be furnished by the States/UTs to Secretary, Ministry of Jal Shakti with a copy to CPCB. Any default must be visited with serious consequences at every level, including initiation of prosecution, disciplinary action and entries in ACRs of the erring officers.
- vii. Wherever work is awarded to any contractor, performance guarantee must be taken in above terms.
- viii. CPCB may finalize its recommendations for action plans relating to P-III and P-IV as has been done for P-I and P-II on or before 31/03/2020. This will not be a ground to delay the execution of the action plans prepared by the States which may start forthwith, if not already started.
- ix. Since the report of the CPCB has focused only on BOD and FC without other parameters for analysis such as pH, COD, DO and other recalcitrant toxic pollutants having tendency of biomagnification, a survey may now be conducted with reference to all the said parameters by involving the SPCB/PCCs within three months. Monitoring gaps be identified and upgraded so to cover upstream and downstream locations of major discharges to the river. CPCB shall file a report on the subject before the next date (22/04/2020) by e-mail at judicial-ngt@gov.in.
- x. Rivers which have been identified as clean may be maintained.

Directions of Hon'ble NGT in the matter of O.A No. 673/2018 vide order dated 21/09/2020

- xi. All the States/UTs may address gaps in generation and treatment of sewage/ effluents by ensuring setting up of requisite number of functional ETPs, CETPs and STPs
- xii. Compensation may be recovered in the manner already directed in earlier orders, which may be deposited with the CPCB for restoration of the environment.
- xiii. The unutilized capacity of the existing STPs may be utilized expeditiously.
- xiv. The States/ UTs may ensure that the CETP, ETPs and STPs meet the laid down norms and remedial action be taken wherever norms are not met.

- xv. It must be ensured that no untreated sewage/effluent is discharged into any water body. Prompt remedial action may be taken by the State PCBs/PCCs against non-compliant ETPs/CETPs by closing down or restricting the effluents generating activity, recovering compensation and taking other coercive measures following due process of law.
- xvi. Wherever action plans have not yet been finalized in respect of polluted river stretches or polluted coastal stretches, the same may be completed within one month from today. The execution of action plans may be overseen in the manner already directed in OA No. 673/2018 by River Rejuvenation Committees (RCCs). In the coastal areas, the said Committees may be known as 'River/Coastal Rejuvenation Committees'. The action plans must have provision for budgetary support in the manner laid down by the Hon'ble Supreme Court or otherwise which aspect may also be monitored by the CMC.
- xvii. The subject of coastal pollution needs to be dealt with in the same manner as polluted river stretches by preparing action plans of each States/UTs which may also be monitored by the Central Monitoring Committee (CMC) simultaneously with the 351 polluted river stretches. Directions may be implemented by the concerned coastal States/ UTs, and their compliance monitored by the Chief Secretaries at the State level, and the CMC at the National level. OA No. 829/2019 stands disposed of and further monitoring of the issue will henceforth be in OA 593/2017 and OA 673/2018.
- xviii. Action needs to be taken by all the States/UTs to ensure updating and enforcement of the action plans for 100% utilization of the treated water for secondary purposes. This aspect is also now monitored by the CMC headed by the Secretary, Ministry of Jal Shakti and assisted by the CPCB and NMCG.

Hon'ble NGT has disposed of the O.A. No. 673/2018 vide order dated 22/02/2021.

Directions of Hon'ble NGT in the matter of O.A No. 673/2018 vide order dated 22/02/2021

1. Ministry of Jal Shakti (MoJS) may devise an appropriate mechanism, may be named as National River Rejuvenation Mechanism (NRRM) or any other suitable name, for more effective monitoring of steps for control of pollution and rejuvenation of all small, medium and big polluted rivers, including those dried up in the country.

2. Chief Secretaries of all States/UTs and PCBs/PCCs must work in mission mode for strict compliance of timelines for completion of the projects and failing which compensation in terms of earlier orders be deposited with the MoJS, to be utilized in the respective States as per action plan to be approved by the NRRM.
3. The Chief Secretaries of all States/UTs may personally monitor progress at least once every month and the NRRM every quarter.
4. Directions of this Tribunal in earlier order, the last being dated 21/09/2020 are reiterated.
5. The NRRM and the Chief Secretaries of all the States/UTs may take into account the observations in Paras 24 to 38 above.
6. Accountability for failure to comply with the direction (earlier directions of Hon. NGT in case of O.A No. 673/2018 as well) for payment of compensation will be of the concerned Chief Secretaries under Sections 25, 26, 28 and 30 of the NGT Act, 2010.

Compliance:

A) In-situ remediation (Point no. i of direction):-

- As per the information given by UDD, 7 Municipalities (Jetpur (Bhadar), Ankleshwar (Amlakhadi), Wadhwan (Bhogavo), Vapi (Damanganga), Kheda (Shedhi), Dahod (Anas), Zalod (Anas)) out of 10 municipalities are related to PRS requiring in-situ bioremediation. It is also informed that pilot project for in-situ remediation at Ankleshwar, Kheda and Vapi municipalities are under implementation.

B) Completion of Timeline (Point no. ii of direction):-

Sewage Management:

Status in River Action Plan:

Present Status of STPs:

- Out of total 98 STPs required for polluted river stretches (PRS), 28 are in operation and rest are under construction/pre-construction stage. Efforts are being made to overcome the difficulties including issues of land acquisition and other constraints, at the earliest.

Sewage	Existing STPs		Gap	New/Expansion/ Modification of STPs		Time Limit	Estimate d Budget
Approx. MLD	Nos.	Approx. MLD	Approx. MLD	Nos.	Approx. MLD		Rs. in Cr.
2494	28 (23 existing + 5 newly complete d STPs)	2017	477	72 (3 STPs merged)	1240.15 urban + 24.97 rural= 1264.15	2019 - 2022	1930

- Presently, 5 STPs proposed in River Action Plan i.e. 35 MLD STP at Vinzol for PRS Khari, 32.3 MLD STP of Surendranagar for PRS Bhogavo, 25 MLD STP of Shankar Bhuvan for PRS Sabarmati, 100 MLD at Bhesan for PRS Tapi and 23.5 MLD at Jetpur for PRS Bhadar are already commissioned.
- A meeting was held on 13/01/2021 under the chairmanship of ACS PRH&RDD for management of sewage, from villages being discharged in to the 6 PRS. During the meeting, looking to the magnitude & importance of the work, it was decided to seek the extension of time limit for further 3 years.
- Details of incremental progress made by the State in case of ongoing STPs are being submitted along with the Monthly Progress Reports.

Treated waste water utilization policy:

- Gujarat Government has framed Policy for Reuse of “Treated Waste Water (TWW)” by maximising the collection and treatment of sewage generated and reusing the treated wastewater on a sustainable basis. In this regards, revised action plan has been submitted by Gujarat Water Supply and Sewerage Board (GWSSB) to Chairman, CPCB where one of the objectives of the revised action plan is to reuse 70% of treated wastewater by 2025 and 100% of treated wastewater by 2030.
- As per the details received from Gujarat Water Supply & Sewerage Board, Latest status of Treated waste water reuse in the State is as under:

	TWW reuse started (MLD)	TWW reuse projects in tender/ execution stage (MLD)	TWW reuse under planning (MLD)	Total
Municipal Corporations	658.68	222.0	807.3	1,687.98
Municipalities	23	6.5	-	29.5
Total	681.68	228.5	807.3	1,717.48

Industrial wastewater Management:

Existing CETP Approx.		Proposed CETP Expansion Approx.		Time Limit	Estimated Budget
Nos.	MLD	Nos.	MLD		Rs. Cr.
14	321	11	126	2019-2021	442

- The progress of all the proposed new CETPs or ETP/Expansion is expedited so as to complete them within the revised time period submitted to Ministry of Jal Shakti and Central Pollution Control Board. Also, expansion/up-gradation of 4 CETPs i.e. Shree Dhareshwar for PRS Bhadar, Naroda Enviro Projects Ltd. (NEPL- Expansion 3 to 14), Odhav Enviro Project Ltd. (OEPL- Proposed Spray Dryer) and Green Environment Co-Operative Soc. Ltd., (GECSL) for PRS Sabarmati is already completed.
- Details of incremental progress made by the State / latest status in case of CETPs are being submitted along with the Monthly Progress Reports.

C) Mechanism set-up and review at Chief Secretary level (Point no. iii and v of direction): -

- As per the NGT order dated: 06.12.2019 para.no.47 (5) "The Chief Secretaries may have an accountable person attached in his office for monitoring of compliance". In this regards, Mr. T. C. Patel, Dy. Environmental Engineer has been deputed in CS Sir office to look after Hon'ble NGT matters.
- Total 2 review meetings are conducted under the chairmanship of CS to monitor the progress with reference to the action plans submitted and to resolve various issues/non -compliances. Last meeting was convened on 10/09/2020 under the chairmanship of Chief Secretary Gujarat State.

D) Meeting held at Central Level for taking stock of progress (Point no. iv of direction): -

- Till date, total 10 CMC meetings have been conducted under the chairmanship of Secretary, Dept. of WR, RD & GR, Ministry of Jal Shakti in which Gujarat State has actively participated.
- 10th CMC meeting was held on 09/07/2021 wherein the progress made by the States on the Action Plans and submission of the monthly progress reports as per the prescribed format were reviewed.

E) Submission of Monthly Progress Report (Point no. vi of direction):-

- Monthly progress report of all PRS has been regularly submitted to the National Mission for Clean Ganga since January-2020. Monthly progress reports are being submitted in new format as prescribed by NMCG since October 2020.

F) Submission of Action Plan (Point no. viii of direction):-

- Gujarat State has submitted the PRS action plan having the requisite details of gap, proposed infrastructure facilities (STPs/CETPs new/ expansion etc.) to cover gap with budgetary provision and completion time limit etc. for Polluted River Stretches of priority I to IV, which includes the submission of revised action plans for PRS of priority III & IV as per CPCB suggestion given during 11th task team meeting. Action Plans of 6 PRS of priority V have been submitted to CPCB and does not need approval by CPCB.
- RRC meetings are being conducted to review the progress of action plan. nine meetings of RRC have been conducted so far. Last meeting of RRC was convened on 27/11/2020.
- Gujarat State has submitted Performance bank guarantee (PBG) of Rs. 15 Crore to CPCB
- No detailed action plan has been received from Health Dept. in relation to the PRS.

Priority of PRS:

Comparative statement of PRS w.r.t Priority for all PRS is mentioned as below;

Priority	Polluted river stretches	
	As per CPCB Report (Sep-2018)	Revised list as per range of BOD value (GPCB-Jan-Dec 2020)
Priority-I	05 (Amlakhadi, Bhadar, Bhogavo, Sabarmati, Khari)	03 (Khari, Bhadar, Sabarmati,
Priority-II	01 (Vishwamitri)	03 (Vishwamitri, Bhogavo, Amlakhadi)
Priority-III	02 (Dhadhar, Triveni)	01 (Dhadhar)
Priority-IV	06 (Mahi, Shedhi, Kolak, Damanganga, Amravati, Tapi)	02 (Shedhi, Mindhola)
Priority-V	06 (Anas, Baleshwar, Kim, Mindhola, Narmada, Meshwo)	00
Total (A)	20	09
Not falling in any priority (B)	--	11 (Triveni, Damanganga, Kolak, Mahi, Anas, Tapi,

		Baleshwar, Kim, Narmada, Amravati, Meshwo)
Total (A+B)	20	20

PRS of Triveni, Damanganga, Kolak, Mahi, Anas, Tapi, Baleshwar, Kim, Narmada, Meshwo and Amravati i.e total 11 PRS do not fall in any priority (i.e. priority I to V of polluted river stretches) throughout the year 2020 i.e starting from January – 2020 to December – 2020 considering the average BOD(mg/L) value.

d. Status of Hon'ble NGT, New Delhi in the matter of Shri. Vishwa Mohan titled "NCAP with multiple timelines to clean air in 102 cities to be released around August 15" regarding non-attainments cities of India (O.A.681/2018)

Directions:

- i. All the States and Union Territories with non-attainment cities must prepare appropriate action plans within two months aimed at bringing the standards of air quality within the prescribed norms within six months from date of finalization of the action plans.
- ii. The Action Plans may be prepared by six-member Committee comprising of Directors of Environment, Transport, Industries, Urban Development, Agriculture and Member Secretary, State Pollution Control Board or Committee of the concerned State. The Committee may be called Air Quality Monitoring Committee (AQMC). The AQMC will function under the overall supervision and coordination of Principal Secretary, Environment of the concerned State/Union Territory. This may be further supervised by the Chief Secretaries concerned or their counterparts in Union Territories by ensuring intra-sectoral co-ordination.
- iii. The Action Plans may take into account the GRAP, the CAP and the action plan prepared by CPCB as well as all other relevant factors. The Action Plans may be forwarded to the CPCB by 31/12/2018. The same may be placed before the Committee as directed in direction no. vi. The Action Plan will include components like identification of source and its apportionment considering sectors like vehicular pollution, industrial pollution, dust pollution, construction activities, garbage burning, agricultural pollution including pollution caused by burning of crop residue, residential and indoor pollution etc. The action plan shall also consider measures for strengthening of Ambient Air Quality (AAQ) monitoring and steps for public awareness including issuing of advisory to public for prevention and control of air pollution and involvement of schools, colleges and other academic institutions and awareness programs.
- iv. The Action Plan will indicate steps to be taken to check different sources of pollution having speedy, definite and specific timelines for execution.

- v. The Action Plan should be consistent with the carrying capacity assessment of the non-attainment cities in terms of vehicular pollution, industrial emissions and population density, extent of construction and construction activities etc. The carrying capacity assessment shall also lay emphasis on agricultural and indoor pollution in rural areas. Depending upon assessed carrying capacity and source apportionment, the authorities may consider the need for regulating number of vehicles and their parking and plying, population density, extent of construction and construction activities etc. Guidelines may accordingly be framed to regulate vehicles and industries in non-attainment cities in terms of carrying capacity assessment and source apportionment.
- vi. The Committee comprising of (a) Shri. Prashant Gargava, Member Secretary, CPCB, (b) Dr. Mukesh Khare, Professor, IIT Delhi, and (c) Dr. Mukesh Sharma, Professor, IIT Kanpur shall examine the Action Plans and on the recommendations of the said Committee, the Chairman, CPCB shall approve the same by 31/01/2019.
- vii. The Chief Secretaries of the State and Administrators/ Advisors to Administrators of the Union Territories will be personally accountable for failure to formulate Action Plans, as directed.
- viii. The CPCB, SPCBs and State Pollution Control Committees shall develop a public grievance redresal portal for redresal of public complaints on air pollution along with a supervisory mechanism for its disposal in a time bound manner. Any visible air pollution can be reported at such portal by email/SMS.
- ix. The CPCB and all the State Pollution Control Boards and Pollution Control Committees shall collectively workout and design a robust nationwide ambient air quality monitoring program in a revised format by strengthening the existing monitoring network with respect to coverage of more cities/towns. The scope of monitoring should be expanded to include all twelve (12) notified parameters as per Notification No B-29016/20/90/PCI-L dated 18th November, 2009 of CPCB. The continuous Ambient Air Quality Monitoring Stations (AAQMS) should be preferred in comparison to manual monitoring stations. The CPCB and States shall file a composite action plan with timelines for its execution which shall not be more than three months. It is expected that all such AAQMS shall be connected to central server of CPCB for reporting analysis of results in a form of Air Quality Bulletin for general public at regular intervals at least on weekly basis and ambient air quality on continuous basis on e-portal. MoEF&CC will provide requisite funds for the purpose. MoEF&CC in consultation with

Ministry of Housing and Urban Affairs, MoRTH, Ministry of Petroleum and Natural Gas, Ministry of Agriculture, Cooperation and Farmers Welfare or any other Ministry to lay down such guidelines as may be considered necessary for improvement of air quality in the country.

Compliance:

- CPCB declared 122 cities of India in the first list of “Non-attainment cities” under National Clean Air Program (NCAP) which does not meet the National Ambient Air Quality Standards prescribed under Air Act 1981.
- Three cities of Gujarat namely Ahmedabad, Surat and Vadodara are Non-attainment cities.
- As per order of Hon’ble NGT regarding non-attainment cities (NGT application No: 681/2018), the Board has constituted Air Quality Monitoring Committee and prepared draft air action plan for cities of Ahmedabad, Surat. The draft action plans were sent to CPCB, Delhi for approval on dated: 08/02/2019.
- The action plans for both the cities have been approved by CPCB, Delhi and is under active implementation stage.
- Key features of action plan includes following action points along with responsible agency for implementation with time targets.
 - a) To control vehicular pollution
 - b) To reduce road dust due to construction activities and biomass burning
 - c) Strengthening of AAQ monitoring
 - d) To control industrial pollution
 - e) Public awareness
- For the effective implementation of action plans of non-attainment cities as per the order of MoEF&CC, three Committees have been constituted at State level:
 - 1) Steering Committee: Headed by Chief Secretary, Gujarat
 - 2) Monitoring Committee: Headed by Additional Chief Secretary, Forest and Environment Department.
 - 3) Implementation Committee: Headed by Commissioner of Municipal Corporation of city.

- Similar such Committees are also formed at Central level by MoEF&CC which would review program made the State periodically.
- MoEF&CC has assigned Institute of Repute (IoRs) to the State to provided technical support for the implementation of air action plan.
- MoEF&CC has assigned technical institutes i.e Physical Research Laboratory (PRL), Ahmedabad for Ahmedabad and Vadodara cities and TERI, Delhi to Surat city to provide technical support for the implementation of air action plan.
- In Hon'ble NGT order dated: 06/08/2019, newly 20 non-attainment cities were added in which Vadodara city of Gujarat is covered.
- Air Action Plan of Vadodara city is submitted to CPCB, Delhi on 28/11/2019 after obtaining approval by AQMC. CPCB, Delhi has suggested some technical revisions on the same dated 26/06/2020. Including comments/suggestions the revised draft action plan was sent to CPCB, Delhi for approval on 09/09/2020. The Air Action Plan have been now approved by CPCB, Delhi on 27/01/2021 and is also under implementation stage.
- First, Second, Third, fourth & fifth Meeting of Implementation Committee of Ahmedabad was organized on 10/07/2019, 22/11/2019, 03/07/2020, 05/01/2021 & 26.06.2021 respectively.
- First & Second Meeting of Implementation Committee of Surat was organized on 12/07/2019 & 02/07/2020 respectively.
- First Meeting of Implementation Committee of Vadodara was organized on 19/01/2021.
- First and Second Meeting of Monitoring Committee was organized on 20/11/2019 & 04/07/2020 respectively.
- First Meeting of Steering Committee was organized on 17/03/2021.
- Board has transferred the fund allocated under NCAP by MoEF&CC as 1st installment of Rs 6 Crore for each city i.e. Surat and Ahmedabad to Surat Municipal Corporation (SMC) and Ahmedabad Municipal Corporation (AMC) each. AMC has utilized 6.00 Crores sanctioned fund dated 11.01.2021 and submitted the UC to the Board. The Board

has submitted the UC for 6.00 crores for Ahmedabad to CPCB, Delhi via email dated 16.12.2020. UC of approx 1.06 Crore for Surat has also been submitted to CPCB, Delhi via email dated 16.12.2020. SMC has requested for carry forward permission to the Board for remaining NCAP fund.

- Forest and Environment Department, Government of Gujarat has allotted Source Apportionment study to Gujarat Environment Management Institute (GEMI). GEMI has submitted the draft report of 'Source Apportionment Study of Ahmedabad city'. As per the requirement of Air Action Plan, Source Apportionment study of Surat is carried out by The Energy and Resources Institute (TERI), New Delhi has completed the draft report of Source Apportionment Study.
- Board has adopted the guideline published by CPCB for Carrying Capacity of city/ town. Considering the same, the Board has initiated the procedure for technical and financial terms of reference from technical institute of national reputed like NEERI, TERI, IIT-Mumbai, IIT-Gandhinagar, etc. The board has received proposal for the same by concerned Institutions and is under approval stage.
- Vadodara is one of the non-attainment cities of Gujarat where Source Apportionment Studies, Emission Inventory and Environment Carrying Capacity has not been initiated yet. In this context, the Board has written letter to CPCB, Delhi for joint studies vide letter No. GPCB/Air Action-3(1)(C)/573337 dated 18.11.2020. Vadodara city has been shortlisted for the joint studies by CPCB via mail dated 08.12.20. In view of same, SPCB are required to shortlist the Institute/ Organization for carrying out SA/EI.
- The Public Grievance Redressal Portal (PGRP) named "VATAVARAN" like "Sameer" is now started.
- To prepare Emergency Response System (ERS) with India Meteorological Department, Board has coordinated with Gujarat State Disaster Management Authority (GSDMA) and prepared Zero Draft of Graded Response Action Plan (GRAP) is sent to Gujarat State

Disaster Management Authority (GSDMA) and GSDMA is in preparation of Emergency Response System (ERS) based on GRAP Delhi. Board is in active consultation for implementation of this direction. Second Meeting for the finalization of the State was held by GSDMA, Gandhinagar on 02.02.2021.

- e. **Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in “The Asian Age” Authored by Sanjay Kaw Titled “CPCB to rank industrial units on pollution levels” dated 13/12/2018.**

Directions:

Action to prohibit polluting activity, initiating prosecution and recovery of compensation is required not merely for the PIAs based on violation of norms under all the heads, but also for areas where air, water or other pollution is found individually. Thus, areas not covered by PIAs are also required to be governed by Hon. NGT directions for enforcing the law by way of stopping polluting activity and taking other steps. The fact that such pollution is taking place is evidenced by there being acknowledged pollution in the form of 351 polluted river stretches (O.A. 673/2018, order dated 20/09/2018) and 102 non-attainment cities (O.A. 681/2018, order dated 08/10/2018).

Accordingly, Hon. NGT directed the CPCB in coordination with all SPCBs/PCCs to take steps in exercise of statutory powers under the Air Act, 1981, Water Act, 1974, EP Act, 1986 or any other law to prohibit operation of polluting activities in the said CPAs and SPAs within three months (before 13/02/2020) and furnish a compliance report to this Tribunal. The CPCB, in coordination with the SPCBs may make assessment of compensation to be recovered from the said polluting units for the period of last 5 years, taking into account the cost of restoration and cost of damage to the public health and environment and the deterrence element. The scale of deterrence may be related to the period and the frequency of defaults. Such other factors as may be found relevant may also be taken into account. No further industrial activities or expansion be allowed with regard to ‘red’ and ‘orange’ category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms. Pending assessment of compensation, interim compensation be recovered at the scale adopted by this Tribunal in the case of Vapi Industrial area (Order dated 11/01/2019 in O.A. No. O.A 95/2018, Aryavart Foundation Vs. M/s Vapi Green Enviro Ltd. & Ors).

CPCB, with the assistance of SPCBs/PCCs or other experts, to compile information with regard to polluted industrial areas based on water

pollution norms separately, air pollution norms separately and other pollution norm separately and notify such information on public domain within three months. On completing this exercise, action against identified individual polluters may be initiated on the same pattern on which direction have been issued and furnish a report to the Hon. NGT in this regard also, before the next date (04/03/2020).

Clarification in the said Order:

“No further industrial activities or expansion be allowed with regard to ‘red’ and ‘orange’ category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms.

Objection to the said direction is that there may be ‘red’ or ‘orange’ category units which may not in any manner add to the pollution. If it is so, all that is required is to determine viability of such units on ‘Precautionary’ principle by an appropriate mechanism. Reasons for doing so are that the area as per data available is polluted and ‘red’ and ‘orange’ category have higher potential for pollution. There is no absolute bar to such units being set up if they are found to be viable. This clarification should take care of any possible apprehension that the order of the Tribunal will obstruct any legitimate industrial activity. The order states that action has to be taken only against polluting activities.

There is no basis for apprehension that compensation may have to be paid twice. The provisions of Air Act, Water Act and EPA Act and the rules or other environment norms are to be enforced not only against the industrial units but also against every polluting activity whether the same has already been set up or is yet to be set up in terms of provisions of the law in question. This being the undisputed legal position, no further clarification remains necessary.

State PCBs/PCCs shall furnished action taken report showing the number of identified polluters in PIAs, the extent of closure of polluting activities, the extent of environmental compensation recovered, the cost of restoration of the damage to the environment of the PIAs, otherwise there will be no meaningful environmental governance. This may be failure of rule of law and breach of trust reposed in statutory authorities rendering their existence useless and burden on the society.

If found in default of the Said Order:

As directed the action taken report shall be furnished by the State PCBs/PCCs showing the number of identified polluters in polluted industrial areas (PIAs) with following details:

- i. Extent of closure of polluting activities
- ii. Extent of environmental compensation recovered
- iii. Cost of restoration of the damage to the environment of the said PIAs.

On default, the Tribunal will have no option except to proceed against the Chairmen and the Member Secretaries of the State PCBs/PCCs by way of coercive action under Section 25 of the National Green Tribunal Act, 2010 read with Section 51 CPC. Such action may include replacement of persons heading such PCBs/PCCs or direction for stopping their salaries till meaningful action for compliance of order of this Tribunal. The Tribunal may also consider deterrent compensation to be recovered from the State PCBs/PCCs. Such action taken reports strictly in terms of law and order of the Tribunal referred to above may be furnished by the State PCBs/PCCs on or before 31/01/2020 to the CPCB.

Compliance:

- CEPI Score
 - 70 and above – Critically Polluted
 - Between 60-70 – Severely polluted
- MoEF&CC on 25.11.2016 lifted moratorium from Vapi, Ankleshwar and Vatva.
- CEPI Score as per MoEF&CC OM in 25/11/2016

S.N.	Industrial Cluster / Area	CEPI Score
1	Ankleshwar	68.0
2	Vapi	68.2
3	Vatva	54.2

- Based on the CEPI-2016 criterion, CPCB carried out further monitoring in the year 2017-18 where it was found that number of identified polluted industrial clusters went up to 100. The said number includes 38 critically polluted (6 in Gujarat), 31 severely polluted (1 in Gujarat) and remaining 31 as other polluted areas.

The CEPI Scores in descending order for Industrial Areas/Clusters of Gujarat monitored during 2018

Sr. No.	Name of Polluted Industrial Area (PIA)	CEPI Score
		As per monitoring during 2018 by CPCB
1.	Vadodara (CPA)	89.09
2.	Ankleshwar (CPA)	80.21
3.	Vapi (CPA)	79.95
4.	Surat (CPA)	76.43
5.	Vatva (CPA) (Vatva & Narol)	70.94
6.	Rajkot (CPA)	70.62
7.	Bhavnagar (SPA)	61.94
8.	Ahmedabad (Naroda & Odhav)	57.11
9.	Morbi	54.24
10.	Junagarh	51.64

- The Tribunal vide order dated 13.12.2018 directed all the SPCBs/PCCs to finalize time bound action plans within three months so as to bring all polluted industrial clusters within the safe parameters under the provisions of the Air Act and the Water Act.

- Updated / new Action Plan for six CPAs and one SPA of Gujarat has been prepared by GPCB and submitted the same to CPCB Delhi and Regional Office Vadodara on 01.10.2019 and 04.10.2019 respectively.

- Central Pollution Control Board and Ministry of Environment, Forest and Climate Change, New Delhi have filed the review petition in the Hon. NGT based on various representations they received.

As a response to the petitions filed by CPCB and MoEFCC, Hon'ble NGT, on 23/8/2019, stated that the Ministry of Environment, Forests and Climate Change, New Delhi shall prepare the necessary mechanism (guidelines) for the grant of permission of suitable industries in these areas. Thus, it is necessary to prepare the guidelines by the Ministry of Forest and Environment, New Delhi under this matter.

- For the completion of this process expeditiously, the Government of Gujarat has requested to Ministry of Environment, Forests and Climate Change, New Delhi, the details are as follows:
- Additional Chief Secretary to Forests and Environment Department, Gujarat and Chairman of GPCB has written a letter on 20 July, 2019 to

Chairman of Central Pollution Control Board, stating that the process of calculating the 'CEPI' score is found improper.

- Additional Chief Secretary to Forests and Environment Department, Gujarat and Chairman of GPCB has written a letter on 6th September, 2019 to Chairman of Central Pollution Control Board, requesting to look into the matter for preparing the guidelines as stated in the Judgment of Hon'ble NGT dated 23.08.2019.
- Chief Secretary of Gujarat has also written a letter to the Secretary, MoEF & CC regarding expeditiously preparing the guidelines as per the Judgment of Hon'ble NGT dated 23.08.2019.
- Additional Secretary, Forests and Environment Department, Gujarat has submitted suggestions of the State Government regarding the guidelines to the Joint Secretary, Ministry of Environment and Forests and Climate Change, New Delhi
- Member Secretary, GPCB has also requested to the Member Secretary, CPCB to give clarification regarding the geographical boundaries of Critically Polluted Areas as per the Hon'ble NGT order on the immediate basis.
- An Office Order has been prepared by Gujarat Pollution Control Board on 11.11.2019 on Mechanism for environmental management of critically and severely polluted area and consideration of activities/projects in such areas in compliance to Hon'ble NGT order dated 23/08/2019 in the matter of O.A. No. 1038/2018. The specific conditions stipulated in critically polluted areas (CPAs)/severely polluted areas (SPAs) with additional condition under Air Act, Water Act, Hazardous Waste Management Rules and Other General Conditions has been prescribed.
- The map of the respective CPAs and SPA has been jointly prepared by GPCB and BISAG.

A Committee has been constituted under the chairmanship of Additional Chief Secretary, Department of Forest and Environment, Government of Gujarat to formulate action plans of CPAs/SPAs of Gujarat.

- As per mechanism dated 25.10.2019, Gujarat Pollution Control Board is required to prepare and submit the action plan for the identified CPAs and SPAs of Gujarat. With reference to mechanism, Action Plans for CPAs and SPAs of Gujarat are approved by the Committee constituted under the Chairmanship of ACS (UDD) considering pollution aspect of the areas including direction issued by Central

Pollution Control Board under section 18(1)(b) of the Water (Prevention & Control of Pollution) Act-1974 and Air (prevention & Control Pollution) Act-1981 dated 26.04.2016.

- As per Hon'ble Supreme Court Order w.r.t. Civil Appeal Diary No(s). 8478/2020, dated 18.03.2020, there is a stay of operation of the impugned orders dated 10.07.2019, 23.08.2019 and 14.11.2019 passed by Hon'ble national Green Tribunal w.r.t. O.A. No. 1038/2018.
- However, above mentioned Action Plans for the CPAs/SPAs of Gujarat are approved by the Committee constituted under the Chairmanship of Chief Secretary of Gujarat, which is required to be submitted to Central Pollution Control Board as a compliance of Hon'ble NGT Order w.r.t. O.A. No. 1038/2018, dated 23.08.2019.
- Final action plan and calculation of CEPI score of CPAs/SPA of Gujarat is submitted to CPCB, Delhi.

f. Status of the work in compliance of the directions passed in O.A. No. 173 of 2018, Sudarsan Das v/s. State of West Bengal & Ors. Order dated 04/09/2018.

- Office of Commissioner Geology & Mining Department has identified illegal mining cases and has imposed penalty.

- Illegal Mining cases & Recovery:

Period	Nos of illegal Mining case	Recovery of Environment Compensation (in Lacs) Rs.
Sept. 18 to March 19	3770	305.36
April 19 to March 20	6104	572.98
April 20 to March 21	6568	777.22
April 21 to June 21	1541	331.71

- I&MD, Government of Gujarat has issued resolution on 05/03/2019 for implementation of the Sustainable Sand Mining in the State.
- Compliance - Ongoing process. O.A. 360 of 2015 pending before Hon'ble NGT.

g. Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.

Hon'ble NGT has issued directions in various matters/ orders for different individual industries or group of industries to deposit environment damage compensation to GPCB.

- 1) Total Rs. 32.09 Crore under Polluter pay & precautionary principles has been recovered.
- 2) CETP, Vapi has deposited Rs. 10 Cr. to CPCB as per Hon'ble NGT order in the matter of OA No 95/2018. Individual industries of Vapi area have deposited Rs. 14.25 Cr to CPCB as per Hon'ble NGT order in the matter of OA No 95/2018.
- 3) Board is implementing vigorously Concept of Environment Damage Compensation and in case of non-compliance Environment Damage Compensation is levied.
 - From April-2010 to 30/06/2021 GPCB has collected total Rs. 118.34 Cr. as Interim Environment Damage Compensation.
- 4) Gujarat Pollution Control Board has recently emphasized more stringent action against polluting industries by filling the prosecution under environment laws.
- 5) Gujarat Pollution Control Board has started more stringent action against violating industries 1994 industries have been issued closure directions under the various environmental laws during period April-2019 to June-2021.

h. Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State."

- As per compliance of Direction 41(ii) & (iii)
- Page No: 22-27.

2. Compliance status of O.A. No: 325/2015 – Reg. Repair, Renovation & Restoration of Water Bodies. (RRR).

Directions in O.A. No. 325/2015 dated 10/05/2019:

- a) Hon'ble NGT has passed the order dated 10/05/2019 to State Government for Repair, Renovation & Restoration of water bodies and also directed to add this direction with OA no: 606/2018- compliance of MSW Rules-2016. Action plan were required to be prepared and submitted before 10/08/2019. (i.e. within 3 months)

Directions in O.A. No. 325/2015 dated 25/02/2020:-

- b) Information may be furnished by all the States/UTs by March 31, 2020 positively to the CPCB failing which the States will be liable to pay compensation at the rate of Rs. 1 lakh per month till information is furnished. Payment of compensation will be the responsibility of the Chief Secretaries of the respective States/UTs

Directions in O.A. No. 325/2015 dated 01/06/2020:-

- c) Having regard to the fact situation noted above (Covid-19 pandemic situation), time to complete action in terms of order dated 25/02/2020 is extended till 31/07/2020 (for the submission of circulated CPCB format)
- d) It was stated that the assessment of Water quality of ponds or lakes through laboratories approved under E(P) Act, 1986 by the concerned state department/ULBs/State Environment Dept./SPCB/PCC
- e) The District Magistrate may as far as possible hold a meeting of all the stakeholders for the purpose as per the District Environment Plan or Watershed Plan within one month from today (i.e. 01/06/2020). The District Magistrates may also ensure that as far as possible at least one pond/water body must be restored in every village, apart from creation of any new pond/water body
- f) Consolidated report of the State may be forwarded to the CPCB preferably by 31/08/2020 (after the action taken and reports furnished to the Chief Secretaries by the concerned District Magistrates)
- g) A copy of this order be sent to CPCB, Chief Secretaries, State PCBs/ PCCs of all States/UTs for being forwarded to all the District Magistrates and other concerned Departments and further action in above terms. The District Magistrates may thereupon forward this order to all the levels of Panchayati Raj in their respective Districts.

Compliance:

Steps initiated by GPCB in compliance to Hon'ble NGT order dated 10.05.2019 (Point a) :-

- Total 2 meetings were held by GPCB with concerned dept. (PRH & RDD, UDD, WRD, F & ED, PCCF) for the submission of action plan however no detailed action plan were submitted by concerned dept.
- GPCB had submitted the status report/action taken report with details received from concerned dept. to CPCB on 22/08/2019 and 30/11/2019 w.r.t. Hon'ble NGT order dated 10/05/2019.

WRD as Nodal Agency

- During the review meeting held on 24/12/2019 under chairmanship of Chief Secretary w.r.t Hon'ble NGT order in O.A. No: - 606/2018, Chief Secretary has instructed to nominate Water Resource, Narmada, Water Resources, Water Supply and Kalpsar Department (WR, NWR WS & KD) as nodal agency for the compilation of data/details, preparation & submission of action plan with regards to Hon'ble NGT order dated 10/05/2019 (in O. A. No.: - 325/2015)

Submission by Nodal Dept. (WRD) in compliance to Hon'ble NGT order dated 25.02.2020 (Point b):-

- WRD (Nodal dept.) has submitted details (which was not in the form of action plan as asked) on 30/05/2020 to CPCB for which due date of 31/03/2020 was given.
- It is stated in order dated 01.06.2020 that Gujarat State has submitted the details but not as per the format circulated by CPCB.

GPCB submission to Nodal Dept. (WRD) in compliance to Hon'ble NGT order dated 01.06.2020 (point d):-

- GPCB has submitted the following details to the nodal dept. (WRD Dept.) as asked and which are pertaining to SPCB vide letter dated 05.06.2020 for further actions:
 - List of labs approved under E (P)Act, 1986 in Gujarat
 - List of Regional Offices of the Gujarat Pollution Control Board
 - Draft checklist for identification of Water Bodies based on information and baseline survey

- Draft checklist for assessment of Water Quality of Ponds or Lakes contains parameters identified based on Designated Best Use Criteria
- Monitoring and Analysis charges
- Sampling procedure and preservation methods
- Water Resources Dept. vide its letter dated 16.06.2020 requested GPCB to accept samples of identified polluted water bodies (ponds/lakes) for the analysis. In line of action to this different RO of GPCB has accepted the samples and analysis of which is already started for the submission of the results at the earliest. Till date more than 400 samples have been received and analysed by different RO laboratories of GPCB.

Hon'ble NGT vide order dated 18/11/20 disposed the matter & directed

To designate nodal agency for restoration of water bodies

- Narmada, Water Resources, Water Supply & Kalpsar Department is Nodal Agency.
- The nodal agency to hold its first meeting under the oversight of the Chief Secretaries of the States/UTs not later than 31/01/21 to take stock of the situation and to plan further steps including directions to District Authorities for further course of action up to Panchayat levels, to evolve further monitoring mechanism and Grievance Redressal Mechanism.
- To submit periodical reports on the action taken to CPCB & Ministry of Jal Shakti (MoJS) by February 2021 end.
- Central Monitoring Committee (under MoJS) to monitor the steps for restoration of water bodies by all the states periodically. 1st CMC meeting was conducted on 30/03/2021 in the Hon'ble NGT matter O. A. No. 325/2015.
- W.R.T the MoJS letter dated 11/12/20 the state is required to submit reliable data and details relating to water bodies in different districts /States

3. Compliance status of O.A. No: 673/2018 – Reg. Polluted River Stretches.

- As per compliance of Direction 41(ix)
- Point: C
- Page number:31 to 38

4. Compliance status of O.A. No: 148/2016 – Reg. utilization of treated wastewater.

Directions:

- As per the NGT order No. 148 of 2016 and CPCB letter,
- All the states and union territories are directed to prepare and furnish the action plans for their respective states for utilization of treated sewage within 3 months. Such actions plan may be furnished to CPCB.
- CPCB may review such action plans and issued appropriate direction in the matter and furnished report of compliance to the tribunal on or before April 30, 2019.

Compliance:

- State Government has prepared and published a policy for reuse of treated wastewater on 28/05/2018 (Annexure- VIII).
- GWSSB submitted Action Plan for Gujarat State for Utilization of Treated Waste Water to the Chairman, Central Pollution Control Board vide letter No. PB/Urban cell/TWW/411, Dated: 22/08/2019 under intimation to the board. (Annexure: IX)
- Board also submitted the same action plan to the Chairman CPCB vide letter no. GPCB/P-3-200/522840 dated: 27/09/2019 under intimation to Chief Secretary, Gujarat & Zonal Officer CPCB, Vadodara. (Annexure: X)
- CPCB has examined action plan and gave comments. CPCB also requested that comments on action plan may consider and to submit revised action plan by 30/11/2019 vide letter no. File No. A-14011/1/2019-Mon/7698, dated:07/10/2019. (Annexure: XI)
- GWSSB has submitted revised action plan for Gujarat State for utilization of treated sewage to CPCB under intimation to this office vide letter no. PB/Urban Cell/TWW/Action Plan/630, dated: 29/11/2019. (Annexure: XII)

- At present Bhavnagar, Surat, Ahmedabad and Gandhinagar Municipal Corporation is using 15MLD,40MLD,48MLD and 10 MLD treated waste water respectively.
- Charges to be taken for raw sewage and secondary treated waste water are notified by Narmada, Water Resources, water supply and Kalpsar Department on 07/02/2020.
- Meeting was held on 31/08/2020 under the Chairmanship of Hon'ble minister of State power and NRE and minister of skill development and entrepreneurship to review utilization of treated sewage water in Thermal Power Plant.
- Draft policy regarding the safe reuse of treated waste water is received from the Ministry of Jal Shakti.
- Detailed information about operating STPs in Gujarat state has been communicated with ministry of Jal Shakti as asked by them.

5. Compliance status of O.A. No: 50/2018 – Reg. River Tapi Shuddhikaran

Directions:

- For the present matter, we direct constitution of a Committee comprising representatives of the Secretary, Irrigation Department of Gujarat, Gujarat State Pollution Control Board (GPCB), Secretary, Urban Development and Housing Department of Gujarat, the Collector, Surat and the Municipal Commissioner, Surat Municipal Corporation to review and coordinate the necessary measures. The Nodal agency will be the Surat Municipal Corporation for coordination and compliance.
- The five-member Committee may hold its first meeting within two weeks. It may take up for consideration all the issues, including issue of demarcation of the river bed into blue line and red line. The Committee may invite public participation and undertake public education programs. The Committee may also consider the plan prepared by the Committee constituted by this Tribunal vide order dated 26/07/2018 in *Manoj Mishra Vs. Union of India & Ors., Original Application 06/2012*. Its plan is available on the website of the said Committee.
- The applicant or any member of public will be at liberty to put forward their view point before the Committee. The Commissioner, Surat Municipal Corporation may make available complete set of relevant papers to the other members of the Committee.
- The Committee may furnish its reports from time to time to this Tribunal by e-mail. First such report may be sent after three months, but on or before 30/06/2019 by e-mail at ngt.filing@gmail.com.
- The Committee may also apprise the Chief Secretary for all the steps taken on or before 31/03/2019.

Compliance:

- As per order dated 25/02/2019, this matter is clubbed with O.A. 606/2018 (Para-11)
- Constitution of Committee comprising representative of:
 - Secretary - Irrigation Department,
 - Gujarat Pollution Control Board,
 - Secretary - Urban Development and Housing Department,

- The Collector - Surat,
- Municipal Commissioner – Surat (Nodal Agency)
- Subsequently nine meetings are held at Surat by SMC viz. on 04/04/2019, 19/06/2019, 08/07/2019, 16/09/2019, 11/12/2019, 17/03/2020, 11/09/2020, 12/01/2021 and 22/02/2021.
- As per the order, website for Tapi Sudhikaran Yojana is developed - as Rejuvenation of Tapi by SMC tapirevival.suratmunicipal.org
- All the Minutes of Meetings are uploaded on website.
- GPCB has submitted the monthly analysis reports to the Committee for the period April-19 to Aug-19 which are also the part of the compliance report dated 11/10/2019 of the Committee. GPCB has also submitted the monthly analysis reports to the Committee for the period up to December-2020.
- As per Hon'ble National Green Tribunal (WZ) in O.A. No. 50/2018 order dated 16/07/2020 a meeting was held under the Chairmanship of District Collector and District Magistrate, Surat on 27/08/2020 and Action Taken Report (ATR) was submitted to Hon' NGT on 18/09/2020 by e-mail.
- Two meetings were held on 12/10/2020 and 28/01/2021 at Head office Gandhinagar under the Chairman ship of Hon'ble retired Justice Shri B C Patel.

As per Hon'ble NGT order dated 19/09/2019, substantial work have been undertaken:

- Pollution abatement and conservation of Tapi River project
- Identifying the actions initiated by the authorities.
- Suggestion and observation of the Committee.
- Against pollution abatement and conservation of Tapi river project, it has inter alia observed that total 50 sewage pumping station and 39 STP require to be constructed in the area of Surat Municipal Corporation, Surat Urban Development Authority and the State Government. It is stated that DPR in this respect had been submitted for which administrative approval and expenditure sanction has been received from national River Conservation Directorate, Ministry of Environment, MoEF&CC.

- Activities identified and action initiated by the authorities indicates that tenders have been floated for various works which are presently at different stages.
- The untreated sewage being disposed of from the area within jurisdiction of Surat Urban Development Authority have been intercepted and diverted from Valak, Gadhpur and Varachha creeks by Surat Municipal Corporation and as a result approximately 135 MLD of untreated sewage entering into river Tapi has been stopped at the cost of Rs.41.57 Crores.
- As a drive to stop untreated sewage entering in to river Tapi, more than 1000 illegal drainage connections in the storm network have been identified and diverted its sewage into the regular drainage network in last 02 years within jurisdiction of Surat Municipal Corporation”

6. Compliance status of O.A. No: 593/2017 – Reg. setting up of and proper functioning of CETPs, ETPs & STPs

- i. Hon'ble Supreme Court Judgment dated 22/02/2017 [W.P. (C) No. 375 of 2012: Paryavaran Suraksha Samiti & Ors. later on, referred to Hon'ble NGT, Delhi as O.A. No. 593 of 2017].
- ii. Main directives are as follow:
 - A. All the Local Bodies and or the concerned departments of the State Government have to ensure 100% treatment of the generated sewage and respective States/UTs shall enforce the compensation regime, latest with effect from 01/04/2020. The States/UTs shall 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.
 - B. SPCBs/PCCs shall ensure remedial action against noncompliant CETPs or individual industries in terms of not having ETPs/fully compliant ETPs or operating without consent or in violation of consent conditions.
 - C. The CPCB needs to collate the available data base with regard to ETPs, CETPs, STPs, MSW facilities, Legacy Waste sites and prepare a river basin wise macro picture in terms of gaps and needed interventions.
 - D. The Chief Secretaries of all the States/UTs may furnish their respective compliance reports on this subject also in O.A. No. 606/2018.
 - Corporations/Nagarpalika shall have to establish STP for domestic sewage for treatment before its disposal. (Time Limit- 28/02/2020 which is extended up to 31/03/2021 vide order dated 06/12/2019 in OA 673/2018)

Compliance:

- i. Status of functional primary ETP
 - ✓ In State of Gujarat, total 40299 nos. of industries registered with State Pollution Control Board and out of which 14160 industries require functional primary ETP.
 - ✓ Total 13878 industries have provided functional primary ETP.
 - ✓ In Gujarat 282 Nos of industries found working without primary functional ETP.

- Closure direction to industries: 199
- Notices issued to industries: 69
- Action Under Process: 14
- ✓ Action taken by the Board against the industries not complying with discharge norms. (April 2021 to June 2021)
 - Closure Direction under section 33-A of Water Act: 140
 - Notice under section 33-A of Water Act- 1974: 185
- ii. Status of CETPs in Gujarat
 - In State of Gujarat, there are currently 35 operational CETPs having hydraulic capacity of 767 MLD.
 - 21 CETPs are found complying with discharge norms whereas 14 CETPs are not complying with discharge norms. (Marginally higher)
 - Gujarat Pollution Control Board has issued closure direction to no CETPs.
 - Board has levied bank guarantee of Rs. 370.3 Lacs from non-complying CETPs.
 - Board has taken action plan comprising of the short term and long-term measures for improvement of the performance of the each non-complying CETP.
 - Investments of more than Rs. 310.4916 Cr. have been proposed for strengthening and augmentation of CETPs.
 - Three deep sea disposal pipelines for the discharge of treated effluent of CETPs as mentioned in Status of Action plans for Polluted River Stretches of the State.
 - Moreover, as a punitive action to the CETPs, the Board has levied Environmental damage compensation of Rs. 246.3 Lacs for non-performance of CETPs.

Up gradation and modification of CETP		
Sr. No.	Name of CETP non-complying	Cost to be incurred (Rs.)
1	The Green Environment Services Co-op. Society Ltd	50.00 Cr.
2	Naroda Enviro. Pvt. Ltd Naroda	14.00 Cr.
3	Narol Textile Infrastructure & Enviro Management – Narol	30.00 Cr.
4	Narol Dyestuff Enviro Society – Narol	3.50 Cr.
5	Odhav Enviro Pvt. Ltd – Odhav	3.41 Cr.

6	CETP of Pandesara Infrastructure Ltd	71.30 Cr.
7	CETP of Sachin Infra Enviro Limited (SIEL)	60.28 Cr.
7	CETP of Globe Enviro care Ltd	0.75 Cr.
8	Vapi Green Enviro Limited (VGEL)	68.25 Cr.
9	CETP of Shri Dhareshwar GIDC Vistar Association	0.30 Cr.
10	Kalol GIDC Industries Association, CETP, Kalol	0.05 Cr.
11	Narmada Clean tech	8.51 Cr.
12.	Nandesari Industrial Association (NIA), CETP	0.1416 Cr
Total		310.4916 Cr.

Status of STPs in Gujarat

ULB	Present Wastewater Generation	Existing STPs	Under Construction STPs	STP Under Tender stage	STP Under Planning
Municipal Corp (8 nos)	2900 MLD	48 STPs (3178 MLD)	18 STPs (990 MLD)	13 STPs (550MLD)	
Nagarpalikas (156 nos)	1011 MLD	30 STPs (472 MLD)	95 STPs (665 MLD)	44 STPs (445MLD)	

7. Compliance status of O.A. No: 95/2018 – Reg. performance of Vapi CETP

Directions:

- The Committee shall make fresh calculation for Environmental Compensation to be levied based upon actual period of pollution during five years preceding 26/02/2018, the date on which this application was filed i.e. from 26/02/2013 till the date of calculation in addition to the treatment of pollutants and discharge as per environmental norms for ground pipeline network from industries to GIDC manhole/sump, quality & quantity monitoring SCADA system, upgradation of CETP, construction of STPs, management of MSW in the area.
- Fresh report of the Committee may be furnished within two months by e-mail at ngt.filing@gmail.com. Any further submissions of the parties may be given to the Committee through CPCB. Hon. NGT also add a representative from MoEF&CC to the Committee for making the assessment.
- GPCB shall furnish list of all the polluting units in addition to list of 44 units earlier given and online data as may be necessary to determine damages for period from 13/02/2013 till date to the Committee and perform its duties as regulator in respect of CETP as well as all defaulting units by way of closure to stop polluting activities and prosecution for the violation of law which had already done to ensure that the CETP meets the norms and consent conditions to match its current capacity. The joint Committee may accordingly take appropriate further action in the matter and file a compliance report before the Tribunal before the next date (11/02/2020).
- All vacant positions in the SPCBs/PCCs may be filled up at the within four months and the Chief Secretaries of the States/UTs may ensure that there is no embargo in doing so, so that effective steps for protection of environment can be taken. It is also necessary to direct that the laboratories established by the SPCBs/PCCs, at headquarters as well as regional centers, are duly recognized for purposed of enforcement of environmental laws. The concerned authorities may take further steps accordingly. The CPCB may compile a report and file before the next date.

Compliance:

- Constituted Committee by CPCB for restoration to assess the extent of damage and cost of restoration of the environment and individual accountability of CETP and polluting industrial units.
- Committee has prepared report and submitted to Hon'ble NGT on dated 09/05/2019, findings as below
 - Cost of restoration comes about Rs. 751 crores for over ground pipeline network from industries to GIDC manhole/sump, quality & quantity monitoring SCADA system, upgradation of CETP, construction of STPs, management of MSW in the area.
 - The compensation amount of Rs. 4,43,99,827 (Rs. Four crore forty-three lakh ninety-nine thousand eight hundred twenty-seven) was calculated and required to be paid by the respective defaulting industries for environmental compensation.
- CETP, Vapi has paid Rs. 10 Cr. to the CPCB as an interim compensation.
- Out of 36 industries, 34 industries have paid interim compensation to the CPCB as follows:

Scale	Nos of Units	Industries paid amount	Industries not paid amount	Total Rs. Cr. Required to be paid	Total Rs. Cr. Amount paid
Small	23	21	2	5.75	5.25
Medium	8	8	0	4	4
Large	5	5	0	5	5
Total	36	34	2	14.75	14.25

- Two industries, which have not paid compensation into CPCB- New Delhi, are at present under Closure Directions.
- GPCB has submitted data to the Committee, from 13/02/2013 to till date as polluting industries, i.e. 226 units in addition to 44 units of 2018, considering the closure direction issued under environment laws.
- Total industrial units are 270.
- GPCB had issued the Closure direction to M/s Vapi Green Enviro Limited (VGEL), Vapi CETP under The Water (Prevention and Control

of Pollution) Act, 1974 with 15 days effect due to non-compliance of GPCB norms.

- Board has imposed Environment Damage compensation of Rs. 25 Lakhs to the CETP.
- Further, CETP also submitted the Bank Guarantee of Rs. 50 Lakhs to the GPCB.
- GPCB has issued a legal notice to Directors of CETP, Vapi for not achieving standards prescribed by GPCB for inlet and outlet norms.
- Prosecution against 44 defaulting units have been launched in the court of law under Environment Protection Act.
- As CETP, Vapi has submitted action plan and started the implementation, improving inlet and outlet norms and as constant watch is required, three-month revocation issued for further verification and sampling, i.e. up to 22/03/2020.
- Vapi Green Environment Ltd. to extend the discharge point through the pipeline and a diffuser system as suggested by NIO approximately 4.5 Km downstream from existing discharge location of CETP, Vapi in the Damanganga estuary within a period of 18 months at their own cost.
- Hon'ble Supreme Court has issued an order dated 15/04/2019 regarding giving stay on order of Hon'ble NGT Order for the extension of pipeline.

Compliance Status of order dated 28/08/2019.

- Committee has submitted Revised Report in context with the Hon'ble NGT Order dated 13/05/2019 and compensation of Rs. 25.36 Crore has been imposed on 256 industrial units and Rs. 92.36 Crore imposed on M/s. Vapi Green Enviro Limited (Vapi CETP).
- No industrial unit and Vapi CETP have deposited compensation amount into CPCB- New Delhi.
- Hearing in this matter in Hon'ble NGT was on 11/02/2020.
- Vapi Industrial Association filed Appeal in Hon'ble Supreme Court on behalf of 191 members and Hon'ble Supreme court has passed an order dated 04/12/2019, that meanwhile there shall be a stay on impugned order.
- Hence, no hearing carried out in Hon'ble NGT.

Hearing was held by Hon'ble NGT on 05/02/2021.

Hon'ble NGT has given below direction to Chief Secretaries, CPCB, MOEF & CC, SPCBs, PCCs:

Sr No	Directions issued by Hon'ble NGT	Action to be taken
1	The Chief Secretaries of all States/UTs, in coordination with their respective Secretary Environment and Chairman State PCB/PCCs, need to forthwith study and address the issues emerging from the CPCB report, prepare and execute their respective action plans which will include filling up all vacant posts by competent persons and procuring the requisite equipment, including commissioning and upgradation of all laboratories and recognition under the EP Act, 1986. The CPCB may assist and monitor all the States for compliance of these directions. The steps in this regard be initiated and completed as far as possible within six months. In view of Section 33 of the NGT Act, 2010, where under the NGT Act has overriding powers over other statutes; any restriction placed by any administrative order will not stand in the way of carrying out this direction.	• Filling up all vacant posts by competent persons • Procuring the requisite equipment, including commissioning and upgradation of all laboratories and recognition under the EP Act, 1986. • The steps in this regard be initiated and completed as far as possible within six months
2	We direct the CPCB to prepare a format which may contain qualifications, minimum eligibility criteria, required experience for the key positions and the specifications of equipment. All States/UTs may act accordingly.	• Prepare a format which may contain qualifications, minimum eligibility criteria, required experience for the key positions and the specifications of equipment.
3	MoEF&CC and CPCB may design a mechanism for annual performance audit of all the State PCBs/PCCs.	• Design a mechanism for annual performance audit of all the State PCBs/PCCs.
4	It is suggested that if some of the State	• Explore possibility of the

	PCBs find it difficult to select/recruit suitable candidates, a designated Committee of the MoEF&CC and CPCB, in consultation with such State PCBs, may explore possibility of the central selection mechanism so that the talent pool so selected can be made available for posting at appropriate locations, where requirement is found to be otherwise difficult. A plan be prepared for continuous training of the incumbents at regional levels periodically.	central selection mechanism so that the talent pool so selected can be made available for posting at appropriate locations, where requirement is found to be otherwise difficult. • A plan be prepared for continuous training of the incumbents at regional levels periodically.
5	In view of the findings in the report that at some places administrative manpower is more than technical manpower, such situation may be reviewed and remedied by the concerned States.	• Administrative manpower is more than technical manpower; such situation may be reviewed and remedied by the concerned States.
6	The observations that the work of regulators should be fulltime for the incumbents appointed applies to all key positions, including Chairman/Member Secretary and Regional Officers, Engineers, Scientists of PCBs/PCCs. Such incumbent may not be given any other additional charge. Only exception can be in States where there are no significant environmental issues so as to provide the incumbents fulltime work. Such States may seek exemption in respect of this direction from CPCB, giving relevant information justifying such exemption.	• Work of regulators should be fulltime for the incumbents appointed applies to all key positions, including Chairman/Member Secretary and Regional Officers, Engineers, Scientists of PCBs/PCCs. Such incumbent may not be given any other additional charge.
7	CPCB and State PCBs/PCCs, as directed earlier, may utilise EC funds on laboratory set up/upgradation, and on the mentioned areas in the report as well as on approved District Environment Plans. No approval of Central/State	• Utilise EC funds on laboratory setup/upgradation, and on the mentioned areas in the report as well as on approved District

	Government will be necessary in this regard in view of section 33 of the NGT Act, supra.	Environment Plans.
8	Consistent with Digital India initiatives, MoEF&CC/MoJS/CPCB may consider setting up and periodically updating National Environment Data Grid (NEDG) linked to the State Environment Data Grids (SEDGs) DEDGs and further linked to available portals like online air/water quality, Sameer and other monitoring stations to facilitate analysis, research and planning on the subject. It may be further interlinked to initiatives like NMCG/ Swachh Bharat/ Jal Jeevan Mission.	• Setting up and periodically updating National Environment Data Grid (NEDG) linked to the State Environment Data Grids (SEDGs) DEDGs. • Further linked to available portals like online air/water quality, Sameer and other monitoring stations to facilitate analysis, research and planning on the subject.
9	To assess the extent of monetary loss caused to the environment on account of violation of environmental norms by failure to scientifically manage waste, violating Water/ Air/ EP/ Forest (Conservation) Acts and other specified Acts for fixing accountability, for improving efficiency and better enforcement of 'Polluter Pays' principle.	• To assess the extent of monetary loss caused to the environment on account of violation of environmental norms by failure. • Improving efficiency and better enforcement of 'Polluter Pays' principle.
10	To monitor the extent of carrying capacity for particular activities at different locations for planning suitability of siting of particular activities for giving effect to 'Precautionary' and 'Sustainable Development' principles	• To monitor the extent of carrying capacity for particular activities at different locations for planning suitability of siting of particular activities for giving effect to 'Precautionary' and 'Sustainable Development' principles

The matter is pending in Hon'ble Supreme Court, and next hearing will be held in Hon'ble Supreme Court.

8. Compliance status of O.A. No: 681/2018 – Reg. Non-attainment city- Air Pollution

- As per compliance of Direction 41(ix):
- Point: d
- Page Number: 39 to 44.

9. Compliance status of O.A. No: 681/2018- Reg. Noise Pollution

Directions:

- Training of regulatory machinery and identifying and notifying accountable officers and preparing action plan and monitoring mechanism.
- Awareness, particularly among students through Education Department and involvement of Resident Welfare Associations (RWAs), social and religious institutions and volunteers.
- Prosecution of violators, seizure of equipment and recovery of compensation from violators.
- Requiring installation of noise, measurement meters by those using equipment capable of producing noise higher than the prescribed limit.
- The State PCBs may undertake noise level monitoring in conjunction with the Police Department and take remedial action.
- The Police Departments of all the States/UTs may obtain the noise monitoring devices within a period of three months and specification of such devices may be finalized in consultation with the respective State PCBs/Pollution Control Committees (PCCs).
- The Police Department of all the State/UTs may also train their staff regarding the use of such devices and develop a robust protocol for taking appropriate action against the defaulters.
- The CPCB may explore the possibility in consultation with the leading manufacturers of public address systems and other manufacturers of such instruments, to manufacture such equipments wherein the noise meters with data loggers are fitted therein so that as and when the prescribed parameters are violated, the same gets recorded and retrieved by the regulators for fixing the responsibility on the violators.

- The Chief Secretary may finalize action plans in this regard within three months and submit the same to CPCB. CPCB may give its report by July 15, 2019.

Compliance:

- Action plan finalized by Chief Secretary for the compliance of Hon'ble NGT orders in O.A. No. 681/2018 regarding Noise Pollution is already submitted to CPCB on 28/02/2020 (Annexure: XIII).
- In consultation with Police department, Board has constituted a joint enforcement team of 56 deputy Superintendent of Police and GPCB officials in Gujarat state for carrying out Noise Monitoring and enforcement with reference to the Hon'ble NGT order in O.A. No- 681/2018 (Annexure: XIV).
- At initial level all Regional offices of Gujarat Pollution Control board have given training regarding use of noise level monitoring device to @241 police staff in Gujarat state.
- Board has again organized a training program in four major cities like Ahmedabad, Rajkot, Vadodara & Surat to train designated 56 DY SP of Gujarat as per the list received from Police department, Gandhinagar (Annexure: XV).
- In the training programs total 31 police officers (Dysp/ ACP/PI) were remain present (Annexure: XVI).
- Police department has also given training to 15 Dy.SP on dated: 23/03/2020 (Annexure: XVII).
- Office of the DG&IGP, Gandhinagar has submitted Protocol on Noise level monitoring and enforcement to curb Noise Pollution vide E-mail dated: 04/06/2020 (Annexure: XVIII).
- Board invited Technical & financial proposal to carry out Noise Mapping, Identification for Hot spot having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000 from CSIR-NEERI, NPL & CRRI (Annexure- XIX).
- Board has constituted the Committee for evaluation of Technical & Financial proposal for Noise Mapping, Identifying Hot Spots having violation of prescribed norms and mitigation plan to ensure compliance of noise pollution (Regulation & control) Rules, 2000 in the Gujarat (Annexure- XX).
- Committee meeting was held on 28/02/2020 for evaluation of technical proposal of NEERI and CRRI.

- CRRRI & NEERI were present in Committee meeting with their technical proposal. Presentation of each agency was evaluated by Committee. Committee decided to remind NPL for submission of financial and technical evaluation and to ask to CRRRI for more details.
- Further information is asked from CRRRI & again reminded to NPL to submit the proposal (Annexure –XXI). Awaiting for reply from the CRRRI and NPL. Thus, Process for finalization of agency for Noise Mapping, Identifying Hot Spots having violation of prescribed norms and mitigation plan is under process.
- Notification for Gujarat state for installation of Noise limiter in all sound system /Public address system for control of Noise Pollution is published on December 3, 2019. (Annexure: XXII).
- Concerned departments like Home Department, Collectors, Police Commissioner, Superintendent of Police, Municipal Commissioner, CPCB, Commissioner of Municipality (Administration), Regional Commissioner of Municipality, 56 Dy. SP of Gujarat was given copy of the notification vide letter no GPCB/LGL: NGT: GEN: 115(3)/550560 dated: 06/01/2020 for information and further necessary action (Annexure: XXIII).
- Other training was arranged by police department for new/transferred Dy.S.P. under intimation to GPCB on 28/09/2020.
- All GPCB R.O.s are intimated for implementation of circulated approved SOP and send report to H.O. every 3 months in coordination with Police department.
- A list of Authorities by State Govt/UT for implementation of Noise Pollution (Regulation and Control), Rules 2002 as notified by Gujarat Pollution Control Board in prescribed format is sent to CPCB so as to update CPCB portal for reference of all stakeholders.
- Detailed technical evaluation (about Grid size, no of samples, frequency of sampling, details of devices to be used, mitigation plan, type of model and software to be used, accuracy and validation features and contour mapping) of proposals regarding Noise mapping and hot spots Identification are being evaluated by the Committee to execute the action plan.
- GPCB has prepared the action plan to utilize the environmental compensation fund for noise pollution control, vide order dated on 28/05/2021. The action plan also approved by CPCB (Annexure: XXIV).

10. Compliance status of O.A. No: 1038/2018 – CEPI

- As per compliance of Direction 41(ix):
- Point: e
- Page number: 45 to 50

11. Compliance status of O.A. No: 710/2017 – Bio Medical Waste

- As per the compliance of Direction 41(i)
- Point: 1(c)
- Page number: 20 and 21

12. Compliance status of O. A. No. 360/2018 Shree Nath Sharma Vs. Union of India & Ors.

Directions:

- To facilitate preparation of such District Environment Plan, it will be appropriate that CPCB prepares a Model/Models and places the same on its website which may be adopted with suitable changes as per local requirements for all Districts in the country and monitored by the Chief Secretaries with reports to the Tribunal in O.A. No. 606/2018.
- The Department of Environment of all States and Union Territories may collect such District Environment Plans of their respective States and finalize the 'State Environment Plan' covering the specific thematic areas referred in Para-7 including information as contained in Para-8 and template of Model/Models District Environment Plan provided by the CPCB. The action for preparation of State's Environment Plan shall be monitored by the respective Chief Secretaries of States and Administration of UTs. Let this action be completed by 15/12/2019 and compliance be reported to the Tribunal by 31/12/2019.
- Based on States and UTs Environment Plans, MoEF&CC and CPCB shall prepare country's Environment Plan accordingly. Let the Secretary, MoEF&CC and Chairman, CPCB steer the preparation of country's Environment Plan. Let their action be completed by 31/01/2020 and compliance be reported to the Tribunal by 15/02/2020.

Compliance:

- GPCB has requested all District Magistrates to constitute Committee and to prepare District Environment Plans vide letter dated 14/08/2019. (Annexure-IV).

- District Environment Committee in all 33 Districts have been constituted and meetings have been conducted.
- District Environment Plans for all 33 districts have been prepared.
- Narmada District has been selected as model district by CPCB and District Magistrate has submitted details in CPCB on 20/10/2020.
- In pursuance of order of Hon. Tribunal dated 29/01/2021, Hon. Justice Shri B.C. Patel had reviewed District Environment Plan for Ahmadabad District on 5/02/2021 & instructed to submit current status, which was reviewed on 09/03/2021 and decided to convene meeting with all District Magistrates of the state.
- A meeting with all District Magistrates under Chairmanship of Hon. Justice Shri B.C. Patel was conducted on 20/03/2021 & reviewed status of District Environment Plan of all districts. As instructed by Hon. Justice Shri B.C. Patel updation of all District Environment Plan in line with Ahmedabad District Environment Plan is under progress.

13.Compliance status of O.A. No: 804/2017 Shri Rajiv Narayan & Anr V/s Union of India & Ors (Related to Hazardous and Other Wastes Rules-2016).

Directions:

The States/UTs, CPCB/SPCBs/PCCs, the Central Board of Indirect Taxes and Customs (CBIC), the Port Authorities, the DGFT, the MoEF&CC, the Ministry of Shipping, Ministry of Labour and Employment and the Department of Labour of all the concerned States/UTs may take necessary steps in terms of the recommendations of the Committee within the timelines specified. If there is any default, the Tribunal may consider requiring environmental compensation to be paid by the defaulting parties. While doing so following specific steps may be ensured:

- i. Hazardous waste inventory be updated and verified by way of test checks to ensure that the same is credible, reliable and robust in terms of contents and scope, as already recommended in the interim report of the Monitoring Committee dated 29/01/2019 which was accepted by the Tribunal on 12/04/2019.
- ii. Since it has been reported that State Boards/PCCs of Dadra & Nagar Haveli, Haryana, Daman & Diu, Manipur, Lakshadweep and Nagaland have not furnished the relevant data, the said States/UTs may furnish the data within one month to the CPCB, failing which they will be liable to pay a sum of Rs, 1 lakh per month with effect from 01/10/2019.
- iii. As already directed, all the States which have not set up TSDF may do so and the States which fail to set up the same up to 31/03/2020, will be liable to pay environmental compensation of Rs. 10 lakh per month. However, with regard to States which may be categorized as small States, having regard to the quantum and nature of generation of hazardous waste, the liability to pay compensation will start from 01/01/2021. The categorization based on threshold limit of generation of hazardous waste be made by the CPCB within one month from today and placed on its website.
- iv. 126 sites which have already been identified as contaminated may be cleared of the hazardous waste within six months so that remediation process may start. The remediation work may start at the 55 sites for which DPRs have been completed within the timelines specified in the DPRs. For the remaining 71 sites, DPRs may be completed

expeditiously but not later than one year and thereafter remediation may be done as per the timelines in the DPRs.

- v. Failure to remove the waste from the 126 identified sites, will result in environmental compensation to be paid at the rate of Rs. 10 lakhs per site from 01/04/2020 by the concerned SPCBs/PCCs to the CPCB. Same rate will apply in respect of such of the 195 sites as are identified as contaminated with effect from 01/01/2021.
- vi. With regard to 195 probable contaminated sites, the assessment may be completed within six months and thereafter the waste may be removed within next six-month from sites cleared by the CPCB to be contaminated.
- vii. The clearance of site by way of disposal or transfer should be strictly as per the HOWM Rules, to be monitored by the CPCB. The cost of removal of waste may be first paid out of the environment funds/consent funds available with the State PCBs/PCCs and thereafter recovered from the persons concerned.
- viii. Whenever any difficulty arises, the CPCB may, on being so satisfied, allocate funds from environment funds available with it, which may thereafter be recovered from the concerned defaulters.
- ix. The recommendations of the CPCB with regard to the compensation regime on the subject may be adopted, subject to further consideration of orders.
- x. The CPCB may oversee the compliance of these directions compile data from all quarters and furnish an interim compliance report before 15/04/2020 by email at [judicial.ngt@ gov.in](mailto:judicial.ngt@gov.in).

Compliance:

- CPCB, Delhi has constituted “Monitoring Committee” as per Hon'ble NGT directions.
- Based on the Monitoring Committee Final report, Board has submitted compliance reports time to time in prescribed format given by CPCB, Delhi. The details are as under:

Date of submission of compliance report at CPCB, Delhi

- First quarter of year 19-20 report submitted dated: 07/11/2020
- Second quarter of year 19-20 report submitted dated: 23/10/2019
- April- September 2020 (1st and 2nd quarter) report submitted to CPCB dated 19/10/2020

- Hazardous waste Inventory: Board has submitted annual inventory for the year 19-20. to CPCB, Delhi. The annual inventory report for year 20-21 is under preparation and will be submitted in November 2021 to CPCB. Also, for strengthening of Hazardous Waste Inventory, Board has re-engineered the online manifest system which is a closed loop system which is under implementation since February 2020.
- Status of TSDF sites in Gujarat: Gujarat is having 8 nos. of Common TSDFs and 11 Nos of Captive (industrial private use) TSDFs. Further 6 new TSDFs with total capacity of 63.25 Lac MT are at different stages of development.
- Status related to Contaminated Sites:

All 23 contaminated sites as per CPCB list have been inspected. And detailed reports in prescribed format is submitted at CPCB. A joint Video meeting was conducted on: dated 07/05/2021 with CPCB, Delhi, CPCB Zonal Office, Vadodara. CPCB suggestions have been incorporated and reassessment reports were again submitted to CPCB dated: 12/07/2021. Total 15 sites have been recommended to remove from the contaminated site list based on the site investigation reports. For 5 sites site re-investigation is carried out and report are submitted to CPCB. For remaining two sites in one site remediation activities already started. Joint visit with GPCB and RD-Vadodara will be carried out as per discussed in VC held on 07/05/2021. site remediation verification joint visit by CPCB and GPCB has been carried out. The report is under process. The site summary for Gujarat state is as under:

 - a) Total sites: 23 nos.
 - b) Site declared as none contaminated by CPCB: 01 nos.
 - c) Site recommended removing from list: 15nos.
 - d) Remediation started/going on: 2 nos.
 - e) Re-investigation of sites is recommended by CPCB: 05
- Matter is disposed by Hon'ble NGT, Delhi.

14. Compliance status of O.A. No: 512/2018 Shri Shailesh Singh V/s State of UP & Ors (Related to E-Waste Rules-2016).

Directions:

CPCB had reproduced an action plan in respect of checking of informal trading, dismantling & recycling of e-waste, collection & disposal of e- waste, governance frame work for monitoring compliance, capacity building at district/State/CPCB level, IEC plan and system of enforcement. The SPCBs/PCCs are directed by the Hon'ble NGT vide order dated 02/09/2019 to take following necessary action which is to be reviewed quarterly by the CPCB:

- i. Checking of informal trading, dismantling, and recycling of waste.
- ii. Facilitate collection and disposal of e- waste.
- iii. Governance frame work for monitoring compliance.
- iv. Capacity building at district/State/CPCB level.
- v. IEC plan be firmed up and executed.
- vi. Strengthen system of enforcement.

Compliance:

- CPCB, Delhi has framed online portal for submission of quarterly progress report of recommendations made by Monitoring Committee
- Quarterly progress report of action points as mentioned in NGT order dated: 12/02/2019 of are submitted to CPCB, Delhi as mentioned below:
 1. For year 2019-2020
 - First quarter: 06/06/2019
 - Second Quarter: 18/11/2019
 - Third Quarter: 27/01/2020
 - Fourth Quarter: 18/06/2020
 2. For the year 2020-21:
 - April- September 2020 (1st and 2nd quarter) : 12/10/2020
- Inventorisation of e-waste generation: Board had appointed Gujarat Environment Management Institute (GEMI) to carry out the Inventorisation of e- waste generated in the State. GEMI had submitted the report to Board in March-2020, The same is forwarded to CPCB via letter dated 12/10/2020.
- Identification of Producers who have not obtained EPR Authorization: Board has published Public notice one in local Language and another in

English for awareness regarding Extended Producer Responsibility and identification of Producers who have not obtained EPR authorization.

- Verification of systems provided and e-waste collected by producers for collection and provided by producer's channelization of e-waste: EPR producers verification carried out in 1st and 2nd quarter of year 20-2. Reports of the same were submitted to CPCB.
- Verification of facilities of dismantlers and recyclers for the infrastructure and records: Board has issued authorization to 26 recyclers and Dismantlers till date. 12 units were inspected in the third quarter (Oct - Dec) of 2020-21 and 1 unit was inspected in fourth quarter (Jan-March) of the year 2020-21. The inspection reports are submitted. The same would be uploaded on portal.
- Checking of informal trading, dismantling, and recycling of waste: Board has sensitized the Regional officers and instructed them to carry out survey in their respective jurisdiction time to time about illegal units handling e-waste, report and take actions against the same through letter. One such survey for identification of informal e waste units was conducted during year 20-21.
- Governance frame work for monitoring compliance:
- Government of Gujarat has already constituted State Level Environmental Management Committee as per Hon'ble NGT direction in OA no: 606/2018. Now Board has integrated the scope of monitoring Compliance related to e-waste in the said Committee
- Capacity Building/ IEC Plan: Board has organized several workshops / seminars / Training program for the stakeholders. Board has organized online seminars for awareness regarding e-waste in Gandhinagar District. During the year 2020-21, Board has also issued letters to recycler / dismantler to participate in government e-waste tendering process. Board has published Public notice one in local Language and another in English for awareness regarding Extended Producer Responsibility and identification of Producers who have not obtained EPR authorization.
- E-waste collection drive and awareness program was conducted by Regional Officer - Gandhinagar in association with NGO, M/s. Nisarg Community Centre, Gandhinagar. The Drive in month of September 2020 was carried out for collection of e-waste. About 2 MT e-waste was channelized to registered recycler.
- Board had actively participated in the webinar for stakeholder sensitization arranged by M/s. E-Coli waste management at Ahmedabad.

Matter is disposed by Hon'ble NGT, Delhi

Information on SWM for quarter ending June-2021-Gujarat						
S.N.		Questions	Remarks			
1		Numbers of ULBs	164			
2		Over all waste management status in States/UTs				
a		Quantity of MSW generated (TPD)	9846			
b		Quantity of MSW collected (TPD)	9747.54			
c		Quantity of MSW segregated & transported (TPD)	8772.78			
d		Quantity of MSW processed (TPD)	8655.81			
e		Quantity of MSW disposed in secured land fill site (TPD)	1091.73			
f		Gap in Solid Waste Management UTs (TPD) [1(a)- I(d)- 1(e)]	-			
g		Solid Waste Management Plan				
3		Waste Collection	Existing	Target	Gap	Tentative Timeframe
a		ULBs in which waste door-to-door collection is implemented(No.)	163	164	1	Within Six Months
b		ULBs in which segregation of waste is implemented (No.)	148	164	16	75% ULBs up to Dec-2021
c		ULBs in which transportation of segregated waste is implemented (No.)	148	164	16	75% ULBs up to Dec-2021
4		Waste Processing				
a		<u>Material Recovery facilities</u>				
	(i)	Total Capacity (TPD)	3921.5			
	(ii)	Number	205			
	(iii)	Number of ULBs covered	162			
b		<u>Recycling</u>				
	(i)	Total Capacity (TPD)				

	(ii)	Number				
	(iii)	Number of ULBs covered				
c		<u>Composting</u>				
	(i)	Total Capacity (TPD)	6118.59			
	(ii)	Number	594			
	(iii)	Number of ULBs covered	151			
d		<u>Biomethanation</u>				
	(i)	Total Capacity (TPD)	148.3			
	(ii)	Number	34			
	(iii)	Number of ULBs covered	7			
e		<u>RDF</u>				
	(i)	Total Capacity (TPD)	1020			
	(ii)	Number	5			
	(iii)	Number of ULBs covered	5			
f		<u>Waste to Energy Plants</u>				
	(i)	Total Capacity (TPD)	5500			
	(ii)	Number	7			
	(iii)	Number of ULBs covered	6	work in progress		
4		Waste Disposal				
a		<u>Landfill</u>				
	(i)	Total Capacity (T)	3660319			
	(ii)	Number	11			
	(iii)	Number of ULBs covered	39			
5		Legacy Waste Waste management				
a		Number of dumpsites (No.)	164			
b		Quantity of Waste dumped at dumpsites (Tons)	93.56 lakhs			
c		Number of dumpsites cleared (No.	20			

d		Number of dumpsites in which biomining has commenced (No.)	2			
e		Time frame for clearing all dumpsites	MC - 12 Months, NP - 09 Months			
6		Other Information				
a		Information regarding development of model towns/cities/villages	Annexure-1			
b		Creation of Environmental cell	NA			
c		Standardization of rates for procurement of services/equipment (to do away with the tendering process) required for solid waste management				
Improvements Since Last Hearing						
		Item	Present Status	Status at the time of last hearing	Whether directed timelines have been adhered or not ?	
1		Door-to-door collection (%)	99	100	Yes	
2		Source segregation of waste (%)	90	75	Yes	
3		Waste Processing (TPD)	8743.24	7528	Yes	
4		Dumpsites capped (No.)	1	1		
5		Dumpsites Bio-remediated/Biomining (No.)	19	1	Yes	

Government of Gujarat
Resolution No: ENV/102018/1446/E
Forest and Environment Department,
Sachivalaya, Gandhinagar.
Date: 11/12/2018.

1. Introduction

1.1. Gujarat continues to occupy a distinctive position in the Indian economy. With 5 percent of the country's population and 6 percent of the country's geographical area, Gujarat contributes to about 16 percent of industrial production in India. The State has witnessed an annual average growth of 9 percent in the last three years and an average industrial growth of 15 percent for the same period.

1.2. Accounting for 16 percent of the industrial production of India, Gujarat has demonstrated leadership in many areas of manufacturing and infrastructure sectors. More than 50 percent of the country's refined petroleum products and more than 45 percent of the drugs and pharmaceuticals are from Gujarat. The State's exports stand at 14 percent of India's total exports, exhibiting a strong global orientation of the industrial structure. With a contribution of 63 to 70 per cent to India's denim production, Gujarat is the largest manufacturer of denim in the country and the third largest in the world. The above indicators are a result of robust foundation of Gujarat's economy.

1.3. The Government of Gujarat constituted the GPCB (Gujarat Pollution Control Board) on 15.10.1974 as per provisions under the Water (Prevention and Control of Pollution) Act, 1974, with a view to protect the environment, prevent and control the pollution of water in the State of Gujarat, that occupies a prominent niche in progressive and industrial development of the country.

1.4. The mandate of GPCB is to implement Environmental and Pollution Control Legislations, Rules and Notification so far as they pertain to the state. The major objectives of the board revolve around Pollution Control and Protection of the Environmental quality and drawing up comprehensive programs for prevention, control or abatement of pollution from different sources. One of the norms set up of discharging the functions is to give directions to the defaulters that include power to close down the industrial units and disconnection of utility services like water, power etc.

2. Bank Guarantee

2.1 In case of habitual defaults, it was felt that some sort of commitments needs to be obtained from such non-complying units. GPCB had recommended for levying of Bank Guarantee (BG) for obtaining compliance from industries covered under "Charter for Corporate Responsibility for Environment Protection (CREP)". Board has published technical manual in context of bank guarantee.

2.2 GPCB can use the BG regime as per the defined policy of the Board to ensure the time-bound and well-defined improvements in pollution control systems and the BG forfeiture shall not be done as a substitute for penal actions separately prescribed under the law. The amount of BG forfeited shall be strictly used as described in judgment of Principal Bench, Hon'ble National Green Tribunal in Appeal no. 68 of 2012. The judgment states:

"75. However, we further direct that the amounts received by the Board against encashment of bank guarantee shall, in preference to all other, be utilized for the compensatory purposes or

restoration of the degraded environment resulting from emission and discharge of effluents and other pollutants in violation of the prescribed standards by the industry. Remnant, if any, may be utilized for installation of such effluent treatment plants/anti-pollution devices, directed to be installed under the order of consent or otherwise in the unit of the industry as it would help in bringing down the emission/pollution levels and bringing it in line with the prescribed parameters, thus protecting the environment. The Board shall have no authority or power to forfeit this amount and use it for any other, including for its own, purposes."

2.3 Hence, a scheme is proposed to utilize the amount of forfeited Bank Guarantee for the improvement of the environment.

3. Objective

3.1 The scheme is introduced with an objective to utilize the forfeited bank guarantee amount for the improvement and restoration of environment, degraded from the emission and discharge of effluents and other pollutants from the industries.

4. Approved projects for the scheme

4.1 A project undertaken by any Industries Association or Government controlled organization or any Private Corporate body registered under the Companies Act, 2013 for the activities mentioned herein under:

4.2 Any activities using innovative technology for considerable reduction of cost and energy and improvement of environment, shall, inter alia, include (but not limited to) following:

4.2.1 Establishment of Spent Acid Management Plant/Recovery of Spent Acid and /or generation of usable by product.

4.2.2 Improvement in existing biological systems by introducing upcoming technologies like Bio-technology, Nano technology etc.

4.2.3 Establishment of Common Steam Boiler projects.

4.2.4 Establishment of Common Solar Sludge Drying system.

5. Allocation of Funds

5.1 Financial Assistance for project identified and finalized by Technical Evaluation Committee of GPCB will be 10% of Capital Cost or Rs.1 Crore, whichever is less.

5.2 The total funding available for the scheme shall be Rs.Fifteen Crores within which individual projects shall be accommodated.

6. Approval of Project & Implementation

6.1 The Technical Evaluation Committee (TEC) shall be as under :

Sr. No.	Organization Representative	Designation in the committee
1.	Member Secretary, GPCB	Chairman
2.	Mr. M. N. Patel, Retired Vice-Chancellor	Member
3.	Member Secretary, GCPC	Member

4.	Expert Member from IIT	Member
5.	Concerned Unit Head, Gujarat Pollution Control Board, Gandhinagar	Convener

6.2 If required, expert members from the area where project is implemented, shall be invited as the member of TEC.

6.3 The projects identified and finalized by Technical Evaluation Committee shall be put up to the Board for final approval and implementation.

6.4 The TEC will scrutinize, prioritize and approve the projects and oversee the implementation of the Scheme.

6.5 The implementing Agency of each project, developed as common infrastructure, will see that wherever feasible, users of the infrastructure will pay a service charge for the same, which would meet the expenditure on operation and maintenance of the infrastructure developed.

7. Criteria for approval of project

7.1 The project to be taken up, should be long-lasting, sustainable and indicating assured environmental benefits.

7.2 The project report should involve technical & economic viability of the project, cost implication and requirement of working capital

8. Eligible Agencies

8.1 Industries Association

8.2 Government owned / controlled organisation

8.3 Private Corporate body registered under the Companies Act, 2013

9. Submission & Scrutiny of project proposals

9.1 The applicant has to apply in the prescribed application form with the relevant documents within three months from the date of declaration of scheme.

9.2 Scrutiny will be carried out by TEC and the proponent has to make presentation to the Committee.

9.3 Assistance will be sanctioned only if there are noticeable environmental benefits from the project

10. Release of Funds

10.1 The funds shall be disbursed only after successful completion of project, certified by Schedule – I auditor specially appointed by GPCB for this purpose.

10.2 Administrative expenses connected with development and implementations of project are to be borne by the project proponent.

10.3 100% sanctioned amount shall be released after successful completion of project upon submission of certificate as indicated in point 10.1.

11. Monitoring & Review

11.1 Project proponent shall submit quarterly progress report to the Member Secretary, Gujarat Pollution Control Board and the same shall be reviewed by TEC

11.2 Project Proponent shall submit project completion report with documents and certification as prescribed earlier. This report will be used by TEC to review for the release of funds.

11.3 TEC Project evaluation committee shall review success full operation of the project and will take steps to ensure achievement of the objective of scheme.

11.4 Project shall have to be completed within a period of 2 years

12. Evaluation

12.1 The Environment Audit of the implemented project shall be conducted by a Schedule - I Auditor specially appointed by GPCB for this purpose.

This order is issued with the concurrence of Finance Department's approval dated 10/12/2018 on the even number file.

By order and in the name of Governor of Gujarat,



(S.M. Saiyad)
Additional Secretary
Forest and Environment Department.

Copy to:

- o Additional Chief Secretary to Hon'ble Governor of Gujarat, Rajbhavan, Gandhinagar. (By letter)
- o Principal Secretary to Hon'ble Chief Minister, Sachivalaya, Gandhinagar.
- o Personal Secretary to Hon'ble Minister of State (Environment) (Independent Charge), Sachivalaya, Gandhinagar.
- o Chairman, Gujarat Pollution Control Board
- o Deputy Secretary to Chief Secretary, Sachivalaya, Gandhinagar.
- o All Administrative Department (with a request to circulate to all HoDs and offices under their department).
- o A.G. office Ahmedabad / Rajkot.
- o All Branches of forest and Environment Department, Sachivalaya, Gandhinagar.
- o Select File.



Dr. Rajiv Kumar Gupta IAS
Additional Chief Secretary
&
Chairman, GPCB

No.

Government of Gujarat
Forest and Environment Department
Block No. 14, 8th Floor, Sardar Bhavan,
Sachivalaya, Gandhinagar - 382 010
Tel.: +91-79-23251051, 23251053
E-mail : secfed@gujarat.gov.in

NO: LGL/NGT/Vapi/94(2)/500493

Dt: 30/3/2019

Sub: Joint representation to Hon'ble Tribunal in the matter OA 95 of 2018, Aryavart Foundation Vs. Vapi Green Enviro Limited (CETP-Vapi) reg fund utilization in Up gradation of Environmental Infrastructure in Gujarat:

Dear

Hon'ble National Green Tribunal, Principal Bench, New Delhi passed an order dated 11/01/2019 in the matter of Original Application No. 95/2018, Aryavart Foundation Vs. Vapi Green Enviro Limited (CETP-Vapi). One of the component of the directions issued in this order is heavy penalty on Common Effluent Treatment Plant-Vapi and defaulting individual units, depending upon their scale. Gujarat Pollution Control Board has prepared, being implemented Bank Guarantee scheme for the non-complying industrial units as well as common infrastructure.

In continuation to this, GPCB has recently prepared a subsidy scheme for utilization of an amount collected due to forfeit of various bank guarantees. The scheme contains various alternatives for utilization of an amount for Up gradation of Environmental Infrastructures and Up gradation of treatment and disposal systems in Gujarat.

GPCB has also prepared a detailed project for disposal pipeline into Deep Sea from Vapi to Veraval and same has being prioritised for three areas.

GPCB plans to synergise action with Central Pollution Control Board and it will be in the fitness at this stage that the amount which is being collected by CPCB as per the directions of the Hon'ble NGT, may be utilized for the Up gradation of Environmental Infrastructure as mentioned above. In this context, we wish that GPCB and CPCB jointly represent the matter in the Hon'ble NGT and request to transfer the money to the GPCB so that it can be utilised expeditiously in on going Scheme. We would like to submit a joint affidavit with CPCB before NGT in this regard.

A brief note and fund utilization scheme are attached herewith for ready reference in the subject matter.

With regards,

Yours

[Dr. Rajiv Kumar Gupta IAS]
ACS, F&ED & Chairman, GPCB

o/c

S.P.Singh Parihar
Central Pollution Control Board,
Parivesh Bhawan,
East Arjun Nagar, Shahdara,
Delhi - 110032

Encl: (1) Brief note
(2) Fund Utilisation Scheme



Gujarat Pollution Control Board
Paryavaran Bhavan, Sector-10-A, Gandhinagar-3802010, Gujarat
Tel.: (O) +91 79 23222425 Email : chairman-gpcb@gujarat.gov.in
Web : gpcb.gujarat.gov.in

o/c
 K.C. Panty

Extra No. 455

વાર્ષિક લવાજમનો દર રૂ. ૩૫૦૦/-



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The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-C

Statutory Rules and Orders (Other than those published in Parts I, I-A and I-L) made by Statutory Authorities other than the Government of Gujarat including those made by the Government of India, the High Courts, the Director of Municipalities, the Commissioner of Police, the Director of Prohibition and Excise, the District Magistrates and the Election Commission, Election Tribunals, Returning Officers and other authorities under the Election Commission.

THE GUJARAT GOVERNMENT GAZETTE

EXTRAORDINARY

PUBLISHED BY AUTHORITY

THURSDAY, OCTOBER 26, 2017

PART IV-C

GUJARAT POLLUTION CONTROL BOARD

NOTIFICATION

SECTOR -10A, NEAR AIR FORCE STATION,

GANDHINAGAR.

The Gujarat Pollution Control Board in exercise of the powers conferred under clause (d) of Section (2) of the Air (Prevention and Control of Pollution) Act 1981, here by notifies the following fuels as the "APPROVED FUELS" in the state.

- (1) List of "APPROVED FUELS"
1. Coal
 2. Lignite
 3. Furnace Oil/LDO/LSHS
 4. Motor Gasoline
 5. Diesel
 6. Liquid Petroleum Gas (LPG)
 7. Compressed Natural Gas(CNG)/LNG
 8. Kerosene
 9. Naphtha
 10. Firewood
 11. Bio-gas

12. Agro waste/bio fuel/briquettes
13. RDF, as per provisions of Solid Waste Management Rules-2016.
14. Petcoke
15. Charcoal

(2) Petcoke is hereby notified as "APPROVED FUELS "subject to the following conditions:-

a) The Sulphur content shall not be more than 7 % in any case/circumstance.

b) Petcoke shall be permitted in the following projects only:-

- i. Cement manufacturing in kilns
- ii. Thermal Power Plant/Captive Power Plant of capacity above 25 MW
(with a condition to mix lime granules in required quantity with Petcoke)
- iii. Glass manufacturing- up to 25 % of total fuel consumption
- iv. Refractories manufacturing

(3) For utilization of the above approved fuels, adequate APCM shall be provided by the unit.

(4) CTE/CCA/EC, as the case may be, shall have to be obtained for utilization of these fuels.

(5) The use of Petcoke shall not be permitted in Eco-Sensitive Zone.

**K.C.MISTRY,
MEMBER SECRETARY,
GUJARAT POLLUTION CONTROL BOARD
GANDHINAGAR**



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The Gujarat Government Gazette

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GUJARAT POLLUTION CONTROL BOARD NOTIFICATION

SECTOR -10A, NEAR AIR FORCE STATION, GANDHINAGAR. 6th February, 2018.

No: GPCB/LGL-GEN-29(2)/443721 :- Whereas the Gujarat Pollution Control Board, in exercise of the powers conferred under clause (d) of Section (2) of the Air (Prevention and Control of Pollution) Act 1981, hereby makes the following amendments in The Gujarat Government Gazette notification in Vol. LVIII on Friday, October 27, 2017.

- A. In serial number (1), after number 15, the following number shall be inserted;
16. Saw dust
- B. Serial number (2)(b)(ii) shall be replaced and read as under;
ii. Thermal Power Plant/Captive Power Plant of capacity above 25 MW, Co-generation plant as combined heat and power (CHP) where boiler steam generation capacity should be 80 T/Hr or more.
(With a condition to mix lime granules in required quantity with Petcoke)
- C. Serial number (6) shall be inserted after serial number (5) and shall be read as under;
(6) The new projects in the sectors mentioned in serial number (2)(b), using Petcoke as fuel, shall abide by the siting criteria as under:
 - a) At least 5 km from the limit of a Municipal Corporation;
 - b) At least 2.5 km from the limit of a Municipality;
 - c) At least 1 km from the limit of Gamtal of a Village.

K. C. MISTRY,
MEMBER SECRETARY
GUJARAT POLLUTION CONTROL BOARD
GANDHINAGAR.

**Gujarat State Urban Solid Waste Management
and Sanitation Policy-2018**

**Government of Gujarat
Urban Development & Urban Housing Department**

G.R.No. SBM/132018/2844/Th-1

Sachivalaya, Gandhinagar

Date: 31/7/2018

- Read:**
- 1. Notification of Ministry of Environment, Forest and Climate Change dated 8th April 2016**
 - 2. Proposal received from Mission Director, Swachh Bharat Mission (Urban) Gandhinagar on 28/6/2018 on their single file**

Preface

The Government of Gujarat announced the Mahatma Gandhi Swachhata Mission (MGSM), later renamed as Swachh Bharat Mission (Urban), Gujarat (SBM (U), Gujarat) in Feb 2014 with a view of achieving “Open defecation free cities and villages”. The Government of India also launched the Swachh Bharat Mission (SBM) with a similar vision.

The Sustainable Development Goals that build upon the Millennium Development Goals have laid down 17 Sustainable Development Goals (SDG) and 169 targets to be achieved by the year 2030. Universal access to clean water and sanitation is one of these goals and aims to ensure universal access to safe and affordable drinking water by 2030 by investing in adequate infrastructure, provision of sanitation facilities and encourage hygiene at every level.

The Government of Gujarat has drafted the state urban solid waste management and sanitation policy as per the framework of National Urban Sanitation Policy and Solid Waste Management Rules-2016 of Government of India. The policy document defines the goals, the guiding principles and strategy on which the policy is based and that need to be followed by the state government and urban local bodies for achieving each goal of the policy.

To ensure that the ideas of each of the stakeholders is incorporated in the policy document, the document was shared internally with Gujarat Urban Development Mission (GUDM), Gujarat Urban Development Company Ltd. (GUDC), Gujarat Water Supply and Sewerage Board (GWSSB), Gujarat Municipal Finance Board (GMFB) and Gujarat Pollution Control Board (GPCB). The suggestions received from these agencies were incorporated in the policy document. To incorporate the views of other non-

government organizations, experts and academicians, a round table meeting was conducted in collaboration with SBM (U), Gujarat. The participants were called from several municipal corporations, municipalities, and institutes/organizations like Environmental Sanitation Institute (ESI), Centre for Environment Planning and Technology (CEPT) University, Self Employed Women's Association (SEWA) and Centre for Environment Education (CEE) and the process was facilitated by Urban Management Centre (UMC). This policy has also been reviewed by the State Level Advisory Body (SLAB) constituted under the rule 23 of Solid Waste Management Rules 2016 of GoI. . The policy was finalized after consultation with these stakeholders, thus ensuring that the views of all find place in the document.

PREAMBLE:

VISION:

The National Urban Sanitation Policy launched in 2008 aims *“to transform Urban India into community driven, totally sanitized, healthy and livable cities and towns”*. In line with the National Urban Sanitation Policy, the State of Gujarat endeavors *“to make its cities and towns open defecation free and zero waste in a sustainable manner with a special focus on the needs of urban poor and women”*.

1. The Solid Waste Management Rules-2016 had been notified and published by GoI on 8/4/2016, and as per the rule 2 of the said rules of GoI. These rules apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Register General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbors, defense establishments, special economic zones, State and Central government organizations, places of pilgrims, religious and historical importance as may be notified by respective State government from time to time and to every domestic, institutional, commercial and any other nonresidential solid waste generator situated in the areas except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act 1986.
- 1.1 It is provided in the rule 11 of solid Waste Management Rules, 2016 that , the Secretary, Urban Development Department in the State through the Commissioner or Director of Municipal Administration or Director of Local bodies shall prepare a state policy and solid waste management strategy for the state in consultation with stake holders including representative of waste pickers, self-help group and similar groups working in the field waste management

consistent with these rules, national policy on solid waste management and national urban sanitation policy of the ministry of urban development.

- 1.2 Under the rule (15) of the Solid Waste Management Rules, 2016 the local authorities and Panchayats of census towns and urban agglomerations shall prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of state policy and submit a copy to respective departments of State Government or agency authorized by State Government.

1.3 Objectives:

The State Government is committed for- all cities and towns become clean, 100% cleaning takes place in all the towns and cities, door to door waste collection, collection and transportation of solid and liquid waste, its scientific disposal, considering waste is just not waste but it is a resource and using solid waste to get green energy; and recycle and reuse of drainage water. In order to realize this vision of the Government of Gujarat, the following ten goals have been laid down. Each of these goals highlights an aspect to be achieved in the urban sanitation sector and lays down strategies and guidelines for urban local bodies to follow:

- *100% segregation of residential and commercial waste* at source along with *storage* of the segregated waste
- *100% collection of C&D waste* at source along with *storage* of the segregated waste
- *100% door to door collection* of municipal solid waste from all properties including industrial units outside designated industrial estates
- *100% transportation of C&D waste* from all properties including industrial units outside industrial estates
- *100% waste treatment and/or processing*
- 100% decentralized processing of biodegradable waste at neighborhood/ ward/zone level
- 100% recycling and/ or processing of non-bio-degradable waste
- *100% waste processing and recycling/reuse of C&D waste*
- 100% centralized or decentralized processing of C&D waste at neighborhood/ward/zone level/authorized location
- 100% recycling of C&D waste

RESOLUTION: -

Therefore, after careful consideration Government of Gujarat hereby makes and publishes the Gujarat State Solid Waste Management and Sanitation Policy as follows

1 Title

This policy may be called the Gujarat State Urban Solid Waste Management and Sanitation Policy.

2. Need for the Gujarat State Urban Solid Waste Management and Sanitation Policy

With this backdrop, this policy aims to serve as a governing and guiding document to urban local bodies and line departments to prepare and implement their city solid waste management strategies/ plans, sanitation plans, service level improvement plans, and achieve the goals under the SBM (U), Gujarat.

3. Defining ‘Sanitation’

Sanitation is defined by the Ministry of Urban Development (MoUD) in the National Urban Sanitation Policy (2008) as ‘the safe management of human excreta, including its safe confinement, treatment, disposal and associated hygiene-related practices’. The Gujarat State adopts a wider definition of Sanitation as *“the safe management of human excreta (urine and feces), solid waste generated in all areas within jurisdiction of urban local bodies including industrial areas outside GIDC areas. It includes the safe management at each stage – containment, collection, transport/ conveyance, treatment, disposal and reuse at each stage of the value chain.”*

4. Definitions:

4.1 In this policy unless the context otherwise requires, (1) “Agency/ Agent/Contractor/Service provider means any entity/person appointed or authorized by the Municipal Commissioner / Chief Officer to act on behalf of the Urban Local Body, for discharge of duties or functions such as collection of waste, collection of charges/taxes/rates, segregation, treatment, disposal etc.

- **Community** means a group of interacting people, living in some proximity (i.e., in space, time or relationship). It refers to a social unit larger than a household that shares common values and has social cohesion. *(Source: Chapter 2, Draft Public Health Bye laws for Urban local bodies/Municipalities of Gujarat State, 2015)*
- **Community toilets** mean a shared facility provided by and for a group of residents or an entire settlement. Community toilet blocks are used primarily in low-income and/or informal settlements/slums where space and/ or land are constraints in providing a household toilet. These are for more or less fixed user group. Operation and maintenance of community toilet block rests with the ULB or its appointed contractor.
- **Grey water/ Sullage:** Waste water generated in kitchen, bathroom and laundry.

- **Individual toilet** means a toilet which is available within the premises of a household. Operation and maintenance of individual toilet rests with the beneficiary.
- **Industries** mean small and medium size generators of waste that are within the jurisdiction of the ULB and not part of any industrial estate.
- **Insanitary latrine** means a latrine which requires human excreta to be cleaned or otherwise handled manually, either in-situ or an open drain or pit into which the excreta is discharged or flushed out before the excreta fully decomposes in such manner as may be prescribed.
- **Manual Scavenging** is a ‘the dehumanizing practice of manually cleaning insanitary latrines or handling human feces or manually cleaning sewer-lines/man-holes’.
- **On-site sanitation:** It is underground waste collection system which is used in the absence of piped sewer system. When the wastes are collected, treated and disposed of at the point of generation, it is called an on-site system like pit latrines and septic tank systems.
- **Open defecation** means the practice whereby people go out in fields, bushes, forest, open bodies of water or other open spaces rather than using the toilet.
- **Open Defecation Free (ODF) cities** are where all urban dwellers have access to and use safe and hygienic sanitation facilities and arrangements so that no one defecates in the open.
- **Public place** includes any road, arch road, viaduct, lane, footway, alley or passage, highway, causeway, bridge, square alley or passage whether a thoroughfare or not over which the public have a right of passage, and such places to which the public has access such parks, garden, recreation grounds, playgrounds, beaches, water bodies, water courses, public plazas and promenades, government and municipal buildings, public hospitals, markets, slaughter houses, courts, etc.

Public Toilet means toilets meant for floating population/ general public in places such as markets/transit nodes/ tourist places/ office complexes and other public areas with a high number of footfalls. Operation and maintenance of public toilets rests with the ULB or its appointed contractor.

- **Sanitation Value Chain**

Sanitation is not just about building toilets and consists of a series of steps, which are:

1. Capture
2. Storage
3. Transportation
4. Treatment
5. Reuse or disposal

Waste must be captured and stored so that it does not come in touch with people or contaminate the local environment. In densely populated urban areas, waste must be extracted, transported, treated and disposed-off safely.

- **Septage:** In cases where underground sewage line is absent and toilets are connected to soak pits or septic tanks, the sewage generated is called as ‘septage’.
- **Septage management:** The systematic management and disposal of faecal sludge produced in septic tanks.
- **Septic tank:** It is an underground structure made up of bricks, cement or concrete. It has 3 or more chambers separated by baffle wall. In different chambers waste is settled and degraded anaerobically and the final effluent is discharged through outlet pipe of septic tank.
- **Sewage/ Blackwater:** Waste water generated in the toilets contains feces, urine and flush water. *Sewerage* means a system of sewers, the removal of waste materials by means of a sewer system.
- **Shared toilet** means a toilet seat used by 2-3 households which are known to each other. Operation and maintenance of shared toilets rests with the beneficiaries (2-3 households).
- **Storm water drainage** is the process of draining the runoff from streets, sidewalks, roofs, buildings, and other areas through either constructed or natural systems which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, or divert storm water.
- **Temporary Toilet** means a toilet which is simple portable enclosures and is typically used for construction sites or large gatherings because of their durability and convenience. Operation and maintenance of temporary toilets rests with the construction company (in case of construction sites) or the ULB/ its appointed contractor.

4.2 Words and expressions used herein but not defined in the Environment (Protection) Act, 1986, the water (Prevention and Control of Pollution) Act, 1974, Water (Prevention and Control of Pollution) Cess Act, 1977 and the Air (Prevention and control Pollution) Act, 1981 shall have the same meaning as assigned to them in the respective Acts.

5. Applicability of the policy

The policy is applicable to the area under the jurisdiction of statutory urban local bodies (ULBs) in the state of Gujarat. ULBs may extend sanitation services in its outgrowth areas at their discretion in coordination with the gram panchayats. This policy covers the following sectors –



This policy shall acknowledge and ensure the duties of the Secretary-in charge, Urban Development Department as stated in clause 11 of the Solid Waste Management Rules, 2016, including the directions to be given to ULBs/relevant departments and developers of Special Economic Zone, Industrial Estate, Industrial Park for facilitation and land allocation for SWM facilities, inclusion in development plans, etc. Within the State and ULB, this policy has to be adopted by various departments like education, health, tourism, urban development and urban housing department.

6. Governing Principles

The state's Urban Solid Waste Management and sanitation policy is based on the following guiding principles that are grounded in recognition of achieving **safe sanitation across the value chain**, ascertaining **environmental** and **financial sustainability** and **transparency** and **inclusivity**.

- ***Improvements across the value chain of sanitation facilities are crucial to achieve all goals to the fullest:*** Focusing only on the provision of toilet facilities is not adequate, waste must be first captured and stored to avoid any contact with people or contamination of the environment, it must be extracted, transported, treated and disposed safely and potentially be reused. Similarly, in solid waste management, ensuring efficient waste collection is not adequate, solid waste must be transported, treated, disposed safely and potentially be reused.
- ***All infrastructure, systems and policies designed should be to accommodate the needs of all stakeholders:*** Gender lens needs to be imbibed in every stage of designing especially in designing of toilets, locating sanitation facilities, creating communication and awareness strategies, monitoring mechanisms, occupational involvement in solid waste management, etc. Apart from women, needs of differently-abled and children also needs to be considered.
- ***All efforts will be designed in an environmentally and financially sustainable manner:*** For ensuring financial sustainability, the life cycle approach that includes considerations of capital expenditure and operations expenditure will be embedded in all strategies.
- ***Selection of appropriate technologies, systems and processes:*** will be based on population size and geographical location of the city to ensure that these do not adversely affect the local environment.
- ***Participatory Approach:*** ULBs should involve user, planners and policy makers at all levels, with decisions taken at the lowest appropriate level.
- ***Knowledge sharing:*** It is important for cities to learn from each other and opportunities for sharing of knowledge between stakeholders will be encouraged and promoted.

- ***Sanitation as livelihood means:*** A large number of people depend for their livelihoods on the sanitation sector. This policy acknowledges the work of such people and believes in giving dignity to such people. However, at the same time the policy believes that certain labor jobs violate human rights and need to be abolished.

7. Convergence with other Policies

The provisions of this Policy are aligned with the provisions made under the following Acts, Rules and Policies of Central and State Government

- Gujarat Municipalities Act, 1963
- Building and Other Construction Workers Act, 1996
- National Urban Sanitation Policy, 2006
- Hazardous and other wastes (Management and Transboundary Movement) Rules, 2016
- The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013
- CPHEEO Guidelines, 2013
- National Policy on Faecal Sludge and Septage Management (FSSM), 2017
- Gujarat Municipal Corporations Act, 2013
- Swachh Bharat Urban Guidelines, 2014
- Guidelines for ‘Open Defecation Free Towns’ under the Mahatma Gandhi Swachhata Mission, 2015
- Solid Waste Management rules, 2016
- Gujarat Waste to Energy Policy, 2016
- Construction and Demolition Waste Management Rules, 2016
- Plastic Waste Management and Handling Rules, 2016
- Bio-medical Waste Management Rules, 2016
- E-waste (Management) Rules, 2016
- Batteries (Management and Handling) Rules, 2001
- Gujarat Town Planning and Urban Development Act, 1976

8. Solid Waste Management and Sanitation Goals

In order to realize this vision of the Government of Gujarat, the following ten goals have been laid down. Each of these goals highlights an aspect to be achieved in the urban Solid Waste Management and sanitation sector and lays down strategies and guidelines for urban local bodies to follow:

- Goal 1:** All urban dwellers should have access to safe, hygienic, affordable and user-friendly toilets, backed with a system that ensures safe storage, conveyance and disposal to ensure that no one defecates in the open.
- Goal 2:** All waste water generated in the ULBs should be treated as per norms for safe disposal.

- Goal 3:** All ULBs should become ‘zero waste’ cities.
- Goal 4:** Manual scavenging should be completely eradicated from the State.
- Goal 5:** All ULBs should have 100 percent coverage of storm water drainage system.
- Goal 6:** All ULBs should have data (spatial and non-spatial) related to all water supply and sanitation services and should make it available on public domain through a robust management information systems (MIS).
- Goal 7:** All ULBs should adopt and enforce public health bye-laws.
- Goal 8:** ULBs should implement targeted awareness campaigns on linkages between sanitation, environment and health.
- Goal 9:** All water bodies within the ULB limits should be free of solid and liquid waste.
- Goal 10:** All ULBs should designate land in the development plan/ local area plan for sanitation infrastructure facilities.

8.1

- Goal 1:** **All urban dwellers should have access to safe, hygienic, affordable and user friendly toilets, backed with a system that ensures safe storage, conveyance and disposal to ensure that no one defecates in the open**

National Urban Sanitation Policy (NUSP) aims at achieving open defecation free cities by giving access to and use of safe and hygienic sanitation facilities to all urban dwellers. NUSP promotes the access to households with safe sanitation facilities, including proper disposal arrangements. The State government of Gujarat reiterates the same in this policy. Accordingly, the sub goals for achieving an ODF urban Gujarat are as follows:

Sub Goals

- ULBs will maintain 100 percent coverage through provision of individual / shared /community toilets
- All public spaces should have well maintained public toilets within 1 km distance
- Adequate and well-maintained toilets at construction sites, street / flea / weekly /occasional markets, etc. (wherever permanent toilets are not possible mobile/ temporary toilets may be used)
- Adequate and well-maintained toilets should be made available in all government buildings

Strategy

ULBs should follow these strategies to achieve Goal 1. These strategies should be read along with the Guidelines for ‘Open Defecation Free Towns’ under the Swachh Bharat Mission (Urban), Gujarat.

a. Delinking provision of sanitation facilities and land tenure: The process of construction of toilets should be in no way linked to the land tenure where the toilet is to be provided.

b. *Preference to individual toilets:* As far as possible, the urban local bodies should strive to provide individual toilets to households that currently do not have access. Only in special cases where there are constraints of space availability, shared toilets will be provided. Shared toilets would be provided in lieu of community toilet blocks located at a maximum distance of 500 meters from the settlement. These can be provided for urban households residing in slums, slum-like areas, authorized/ un-authorized colonies and urban villages (*gamtals*) and who either do not have an individual toilet or have an insanitary toilet. The locations of the shared/ community toilets must be such that it is accessible to the users throughout the year. The main guiding factor in location of a toilet should be the convenience of the local community and hence should be guided through participation of the community. The size and the number of seats of the toilet block should be based on the community's needs.

c. *Provision of adequate public toilets:* All Urban Local Bodies (ULBs) should ensure adequate public toilets in all public places that attract floating population including but not limited to gardens, play grounds, exhibition grounds, *chocks*, markets, transit nodes, streets, highways with appropriate gender considerations (number of seats, design and operations). All public spaces should have public toilets within a distance of 1 (one) kilometer.

d. *Provision of temporary toilets at construction sites, special events and for homeless:* All ULBs should ensure that there is adequate number of temporary toilets constructed at all construction sites where the ULB is undertaking any construction or if construction is being undertaken by other government organization, private or non-government organization. The ULB should monitor provision of such toilets as part of the building plan permission process.

e. *All temporary accommodation* (such as night shelters) for migrants and the homeless should have adequate provision for toilets either on the premises or have access to a public toilet nearby.

f. *Revival of dysfunctional community and public toilets:* ULBs should refurbish existing dilapidated and dysfunctional public toilets and construct new ones wherever required. All ULBs should conduct a primary survey (and periodically update it) on the number of dysfunctional public toilets within its jurisdiction before approving new constructions.

g. *Focus on O&M of public/community toilets:* ULBs shall ensure well maintained community and public toilets and should have an O&M strategy at the outset while planning new facilities or up gradation of existing facilities may engage private contractors/ NGOs for the same. ULBs should develop a robust framework for daily monitoring of O&M of these facilities and should dovetail the city level public grievance redressal system to enable citizens to lodge complaints.

h. *Conversion of existing insanitary to sanitary toilets:* Many toilets do not have a safe disposal system; hence the toilet super structure is rendered useless. The ULBs should conduct a survey to identify such toilets and convert them to safe disposal systems either through an on-site or a sewerage system.

i. *Community Engagement:* All ULBs shall ensure meaningful community engagement at various stages of the decision making, implementation and monitoring. As women self-help groups have successfully operated in Gujarat under various schemes and missions, this network may be consulted for engaging the community actively.

j. *Skill development:* Availability of adequately skilled human resources such as contractors, masons, plumbers for achieving ODF cities is a big barrier. The Gujarat Urban Livelihood Mission (GULM) shall identify skill training providers to provide skills to urban poor as well as to upgrade their existing skills. GULM shall also conduct entrepreneurship development programme and focus on financial assistance to individuals/ groups of urban poor for setting up gainful self-employment ventures.

k. *Selection of appropriate technology for on-site systems:* In areas which are not yet connected to a centralized sewer network, several criteria such as the geographical location, ground water levels, space availability, cultural habits and availability of skilled human resources help decide an appropriate on-site system. These could range from a twin-pit system to septic tank connected to a soak pit or new sanitation technologies such as bio-digesters, etc. ULBs shall consider these factors and consult with the beneficiary community to arrive at the most appropriate technology solution.

l. *Roles and responsibilities:* Toilet construction is the key responsibility of ULBs. In addition to ULBs, GWSSB, GUDM and GUDC lay sewerage infrastructure. In order to achieve ODF cities, it is important that all organizations should work in close co-ordination. For ensuring safe fecal sludge management systems in cities, all ULBs shall either provide an on-call service and/or empanel private agencies engaged in fecal sludge management.

m. *Declaration of ODF cities:* NUSP aims at achieving open defecation free cities by providing access to safe and hygienic sanitation facilities arrangements (including safe disposal systems) for all urban dwellers. The Ministry of Urban Development has defined ODF cities/wards as a city/ward where not a single person is found defecating in the open at any point of the day. The urban areas of Gujarat are already ODF. All the ULBs shall ensure 100 percent coverage of safe disposal system by 2nd October 2019.

n. *Monitoring and sustaining of ODF status:* For cities to sustain ODF status, a strong monitoring strategy shall be designed by all urban local bodies. All ULBs shall ensure compliance of all buildings with the building regulations including construction of adequate sanitary toilets, including sewerage connection or suitable on-site sanitation system. ULBs typically conduct property tax surveys every four to five years. ULBs shall use this survey as an opportunity to identify buildings without individual toilets. ULBs shall use their building plan permission process to ensure that all the new constructions that are approved have toilets.

8.2

Goal 2: All waste water generated in the ULBs should be treated as CPHEEO/MoEF norms for safe disposal

In accordance to the guiding principle of making improvements across the value chain, all ULBs shall ensure that all waste water generated in the city is safely collected, conveyed, treated, disposed and potentially reused as per waste water policy of the State Government.

Existing situation

In Gujarat, 132 of the 170 ULBs have partial coverage of sewer lines. Except the municipal corporations, coverage of sewer lines in other cities ranges from 25% to 80%. Total 24 ULBs have commissioned and functional STPs in the state. Gujarat is able to treat 2,356 MLD, which is around 62% of the total 3,800 MLD sewage generated in the State (GUDM, 2018). On an average, about 45% of properties in urban areas have on-site sanitation systems. But only 126 of the 170 cities have septage management facilities. The strategy covers the following streams for waste water treatment.

Strategy

- a. *Collect Baseline data:*** All ULBs shall conduct a survey to ascertain the disposal mechanism of all existing toilets that are not connected to sewerage systems.
- b.** ULBs at a minimum should provide a sewer connection to beneficiaries within 30 metres of a functional sewerage system as specified by the Guidelines for Open Defecation Free Gujarat. For other beneficiaries, the ULBs should provide a site-specific on-site sanitation system.
- c.** All ULBs shall ensure that the sewerage collected through this network should be treated and disposed as per the CPHEEO norms and Environment (Protection) Amendment Rules, 2017.
- d.** All ULBs should ensure that on-site sanitation systems as per CPHEEO/MoEF norms are constructed in areas not served by the sewerage network.
- e.** In case of insanitary disposal of waste water ULBs should ensure its conversion to a sanitary system on a priority basis.
- f.** All ULBs should provide fecal sludge management services including suitable sludge treatment. ULBs should either have their own fecal management system or should empanel private agencies providing fecal sludge management services. ULBs shall also ensure that all on-site systems are cleaned/emptied as per CPHEEO norms (once in two to three years). ULBs should also ensure that private agencies treat and dispose the sludge as per CPHEEO norms.
- g.** All ULBs should reuse their treated domestic waste water as per CPHEEO norms.
- h. *Waste water from small Industrial units:*** ULBs shall ensure that industrial units (outside industrial estates but within ULB jurisdiction) do not discharge industrial effluents or any other effluents particular to the activity to the public sewer before necessary treatment as prescribed by GPCB and ULBs.

- i. *Waste water from large commercial and residential properties:*** ULBs should prescribe minimum size of commercial and residential properties that need to mandatorily construct an onsite packaged treatment unit to treat liquid waste with necessary approvals from ULBs. All ULBs shall encourage to prescribe minimum size of commercial or residential properties that need to provide dual plumbing system for grey water to be re-used for flushing/ landscaping and other non-potable uses.
- j. *Roles and Responsibility:*** ULBs, GWSSB, GUDM and GUDC lay sewerage infrastructure in cities in Gujarat. It is important that all should work in close co-ordination with the ULBs.
- k. *Selection of appropriate technology:*** ULBs shall choose a technology that is appropriate for the quantum of waste water generated, requires low operating cost and does not necessitate requirement of skilled human resources or energy.
- l. *Financing options:*** All ULBs shall strive towards achieving substantial cost recovery. The ULBs should follow the advisory on tariff structure for urban water supply and sewerage services issued by the MoUD. All ULBs should seek funding under existing schemes, missions and programmes of GoI and GoG.
- m. *Information, Education and Communication:*** The ULBs should design appropriate IEC materials and campaigns to promote adoption of proper design and construction of on-site systems, safe methods of desludging and transportation. The ULBs can involve external agencies like NGOs, CBOs, and technical agencies to accomplish this goal.
- n. *Public Grievance Redressal:*** A dedicated helpline should be setup by ULBs to provide support to the residents on all aspects of sanitation including handling services requests for fecal sludge management.
- o. *Capacity Building:*** ULBs shall collaborate with educational and technical agencies in Gujarat for training of their own staff as well as service providers. The contractors, masons and suppliers of septic tanks and pits should be educated about the new technologies, designs and methods of construction. The operators of collection and transportation should be trained on use of standard operating procedures (SOP). The employees should be encouraged to undertake professional courses and SBM's e-courses.

8.3

Goal 3: All ULBs should become 'zero waste' cities

In Gujarat, solid waste management in urban areas is the responsibility of ULBs. The Solid Waste Management Rules, 2016, and Construction and Demolition (C&D) waste rules, 2016 issued by the Ministry of Environment, Forests and Climate Change, Government of India, under the Environment (Protection) Act, 1986, defines the procedure for ULBs to undertake solid waste and construction and demolition waste management. This includes process to be followed for collection, segregation, storage, transportation, processing and disposal of municipal solid waste and construction and demolition waste generated within their jurisdiction. The ULBs shall follow

directions and strategies and oblige the duties as stated in rules 4,12, 15 and other relevant rules of SWM Rules, 2016.

Sub Goals

- *100% segregation of residential and commercial waste* at source along with *storage* of the Segregated waste
- *100% collection of C&D waste* at source along with *storage* of the segregated waste
- *100% door to door collection* of municipal solid waste from all properties including industrial units outside designated industrial estates
- *100% transportation of C&D waste* from all properties including industrial units outside industrial estates
- *100% waste treatment and/or processing*
- 100% decentralized processing of biodegradable waste at neighborhood/ ward/ zone level
- 100% recycling and/ or processing of non-bio-degradable waste
- *100% waste processing and recycling/reuse of C&D waste*
- 100% centralized or decentralized processing of C&D waste at neighborhood/ward/zone level/authorized location
- 100% recycling of C&D waste

Existing Situation

Analysis of SLB data from 2016 reveals that 96% of households in urban Gujarat were covered by door to door collection service (SLB 2015-16). At the state level, almost 95% of the waste generated was collected in 2015-16 as compared to 85% in 2008-09. However, most of the ULBs do not have a separate collection and transportation system for C&D waste. The average waste recovery in the ULBs of Gujarat shows a marginal improvement over the years from 21% in 2008-09 to 29% in 2015-16. 93 cities have waste processing plants, which were constructed by GUDC. Even though several of the ULBs have waste processing plants (composting plants established by GUDC), many of them are not functional.

Strategy

The primary strategy for improving management of municipal solid waste and C&D waste is to imbibe the principle of 3R: Reduce – Reuse – Recycle and improving quality of services across the value-chain. ULBs need to introduce strategies that encourage reducing waste generation at source and reuse and recovery of waste.

- a. Ensuring 100% segregation of solid waste at source:*** All waste generators should segregate and safely store the waste generated by them in three separate streams, namely, bio-degradable, non bio-degradable and domestic hazardous waste and hand over the segregated waste to authorized rag pickers or waste collectors.

b. Ensuring 100% segregation, collection and transportation of C&D waste at source:

C&D waste generators who generate more than 20 tons or more in a day or 300 tons per project in a month shall segregate and store the waste generated by them in 4 separate streams, namely, 1. Concrete, 2. Soil, 3. Steel, wood and plastics, 4. Brick and mortar. ULBs should ensure that C&D waste should be collected and transported using separate vehicles to the recycling/ reuse facility. ULBs can either do it themselves or outsource the work. ULBs shall notify the rates for collection and transportation of this waste. Appropriate incentive shall be given by ULBs for salvaging, processing/recycling preferably in-situ.

c. Ensuring 100% door to door collection of solid waste: All ULBs should cover all waste generators through door to door collection. The strategy mandates that no waste shall be thrown on the streets, footpaths, open spaces, drains or water bodies. The waste is to be stored at the source of waste generation in bins/bags. ULBs should collect waste directly from the generators and transport it to the processing site. ULBs should facilitate formation of Self Help Groups, provide identity cards and encourage integration in SWM, including door to door collection of waste.

d. Evolving collection mechanisms for different generators: Based on city sanitation plans developed specifically for each city, each ULB should develop micro-plans for efficient collection of waste from all types of generators within their jurisdictions. ULBs should define separate collection mechanism for covering large housing complexes, apartments & housing societies, individual row houses and slums. Suitable arrangements should be made by the ULB as per the area requirements. The ULBs must ensure that adequate waste collection and storage facilities are available on street-sides, near market places, commercial areas, and other such places of attraction.

e. Separate collection & management of Waste from bulk generators: All resident welfare and market associations, gated colonies and institutions with an area of more than 5000 sq. m and all hotels and restaurants should ensure segregation of waste at source; facilitate collection of segregated waste and handover the recyclable material to either the authorized waste pickers/waste collectors or authorized recyclers. The bio-degradable waste from all bulk waste generators including vegetable, fruit, flower, meat poultry and fish market should be collected on day to day basis, processed, treated and disposed-off through composting or bio-methnation within the premises as far as possible. In case of event organizers holding large scale events of more than 100 persons, the ULB should be informed about the event at least three working days in advance. Such persons or organizers should ensure segregation at source and hand over it to waste collectors or agencies specified by the ULB. All street vendors should keep suitable containers for storage of waste generated during their course of activity such as food waste, disposable plates, cups, cans, leftover food, vegetables, fruits, etc. and shall deposit the waste at waste storage depot, container or vehicle as notified by the ULB. Waste generators who generate

more than 20 tons or more in one day or 300 tons per project in a month shall have to pay for the processing and disposal of C&D waste generated by them, apart from the payment for storage, collection and transportation. The rate shall be fixed by the concerned local authority or any other authority designated by the State government.

f. All ULBs should promote the 3R principle of ‘Reduce–Reuse–Recycle’ for municipal solid waste and C&D waste: Wherever possible, ULBs should establish ward/ zone level processing units thereby minimizing cost of transportation of waste to a centralized location for processing or disposal. All ULBs should set up composting units to manage gardens/parks waste. The ULB should focus on reducing the amount of waste that reaches the land-fill sites.

g. Establishing Transfer Stations: In instances where the distance to the processing sites is longer, ULBs should assess feasibility of establishing transfer stations. It would be more economic instead of transferring the waste by the smaller vehicles over long distances. Waste collected would have to be transferred into larger transport vehicles before being taken to the processing site. Depending upon the size, densities and expanse of a city, ULBs should assess establishing waste transfer stations.

h. Mainstreaming informal waste pickers and waste dealers (Kabadiwallas) into the city’s SWM system: ULBs should ensure mainstreaming of waste pickers by formally engaging them in door to- door collection and waste sorting and/or ensuring that outsourced service providers also employ waste pickers and provide them safe work environment. This will help in poverty alleviation and generating sustained livelihood for workers. Material recovery facilities or secondary storage facilities for sorting of waste and storage should be provided by the ULBs.

i. Land reservation in statutory plans (including development plans, TP schemes) should be made for provision of solid waste management utilities/ facilities such as secondary collection bins, sorting centers, centralized/ de-centralized processing units/C&D waste management, etc. The building bye-laws of all ULBs must require all large complexes to provide for a separate space for placing of such common bins near the entrance / guardroom and ensure that this space is accessible for collection of waste by the ULB.

j. Tax and User charges: ULBs shall prescribe, from time to time, user fee as deemed appropriate and collect the fee from the waste generators. ULBs may provide tax/ user charges discounts to residential societies which undertake local waste processing. ULBs should also implement polluters pay principle for bulk generators of construction and demolition waste, hotels’ and restaurants’ kitchen waste, etc. The fines and penalties shall be notified by the ULBs.

k. Management of E-waste: As per the E-waste (Management) Rules, 2016 the role of the ULB in management of E-waste is limited to the extent of orphan products collection and channelization to authorize dismantler or recycler. However, it is suggested that the ULBs create awareness among the manufacturer, producer, bulk consumer, collection centers, dealers,

e-retailer, refurbished, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment.

l. Management of Bio-medical waste: All ULBs shall ensure that bio-medical waste does not get mixed with solid waste and C&D waste. If required, the ULBs shall provide or allocate suitable land for development of common bio-medical waste treatment facilities in their respective jurisdictions as per the guidelines of Central Pollution Control Board.

m. Street Sweeping: ULBs should ensure that all the roads are regularly swept and the waste collected from sweeping is transported and segregated at designated site/s. The street sweeping regime in cities will be guided by city sanitation plans of each city. ULBs may decide depending upon the local situation that roads in commercial areas may be swept daily or twice a day and collect this waste separately. ULBs should assess feasibility of deploying mechanical sweepers and undertaking night cleaning in arterial and main roads where there is heavy traffic and which are crowded during the daytime. ULBs should ensure that their staff or staff appointed by the agency providing the outsourced service are provided with proper equipment, hand carts, and safety gear such as gum boots, hand gloves, masks etc. ULBs should direct, street sweepers to not to burn tree leaves collected from street sweeping and store them separately.

n. Provision of litter bins: All ULBs should ensure that litter bins are provided at crowded public places for citizens to get rid of waste conveniently. These litter bins can only be used by the general public, commuters and is strictly not to be used by the commercial shops, residences on the street or by the street sweeping staff to dump the waste collected.

o. IEC Campaigns: ULBs should undertake extensive Information, Education and Communication (IEC) activities with all citizens to educate them on 3R and zero waste principles and inform them about their role to achieve this goal. This includes segregation at source, use of dustbins, not littering, treating waste at source by composting at household/ residential society level, etc.

p. Selection of Technologies: While choosing technology for processing of waste, ULBs shall consider wider social and environmental and financial impacts of each technology. Of the many options, the cities may adopt waste to compost and waste to energy practices in conformation with the Gujarat Waste to Energy Policy, 2016. ULBs must first assess existing waste processing facilities for their suitability, and restore/upgrade these, to achieve the objectives of this policy.

q. Landfills: To achieve “zero waste “cities, ideally no waste should be disposed in the landfills. However, in some case, inert waste which may not have any further use may be disposed at a local or regional pooled landfill site. ULBs shall undertake on their own, or through any other agency, construction, operations and maintenance of sanitary landfill as per SWM Rules 2016. The ULBs shall not dispose any other waste, apart from inert waste, in the land fill or any other site in the adjoining villages or urban outgrowths. Non-recyclable waste having calorific value of 1,500 kilo or more shall not be disposed of on landfills and shall only be utilized for generating

energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel. Wastes with high calorific value shall be used for co-processing in cement and thermal power plants. In absence of the potential of bio-mining and bio-remediation of dump sites/ it shall be scientifically capped to prevent the damage to the environment.

r. *Financial Sustainability:* ULBs opt for financially sustainable implementation mechanisms while engaging private sector for service delivery. ULBs should develop a robust framework for monitoring performance of the private contractors and adopt performance-based payment mechanism. The state government with support from the SBM and through state programs will provide capital funds to ULBs for establishing/ procuring infrastructure and equipment for collection, segregation and treatment of waste. ULBs should make adequate provision of funds for capital investment as well as O&M of SWM services in the annual budget.

s. *Public Health Bye-Laws:* All ULBs shall adapt or adopt and enforce the Model Public Health Bye-laws prepared by the Government of Gujarat. However, City Sanitation Plans (CSPs) must also address the issues of managing plastic waste, e-waste, hazardous waste, and bio-medical.

t. *Capacity Building:* ULBs should train its human resources through local, state or central government's training programs organized from time to time. ULBs should encourage their staff to undertake SBM's e-courses. Trainings should also be given to waste pickers and other agencies working with the ULBs.

u. *Plastic waste:* All ULBs shall develop infrastructure for segregation, collection, storage transportation, processing and disposal of plastic waste either on its own or by engaging external agencies. ULBs shall encourage the use of plastic waste for road construction or energy recovery. The state government shall separately develop and issue Plastic Waste Management Bye-Laws for ULBs.

8.4

Goal 4: Eradication of Manual Scavenging from the State

On September 18, 2013, 'The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013' of the Parliament, received assent from the President of India. The Act was prepared to provide for prohibition of employment as manual scavengers, rehabilitation of manual scavengers and their families and for matters connected there with of incidental thereto. The act recognizes that "...the dehumanizing practice of manual scavenging arising from the continuing existence of insanitary latrines and a highly iniquitous caste system, still persists in various parts of the country, and the existing laws have not proved adequate in eliminating the twin evils of insanitary latrines and manual scavenging."

The SBM also requires ULBs to take adequate measures to eradicate manual scavenging through provision of adequate and sanitary toilets.

Strategy

It is essential that all the strategies of the Goal 1: ‘Open Defecation Free Cities’ are implemented by all the ULBs. Those strategies are a pre-requisite towards eradication of manual scavenging. ULBs should address existing issues of manual scavenging and take preventive measures for the future. ULBs should abide with the following strategies to address the potential areas where manual scavenging may occur:

a. *Addressing manual cleaning of open defecation spots*

- All ULBs shall conform to ‘The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013’.
- ULBs should have a mechanism to regularly monitor OD spots to ensure that there is no relapse of the practice and that people use toilets.
- ULBs should continue to campaign use of toilets by all members of all the households.
- All the construction sites must be monitored to ensure that adequate temporary facilities, in accordance with the provisions of the ‘Building and Other Construction Workers Act, 1996’.
- ULBs must ensure adequacy and accessibility of public toilets.

b. *Manual cleaning of insanitary latrines*

- As mandated under goal 1, all insanitary latrines must be converted to sanitary latrines.

c. *Manual cleaning of sewer lines and manholes*

- All the ULBs must adhere to the CPHEEO norms for safety measures before and while cleaning man-holes/sewer lines. The act also makes it obligatory for the employers towards employees engaged for cleaning septic tanks or man-holes/sewer-lines to provide adequate safety equipment and protective gear.

d. *Manual cleaning of septic tanks*

- ULBs must survey and maintain a record of properties not connected to underground drainage system and rely on OSS for disposal of waste water. These records must contain details on the type of OSS, its capacity and frequency of cleaning. ULBs through their building plan permission processes shall also check compliance of OSS with design standards in case of new buildings.
- ULBs shall conduct an awareness campaign with these property occupants to educate them about the technology and its limitations, and requirements of maintenance as per CPHEEO norms.
- ULBs must empanel all the private contractors providing septic tank cleaning services in the city. This list shall be maintained to monitor and enforce schedules of cleaning septic tanks, according to CPHEEO norms.

- Adequate maintenance of inventories to ensure that requisite equipment is available to provide adequate services.

e. Manual cleaning of fecal matter from the floor in public toilets

- ULBs must ensure that all the cubicles inside public toilets are adequate, accessible and usable to eliminate chances of defecating on the floor or elsewhere in public toilets. Also, appropriate signage within the toilets must be displayed to educate users.
- ULBs shall conduct regular training of all cleaners and supervisors of public conveniences – ULB run or operated by private contractors.

8.5

Goal 5: All ULBs shall revive their natural drains and ensure 100 percent coverage of storm water drainage system, natural and constructed

Storm water drains are important as they channelize the surface run to lakes and tanks. Storm water drains are necessary for augmenting ground water and also act as flood control devices. Recently, due to unplanned development activity, these drains have been covered or choked leading to water logging in many cities during the monsoons.

Existing scenario

In Gujarat, the average SWD coverage is 32 percent; ranges from 5 percent to 100 percent in the ULBs. The coverage is least across the Class C and Class D cities at 10% and 11% respectively. However, they are mostly dependent on their natural drains. Half of the cities across municipalities have less than 10% coverage. There are 5 cities that have more than 85% SWD coverage. In addition to the storm water drainage network, ULBs also have natural drains (Kaans) to carry the runoff.

Strategy

- 100% coverage of storm water drainage includes coverage by constructed storm water drains as well as through natural drains.
- All ULBs should ensure that waste water is not disposed-off in the storm water drains.
- All ULBs should mandate private and government properties (beyond certain size as prescribed by the ULB) to harvest rain water.
- All ULBs should replenish ground water reservoirs as well as lakes and ponds with rain water collected through the drains. All ULBs should monitor the quality of water at discharge points and treat prior to discharge if required.
- As much of the state is dry and arid, the storm water drains carry rain water for very short periods in the monsoons. For the rest of the year, they are prone to getting choked by solid waste and hence periodic cleaning should be ensured by the ULBs.
- The first step to preservation is to mark these natural drains on the Development Plan of the cities thus ensuring that there is no encroachment on them.

8.6

Goal 6: All ULBs shall have data (spatial and non-spatial) related to all water supply and sanitation services and should make it available on public domain through a robust management information systems (MIS)

The SBM requires ULBs to improve sanitation primarily through provision of adequate infrastructure, and conversion of insanitary toilets to sanitary. The Census 2011 provides ULBs with a baseline data on the households devoid of toilets, but the database has become obsolete over seven years. Hence, to keep pace with rapid urbanization, it is imperative that ULBs institute information systems that provide with current data to make informed decisions. These information systems maybe IT enabled or conventional, but they need to be robust and capture essential data from the field and convey it to the decision makers. Also, the database must include information that is both spatial and non-spatial. Such information will help ULBs to tide over existing situations, and also plan effectively to keep pace with the growth of cities. These systems must at the least cover water supply, waste water disposal, and solid waste management, followed by other Public grievance Redressal System (PGRS) and citizen feedback must be integral parts of this information system.

Strategy

- a. All ULBs shall have robust information systems for collection of highly reliable data. These could, depending upon the size of the city, be IT based or conventional paper-based systems for collection of data from field to higher levels, reporting, and also registration and redressal of citizens' complaints.
- b. All the maps of the city must be digitised and inventories should be updated to current situation. Additionally, property tax information must also be integrated with this database. This data shall be used to plan for provision of services for projected growth of cities.

8.7

Goal 7: All ULBs shall adopt and enforce public health bye-laws

Strategy

The Gujarat Municipal Corporations Act, 2013 and the Gujarat Municipalities Act, 1963 gives all urban local bodies, the powers to constitute 'Public Health Bye-laws' and enforce them. These Byelaws would enable ULBs to make regulations regarding matters affecting public health, including waste generation, segregation, collection, and over-all management responsibilities; and these are applicable to all public and private space, commercial centres, residences and all public areas within the ULB limits. It also includes penal actions (monetary penalties) for violation of the public sanitation norms set out by it. This enables the ULBs to enforce various tenets of sanitation that include construction of proper sanitation infrastructure that adheres to at least the minimum standards, prohibitive penalties that stop citizens from littering on the road, and so on.

The model Public Health Bye-Laws have been prepared by the Government of Gujarat. All ULBs

should adapt these model public health bye-laws as per their contexts and enforce these in their cities.

8.8

Goal 8: ULBs should generate targeted awareness about the linkages between sanitation, environment and health

Efforts in the sanitation realm in India aren't new, and yet the issue has been rather stubborn. It has been realized that real behaviour change requires motivating the communities which in turn creates proper demand for sanitation. Realization of the impact of unhealthy and insanitary practices for communities would trigger a behaviour change in them. Additionally, implementing only a "mission mode" campaign might not be sufficient. Once, cities and the state have achieved ODF status, it is important to ensure that there is no slippage and that re-occurrence of OD. Hence, there is an imminent need to implement a campaign that focuses on creating demand and covers all WASH aspects (including hand washing and menstrual hygiene management).

Strategy

- a.** State will prepare a state IEC plan to provide guidance to ULBs to prepare their city specific plans and use specific mediums for successful implementation.
- b.** All ULBs should design a targeted awareness strategy depending on the characteristics of their population.
- c.** Eco-system approach: For a ULB to achieve and sustain safe sanitation, it is important that all departments of the ULB along with other stakeholders in the city join hands to propagate the message of SBM. ULBs should rope in local NGOs and/or community organizations/ local print media and radio stations to launch a city-wide campaign. ULB should involve all outreach agents such as sanitary workers, sanitary inspectors, coordinators of the Gujarat Urban Livelihood Mission (GULM), UCD officials, health officials including ASHA, medical officers to take the message of safe sanitation to all communities. It should initiate targeted campaigns for students of schools, anganwadis. For ensuring sustenance of behaviour change, the ULBs shall explore various options such as making sanitary officers responsible for regular monitoring and redressal, appointing community representatives for monitoring and inspection, or reaching information through doctors.

8.9

Goal 9: All water bodies within the ULB limits should be free of solid and liquid waste

If all the waste water generated in the ULB and the industrial estates is treated and disposed-off, the water bodies will be free of any liquid waste. Proper treatment and disposal of the solid waste will also ensure that no solid waste reaches the water bodies. This goal will be achieved if all the cities situated along the river treat their solid and liquid waste.

8.10

Goal 10: All ULBs shall designate land in the development plan/ local area plan for sanitation infrastructure facilities

Strategy

All the ULBs must mandatorily specify reservations of space under DP/TP/ any other municipal law schemes for provision of sanitation infrastructure. These reservations will accommodate provision of public toilets, sorting sheds for municipal solid waste, and places for secondary bins and for domestic hazardous waste.

9. Institutional Arrangements

In context of Gujarat, with involvement of numerous organisations at the state level, it is important that there are coordinated efforts to achieve the various tenets of this sanitation policy. In alignment with principles of decentralization under the 74th CAA, the role of state level organizations (UD&HD, Gujarat Municipal Finance Board, Commissioner of Municipal Administration, SBM (U), Gujarat Mission, Gujarat Urban Development Mission, Gujarat Urban Development Company Pvt. Ltd.) will help facilitate, regulate, provide technical support in form of model guidance documents and capacity building and provide financial support. These state missions will also provide a pool of empaneled agencies to urban local bodies to prepare city-specific plans and help in implementation. Until ULBs develop their robust capacities, it is desired that the technical support is extended in planning, designing, implementation and O&M of urban sanitation services. The Swatch Bharat Mission (Urban), Gujarat along with its Technical Support Unit will play an integral role in coordinating across these different organizations, issuing guidance documents, providing handholding support to cities and monitoring the performance. The role of the respective urban local bodies will be to deliver these services and work in close coordination with state government institutions and appointed consultants. The ULBs will actively engage with local NGOs, CBOs especially women self-help groups, academic institutions to achieve the goals of this state sanitation policy.

10 Activities of stakeholders within the government

Though sanitation urban areas are primarily the responsibility of the Urban Development and Urban Housing Department of the State, achievement of the goals is impossible without integrating the roles and responsibilities of various other departments at the State and local level.

10.1 Urban Development and Urban Housing Department: All the housing schemes approved and undertaken by the department should include waste management infrastructure in their plan.

10.2 Education department: The School Management Committee (SMC) has the overall responsibility of approving and monitoring the construction of toilets in the schools. The regular monitoring of the maintenance of toilet infrastructure should be done by the SMC. The school curriculum of schools should be revised to include subjects on the importance of sanitation and its link with improved health and economic conditions. Children should be exposed to sanitation initiatives at early age through formation

of Bal Swachhata Brigades in schools. This would also help in nurturing children as message multipliers of good sanitation practices.

10.3 Women and Child Development Department and Social Justice Welfare Department:

These departments should priorities women empowerment for sanitation and ensure equity and accessibility to the facilities. The Integrated Child Development Services Scheme operated by the Women and Child Development Department should use anganwadis as a platform for inculcating good hygiene practices amongst children and mothers.

10.4 Tourism Department: Tourism department should give highest priority to sanitation as a huge floating population visits the state and adds to the solid waste and liquid waste of the state. Pilgrimage sites should be targeted and sanitation demonstrations should be done. Temporary toilets should be installed during festivals at tourist places.

10.5 Health Department and Family Welfare Department: Regular health camps and checkups and provision of primary, secondary and tertiary health care services should be provided to all families. Medical doctors should be trained for spreading messages on good hygiene practices and government schemes relating to sanitation.

10.6 Town Planning and Valuation Department: The department is responsible for drafting the guidelines, policies and standards for urban and regional planning. Sanitation infrastructure and management should be an integral part of all the planning process.

10.7 Revenue Department: The revenue department should prioritise allocating land sites for waste management. All the departments mentioned in para-10 above are directed to implement the provisions laid against their respective department.

11. Financing Urban Sanitation

Urban sanitation improvements have been largely funded through central and state government funding. Though higher levels of government continue to provide a significant portion of funds for the required capital investments, funding the operation and maintenance of sanitation infrastructure mostly falls under the purview of the ULBs. All funds from various central schemes and state government schemes/programs/missions and CSR contributions will be pooled to form a **state sanitation fund**. The aggregation of investment anticipated under the ULB City Sanitation Plans would indicate financing requirements for implementing total sanitation in the urban areas of the state. Urban local bodies will have to make significant efforts to improve their cost recoveries and tax collection efficiencies. This will not only aid sanitation improvements, but also improve the revenue base of the city. Costing urban sanitation improvements will include the life-cycle costs of any infrastructure or system and due consideration of sharing of financial responsibility through the financial life cycle will be given.

12. Monitoring Urban Sanitation

Regular monitoring of performance of urban local bodies in the realm of urban sanitation would be integral for achieving and sustaining the improvements. Along with mandated monitoring systems as per the SBM and SBM (U), Gujarat programmatic requirements, each urban local body will institute a monitoring system integrated within their existing systems. Depending upon the size of the city and capacities, ULBs could use IT based systems or conventional systems to gather the data from the field to be available for decision making. Swachhata Survekshan / sanitation ratings/urban sanitation index for Gujarat will be extended to cover all the ULBs in the state. Participation of primary stakeholders i.e. users of services will be ensured. The Urban Sanitation Index would be put in the public domain for citizens who can become aware about the performance of their city and be inspired to do better. Applications for citizens to lodge their sanitation-related complaints would also be developed and launched. Both, internet based as well as telephone-based application for lodging complaints would be developed to reach all sections of the society.

13. Way Forward

The State policy gives a bird's eye view of the situation in the state and the strategy for achieving goals relating to solid waste management and sanitation policy. This policy shall be reviewed every five years or from time to time as required.

This resolution issues with the concurrence of the Finance Department dt. 17/7/2018 and Government approval on the department's file of even number.

By order and in the name of the Governor of Gujarat

Lochan Sehra

Secretary (Nirmal Gujarat & Housing)

Urban Development & Urban Housing Department

Copy to:

- The PS to H.E. the Governor, Raj Bhawan, Gandhinagar.
- The CPS/PS/Secretary to Hon. Chief Minister, Swarnim Sankul-1, Sachivalaya, Gandhinagar.
- The PS to all Hon. Ministers / Ministers of State.
- The Deputy Secretary to Chief Secretary, Gujarat State, Gandhinagar.
- The Secretary, Ministry of Urban Development, Govt. of India, New Delhi.
- The Secretary, Ministry of Environment, Forest & Climate Change (HSM Division), GOI, Paryavaran Bhavan, New Delhi.
- The Principal Secretary & Commissioner, Rural Development, Block No.16, Dr. Jivraj Mehta Bhawan, Gandhinagar.
- The PS to Principal Secretary, UDD, Sachivalaya, Gandhinagar
- The PS to Secretary, Housing, Sachivalaya, Gandhinagar

- The Member Secretary, Central Pollution Control Board, GOI, Parivesh Bhavan, New Delhi.
- The Member Secretary, Gujarat Pollution Control Board (GPCB), Paryavaran Bhavan, Sector-10(A), Gandhinagar.
- All ACS/PS/Secretary to all departments, Sachivalaya, Gandhinagar.
- Mission Director, Swatch Bharat Mission, GMFB Building, Gandhinagar.
- All Municipal Commissioners
- All Municipalities (Through, Swatch Bharat Mission).
- All HODs / Boards / Corporations / Missions under UD & UHD.
- The System Manager, UDD, with a request to upload GR on department web
- Branch SF.

No: GPCB/BMW-C-178/ 518556 /

14 AUG 2019

To,

The District Magistrate(as per list),
Office of the District Magistrate,
«Head_quarter», Dist: «District»

Sub: Preparation of District Environmental Plans, and its monitoring by the District Magistrate/ District Collector.

Ref: Hon. NGT order dated 15/072019 in the matter of O.A. 710/2017 regarding Biomedical Waste Management

Respected Sir,

With reference to above subject and reference it is to inform you that Hon. NGT has issued directions in the matter of OA 710/2017 vide order dated 15/07/2019 (copy is attached for your ready reference).

Specifically, I would like to draw your humble attention on Para 8 and 9 regarding to preparation of District Environmental Plans, and its monitoring by the District Magistrate/ District Collector and also making such plans available in the public domain (though websites). The District Level Committee under District Magistrate will cover all the issues which have been reflected in OA No. 606/2018 in which all the Chief Secretaries have appeared before the Tribunal. The District Planes will cover the issues relating to;

- i. Solid Waste Management
- ii. Bio-medical Waste Management
- iii. Plastic Waste Management
- iv. Construction and Demolition Waste (C&D)
- v. 102 Non-attainment cities
- vi. Polluted river stretches
- vii. Polluted industrial clusters.
- viii. Noise pollution.

225/c

- ix. Utilization of treated sewage.
- x. Sand Mining
- xi. Conservation of water bodies.

The Directed Monitoring System will strengthen the enforcement mechanism. The compliance of these directions will ultimately be monitored by the Chief Secretaries and the State who in turn will send quarterly report to NGT and is also going to appear on the next date.

Considering above order of the Hon. NGT you are requested to Prepare District Environment Plan to be operated by a District Committee (as a part of District Planning Committee under Article 243 ZD) with representatives from Panchayats, Local Bodies, Regional Officers, State PCB and a suitable officer representing the administration, which may in turn be chaired and monitored by the District Magistrate.

Such District Environment Plans and Constitution of District Committee may be placed on the website of Districts concerned. The monthly report of monitoring by the District Magistrate may be furnished to the Hon. Chief Secretary and may be placed on the website of the District and kept on such websites for a period of one year.

Thanking You,

Your faithfully,


(N. M. Tabhani)
Member Secretary

Encl: Hon. NGT order dated 15/072019 in the matter of O. A. 710/2017

OK 
14/8/19

Copy to:

The Regional Officer,
GPCB, Regional Office,
«Regional_Office as
per list»

With direction to coordinate with District Planning Committee and submission of compliance report immediately.

2271C

List of District Magistrates

No	District	Head quarter	Regional Office
1.	Ahmedabad	Ahmedabad	Ahmedabad (City)
2.	Amreli	Amreli	Bhavnagar
3.	Anand	Anand	Anand
4.	Aravalli	Modasa	Himatnagar
5.	Banaskantha	Palanpur	Palanpur
6.	Bharuch	Bharuch	Bharuch
7.	Bhavnagar	Bhavnagar	Bhavnagar
8.	Botad	Botad	Ahmedabad (Rural)
9.	Chhota Udepur	Chhota Udepur	Vadodara
10.	Dahod	Dahod	Godhra
11.	Dang	Aahva	Vapi
12.	Devbhumi Dwarka	Khambhaliya	Jamnagar
13.	Gandhinagar	Gandhinagar	Gandhinagar
14.	Gir Somnath	Veraval	Junagadh
15.	Jamnagar	Jamnagar	Jamnagar
16.	Junagadh	Junagadh	Junagadh
17.	Kheda	Nadiad	Nadiad
18.	Kachchh	Bhuj	Bhuj
19.	Mahesana	Mahesana	Mahesana
20.	Mahisagar	Lunawada	Godhra
21.	Morbi	Morbi	Morbi
22.	Narmada	Rajpipla	Ankleshwar
23.	Navsari	Navsari	Navsari
24.	Panchmahal	Godhra	Godhra
25.	Patan	Patan	Palanpur
26.	Porbandar	Porbandar	Porbandar
27.	Rajkot	Rajkot	Rajkot
28.	Sabarkantha	Himatnagar	Himatnagar
29.	Surat	Surat	Surat
30.	Surendranagar	Surendranagar	Surendranagar
31.	Tapi	Vyara	Navsari
32.	Vadodara	Vadodara	Vadodara
33.	Valsad	Valsad	Vapi

Gujarat Pollution Control Board

1.	Name of News Paper	Gujarat Samachar
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3.	Date	18/08/2019



ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ

પર્યાવરણ ભવન, સેક્ટર ૧૦-એ, ગાંધીનગર ૩૮૨ ૦૧૦.

વેબસાઇટ : www.gpcb.gov.in ઈ-મેઇલ : uh-gpcb-biom@gujarat.gov.in

બાયો મેડીકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬ અંગે

જાહેર સુચના

ભારત સરકાર દ્વારા બાયોમેડીકલ વેસ્ટ વ્યવસ્થાપન નિયમો- ૨૦૧૬ તા. ૨૮-૦૩-૨૦૧૬ના રોજ જાહેર કરવામાં આવેલ છે. રાજ્યમાં બાયોમેડીકલ વેસ્ટ પેદા કરનાર, એકત્ર કરનાર, સ્વિકારનાર, સંગ્રહ કરનાર, વહન કરનાર, ટ્રીટમેન્ટ કરનાર, નિકાલ કરનાર કે સંભાળ લેનાર દરેક વ્યક્તિ/સંસ્થા કે જેમાં હોસ્પિટલ, નર્સિંગ હોમ, ક્લીનીક, ડીસ્પેન્સરી, વેટરનરી હોસ્પિટલ, એનિમલ હાઉસ, બાયોલોજીકલ લેબોરેટરી, બ્લડ બેન્ક, આયુષ્ય હોસ્પિટલ, ક્લીનીકલ એસ્ટાબ્લિશમેન્ટ, રીસર્ચ અથવા અન્યુકેશનલ હોસ્પિટલ, હેલ્થ કેમ્પ, મેડીકલ અથવા સર્જીકલ કેમ્પ, વેક્સીનેશન કેમ્પ, બ્લડ ડોનેશન કેમ્પ, સ્કુલોના કસ્ટ એઈડ રૂમ્સ, ફોરેન્સીક લેબોરેટરી અને રીસર્ચ લેબને આ નિયમો લાગુ પડે છે.

ઉપર જણાવેલ તમામ વ્યક્તિ/સંસ્થાઓને તેમના કાર્યથી ઉત્પન્ન થતાં બાયો મેડીકલ વેસ્ટના વ્યવસ્થાપન અને સંભાળ માટે નિયમોમાં દર્શાવેલ જોગવાઈઓનું પાલન કરવાનું રહે છે. જેમાં બાયો મેડીકલ વેસ્ટને ચાર અલગ અલગ પાત્રોમાં એકત્રિત કરી અલગ અલગ સ્થિતિમાં જરૂરી ટ્રીટમેન્ટ આપ્યા બાદ નિયત પ્રક્રિયા વડે નિકાલ કરવાની વ્યવસ્થા કરવાની રહે છે.

તદુપરાંત ઉપર દર્શાવેલ તમામ વ્યક્તિ/સંસ્થાઓમાંથી નોન બેડેડ તબીબી સુવિધાઓ ધરાવનારાઓએ એક વખત અરજી કરી કાયમી ઓથોરાઇઝેશન મેળવવાનું રહે છે જે અગાઉ ઓથોરાઇઝેશન મેળવવામાંથી મુક્ત હતા તેવી તમામ તબીબી સંસ્થાઓએ એક વખત ઓથોરાઇઝેશન મેળવવું ફરજિયાત છે. જ્યારે બેડેડ તબીબી સુવિધા ધરાવતી વ્યક્તિ/સંસ્થાઓએ પાંચ વર્ષ માટે ઓથોરાઇઝેશન મેળવી દર પાંચ વર્ષે રીન્યુ કરાવવાનું રહે છે.

નામ, નેશનલ ગ્રીન ટ્રીબ્યુનલ, નવી દિલ્હી દ્વારા ઓરીજનલ એપીલેશન નં. ૭૧૦/૨૦૧૭માં તા. ૧૫-૦૭-૨૦૧૮ના રોજ બાયોમેડીકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬નું ચુસ્તપણે પાલન કરવા આદેશ આપવામાં આવેલ છે. આ નિયમોના ભંગ બદલ આરોગ્ય સંભાળ સુવિધાના સંદર્ભમાં રૂ. ૧૨૦૦/- દિવસ લઘુત્તમ પર્યાવરણીય વળતર વસુલવા અંગે નિર્દેશ આપવામાં આવેલ છે. આ બાબતની સર્વ લાગતા વળગતાઓએ નોંધ લઈ નિયમોની જોગવાઈઓનું ચુસ્તપણે પાલન કરવા જાહેર સુચના આપવામાં આવે છે. આ નિયમોના ભંગ બદલ નામ, નેશનલ ગ્રીન ટ્રીબ્યુનલના આદેશના અવધાન અંગેની કાર્યવાહીના સામનો કરવાનો રહેશે. વધુ માહિતી, માર્ગદર્શન તથા આ બાબતે સુચનાઓ કે રજુઆત માટે બોર્ડની વેબસાઇટ, ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ, ગાંધીનગર કે બોર્ડની કોઈપણ પ્રાદેશિક કચેરીનો સંપર્ક કરવો.

(એન.એમ. તાબાણી)

સભ્ય સચિવ

માહિતી/૯૧૦/૧૯-૨૦

Gujarat Pollution Control Board

1.	Name of News Paper	Diwya Bhaskar
2.	Edition	Ahmadabad, Vadodara, Bhuj, Rajkot, Surat
3.	Date	18/08/2019



ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ

પર્યાવરણ ભવન, સેક્ટર ૧૦-એ, ગાંધીનગર ૩૮૨ ૦૧૦.

વેબસાઇટ : www.gpcb.gov.in ઈ-મેઇલ : uh-gpcb-biom@gujarat.gov.in

બાયો મેડીકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬ અંગે

જાહેર સૂચના

ભારત સરકાર દ્વારા બાયોમેડીકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬ તા. ૨૮-૦૩-૨૦૧૬ના રોજ જાહેર કરવામાં આવેલ છે. રાજ્યમાં બાયોમેડીકલ વેસ્ટ પેદા કરનાર, એકત્ર કરનાર, સ્વિકારનાર, સંગ્રહ કરનાર, વહન કરનાર, ટ્રીટમેન્ટ કરનાર, નિકાલ કરનાર કે સંભાળ લેનાર દરેક વ્યક્તિ/સંસ્થા કે જેમાં હોસ્પિટલ, નર્સિંગ હોમ, ક્લીનિક, ડીસ્પેન્સરી, વેટરનરી ઈન્સ્ટીટ્યુટ, એનિમલ હોપિસ, બાયોલોજીકલ લેબોરેટરી, બ્લડ બેન્ક, આયુષ હોસ્પિટલ, ક્લીનિકલ એસ્ટાબ્લિશમેન્ટ, રીસર્ચ અથવા એજ્યુકેશનલ ઈન્સ્ટીટ્યુટ, હેલ્થ કેમ્પ, મેડીકલ અથવા સર્જીકલ કેમ્પ, વેક્સીનેશન કેમ્પ, બ્લડ ડોનેશન કેમ્પ, સ્કુલોના ફર્સ્ટ એઈડ રૂમ્સ, ફોરેન્સીક લેબોરેટરી અને રીસર્ચ લેબને આ નિયમો લાગુ પડે છે.

ઉપર જણાવેલ તમામ વ્યક્તિ/સંસ્થાઓને તેમના કાર્યથી ઉત્પન્ન થતાં બાયો મેડીકલ વેસ્ટના વ્યવસ્થાપન અને સંભાળ માટે નિયમોમાં દર્શાવેલ જોગવાઈઓનું પાલન કરવાનું રહે છે. જેમાં બાયો મેડીકલ વેસ્ટને ચાર અલગ અલગ પાત્રોમાં એકત્રિત કરી અલગ અલગ સ્થિતિમાં જરૂરી ટ્રીટમેન્ટ આપ્યા બાદ નિયત પ્રક્રિયા વડે નિકાલ કરવાની વ્યવસ્થા કરવાની રહે છે.

તદુપરાંત ઉપર દર્શાવેલ તમામ વ્યક્તિ/સંસ્થાઓમાંથી નોન બેડેડ તબીબી સુવિધાઓ ધરાવનારાઓએ એક વખત અરજી કરી કાયમી ઓથોરાઇઝેશન મેળવવાનું રહે છે જે અગાઉ ઓથોરાઇઝેશન મેળવવામાંથી મુક્ત હતા તેવી તમામ તબીબી સંસ્થાઓએ એક વખત ઓથોરાઇઝેશન મેળવવું ફરજિયાત છે. જ્યારે બેડેડ તબીબી સુવિધા ધરાવતી વ્યક્તિ/સંસ્થાઓએ પાંચ વર્ષ માટે ઓથોરાઇઝેશન મેળવી દર પાંચ વર્ષે રીન્યુ કરાવવાનું રહે છે.

નામ, નેશનલ ગ્રીન ટ્રીબ્યુનલ, નવી દિલ્હી દ્વારા ઓરીજનલ એપીલેશન નં. ૭૧૦/૨૦૧૭માં તા. ૧૫-૦૭-૨૦૧૮ના રોજ બાયોમેડીકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬નું ચુસ્તપણે પાલન કરવા આદેશ આપવામાં આવેલ છે. આ નિયમોના ભંગ બદલ આરોગ્ય સંભાળ સુવિધાના સંદર્ભમાં રૂ. ૧૨૦૦/- દિવસ લઘુત્તમ પર્યાવરણીય વળતર વસુલવા અંગે નિર્દેશ આપવામાં આવેલ છે. આ બાબતની સર્વ લાગતા વળગતાઓએ નોંધ લઈ નિયમોની જોગવાઈઓનું ચુસ્તપણે પાલન કરવા જાહેર સૂચના આપવામાં આવે છે. આ નિયમોના ભંગ બદલ નામ, નેશનલ ગ્રીન ટ્રીબ્યુનલના આદેશના અવમાન અંગેની કાર્યવાહીનો સામનો કરવાનો રહેશે. વધુ માહિતી, માર્ગદર્શન તથા આ બાબતે સૂચનાઓ કે રજુઆત માટે બોર્ડની વેબસાઇટ, ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ, ગાંધીનગર કે બોર્ડની કોઈપણ પ્રાદેશિક કચેરીનો સંપર્ક કરવો.

(એન.એમ. તાભાણી)
સભ્ય સચિવ

માહિતી/૮૧૦/૧૮-૨૦

Gujarat Pollution Control Board

1	Name of News Paper	Sandesh daily
2	Edition	Ahmedabad, Rajkot, Baroda, Surat, Bhavnagar and Bhuj edition.
3	Date	20/02/2020



ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ

પર્યાવરણ ભવન, સેક્ટર ૧૦-એ, ગાંધીનગર-૩૮૨૦૧૦

વેબસાઇટ: www.gpcb.gov.in ઇમેઇલ: uh-gpcb-biom@gujarat.gov.in

બાયો મેડિકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬ અંગે

જાહેર સૂચના

ભારત સરકાર દ્વારા બાયોમેડિકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬ તા. ૨૮/૦૩/૨૦૧૬ ના રોજ જાહેર કરવામાં આવેલ છે.

રાજ્યમાં બાયોમેડિકલ વેસ્ટ પેદા કરનાર, એકત્ર કરનાર, સ્વીકારનાર, સંગ્રહ કરનાર, વહન કરનાર, ટ્રીટમેન્ટ કરનાર, નિકાલ કરનાર કે સંભાળ લેનાર દરેક વ્યક્તિ/સંસ્થા કે જેમાં હોસ્પિટલ, નર્સિંગ હોમ, ક્લીનિક, ડીસ્પેન્સરી, વેટરનરી ઇન્સ્ટીટ્યુટ, એનિમલ હાઉસ, બાયોલોજીકલ લેબોરેટરી, બ્લડ બેન્ક, આયુર્ષ હોસ્પિટલ, ક્લીનિકલ એસ્ટેથેસિયન, રીસર્ચ અથવા એજ્યુકેશનલ ઇન્સ્ટીટ્યુટ, હેલ્થ કેમ્પ, મેડિકલ અથવા સર્જિકલ કેમ્પ, વેકસીનેશન કેમ્પ, બ્લડ ડોનેશન કેમ્પ, સ્કૂલોના ફર્સ્ટ એઇડ રૂમ્સ, કોરોન્સીક લેબોરેટરી અને રીસર્ચ લેબને આ નિયમો લાગુ પડે છે.

ઉપર જણાવેલ તમામ વ્યક્તિ/સંસ્થાઓને તેમના કાર્યથી ઉત્પન્ન થતા બાયો મેડિકલ વેસ્ટના વ્યવસ્થાપન અને સંભાળ માટે નિયમોમાં દર્શાવેલ જોગવાઈઓનું પાલન કરવાનું રહે છે. જેમાં બાયો મેડિકલ વેસ્ટને ચાર અલગ-અલગ પાત્રોમાં એકત્રિત કરી અલગ-અલગ સ્થિતિમાં જરૂરી ટ્રીટમેન્ટ આપ્યા બાદ નિયત પ્રક્રિયા વડે નિકાલ કરવાની વ્યવસ્થા કરવાની રહે છે.

તદઉપરાંત ઉપર દર્શાવેલ તમામ વ્યક્તિ/સંસ્થાઓમાંથી નોન બેડેડ તબીબી સુવિધાઓ ધરાવનારાઓએ એક વખત અરજી કરી કાયમી ઓથોરાઇઝેશન મેળવવાનું રહે છે જે અગાઉ ઓથોરાઇઝેશન મેળવવામાંથી મુક્ત હતા તેવી તમામ તબીબી સંસ્થાઓએ એક વખત ઓથોરાઇઝેશન મેળવવું ફરજિયાત છે. જ્યારે બેડેડ તબીબી સુવિધા ધરાવતી વ્યક્તિ/સંસ્થાઓએ પાંચ વર્ષ માટે ઓથોરાઇઝેશન મેળવી દર પાંચ વર્ષે રીન્યુ કરાવવાનું રહે છે.

નામ. નેશનલ ગ્રીન ટ્રીબ્યુનલ, નવી દિલ્હી દ્વારા ઓરીજનલ એપીલેશન નં. ૭૧૦/૨૦૧૭ માં તા. ૧૫/૦૭/૨૦૧૮ ના રોજ બાયોમેડિકલ વેસ્ટ વ્યવસ્થાપન નિયમો-૨૦૧૬ નું ચુસ્તપણે પાલન કરવા આદેશ આપવામાં આવેલ છે. આ નિયમોના ભંગ બદલ આરોગ્ય સંભાળ સુવિધાના સંદર્ભમાં રૂ. ૧૨૦૦/દિવસ લઘુત્તમ પર્યાવરણીય વળતર વસુલવા અંગે નિર્દેશ આપવામાં આવેલ છે.

આ બાબતની સર્વે લાગતા વળગતાઓએ નોંધ લઈ નિયમોની જોગવાઈઓનું ચુસ્તપણે પાલન કરવા જાહેર સૂચના આપવામાં આવે છે. આ નિયમોના ભંગ બદલ નામ. નેશનલ ગ્રીન ટ્રીબ્યુનલના આદેશ અનુસાર પર્યાવરણીય વળતર અંગેની કાર્યવાહીનો સામનો કરવાનો રહેશે.

વધુ માહિતી, માર્ગદર્શન તથા આ બાબતે સૂચનાઓ કે રજૂઆત કે બોર્ડની વેબસાઇટ, ગુજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ, ગાંધીનગર કે બોર્ડની કોઈપણ પ્રાદેશિક કચેરીનો સંપર્ક કરવો.

(એન. એમ. તાભાણી),
સભ્ય સચિવ

માહિતી/૨૩૫૬/૧૮-૨૦

Annexure VII

Sr. No	Name of District	Apr-21		May-21		Jun-21	
		SWM	STF	SWM	STF	SWM	STF
1	Ahmedabad	-	-	-	-	-	-
2	Botad	10/06/2021	10/06/2021	10/06/2021	10/06/2021	10/06/2021	10/06/2021
3	Surendranagar	19/04/2021	19/04/2021	Due to COVID 19	Due to COVID 19	21/06/2021	25/06/2021
4	Kheda	Due to COVID 19	Due to COVID 19	28/05/2021	28/05/2021	30/06/2021	30/06/2021
5	Amreli	-	-	-	-	23/06/2021	23/06/2021
6	Junagadh	Due to COVID 19		Due to COVID 19		09/06/2021	09/06/2021
7	Bhavnagar	-	-	13/05/2021	-	23/06/2021	28/08/2021
8	Gir-Somnath	-	01/07/2021	-	01/07/2021	10/6/2021	01/07/2021
9	Rajkot	Due to COVID 19	Due to COVID 19	Due to COVID 19	Due to COVID 19	17/06/2021	17/06/2021
10	Devbhumi Dwarka	Due to COVID 19	-	31/05/2021	31/05/2021	09/07/2021	-
11	Porbandar	Due to COVID 19		Due to COVID 19		30/06/2021	-
12	Jamnagar	-	-	-	-	-	-
13	Kutch	Due to COVID 19	Due to COVID 19	31/05/2021	31/05/2021	30/06/2021	30/06/2021
14	Morbi	26/04/2021	26/04/2021	24/05/2021	24/05/2021	17/06/2021	17/06/2021
15	Gandhinagar	Due to COVID 19	Due to COVID 19	Due to COVID 19	Due to COVID 19	19/06/2021	19/06/2021
16	Mehsana	-	-	-	-	29/06/2021	29/06/2021
17	Patan	-	-	-	-	19/06/2021	19/06/2021
18	Banaskantha	-	-	31/05/2021	31/05/2021	-	30/06/2021
19	Sabarkantha	-	-	-	-	09/06/2021	09/06/2021
20	Arvaali	-	-	-	-	01/06/2021	01/06/2021
21	Chhotaudepur	-	-	31/05/2021	31/05/2021	-	-
22	Mahisagar	23/04/2021	23/04/2021	19/05/2021	19/05/2021	19/06/2021	19/06/2021

23	Dahod	-	10/06/2021	-	10/06/2021	-	10/06/2021
24	Panchmahal	26/04/2021	26/04/2021	27/05/2021	27/05/2021	-	-
25	Anand	28/06/2021	28/06/2021	28/06/2021	28/06/2021	28/06/2021	28/06/2021
26	Vadodara	-	-	-	-	-	03/06/2021
27	Surat	-	-	-	-	-	-
28	Tapi	-	-	-	-	-	-
29	Valsad	-	-	-	-	01/06/2021	01/06/2021
30	Navsari	-	-	-	-	24/06/2021	-
31	Narmada	-	-	31/05/2021	-	30/06/2021	-
32	Bharuch	-	-	31/05/2021	31/05/2021	30/06/2021	-
33	Dang	15/06/2021	15/06/2021	15/06/2021	15/06/2021	15/06/2021	15/06/2021



POLICY
FOR REUSE OF
TREATED
WASTE WATER



Government of Gujarat

PREAMBLE

Water is a critical resource for social and economic development of any region besides being elixir of life. Water resources are getting depleted due to adverse changes in climatic conditions, scanty and erratic rainfall, increasing industrialization, population growth, exploitation of ground water, increasing demand for domestic purposes etc. This problem is getting amplified due to uneven natural distribution (availability) of water resources in different regions of the state mainly due to diverse topography.

The Government of Gujarat has launched a scheme titled “Swarnim Jayanti Mukhya Mantri Shehri Vikas Yojana” (SJMMSVY) for undertaking various infrastructure development projects and plans for providing basic services in urban areas and Rurban Infrastructure Development Plan for rurban areas. Further, the Govt. of Gujarat is also implementing Centrally Sponsored Schemes (CSS) such as the “Atal Mission for Rejuvenation and Urban Transformation” (AMRUT), the “Swachh Bharat Mission” (SBM), the “Smart City Mission” and the “Shyama Prasad Mukherji Mission” for Rurban regions which are supplementing the sanitation infrastructure. All these schemes are augmenting the collection system of municipal sewage and its treatment capacity in the state leading to need for comprehensive policy on reuse of treated waste water.

The policy for promotion of use of Treated Waste Water is prepared with a vision to maximise the collection & treatment of sewage generated and reuse of treated wastewater on a sustainable basis, thereby reducing dependency on fresh water resources. Further, the policy promotes use of treated waste water as an economic resource.

To achieve this vision, the policy lays a time-bound and systematic plan with an ultimate goal of reusing Treated Waste Water fully by 2030.

The policy shall be in force from the date of its notification and shall subsume the already notified policy i.e. “Gujarat State Policy for Promotion of Waste water Recycle and Reuse”, dated 15th June, 2017 of Urban Development and Urban Housing Development Department.

28 May, 2018

J. P. Gupta, IAS
Principal Secretary
Water Supply Department

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1. BACKGROUND

Water is the most important natural resource required to sustain all life forms on Earth. Availability of water is undisputedly one of the most critical component for sustaining all economic activities in a state. Gujarat has limited availability of natural water resources due to its geographic location and diverse climatic conditions.

Gujarat occupies 6.39% of the country's geographical area, but has access to only 2.28% of its water resources. The availability of water is also constrained by imbalances in intra-state distribution. Out of 185 rivers, the State has only eight perennial rivers and all of them are located in the southern part of the state. Around 69% of the state's surface water resources are concentrated in central and southern Gujarat, whereas the remaining three-quarters of the State has only 31% resources.

Thus, Gujarat has a high portion of water stressed area i.e. 58.6% of the total area due to arid, semi-arid and saline conditions.

2. NEED FOR WASTE WATER REUSE POLICY

Given the background of very high stress on existing water resources and its distribution, Government of Gujarat is continuously looking for additional sources of water to supplement the limited fresh water sources available in the state. Thus it becomes imperative to explore option of reusing treated waste water and use it as source of water for various purposes.

Apart from the need of reducing the pollution of surface and ground water, world over the municipal waste water is increasingly seen as a water resource for reuse of water that can ideally be utilised for non-potable purposes. The treated waste water (TWW) produced by treating municipal sewage can provide a reliable source of water. Hence, there is an ardent need to adopt new perspective towards municipal waste water and its reuse.

In order to address the uneven distribution of water resources across the State, Government has launched schemes for inter-basin transfer of water such as 'Sujalam Sufalam Yojana', 'Sauni Yojana', 'Lift Irrigations schemes in Tribal areas' etc

wherein water from surplus region is transferred through canals and pipe lines to water scarce regions in the state. Further, the Government has implemented 'State wide drinking water supply grid' to provide safe drinking water to all people. These schemes have been transformative and have resulted in paradigm shift by switching over from excessive dependency on ground water to surface water. These schemes have brought significant economic benefits to the people of the state. However, the costs of transferring water through canals or pipelines and loss of water during transfer have been high. Therefore, developing locally available alternative source of water or reuse of treated waste water will help to decrease dependency on inter-basin transfer of water and improve overall water use efficiency.

Moreover if untreated or partially treated municipal sewage or waste water goes into streams, ponds, lakes or rivers, it will have adverse implications on environmental safety and public health. In case it gets percolated to the sub-surface strata, it may contaminate the groundwater source and thus prove to be a health hazard.

Insignificant reuse of treated waste water for economic activities or non-availability of buyer for it, has led to very little incentive for local body / operators of STP in up-keeping and maintaining it. This has created a mechanism of low accountability as there is no direct user group of TWW which can bring pressure on STP management. In order to enhance the accountability of local body/STP operators, it is important that TWW should be promoted as an economic commodity bringing in a user group with significant stakes.

Also, there is a strong need to price the TWW based on principle of cost recovery which is reflective of actual costs. This will generate a new revenue stream for local bodies which will ensure that operation of STP can be undertaken on financially sustainable basis.

3. STATUTORY AND POLICY FRAMEWORK

The concept of waste water recycling and reuse; and the need to include the same in all water supply and Waste Water management programs is recognized by the most policy frameworks and institutions in India. Constitutional provisions, various central statutes and policies; and state statutes and policies mentioned in Annexure-I are referred while framing the policy.

4. VISION

**“The policy envisions
maximising the collection
and treatment of sewage generated,
and reusing the treated waste water
on a sustainable basis,
thereby reducing dependency
on fresh water resources;
and to promote treated waste water
as an economic resource”**

5. OBJECTIVES

The policy lays down following objectives:

- To reach minimum 80% coverage and collection of sewage in all municipal towns.
- To reach a level of 100% treatment of collected sewage as per the prescribed standards.
- To reuse at least 25% of total fresh water consumption from TWW within the time limit set under policy by every municipal body.
- To reuse 70% of TWW by 2025.
- To reuse 100% of TWW by 2030.

6. IMPLEMENTATION TIMELINE

Considering different stages of development of infrastructure in terms of Collection and Treatment of Sewage in different towns, policy suggests a staggered timeframe to ensure implementable development goals for different cities. Following table lays down the timeframe for achieving the policy objectives for different cities.

Table 1 *Timeframe for achieving the objectives*

Existing System in Local Body	Target/ Goal	Maximum duration for implementation of reuse of treated wastewater
Both UGD Collecting system and STP Exists	Minimum of 25% of Fresh water consumption in Local Body or Present output of operational STP(s)*	One year
UGD Collecting system exist, but STP is not available	Minimum of 25% of Freshwater consumption in Local Body or Treatment capacity of proposed STP(s)	Six months from the date of Start of operation of STP
No UGD collecting system or STP facility exist	Minimum of 25% of Freshwater consumption in Local Body or Treatment capacity of proposed STP(s)	Four years

*In case, a town is having functional STP(s), but additional STP(s) are planned, then the additional capacity so created shall be utilized within a six months of time of such STP being made operational.

Future goals: Further, it shall be endeavor

1. To increase Under Ground Drainage (UGD) collecting system network based on fund availability.
2. To increase treatment capacity to treat collected sewage.
3. To increase reuse capacity to maximum leading to full utilization of TWW.

7. POLICY CONSIDERATIONS

The policy is developed on following premises:

7.1 Ownership of TWW

The prime responsibility for treatment of waste water, waste water recycling and reuse will be with the local body. Accordingly, creation of capacity for waste water management and, planning and implementation for waste water reuse infrastructure will be the responsibility of the local body, depending on availability of the funds. However, the state government will seek to augment these efforts.

Thus, economic rights on the TWW shall reside with respective Local body. The economic rights include any economic activity generated downstream due to supply of TWW in water bodies such as streams, rivers, canal, lakes etc. However, the guidelines under this policy will be followed by all local bodies wherever the financial assistance from state/central government is extended to local body for the purpose.

7.2 Prevention of contamination of other sources of water

TWW shall meet all the statutory quality standards. Stringent quality standards will be adopted such that it does not contaminate other sources of water.

7.3 Consider TWW as an additional source of water

TWW shall be considered as an additional source of water through its reuse to suitable users.

7.4 Promote TWW as an economic resource

TWW shall be considered as an economic commodity and used to generate resources which shall be used primarily for sewage collection and treatment besides paying for fresh water resources.

7.5 Develop sewage treatment projects on a financially sustainable basis

The price of TWW shall be based on principal of recovery of cost incurred on treatment and distribution to have sustainable projects.

7.6 Reuse of domestic waste water of Industrial units

Industrial establishment shall treat domestic waste water generated from their units and reuse it for appropriate non-potable use whereas the industrial effluent shall be treated and disposed as per prevailing standards of Water Pollution control authorities.

8. MANDATE OF USE OF TWW

TWW shall be used on the principle of substitution of fresh water with it. While making such a substitution, suitability of TWW to use shall be considered. While making use of TWW, necessary care will be taken that treated waste water is not mixed with or used with potable water.

TWW shall be mandated for use for different class of users depending on its availability. It shall be endeavour to use available TWW to maximum, but not less than the limits prescribed in Implementation timeline. As and when more TWW is available the same shall be put to use following same principles.

8.1 NON POTABLE USE

8.1.1 MANDATORY USE

8.1.1.1 Thermal Power Plant:

It shall be mandatory for all the Thermal Power Plants within a distance of 50 km from the STP or city limits to use TWW.

8.1.1.2 Industrial Units:

It shall be mandatory, for all Gujarat Industrial Development Corporation (GIDC) estates, all industrial units in Special Investment Region (SIR), Industrial parks and large industrial units which are consuming minimum one lakh litre of fresh water per day for non-potable purpose, and which are situated within 50 km distance from STP or city limits to use TWW. However, it shall not be mandatory to use TWW wherever it comes in direct contact with human beings or is used in processes resulting in products for human consumption.

8.1.2 Mandatory on fulfilling certain conditions

8.1.2.1 Construction activities

The concerned local body/implementing agency shall

- i) provide facility for filling tanker with TWW to construction sites on payment. Such filling points may be provided at more than one place depending on demand assessment at local level.
- ii) lay special supply lines for TWW in developing areas, if found feasible.
- iii) stop supplying municipal water once above mentioned facility is made available.

8.1.2.2 Large Commercial or Institutional users

Local body shall make endeavor to lay down TWW line to institutional areas, business districts or areas having large number

of such users to cater their need. If TWW is made available, such users can be dispensed with the need of making their own STP. In such a situation, it shall be mandatory for such users to use TWW for the purpose of flushing, watering green areas, water for fire hydrants etc.

8.1.2.3 Municipal uses

TWW shall be used for following municipal purposes mandatorily after laying such infrastructure as may be necessary.

- Maintenance of parks and gardens and developing urban landscaping.
- Rejuvenation of ponds, lakes and rivers.
- Supplying water for emergency purposes like fire brigade etc.

8.1.2.4 Other non potable uses

Local bodies may also find other users for non-potable use unique to their context etc. and make it mandatory for them to use TWW and restrict use of fresh water.

8.1.3 Agriculture / Irrigation

Treated waste water can be used for agriculture/irrigation purposes provided surplus water is available after above mentioned uses.

8.2 POTABLE USE

Considering social sensitivities and the public perception towards treated waste water, presently it shall not be used for potable purposes and uses which involve direct human contact. However, in future with the increase in water demand, advancement in treatment technology, competitive rates and change in public perception, TWW may be used for potable purposes.

9. ALLOCATION OF WATER

9.1 Availability of TWW

The local body shall declare availability of TWW within 2 months of declaration of the policy and thereafter on 1st July and 1st of January of every year. The coming in to effect shall contain details on both quantity and quality of water besides location of treatment plants where TWW is available.

9.2 Application by user

All water users who are consuming more than 1 lac litre of water per day including industrial clusters shall apply on central portal indicating their requirement of water. All new applicants shall also follow similar procedure.

9.3 Allocation of water

Keeping in view availability of TWW, SHPC shall allocate water- TWW or fresh water; in following manner:

9.3.1 *Where availability of TWW is more than demand*

In case, the availability of TWW is more than demand, then all the mandatory users will be provided with the required quantity of TWW. After this provisioning to mandatory users, the other users or other mandatory users outside the supply zone (50 kms distance) can be allocated water. Utilization of the balance TWW after providing to mandatory users shall be decided by the SHPC.

9.3.2 *Where availability of TWW is less than demand*

In case the availability of TWW is less than demand, the TWW shall be provided to users proportionally or in such manner as may be decided by the state government.

9.3.3 *Where there is no availability of TWW*

Efforts will be made to create infrastructure for collection and treatment of waste water to make TWW available. Fresh water may be continued till the time TWW is made available.

9.4 **Discontinuation of existing fresh water supply**

The existing fresh water supply shall be discontinued within a period of one year of TWW allocation made and being made available. However, fresh water supply can be allowed to the extent of drinking water and specific process requirements of such user.

9.5 **Enforcement of use**

Enforcement of use shall be enforced by Irrigation department/ SSNNL/ GWSSB/ GWIL which give permission or supply fresh water to users. Also, mandatory users shall not be given allotment of fresh water/ reservation of fresh water except as per provisions of the policy. Further, the existing allotment/reservation of fresh water shall stand cancelled within one year from date of TWW being made available.

10. ENVIRONMENTAL ASPECTS

The development of projects will take into account all environmental aspects, while choosing method of treatment, storage of waste water and sludge management. Effective procedures will be put in place to adequately factor in environmental and social opportunities and concerns during all stages of reuse of TWW projects.

Effective strategy shall be evolved to keep vigilance and evaluate quality of TWW.

10.1 Quality standards and treatment norms

The treatment of waste water shall be done according to effluent discharge norms laid by the government from time to time. However, it would be prerogative of the Government to setup better standard of treatment, if it chooses to do so. BOD and TSS of TWW for supply to different users except for rejuvenation of ponds, lakes & rivers and agriculture/irrigation, shall not be more than 10 mg/L each.

If a user needs TWW of better quality, the same shall be done by user at his end. It is up to local body's discretion to make decision regarding higher level treatment of waste water on substantial demand from users. In case such a decision is made, charges for capital and operation and maintenance of higher level of treatment will be recovered from the Users.

10.2 Technology options

A key component in any strategy aimed at increasing the coverage of waste water treatment will be the application of appropriate waste water treatment technologies that are effective, simple to operate and low cost; both in capital and in operation & maintenance.

Technological options for waste water recycling plants can be categorized based on treatment standard, quantum of sewage inflow, location of plants or utilization of recycled waste water etc., Chapter 7 of part A of Manual on Sewerage and Sewage Treatment Systems (2013), CPHEEO discusses in detail the different types of treatment technologies suitable under different conditions. The manual also provides details on the design considerations and operating requirements for a variety of technologies which will be suitable for different usage. Appropriate technology shall be adopted so as to meet the quality standards of TWW under the policy. However, it shall be ensured that new STPs conform to such standards so as to enable utilization of TWW directly by the users enumerated in the policy as far as possible.

The policy suggests use of conventional or generic technologies. However use of innovative technologies developed by IITs/NEERI may be used while implementation of project for tertiary treatment of sewage if required. Further the policy suggests that low requirement of space, power and efficiency shall be main consideration while choosing the appropriate technology.

11. PREPARATION OF TWW REUSE PROJECTS

11.1 Identification and Preparation of projects

11.1.1 Preliminary Information

Preliminary Information regarding present infrastructure or projects under execution, underground drainage collection and treatment shall be collected by the local authority. This will include information on underground collection system, treatment capacity, location of sewage treatment plant, potential users with their demand and location, etc.

11.1.2 Identification of viable project

Based on the availability of TWW and potential users, a project for use of TWW will be identified. Shelf of such projects will be prepared by SHPC which will accord in-principle approval for the same.

11.1.3 Preparation of Detailed project report(DPR)

If the project is found technically feasible and financially viable, then DPR will be prepared. DPR shall include, but not limited to the following:

1. Profile of local body (Location of STPs, quantity of sewage generated, operational framework of STPs etc.).

2. Profile of users (type of usage, quantity required, distance etc.) within the threshold distance.
3. Approximate cost of project.
4. Suggestions on implementing agency which can be a local body itself, an agency decided by government like GWSSB, GWIL or other government company or an agency decided on PPP model.
5. Funding source.
6. Level and nature of private sector involvement.

11.2 Approval by SHPC

Based on the recommendations of by STC, SHPC shall give in principal approval for the project and decide the following.

1. Allocation of water to different users.
2. Implementing Agency.
3. Financial and management structure of the project.
4. Pricing of water.

12. PRICING PRINCIPLES

The TWW shall be considered as an economic commodity while determining the price of TWW. The price of TWW shall be determined based on investment made, quality of water supplied, requirement of distribution infrastructure and other social, cultural and business factors.

12.1 Price of fresh water

The price of TWW shall be kept lower than the price of fresh water as notified by the government from time to time.

12.2 Factors to be considered

While deciding price of TWW, SHPC shall consider following factors.

1. Recovery of capital and operation & maintenance of cost incurred on distribution network of TWW.
2. Recovery of Operation and Maintenance cost of the Sewage Treatment Plant (STP).
3. Recovery of Capital and Operation and Maintenance cost of tertiary treatment, if any.
4. Recovery Operation and Maintenance cost of sewage collection system may also be considered.

12.3 Variation and escalation

The price fixed so shall be for first year of the project and a suitable price escalation clause shall be kept in agreement made with users. The price of TWW can be reviewed by SHPC every five years.

12.4 Recovery and Billing

Implementing Agency shall have automated systems of measurements, billing and recovery of water charges.

12.5 Escrow Accounts

An escrow account shall be kept by the local body for the amount received by it which will be used for waste water related works only, which would ensure sustainability of treated waste water projects.

12.6 Purchase Agreements

A purchase agreement shall be made in between the **implementing** agency and user. The agreement will suitably reflect terms and conditions of water purchase.

13. PRIVATE/EXTERNAL SECTOR PARTICIPATION

The use of TWW is of high order of priority. All effort shall be made to expedite to plan, prepare implement such projects.

13.1 Possibilities of funding

The possibility of funding from external funding agencies shall be explored by the government.

13.2 Options of PPP

All efforts will be made to explore the possibility of projects being implemented with private capital by using various procurement models based on Public-Private-Partnership (PPP).

The models may be any one or combination of following:

1. **DBO**
2. **DFBOT/BOT – Annuity**
3. **BOT - User Charges**
4. **BOT- End User**
5. **Hybrid Annuity Model (HAM)**

PPP model shall be finalised after adequate due diligence and detailed assessment. The model for private participation will be proposed and final decision in this regard shall be taken by SHPC.

14. STAKEHOLDER ROLES AND RESPONSIBILITIES

14.1 Local body

Apart from waste water treatment, water recycling and reuse will be the primary responsibility of the local body. Accordingly, creation of capacity for Waste Water management, planning and implementation for water recycle plant infrastructure, keeping in view availability of the funds, is primary the responsibility of the local body.

14.2 Implementing agency

It's an agency appointed by SHPC who shall plan, execute, operate and maintain TWW project.

14.3 Users

A user of TWW shall apply for permission to take TWW as per conditions of this policy.

14.4 Regulatory Agencies

They shall assist in finalizing the legal framework and quality standards / treated waste water norms for using TWW for various purposes.

15. GOVERNANCE ARRANGEMENT

To ensure proper, efficient and timely management of TWW projects and to aid swift decision making, following committees will be formed:

- (1) State level High Power Committee
- (2) State level Technical Committee

15.1 State level High Power Committee (SHPC)

State level High Power Committee shall be the apex body to take decision regarding implementation of the policy. The functions include project approval, price determination, allocation of water, selection of implementing agency, monitoring, policy advisory, resolution of disputes etc.

15.2 State level Technical Committee (STC)

State level Technical Committee shall give Technical Approval of projects, finalize formats of project agreements, monitor projects execution, lay guidelines for O&M etc, and carry out such other function as may be decided by the Government or SHPC.

The State government may from time to time by notification appoint the members of the above committees

15.3 TWW Cell

A separate Cell with appropriate set up of staff headed by an officer of the level of Chief Engineer shall be appointed for co-ordination and implementation of projects pertaining to TWW. The cell shall undertake the following activities.

15.3.1 Preparation of DPR:

The cell will appoint a transaction advisor and will prepare DPR in consultation with local body concerned.

15.3.2 Providing secretarial assistance to STC/SHPC

The cell will provide all secretarial assistance; and assist STC and SHPC in discharging their duties.

15.3.3 Management Information System:

A Data Management and Information System will be developed to

have regular information with respect to waste water generation, treatment, reuse, technology adopted for waste water treatment plants, costing for operating infrastructure, revenue generated from the projects etc. Information will also be collected regarding potential users of waste water individually and as a class of users. A central data base will be maintained collating information from all local authorities.

15.3.4 Capacity Building, Research & Development

The frontiers of knowledge in waste water treatment and utilisation will be pushed forward through focused action research, development and promotion of state-of-art technology and training for effective and economic management of water resources.

A perspective plan for training shall be worked out for planners, managers, designers and users, by coordinating with Water and Land Management Institute (WALMI), Gujarat Engineering Research Institute (GERI), Gujarat Jalseva Training Institute (GJTI), Agriculture Universities, engineering colleges and similar such organizations for getting optimum productivity and maximum utilization of water. Importance shall be given to the latest technological systems. The Cell shall serve as a nodal unit and create an umbrella to bring all stake holders in its ambit.

15.3.5 Public Awareness:

Public awareness is an essential component to promote and develop acceptance of reuse of TWW. Education is the key to overcome public fears about a reuse system, particularly fears related to public health and water quality.

Broadly, in-depth public relation programmes and demonstration projects are helpful for the reuse projects. Therefore, it is desired

to have very strong I-E-C programme and waste water management plan after public consultation and having clarity about use of TWW. Such programmes will be designed to address following critical issues:

- Raise public awareness of waste water issues and needs to foster support for creative solutions.
- Educate the public and identified target groups in order to increase awareness and encourage behavioural changes.
- Coordinate with other public as well as private entities for optimum use of TWW.

16. MISCELLANEOUS

The state government may issue such directions as it deems fit, for the purpose of carrying out objectives as set out in the policy time to time. Further the SHPC can take decisions as required for the smooth implementation of the projects.



ANNEXURES

Annexure I : Statutory and Policy framework

The concept of waste water recycling and reuse; and the need to include the same in all water supply and waste water management programs is recognized by most policy frameworks and institutions in India. Some of the significant legislations and documents that have been considered in framing the policy are:

Constitutional provisions

- The constitution of India in its part IV lays down directive principals of state policy/Article 48 A states -“The state shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country”.
- Fundamental duties of every citizen of India in Article 51A states that “ It shall be the duty of every citizen of India to protect and improve the natural environmental including forests, lakes, rivers and wild life, and to have compassion for living creatures.
- Role of self-Government (73rd and 74th Constitutional Amendments) – These amendments make it obligatory on the state governments to constitute urban local bodies and transfer responsibility of water supply and sanitation services to them .

Thus, there is constitutional mandate to preserve, protect and promote natural resources and water forms the most important ingredients of it.

Central statues and policies

- **The Environment Protection Act 1986 :** As per the Act 1986 (Chapter 2, General Powers of Central Government), the Central Government shall have the power to “take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution” and “laying down standards for the quality of environment in its various aspects”.
- **Policy statement for Abatement of Pollution, 1992 :** The policy broadly suggests developing relevant legislation and regulations, fiscal incentives, voluntary agreements, education programs, information campaigns, need for environmental considerations into decision making at all levels, pollution prevention at source, laying principle of Polluter Pays for Pollution etc.
- **The National Water Policy 2012 :** The National Water policy 2012 promotes and incentivizes the reuse of waste water, including through Section 6.3: “Recycling and reuse of water, including return flows, should be the general norm”. Section 7.3 ; ‘Recycling and reuse of water, after treatment to specified standards, should also be incentivised through a properly planned tariff system, and Section 11.7; ‘Subsidies and incentives should be implemented to encourage and recycling/reuse , which are otherwise capital intensive.
- **The National Sanitation Policy, 2008 :** The policy aims at creating awareness, behavioural change, making cities free of open defecation, safe disposal of wastes and proper operation and maintenance of sanitary installations.
- **Manual on Sewerage and Sewage Treatment Systems, by Central Public Health and Environmental Engineering Organization (CPHEEO), MoUD, 2013 :** This manual sets out design consideration, technology and treatment standards for waste water.

State statues and policies

- **The Gujarat Provincial Municipal Corporation Act :** As per the Act “The commissioner may, for purpose of receiving, treating, storing, disinfecting, distributing or otherwise disposing of sewage, construct any work within the city or purchase or take on lease any land, building, engine material or apparatus either within or without the city or enter into any arrangement with any person for any period not exceeding twenty years for the removal or disposal of sewage within or without the city”. The Act empowers the Municipal Corporation regarding all activities relating to water and sewage management.
- **The Gujarat Municipal Act, 1993 :** The statute gives complete authority and jurisdiction of all urban amenities including water supply and sanitation with municipalities.
- **The Gujarat Panchayat Act 1993 :** In Schedule-I, section 99 it is the duty of village panchayat of “constructing, altering and maintaining public latrines, urinals, drains, sewers, drainage works, sewage work”.
- **The Gujarat State Policy for Promotion of Waste water Recycle and Reuse, (dated 15th June, 2017)** It lays down broad framework for treatment and use of waste water.

Annexure II : Existing Scenario in Gujarat

Rainfall Pattern and Topography

The rainfall pattern in Gujarat is erratic and uneven which leads to imbalances in distribution of water in different regions. Almost 95% of the total annual rainfall occurs during few days of the monsoon period (June to September) which brings in seasonal winds from the South-West direction. There is a wide variation in the availability and distribution of rainfall across the State.

North Gujarat area has rechargeable aquifers; however, rainfall in this region is scanty while the ground water withdrawal is very high. Excessive ground water withdrawal is for both irrigation purposes and a high industrial water demand. Thus, the ground water table is depleting very rapidly in this region.

The Southern and Central parts of Gujarat are heavily developed agricultural and industrial areas that require large volumes of water usage. The Saurashtra region comprises of rocky formations and a very low recharging capacity, leading to meagre ground water replenishment. The coastal area of Saurashtra is also affected by salinity ingress leading to deterioration of water quality. Kachchh is an arid zone with scanty rainfall and no perennial rivers.

Availability of Water Resources

Availability of the quantum of water resources in the state varies widely from region to region as mentioned below:

Area	Total Water Quota (M.cum)	Surface Water (M.cum)	Underground Water (M.cum)	Storage capacity of existing reservoirs (Except Sardar Sarovar) (Million cubic Mtrs)	% of Water Resources	% of area
Central & South Gujarat	38105	31750	6355	10400	69	25
North Gujarat	6342	2100	4242	2100	11	20
Saurashtra	9723	3600	6123	2250	17	33
Kutch	1438	650	788	250	3	22
Total	55608	38100	17508	15000	100	100

*Source NWRWS website

New Challenges

The water demand is likely to rise considerably in the future due to high population growth and economic development. The urbanisation is increasing at a rapid pace in state and currently almost half of the population in the state is in urban areas or nearby conglomerates.

The indiscriminate pollution of water resources, especially due to discharge of industrial effluents into water bodies, is increasingly affecting the availability of safe fresh water, in addition to causing serious environmental and public health hazards. Thus, availability of fresh water has become a limiting factor, particularly for drinking, agricultural and industrial purposes.

There is over dependence on single surface source, hence for water security local sources need to be rejuvenated and treated waste water could be considered as an alternative source of water which may be used for other than drinking purposes.

Drinking Water Network

Drinking water network of the state is mainly dependent on Narmada besides other surface water sources. Narmada water from the Sardar Sarovar Reservoir is conveyed through Narmada Main canal and other branch canals. Majority of the drinking water grid off takes are on Narmada Main canal & Saurashtra Branch canal from which raw water is transmitted to Central Gujarat, North Gujarat, Saurashtra and Kachchh.

This has also made it imperative to have In-Village water supply schemes which are being implemented through WASMO.

Underground Drainage System (Collection and Treatment)

Presently, Underground drainage system is available in all 8 municipal corporations, 153 out of 162 municipalities and 85 rural areas. These systems collect sewerage which is treated through STPs established for the purpose. Presently about 2600 MLD sewerage is being treated through 52 STPs, approx. 161 STPs are under planning or execution which will add to about 2800 MLD treatment capacity within a span of 2 years. With this the total TWW availability will rise to more than 5000 MLD in the state. This offers a tremendous opportunity to use TWW and augment water resources economically.

ABBREIVATIONS

AMRUT	Atal Mission for Rejuvenation and Urban Transformation	KL	Kilo Litre
BCM	Billion Cubic metre	MLD	Million Litre per Day
BOT	Build, Operate, Transfer	MW	Mega Watt
CAPEX	Capital Expenditure	NEERI	National Environmental Engineering Research Institute
CPHEEO	Central Public Health and Environment Engineering Organization	OPEX	Operational Expenditure
CSS	Centrally Sponsored Schemes	PPP	Public Private Partnership
DBO	Design, Build, Operate	SBM	Swachh Bharat Mission
DFBOT	Design, Finance, Build, Operate, Transfer	SIR	Special Investment Region
GDCR	Gujarat Development Control Regulations	SJMMSVY	Swarnim Jayanti Mukhya Mantra Shaheri Vikas Yojana
GERI	Gujarat Engineering Research Institute	SHPC	State level High Power Committee
GIDC	Gujarat Industrial Development Corporation	STC	State level Technical Committee
GJTI	Gujarat Jalseva Training Institute	SSNNL	Sardar Sarovar Narmada Nigam Limited
GWIL	Gujarat Water Infrastructure Limited	STP	Sewage Treatment Plant
GWSSB	Gujarat Water Supply and Sewerage Board	TWW	Treated Waste Water
HAM	Hybrid Annuity Model	UGD	Under Ground Drainage
IIT	Indian Institute of Technology	ULB BODY	Urban Local body
		WALMI	Water and Land Management Institute
		WASMO	Water and Sanitation Management Organization



“

Reuse of treated waste
water will usher a new era
of water security and
sustainable development
in Gujarat”

Shri Vijaybhai Rupani
Chief Minister, Gujarat



Narmada, Water Resources, Water Supply and Kalpsar Department

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No.PB/ Urban cell/TWW/411,

Date 22 /08/2019

To,

The Chairman

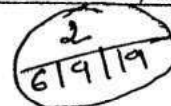
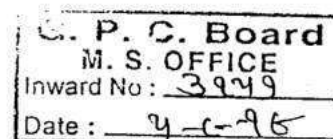
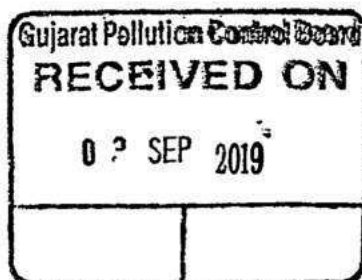
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Sub: Submission of Action Plan for Gujarat State for Utilization of Treated Waste Water

- Ref.: (1) Letter from the Member Secretary, Gujarat Pollution Control Board; no. GPCB/P-3/200/498817, dated 13/03/219
- (2) Letter from the Chairman, Central Pollution Control Board; D. O. No. A-14011/1/2019-UPC-I, dated 16/01/2019
- (3) Order of the Hon. National Green Tribunal; M.A. No. 686/2017, dated 27/11/2018

As per the order of Hon. National Green Tribunal mentioned under ref. (3), all States and Union Territories are required to prepare and furnish their action plans for utilization of treated sewage water in their respective States/UTs to the CPCB.

In view of the aforementioned order, Hon. Chairman, CPCB has drawn attention to the same and requested to take the necessary actions in Gujarat, vide the letter under ref. (2). Following which, a letter from the Member Secretary, GPCB under ref. (1) is received here; wherein it is requested to prepare and furnish the action for utilization of treated sewage water in Gujarat.

With respect to the letters under the above references, please find attached herewith the Action Plan for Utilization of Treated Sewage Water for the State of Gujarat, for your further perusal.

Thanking you,

[Signature]
Member Secretary

Gujarat Water Supply and Sewerage Board

Encl.: - Action Plan for Utilization of Treated Sewage Water for the State of Gujarat

Copy respectfully submitted to:

1. Hon. Chairman, Gujarat Water Supply and Sewerage Board
- ✓ 2. The Member Secretary, Gujarat Pollution Control Board

[Signature]
05/9/19
Dharm

Action Plan for Reuse of Treated Waste Water in the State of Gujarat

Preamble: -

Water is a critical resource for social and economic development of any region besides being elixir of life. Water resources are getting depleted due to adverse changes in climatic conditions, scanty and erratic rainfall, increasing industrialization, population growth, exploitation of ground water, increasing demand for domestic purposes etc. This problem is getting amplified due to uneven natural distribution (availability) of water resources in different regions of the state mainly due to diverse topography.

Need: -

Looking at the present stress on water resources and its distribution, the Government of Gujarat is looking at augmenting the existing sources of water in the state, as well as looking for new sources. The treated waste water (TWW) produced by treating municipal sewage can provide a reliable source of water. Hence, there is an ardent need to adopt new perspective towards municipal waste water and its reuse.

Provision of water from local sources as well as usage of treated waste water will help minimize the transportation of water, thereby increasing overall efficiency of the water distribution and its utilization.

Also, discharge of untreated or partially treated waste water onto open land, lakes, ponds or rivers may have negative impacts on the environment and public health. If such water percolates into the ground and mixes with the ground water, it can lead to contamination of ground water sources and cause a hazard to health.

Policy for Reuse of Treated Waste Water: -

The Government of Gujarat has launched the Policy for Reuse of Treated Waste Water on 28th May 2018. The main objective of the policy is maximizing sewage collection, treatment of the collected waste water and reuse of the treated waste water; thereby reducing dependency on fresh water resources and to promote treated waste water as an economic resource.

The policy lays a time-bound and systematic plan with an ultimate goal of reusing Treated Waste Water fully by 2030.

Vision: -

The policy envisions maximizing the collection and treatment of sewage generated, and reusing the treated waste water on a sustainable basis, thereby reducing dependency on fresh water resources; and to promote treated waste water as an economic resource.

Objectives: -

- To reach minimum 80% coverage and collection of sewage in all municipal towns.
- To reach a level of 100% treatment of collected sewage as per the prescribed standards.
- To reuse at least 25% of total fresh water consumption from TWW within the time limit set under policy by every municipal body.
- To reuse 70% of TWW by 2025.
- To reuse 100% of TWW by 2030.

Users: -

Thermal Power Plant

- It shall be mandatory for all the Thermal Power Plants within a distance of 50 km from the STP or city limits to use TWW.

Industrial Units

- It shall be mandatory, for all Gujarat Industrial Development Corporation (GIDC) estates, all industrial units in Special Investment Region (SIR), Industrial parks and large industrial units which are consuming minimum one lakh litre of fresh water per day for non-potable purpose, and which are situated within 50 km distance from STP or city limits to use TWW.
- However, it shall not be mandatory to use TWW wherever it comes in direct contact with human beings or is used in processes resulting in products for human consumption.

Construction activities

- Provide facility for filling tanker with TWW to construction sites on payment.
- Lay special supply lines for TWW in developing areas, if found feasible.
- Large Commercial or Institutional users
- Lay TWW pipeline to business district having large number of such users.
- It shall be mandatory for such users to use TWW for the purpose of flushing, watering green areas, water for fire hydrants etc. on availability of TWW.

Municipal uses

- Maintenance of parks and gardens and developing urban landscaping.
- Rejuvenation of ponds, lakes and rivers.
- Supplying water for emergency purposes like fire brigade etc.

Other non-potable use

- Any other user for non-potable use found in local context

Agriculture/Irrigation

- TWW can be used for agriculture/Irrigation purposes provided surplus water is available after above mentioned uses

Potable Use: -

Considering social sensitivities and the public perception towards treated waste water, presently it shall not be used for potable purposes and uses which involve direct human contact. However,

in future with the increase in water demand, advancement in treatment technology, competitive rates and change in public perception, TWW may be used for potable purposes.

Allocation of TWW: -

Keeping in view the availability of TWW, SHPC shall allocate water – TWW or fresh water to the user. Within a period of one year from allocation of TWW, existing fresh water supply shall be discontinued for users.

Project: -

Projects for Reuse of TWW shall be made based on profile of user and local body. SHPC will give in principal approval to projects.

Governance arrangement: -

State level High Power Committee (SHPC)

Apex body to take decision regarding implementation of the policy and project approval, TWW price determination, allocation of water, financial and management structure of the project, etc.

State level Technical Committee (STC)

Shall provide technical approval of projects, finalize formats of project agreements, monitor projects execution, lay guidelines for O&M etc.

TWW Cell

- Headed by officer of Chief Engineer level.
- Preparation of DPR, Providing secretarial assistance to STC/SHPC and project coordination and execution.
- MIS, Capacity Building, Research & Development, IEC activities and public awareness

Benefits: -

Use of treated waste water will generate a new revenue stream for local bodies which will ensure that operation of STP can be undertaken on financially sustainable basis.

Details of Reuse of Treated Waste Water in Municipal Corporations

After the Government launched the Policy for Reuse of Treated Waste Water, 8 (eight) municipal corporations of the state have furnished detailed information regarding the waste water generation, collection and prospects of its reuse. Following are the details of the municipal corporations, as per the pre-feasibility carried out:

Sl. No.	Municipal Corporation	Waste Water Generation		Collection		Treatment		Treated Water (MLD)	Reuse	Remarks
		MLD	MLD	MLD	MLD	MLD	MLD			
1	Ahmedabad	1,250	808	10	926	5	340	-	-	368 (Industries, Gardens)
2	Surat	1,250	925	11	1,072	8	584	40 (Industry)	-	615 (Industries)
3	Vadodara	500	304	8	355	2	110	-	60 (Industries)	42 (Industries)
4	Gandhinagar	70	41	3	88	0	0	3-5 Current usage from 10 MLD STP (Gardens, Sachivalay)	50 Thermal Power Plant)	-
5	Jamnagar	105	63	1	70	1	45	-	70 (Industries)	-
6	Bhavnagar	127	55	2	75	1	19	10-15 Current usage from 45 MLD STP (Thermal Power Plant)	-	-
7	Rajkot	300	115	5	236	2	95	-	-	-
8	Junagadh	25	0	0	0	1	8	-	-	-
Total		3,627	2,311 (64%)	40	2,822	20	1,201	90	180	1,025

Bhavnagar Municipal Corporation

The project of Reuse of 45 MLD Treated Waste Water in Bhavnagar Thermal Power Plant (Bhavnagar Energy Company Limited, BECL) has commissioned from 03/05/219. Currently 10-15 MLD treated waste water is being reused.

Bhavnagar is fifth largest city of Gujarat. The Municipal Corporation has present population of @ 6.80 lacs, the fresh water supplied is @ 130 MLD. It generates sewage around 81 MLD.

Out of generated sewage, two STPs are put in working condition in the year 2018 having capacity of 75 MLD (45 MLD + 30 MLD).

45 MLD STP is situated in the eastern part of Bhavnagar city. At present 40 MLD waste water is treated in this plant which is based on SBR (sequential batch reactor) technology.

It was planned to reuse treated sewage water for cooling purpose of Lignite based Thermal Power Plant by BECL Plant situated at Padva Village which is 28 Km away from Bhavnagar. Bhavnagar Energy Company Limited is now known as Gujarat State Electricity Corporation Limited (GSECL). It requires 40 MLD treated sewage water for their cooling tower. BMC has already laid 13.5 km, 800 mm Ø rising main pipeline up to sump near Budhel. There are two stages of pumping. One at 45 MLD STP Plant & another at –sump at Budhel. BMC has laid pipeline at the cost of BECL, of cost Rs. 26 Cr and also established pumping station at 45 MLD STP site where as other pumping near Budhel is about to be completed under the supervision of BECL.

The treatment cost of sewage water at BMC STP Plant outlet is approx. Rs. 3.6 per KL (which includes only O & M and Electric consumption) whereas total treatment cost is about Rs. 9.61 per KL (which includes O &M, Electric consumption and Expenditure incurred in collection of sewage)

BMC shall sell treated sewage water at the rate of Rs. 17 per KL and will get Rs. 17000 per ML. i.e. Rs. 6.80 lacs per day (This is based on the maximum requirement of BECL 40 MLD per day). Thus yearly income is assumed to be up to Rs. 25 crores which is quite important for BMC. At the same time this will lead to saving of potable water to the tune of 40 MLD.

The commissioning of the conveyance main is in final stage; Hydro test is already performed. Pumping machinery trial is also performed.

This is the success story in the field of "Best from waste" for BMC.

Jamnagar Municipal Corporation

Concept of Project: To reuse treated waste water from proposed 70 MLD STP in various industries

Name of Project: Refurbishment of Existing Sewage Treatment Plant, Development of Transmission & Distribution Network and Associated Infrastructure on PPP Basis

Location: Jamnagar, Gujarat

Stakeholders: Jamnagar Municipal Corporation (JMC), GWSSB & Concessionaire

User details:

		Water user (MLD)	
		2019	2024
1	Essar Power	11	18
2	GSFC	14	37
3	Essar Oil	06	09
4	Thermal Power Station - Sikka	04	04
5	Reliance Industries Ltd.	15	32

Broad components of work:

- Renovate / modify existing STP

Treatment Process: Sequential Batch Reactor (SBR)

- Construction of 35 ML Storage sump and Pumping station near existing STP
- Laying of 29 KM DN 1000mm DI K9 Grade rising main to convey 70MLD treated sewage water from existing JAMNAGAR STP to 35ML Sump at Moti Khavdi (near GWIL HWs).
- Transmission and distribution network up to door step of users
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 122 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, the share of Government would be 60% which shall be given from the fund of the GWSSB. Thereafter STC decided that GWSSB shall provide Capital Grant of Rs. 70 Cr for the Project

Approval: Approved in the 1st State Level High Power Committee (SHPC) dated 21/06/2018 and 1st State Level Technical Committee (STC) dated 31/08/2018.

Current Status: Tender is in evaluation stage

Gandhinagar Municipal Corporation

Concept of Project: To reuse treated waste water from proposed 60 MLD STP (50 MLD New and 10 MLD Existing) for Thermal Power Plant

Name of Project: Construction of 50 MLD New STP and refurbishment of Existing 10 MLD STP, Development of Transmission & Distribution Network and Associated Infrastructure on PPP Basis

Location: Gandhinagar, Gujarat

Stakeholders: Gandhinagar Municipal Corporation(GMC), R&B, GWSSB & Concessionaire

User details:

Sl. No.	User	Treated Water Allocation (MLD)	
		SHPC	GWSSB
1	Thermal Power Station - Gandhinagar	45	49
2	Sachivalay / Garden	7	7

Broad components of work:

- Construction of new 50 MLD STP and refurbishment of existing 10 MLD STP to achieve BOD $\leq$ 10 PPM, TSS $\leq$ 10 PPM & TN $\leq$ 10 PPM;
 - Treatment Process of existing STP: Sequential Bio Reactor (SBR)
- Construction of Storage sump and Pumping station near STP
 - 4 ML storage sump has been proposed along with pump house to store the treated sewage water.
 - Proposed pump house along with HSCF type pump
- 10 KM DN 800mm DI K9 Grade rising main is proposed to convey treated sewage water from STP to Thermal power plant.
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 62 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, the share of Government would be 60% which shall be given from the fund of the GWSSB. Thereafter STC decided that GWSSB shall provide Capital Grant of Rs. 50 Cr for the Project

Approval: Approved in the 1st State Level High Power Committee (SHPC) dated 21/06/2018 and 1st State Level Technical Committee (STC) dated 31/08/2018.

Current Status: Tender is in evaluation stage

Ahmedabad Municipal Corporation

Following Projects have been identified and submitted by Ahmedabad Municipal Corporation:

Sr. No.	Project	Proposed Reuse Quantity (MLD)	Estimated Cost (Rs. Crores)
1	Reuse of secondary treated wastewater in Torrent Thermal Power Plant, Sabarmati from 60 MLD STP at Jalvihar, Vadaj	25	6.24
2	Reuse of secondary treated wastewater through decentralized STPs in Gardening and other secondary uses	12-15	62.40
3	Sale of Raw Sewage to Industries (Arvind Ltd.)	8 (raw sewage)	25
4	Reuse of secondary treated wastewater in Dholera SIR from 240 MLD STP at Vasna	150	600
5	Reuse of secondary treated wastewater in Ahmedabad Textile Processors Association (ATPA) in Narol Industrial cluster from 60 MLD and 106 MLD STPs at Pirana	110	200
6	Reuse of secondary treated wastewater in agriculture through Fatehwadi Canal, Ahmedabad	449 (48 MLD is already being reused for agriculture)	80.50

Stakeholders: Ahmedabad Municipal Corporation (AMC), Ahmedabad Urban Development Authority (AUDA), GWSSB and Concessionaire/Agency

Current status: Detailed Project Reports are under preparation by Ahmedabad Municipal Corporation

Vadodara Municipal Corporation

Project - 1

Concept of Project: Reuse of treated sewage generated from the Rajivnagar STP for various industrial users

Name of Project: Reuse of Treated Waste Water in Vadodara City

Location: Vadodara, Gujarat

Stakeholders: GWSSB, Vadodara Municipal Corporation (VMC) & Concessionaire/Agency

User details:

Sl. No.	User	Flow Capacity (MLD)
1	Indian Oil Corporation Ltd. (IOCL)	40
2	Reliance Industries Ltd.	15-20

Broad Components of the Work:

- 15 ML storage sump has been proposed near the STP; along with a pump house. A detention time of 6 hours is considered.
- Chlorination system to disinfect the Treated Waste Water (TWW) before transmission
- 8 nos. of pumps (4 W + 4 SB) Horizontal Split Case Type Centrifugal gland packed pumps with enclosed impeller
- Rising Main from Rajivnagar STP to users:
 - 17.3 km long 900 mm dia. rising main from Rajivnagar STP to IOCL junction
 - 500 m long 800 mm dia. rising main from IOCL junction to IOCL
 - 4.2 km long 600 mm dia. Rising main from IOCL junction to RIL

Estimated Cost: Rs. 65.72 Cr

Implementation: EPC + O&M for 15 years

Approval: Approved in the 2nd State Level High Power Committee (SHPC) dated 14/05/2018 and 3rd State Level Technical Committee (STC) dated 29/06/2018.

Current Status: Tender for the project is online

Vadodara Municipal Corporation

Project-2

Concept of Project: Reuse of treated sewage generated from the Chhani STP for various industrial users

Name of Project: Reuse of Treated Waste Water in Vadodara City

Location: Vadodara, Gujarat

Stakeholders: GWSSB, Vadodara Municipal Corporation(VMC) & Concessionaire/Agency

User details:

Sl. No.	User	Proposed TWW Allocation (MLD)	
		Initial Demand	Final Demand
1	Gujarat State Fertilizer Company (GSFC)	23	32
2	Gujarat Alkalies & Chemicals Limited (GACL)	3	5
2	Gujarat Industries Power Company Ltd. (GIPCL)	3	5

Broad Components of the Work:

- Tertiary treatment based on Fiber Disc Filter, UF and RO
- 11 ML storage sump with two compartments has been proposed near the STP; along with a pump house. A detention time of 6 hours is considered.
- Chlorination system to disinfect the Treated Waste Water (TWW) before transmission
- 6 nos. of pumps (3 W + 3 SB) Horizontal Split Case Type Centrifugal gland packed pumps with enclosed impeller
- Rising Main from 50 MLD Chhani STP to users:
 - 5 km long 400 mm dia. rising main from Chhani STP to GSFC premises
 - 5.5 km long 800 mm dia. rising main from GSFC premises GACL premises
 - 4 km long 300 mm dia. rising main from GACL premises to GIPCL premises

Estimated Cost: Rs. 124.70 Cr

Approval: Approved in 3rd State Level Technical Committee (STC) dated 29/06/2018.

Implementation: PPP/BOOT model

Vadodara Municipal Corporation will invest 40% while Concessionaire will infuse 60% of required capital to execute the project.

Current Status: Agenda for approval in State Level High Power Committee is to be submitted by Vadodara Municipal Corporation.

Surat Municipal Corporation

Project-1

Concept of Project: Reuse of treated sewage generated from the STP in Dindoli for various industrial users

Name of Project: Reuse of TWW from existing 66 MLD (under augmentation upto 167 MLD) STP in Dindoli in Industry.

Location: Surat, Gujarat

Stake Holders: GWSSB, Surat Municipal Corporation(SMC) & Concessionaire

User details:

S. No.	User	Proposed TWW Allocation (MLD)
1	Colourtex Pvt. Ltd.	40

Broad components of work:

- 1.3 km long 1,400 mm dia. gravity main from Dindoli STP upto Colourtex Pvt. Ltd.

Estimated Cost: Rs. 5.89 Cr

Implementation: Implementation model to be finalized

Approval: Approved in 3rd State Level Technical Committee (STC) dated 29/06/2018.

Current Status: Agenda for approval in State Level High Power Committee is to be submitted by Surat Municipal Corporation.

Surat Municipal Corporation

Project-2

Concept of Project: Reuse of treated sewage generated from the STPs in Bamroli cluster for various industrial users

Name of Project: Reuse of TWW from existing 162+100 MLD STPs and Proposed 115+115 MLD STPs in Bamroli Cluster in Industry.

Location: Surat, Gujarat

Stake Holders: GWSSB, Surat Municipal Corporation(SMC) & Concessionaire

User details:

Sr. No.	User	Proposed TWW Allocation (MLD)
1	Palsana Enviro Protection Ltd. (PEPL)	215

Broad components of work:

- 6 km long 1,829 mm dia. transmission pipeline to be laid to transfer TWW from Bhatar STP to Bamroli STP.
- 201 MLD TSTP (Fine filtration) near Bamroli STP
- 270 lac litre capacity service reservoir
- 26.22 km long 1829 mm dia. secondary treated water transmission main from Bamroli STP to PEPL, Palsana

Estimated Cost: Rs. 278.83 Cr

Implementation: Implementation model to be finalized

Approval: Approved in 3rd State Level Technical Committee (STC) dated 29/06/2018.

Current Status: Agenda for approval in State Level High Power Committee is to be submitted by Surat Municipal Corporation.

Surat Municipal Corporation

Project-3

Project: Reuse of TWW from existing and Proposed STPs in Bhesan Cluster in various industries.

Current Status: Revised Detailed Project Report is under preparation by Surat Municipal Corporation

Details of Reuse of Treated Waste Water in Municipalities

The possibility of reuse of Treated Waste Water in Municipalities has been explored and following Municipalities are identified for implementation of the reuse projects:

No.	Municipality	STP Capacity (CMD)	STP Status (Existing/Proposed/U. Under Construction)	WWT Reuse Potential (CMD)	WWT Reuse Potential (MGD)	WWT Reuse Potential (LAKH)
1	Pethapur	3.8	Proposed	-	3.8	-
2	Balasinor	6.5	Proposed	-	6.5	-
3	Songadh	4.5	Proposed	-	4.5	-
4	Bharuch	29.3	Under Construction	-	-	29.3
5	Ankleshwar	14	Proposed	-	-	14
6	Valsad	20.2	Under Construction	-	-	20.2
7	Pardi	4.6	Proposed	-	-	4.6
8	Vapi	14	Under Construction	-	-	14
9	Morbi	38.1	Under Construction	-	-	38.1
10	Thangadh	9	Proposed	-	-	9
11	Gandhidham	30	Existing	23	-	-
12	Anjar				-	-
Total		174		23	14.8	129.2

Gandhidham and Anjar

Gandhidham and Anjar are two well developed towns in Kutch district of Gujarat state. The population in Gandhidham is 3.5 lacs and that in Anjar is 1.1 lacs.

Around 49 MLD of fresh water is consumed by Gandhidham and 15.4 MLD of water is used by Anjar.

Underground drainage network is laid by Gandhidham Municipality and Anjar Municipality in their respective areas.

Arrangement for lifting waste water from pumping station of Gandhidham municipality and lifting from oxidation pond of Anjar municipality is made by private industry M/s. Wellspun Company which has constructed and commissioned 30 MLD STP at Varshamedi (about 7 km from Anjar) in 2016. The O&M cost and pumping cost is borne by M/s Wellspun Company.

Wellspun Company utilizes 23 MLD of treated waste water for Industrial purpose. It pays Rs 0.40/Kilo litre to the municipal bodies based on quantity lifted. There is an agreement for 30 years.

Pethapur

Concept of Project: To reuse treated waste water from proposed 3.8 MLD STP for Thermal Power Plant

Name of Project: Design, engineering, supply, construction, testing and commissioning 3.8 MLD STP including development of transmission and distribution network and associated infrastructure on PPP basis including comprehensive operation & maintenance for 15 years thereafter at Pethapur, Gujarat

Location: Pethapur, Gujarat

Stakeholders: GWSSB, Nagarpalika & Concessionaire

User details:

Sl. No.	Unit	Quantity (MLD)
1	Thermal Power Station - Gandhinagar	3.8

Broad components of work:

- Construction of 3.8 MLD STP
 - Treatment Process: based on Open Technology
 - Plant Design Value (TWW quality): BOD<10 ppm
TSS<10 ppm
- Construction of Storage sump and Pumping station near proposed STP
 - 1.9 ML storage sump has been proposed along with pump house to store the treated sewage water
 - Proposed pump house along with HSCF type pumps
- Laying of 03 KM 300mm DI K7 Grade rising main to convey 3.8 MLD treated waste water from STP to door step of users.
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 7.72 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, GWSSB shall provide Capital Grant of Rs. 6.43 Cr for the Project

Approval: Approved in the 2nd State Level High Power Committee (SHPC) dated 14/05/2019 and 2nd State Level Technical Committee (STC) dated 02/11/2018.

Current Status: Tender for the project is online

Balasinor

Concept of Project: To reuse treated waste water from proposed STP for Wanakbori Thermal Power Plant

Name of Project: Design, engineering, supply, construction, testing and commissioning 6.5 MLD STP including development of transmission and distribution network and associated infrastructure on PPP basis including comprehensive operation & maintenance for 15 years thereafter at Balasinor, Gujarat

Location: Balasinor, Gujarat

Stakeholders: GWSSB, Nagarpalika & Concessionaire

User details:

S. No.	User	TTW Allocation (MLD)
1	Thermal Power Station - Wanakbori	6.5

- **Construction of 6.5 MLD STP**

- Treatment Process: based on Open Technology
- Plant Design Value (TTW quality): BOD<10 ppm
TSS<10 ppm

- **Construction of Storage sump and Pumping station near proposed STP**

- 3.25 ML storage sump has been proposed along with pump house to store the treated sewage water.
Proposed pump house along with HSCF type pumps

- Laying of 10.5 KM DN 400mm DI K9 Grade rising main to convey 6.5 MLD treated waste water from STP to door step of users.
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 22.74 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, GWSSB shall provide Capital Grant of Rs. 9.87 Cr for the Project

Approval: Approved in the 2nd State Level High Power Committee (SHPC) dated 14/05/2019 and 2nd State Level Technical Committee (STC) dated 02/11/2018.

Current Status: Tender for the project is online

Songadh

Concept of Project: Reuse of TWW from Proposed 4.5 MLD STP at Balasinor in J.K. Paper Mills Ltd.

Name of Project: Design, engineering, supply, construction, testing and commissioning 4.5 MLD STP including development of transmission and distribution network and associated infrastructure on PPP basis including comprehensive operation & maintenance for 15 years thereafter at Songadh, Gujarat

Location: Songadh, Gujarat

Stakeholders: GWSSB, Nagarpalika & Concessionaire

User details:

Sl. No.	User	TWW Allocation (MLD)
1	J.K. Paper Mills Ltd.	4.5

Broad components of work:

- Construction of 4.5 MLD STP
 - Treatment Process: based on Open Technology
 - Plant Design Value (TWW quality): BOD<10 ppm
TSS<10 ppm
- Construction of Storage sump and Pumping station near proposed STP
 - 2.25 ML storage sump has been proposed along with pump house to store the treated sewage water. A
 - Proposed pump house along with HSCF type pump
- Laying of 10 KM 350mm DI K9 Grade rising main to convey 4.5 MLD treated waste water from STP to door step of users.
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 13.85 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, GWSSB shall provide Capital Grant of Rs. 7.63 Cr for the Project

Approval: Approved in the 2nd State Level High Power Committee (SHPC) dated 14/05/2019 and 2nd State Level Technical Committee (STC) dated 02/11/2018.

Current Status: Tender for the project is online

Other than these Projects, Reuse of TWW in following municipalities have been identified:

1. Bharuch
2. Ankleshwar
3. Valsad
4. Pardi
5. Vapi
6. Morbi
7. Thangadh

The feasibility study and preparation of project reports of these projects is under progress by consultant M/s Infrastructure Development Corporation Karnataka (iDeCK).

No.:GPCB/P-3-200/522840)

27 SEP 2019.

To,
The Chairman
Central Pollution Control Board
Parivesh Bhavan
East Arjun Nagar
Delhi-110032

Subject: Submission of action plan for Gujarat State for utilization of treated sewage.

Ref.:(1) Hon'ble NGT order dated:27/11/2018,in OA No: 148 of 2016 (M.A. No: 686/2017)

(2) CPCB DO No.A-14011/1/2019/UPC-I/15540 dated:16/01/2019

(3) CPCB letter File No.A-14011/1/2015- Mon/4219 dated:16/07/2019

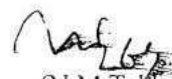
(4) GWS&SB letter No. PB/Urban cell/TWW/411 dated: 22/08/2019

Respected Sir,

With reference to above subject, please find the action plan regarding utilization of treated sewage in state of Gujarat with compliance to Hon'ble National Green Tribunal Order dated 27/11/2018 in O.A.No. 148 of 2016 (M.A. No: 686/2017) submitted by Gujarat Water Supply & Sewerage Board, Gandhinagar.

This is for your kind perusal and further necessary actions.

Thanking you.


(N.M. Tabhani)
Member Secretary

Encl: Action plan for utilisation of treated sewage of Gujarat state.

Copy to:

- 1) PS to Chief Secretary,
Block No.:1, 5th Floor,
New Sachivalaya,Gandhinagar....Kindly bring to the notice of Hon'ble CS please.
- 2) Zonal Officer
Central Pollution Control Board,
Parivesh Bhavan,Subhanpura,Vadodara....For your kind information please.

o/c 



G. P. C. Board
M. S. OFFICE
Inward No: 3549
Date: 4-9-95

कन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

File No: A-14011/1/2019-Mon 7698

Dated: 07/10/2019

To,

The Member Secretary
Gujarat Water Supply and Sewerage Board
Jalseva Bhavan Sector 10-A, Chh-Road
Opp Air force Hq, Gandhinagar- 382010

Inward No. 542644
19 OCT 2019
54-8873

Subject: In the matter O.A no 148/2016 (M.A No 168/2017) titled Mahesh Chandra Saxena Vs SDMC & Ors

Reference:

- 1-Directions of Hon'ble NGT vide orders dated 27/11/2018, 10/05/2019, and 11/09/2019 in above subject matter.
- 2-Our D.O Letter No A14011/1/2019-UPC-I/15434-469 dated 16/01/2019
- 3- Letter no GPCB/P-3-200/517106 dated 06/08/2019

Sir,

With reference to above, this is to inform that CPCB has received action plan on utilization of treated waste water and same was examined. Comments on action plan are enclosed for your kind reference please. Hon'ble NGT vide order dated 11/09/2019 further directed as follows (copy enclosed):

"The States/UTs which have not yet furnished their action plans may do so on or before 30.11.2019, failing which defaulting States/UTs will be liable to pay compensation @ of Rs. 1 Lakh per month till action plans are filed. The States/UTs which have furnished the action plans may remove the deficiencies noticed above by 30.11.2019, failing which they will be liable to pay compensation @ of Rs. 1 Lakh per month."

It is, therefore, requested that comments on action plan may consider and to submit revised action plan by 30/11/2019 so that same may submit to Hon'ble NGT before 30/12/2019.

ecy (WS)

Enclosure: As above

S (FM)

ecy (WR)

CS (F&E)

Copy to:

The Chief Secretary,
Government of Gujarat,
5th Floor, Block No. 1,
Sardar Bhavan Sachivalaya,
Gandhinagar, Gujarat

: For kind information and follow up please

Yours faithfully

[Divya Sinha]
DH-UPC-I

[Divya Sinha]

IS, GPCB

GUJARAT

Sl. No.	ACTION POINT	REMARKS	COMMENTS
1.	Estimate Present and Projected Sewage Generation and Treatment Capacity.	Present volume of fresh water used: 3, 627 MLD, Present Sewage Treatment: 2,311(64%).	Projected sewage generation and treatment capacity is missing and need to be provided.
2.	Identify bulk users of Water: Industrial Clusters, Metro Rail, Indian Railways, Infrastructure Projects, Agriculture, Bus Depots and PWD.	Proposed to use in Thermal Power Plants, Industrial Units, Construction activities, Agriculture etc.	Explore more possibility to reuse wastewater by bulk users as per point no 2, 3, 4, and 5
3.	Quantify their potential Water demand of above identified bulk user of water	Missing data yet to be added	
4.	Development of Dead Water Aquatic Sources (Lakes, Pond, etc.)	Rejuvenation of Ponds, Lakes, Rivers etc.	
5.	Time line for establishing such infrastructure (Treatment, Conveyance and Utilization of Treated Sewage)	Ultimate goal of reusing treated waste water fully by 2030.	
6.	To promote use of treated waste water for various usages.	Agriculture, Toilet flushing, car washing, Construction activities, Maintenance of parks, gardens, urban landscaping etc.	
7.	To promote supply of treated sewage into industrial cluster.	Industries within 30km of a STP should use treated water in place of fresh surface/ground water.	To explore possibility as per suggestion at point no. 8
8.	Industrial clusters can set up treatment facility to meet their raw water requirement instead of drawing ground water.	Missing data yet to be added	

Item No. 07

Court No. 1

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

Original Application No. 148/2016
(M.A. No. 686/2017)

Mahesh Chandra Saxena

Applicant(s)

Versus

South Delhi Municipal Corporation & Ors.

Respondent(s)

Date of hearing: 27.08.2019

Date of uploading of order: 11.09.2019

**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**

ORDER

1. Utilization of treated waste water from Sewage Treatment Plants (STPs) is the issue for consideration. In absence of a proper and elaborate plan, fresh water is being used for purposes for which treated water could alternatively be used. Delhi is an urbanized city state having a population of about 20 millions which is expected to increase to 23 million by the year 2021. Present total water requirement for domestic purposes for population of 20 million is 60 GPCD works out to 1200 MGD. Present average potable water production by Delhi Jal Board is about 936 MGD and includes about 80-85 MGD of ground water. Thus, there is a gap of 204 MGD. Only 81.3 households have piped water supply. Reuse of water both in domestic and industrial sectors is essential. Around 150 billion liters

of sewage water is produced in India annually. 70% of Singapore drinks treated sewage water.¹ There appears to be no satisfactory plan with any of the States/Union Territories (UTs) in the country. This Tribunal monitored the matter with reference to the NCT of Delhi for more than two years and passed several orders.

2. Finally, on 27.11.2018, the Tribunal considered the report of the Delhi Jal Board (DJB) dated 16.11.2018 to the effect that 460 MGD waste water was being treated but reuse of such water was not being ensured.
3. As per CPCB's report 2016², 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-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. To remedy this situation orders have been passed by the Hon'ble Supreme Court as well as this Tribunal³ directing 100% treatment of the sewage and industrial effluents by installing requisite ETPs/CETPs/STPs. Proper utilization of treated water has implications not only to save potable water but also to prevent illegal extraction of groundwater and conservation of water bodies. Timelines have been laid down for ensuring treatment of sewage and effluents for preventing pollution of river Ganga⁴ as well as other

¹ Second interim report dated 31.07.2019 of Monitoring Committee constituted under O.A. No. 496/2016.

² <http://www.sulabhenvs.org.in/Databasr/STPs%20wastewater%20cases> July 16, updated on December 6, 2016

³ Paryavaran Suraksha Samiti Vs. Union of India, (2017) 5 SCC 326

⁴ Paryavaran Suraksha Samiti Vs. Union of India, O.A. No. 593/2017 order dated 28.08.2019

⁵ O.A. No. 200/2014

polluted river stretches which will result in more treated water being available.

4. Having regard to the necessity to ensure utilization of treated waste water to reduce pressure on the ground water resources throughout the country, the Tribunal directed all the States/UTs in India to prepare and furnish their action plans within three months to the Central Pollution Control Board (CPCB) so that CPCB could review the same and issue further directions.
5. Report dated 01.05.2019 furnished by the CPCB was considered by this Tribunal on 10.05.2019 and it was noted that some of the States did not furnish their action plans and the action plans furnished by some of the States needed improvements. The Tribunal directed that the States/UTs which have not yet furnished their action plans may do it by 30.06.2019 and such action plans may have monitoring mechanism for coordination with the local bodies which will be the responsibility of the Chief Secretaries of the States/UTs.
6. The Tribunal observed:

"7. It is well known that absence of plan for reuse of treated water affects recharge of ground water and also results in fresh water being used for purposes for which treated water can alternatively be used. Proper plans for reuse of waste water can add to availability of potable water which is many times denied this basic need or has to travel long distances to fetch clean water. This being a substantial question of environment, direction is issued to the States/UTs which have not yet submitted their action plans to do so latest by 30.06.2019, failing which the Tribunal may have to consider coercive measures, including compensation for loss to the environment. The plans may include a monitoring mechanism in the States for coordination with the local bodies. This will be the responsibility of the Chief Secretaries of all the States/UTs.

8 The issue is also connected with the rejuvenation of 351 river stretches. The States/UTs may include this subject in the deliberations with the Central Monitoring Committee constituted in terms of orders dated 08.04.2019 in O.A. No. 673/2018, News item published in The Hindu authored by Shri Jacob Koshy titled More river stretches are now critically polluted CPCB and order dated 24.04.2019 in O.A.606/2018, Compliance of Municipal Solid Waste Management Rules, 2016. The Chief Secretaries may also include this subject in their reports to this Tribunal in pursuance of orders passed in O.A. No. 606/2018 on 16.01.2019 and further orders in their presence.

9. The CPCB may place on its website guidelines for preparing an appropriate plan within two weeks from today and also furnish its final report after analysis of gaps in the plans by 31.07.2019 by e-mail at ngt.filing@gmail.com."

7. In respect of Delhi, this Tribunal noted the stand of the DJB that Municipal Corporations and the BDA may lift the treated water by tankers till the pipelines are laid for which time bound plans have been prepared and included in the action plan submitted to the CPCB. On this aspect, it was directed:

"10. ...
We understand that about 100 MGD of treated water is not being effectively used by DJB out of the total 459 MGD. This is a colossal waste of our precious natural resources and cannot be tolerated. The same has been pointed out in the report submitted by Chief Secretary Delhi, Municipal Corporations and BDA by way of intersectoral coordination. We also direct that laying of pipelines be expedited in a time bound manner and revised plan to this regard be submitted which is duly vetted and ratified by CPCB."

- 8 As per the Monitoring Committee on Yamuna, a flat recovery rate towards collection and treatment of sewage can be an option towards viable sewage management.

"A strong direction is needed to be given in order to make everyone pay a flat rate for sewage collection and treatment whether using below or upto 20 KL, as those using more than 20 KL in any case are paying for sewage treatment. The DJB charges Rs. 11.93 per KL for the sewage it treats on behalf of NDMC and the Cantonment Board. A specialized institution like the National Institute of Financial Policy & Planning or the C&AG may be directed to examine the costs involved and revenue generated as

it is leading to mindless pollution of the environment and depletion of ground water".

9. Accordingly, further report has been furnished by the CPCB on 31.07.2019 to the effect that guidelines have been prepared for utilization of treated sewage from the STPs and uploaded on the website of CPCB on 24.04.2019. 23 States/UTs have furnished their action plans but 13 States/UTs have yet to submit. The action plans of 23 States/UTs needed further improvements. 'Major observations and shortcomings' are mentioned as follows:

- "1. Action plan received from State of Andhra Pradesh, Madhya Pradesh and NCT of Delhi has mentioned schemes for utilization of treated sewage in different sectors like horticulture, Metro washing, Power Plants, Construction activity, rejuvenation of water bodies (Pond/lakes), industrial sectors. Action plan also include fixed timelines for implementation of various schemes.*
- 2. Action plan of Delhi covers all aspects as per suggested action plan. However, treated water demand from bulk users like DDA, PWD, CPWD, DMCs, DMRC are comparative on lower side and same need to be enhanced. Chief Secretary may take up said matter with bulk users to increase the utilization of treated sewage. Option of restricted uses of bore wells by said stakeholders may explore to compel more demand of treated sewage.*
- 3. Public Health Engineering Department, Manipur mentioned that they do not have any specific policy of utilization of treated wastewater from STPs*
- 4. Union Territory of Lakshadweep has mentioned that no STPs was installed in their territory and no action plan was provided*
- 5. Department of Urban Development and Municipal Affairs vide letter dated 29.04.2019 requested for extension of 02 months (June, 2019) for submission of action plan. However, no action plan has been received till date.*
- 6. State of Gujarat has only submitted action plan related to Surat city which indicate use of treated sewage for industrial purpose.*
- 7. Only three states have adequate capacity for sewage treatment - Himachal Pradesh and Chandigarh.*
- 8. Utilization of treatment in industrial sector has been indicated by few states (Andhra Pradesh-Steel, Thermal Power Plant and Oil Refinery), Chhattisgarh & Odisha (Thermal Power Plant). Surat and Daman have indicated reuse of treated waste water in industrial clusters*

9. *In most of the remaining states/UTs, Utilization of treated sewage has been indicated in activities like Horticulture and Irrigation. Other potential users of treated sewage like Industrial Clusters, Metro Rail, Indian Railways, Infrastructure Projects, Agriculture and Bus Depots have not been explored*
10. *Projection of future Sewage Generation and Treatment Capacity has not been done and same has not been taken into consideration in the utilization plan.*
11. *Timelines for implementation of proposed schemes have not been indicated.*

Some of the salient features of the guidelines which highlight suggestive actions for formulation of action plan for usage of treated waste water from sewage treatment plants are as follows:

1. *Estimate Present and Projected Sewage Generation and Treatment Capacity.*
2. *Identify bulk users of Water: Industrial Clusters, Metro Rail, Indian Railways, Infrastructure Projects, Agriculture, Bus Depots and PWD*
3. *Quantify their potential Water Demand.*
4. *Development of Dead Water Aquatic Sources (Lake, Pond etc).*
5. *Time line for establishing such infrastructure (Treatment, Conveyance and Utilization of Treated Sewage).*
6. *To promote use of treated waste water for various usage.*
7. *To promote supply of treated sewage to industrial clusters*
8. *Industrial clusters can set up treatment facility to meet their raw water requirements instead of drawing groundwater.*
9. *Maximizing re-use of treated effluents to reduce the dependence on groundwater abstraction.*

The States/UTs must submit their Action Plans to CPCB in terms of timelines and measurable indicators with regard to utilization of treated sewage water and institutional set up in the States/UTs validating the use of treated water in terms of its safety to human health and environment

10/5/20

10. This Tribunal has held that standards of Faecal coliform need to be adhered to by the STPs so that treated sewage water can be safely utilized⁶.
11. In view above, we direct that the States/UTs which have not yet furnished their action plans may do so on or before 30.11.2019, failing which defaulting States/UTs will be liable to pay compensation @ of Rs. 1 Lakh per month till action plans are filed. The States/UTs which have furnished the action plans may remove the deficiencies noticed above by 30.11.2019, failing which they will be liable to pay compensation @ of Rs. 1 Lakh per month. The compensation may be deposited with the CPCB which may be used for restoration of the environment.
12. The CPCB may furnish a consolidated report on or before 31.01.2020 by e-mail at judicialnbg@gov.in. Information about the quantity of sewage generated and treated may also be furnished. The Chief Secretaries of the concerned States/UTs may monitor compliance of the order.

Copy of this order need to be sent to Chief Secretaries of States and Administrators in UTs by e-mail for compliance. It would also be appropriate if it is sent to Ministry of Jal Shakti.

List for further consideration on 21.05.2020.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

September 11, 2019
Original Application No. 148/2015
DV



Tushar M. Dholakia, IAS
Member Secretary

Gujarat Water Supply & Sewerage Board

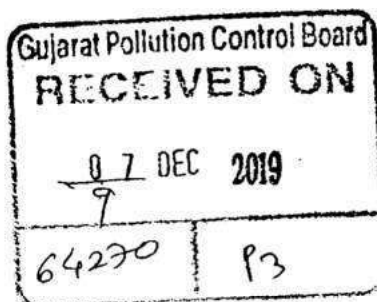
(A Government of Gujarat Undertaking)

"Jalseva Bhavan", Sector 10-A, Chh-Road,
Opp. Airforce HQ, Gandhinagar 382 010.
Phone : 079-23222417, 23251049 # Fax : 079-232-51086
E-mail : msgwssb@gmail.com
Website : www.gwssb.gujarat.gov.in

No. PB/Urban Cell/TWW/Action Plan/ 630

Date: 29/11/2019

To,
The Chairman
Central Pollution Control Board
"Parivesh Bhavan", East Arjun Nagar,
Delhi - 110032
Tel.: +91 - 11-22307233
Email: ccb.cpcb@nic.in



Sub: Submission of Revised Action Plan for Gujarat State for Utilization of Treated Waste Water

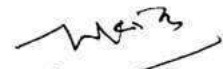
- Ref.: (1) Letter from The Member Secretary, Gujarat Pollution Control Board;
no. GPCB/P-3/20/526501; dated 09/11/2019
(2) Letter from CPCB No. A-14011/1/2019-Mon 7698; dated 07/10/2019
(3) Letter from this office; no. PB/Urban Cell/TWW/411; dated 22/08/2019

The Action Plan for Utilization of Treated Sewage Water for the State of Gujarat was submitted to your office vide letter under reference (3); subsequent to which; after examining the Action Plan by your office; certain comments have been raised for compliance vide letter under reference (2). Following which, a letter from the Member Secretary, GPCB under ref. (1) is received here; wherein it is requested to furnish the revised action plan for utilization of treated sewage water in Gujarat, keeping in view the comments raised.

With respect to the letters under the above references, please find attached herewith the Compliance to the points raised by Hon. NGT / CPCB and the Revised Action Plan for Utilization of Treated Sewage Water for the State of Gujarat, incorporating the comments, for your further perusal.

Thanking you,

Encl.: - (1) Compliance to the comments
(2) Revised Action Plan


Member Secretary
Gujarat Water Supply and
Sewerage Board

Copy respectfully submitted to:

1. Hon. Chairman, Gujarat Water Supply and Sewerage Board
- ✓ 2. The Member Secretary, Gujarat Pollution Control Board

 9/12/19

Revised Action Plan for Reuse of Treated Waste Water in the State of Gujarat

Preamble: -

Water is a critical resource for social and economic development of any region besides being elixir of life. Water resources are getting depleted due to adverse changes in climatic conditions, scanty and erratic rainfall, increasing industrialization, population growth, exploitation of ground water, increasing demand for domestic purposes etc. This problem is getting amplified due to uneven natural distribution (availability) of water resources in different regions of the state mainly due to diverse topography.

Need: -

Looking at the present stress on water resources and its distribution, the Government of Gujarat is looking at augmenting the existing sources of water in the state, as well as looking for new sources. The treated waste water(TWW) produced by treating municipal sewage can provide a reliable source of water. Hence, there is an ardent need to adopt new perspective towards municipal waste water and its reuse.

Provision of water from local sources as well as usage of treated waste water will help minimize the transportation of water, thereby increasing overall efficiency of the water distribution and its utilization.

Also, discharge of untreated or partially treated waste water onto open land, lakes, ponds or rivers may have negative impacts on the environment and public health. If such water percolates into the ground and mixes with the ground water, it will pollute the natural sources of ground water and cause a hazard to health.

Policy for Reuse of Treated Waste Water: -

The Government of Gujarat has launched the Policy for Reuse of Treated Waste Water on 28th May 2018. The main objective of the policy is maximizing sewage collection, treatment of the collected waste water and reuse of the treated waste water; thereby reducing dependency on fresh water resources and to promote treated waste water as an economic resource.

The policy lays a time-bound and systematic plan with an ultimate goal of reusing Treated Waste Water fully by 2030.

Vision: -

The policy envisions maximizing the collection and treatment of sewage generated, and reusing the treated waste water on a sustainable basis, thereby reducing dependency on fresh water resources; and to promote treated waste water as an economic resource.

Objectives: -

- To reach minimum 80% coverage and collection of sewage in all municipal towns.
- To reach a level of 100% treatment of collected sewage as per the prescribed standards.
- To reuse at least 25% of total fresh water consumption from TWW within the time limit set under policy by every municipal body.
- To reuse 70% of TWW by 2025.
- To reuse 100% of TWW by 2030.

Users: -

Thermal Power Plant

- It shall be mandatory for all the Thermal Power Plants within a distance of 50 km from the STP or city limits to use TWW.

Industrial Units

- It shall be mandatory, for all Gujarat Industrial Development Corporation (GIDC) estates, all industrial units in Special Investment Region (SIR), Industrial parks and large industrial units which are consuming minimum one lakh litre of fresh water per day for non-potable purpose, and which are situated within 50 km distance from STP or city limits to use TWW.
- However, it shall not be mandatory to use TWW wherever it comes in direct contact with human beings or is used in processes resulting in products for human consumption.

Construction activities

- Provide facility for filling tanker with TWW to construction sites on payment.
- Lay special supply lines for TWW in developing areas, if found feasible.
- Large Commercial or Institutional users
- Lay TWW pipeline to business district having large number of such users.
- It shall be mandatory for such users to use TWW for the purpose of flushing, watering green areas, water for fire hydrants etc. on availability of TWW.

Municipal uses

- Maintenance of parks and gardens and developing urban landscaping.
- Rejuvenation of ponds, lakes and rivers.
- Supplying water for emergency purposes like fire brigade etc.

Other non-potable use

- Any other user for non-potable use found in local context

Agriculture/Irrigation

- TWW can be used for agriculture/Irrigation purposes provided surplus water is available after above mentioned uses

Potable Use: -

Considering social sensitivities and the public perception towards treated waste water, presently it shall not be used for potable purposes and uses which involve direct human contact. However,

in future with the increase in water demand, advancement in treatment technology, competitive rates and change in public perception, TWW may be used for potable purposes.

Allocation of TWW: -

Keeping in view the availability of TWW, SHPC shall allocate water – TWW or fresh water to the user. Within a period of one year from allocation of TWW, existing fresh water supply shall be discontinued for users.

Project: -

Projects for Reuse of TWW shall be made based on profile of user and local body. SHPC will give in principal approval to projects.

Governance arrangement: -

State level High Power Committee (SHPC)

Apex body to take decision regarding implementation of the policy and project approval, TWW price determination, allocation of water, financial and management structure of the project, etc.

State level Technical Committee (STC)

Shall provide technical approval of projects, finalize formats of project agreements, monitor projects execution, lay guidelines for O&M etc.

TWW Cell

- Headed by officer of Chief Engineer level.
- Preparation of DPR, Providing secretarial assistance to STC/SHPC and project co-ordination and execution.
- MIS, Capacity Building, Research & Development, IEC activities and public awareness

Benefits: -

Use of treated waste water will generate a new revenue stream for local bodies which will ensure that operation of STP can be undertaken on financially sustainable basis.

The details of total fresh water consumption, waste water generation and as well as current and proposed waste water treatment capacity across the municipal corporations and municipalities across the state of Gujarat are tabulated below:

Sr. No.	Particulars	Fresh water Used in MLD	Waste water generated (MLD)	Waste water Treated (MLD)	Existing STP		Under construction/ Proposed STPs	
					No.	Capacity (MLD)	No.	Capacity (MLD)
Municipal Corporations								
1	Ahmedabad	1,250	960	712	8	818	7	448
2	Surat	1,241	925	923	11	1,072	5	583
3	Vadodara	500	409	295	8	355	5	166
4	Rajkot	300	170	115	5	237	2	95
5	Gandhinagar	70	41	41	3	90	-	-
6	Bhavnagar	127	85	55	2	55	2	70
7	Junagadh	25	37	-	-	-	1	8
8	Jamnagar	105	63	63	1	70	-	-
A	Sub - Total	3,618	2,690	2,204	38	2,697	22	1,370
Municipalities								
B	162 Nos. of STPs in 152 Nos. of Municipalities	1,500	1,163	190	17	223	145	1,189
Total (A + B)		5,118	3,853	2,394	55	2,920	167	2,559

Keeping in view the wastewater generation and treatment scenario as mentioned above, several projects for reuse of treated waste water across the state have been identified; the details of which are as follows.

Details of Reuse of Treated Waste Water in Municipal Corporations

After the Government launched the Policy for Reuse of Treated Waste Water, 8 (eight) municipal corporations of the state have furnished detailed information regarding the waste water generation, collection and prospects of its reuse. Following are the details of the municipal corporations, as per the pre-feasibility carried out:

Sr. No.	Municipal Corporation	Generation of Treated Effluent		Under construction/Planned Effluent		TWW reuse started (MLD)	TWW reuse projects under stage (MLD)	TWW reuse under planning (MLD)
		No.	Capacity (MLD) (2030)	No.	Capacity (MLD) (2020)			
1	Ahmedabad	8	818	7	448	-	-	368 (Industries, Gardens)
2	Surat	11	1,072	5	583	40 (Industry)	-	615 (Industries)
3	Vadodara	8	355	5	166	-	60 (Industries)	42 (Industries)
4	Gandhinagar	3	90	0	0	3-5 Current usage from 10 MLD STP (Gardens, Sachivalay)	50 Thermal Power Plant)	-
5	Jamnagar	1	70	-	-	-	70 (Industries)	-
6	Bhavnagar	2	55	2	70	10-15 Current usage from 45 MLD STP (Thermal Power Plant)	-	-
7	Rajkot	5	237	2	95	-	-	-
8	Junagadh	0	0	1	8	-	-	-
Total		38	2,697	22	1,370	90	180	1,025

Bhavnagar Municipal Corporation

The project of Reuse of 45 MLD Treated Waste Water in Bhavnagar Thermal Power Plant (Bhavnagar Energy Company Limited, BECL) has commissioned from 03/05/219. Currently 10-15 MLD treated waste water is being reused.

Bhavnagar is fifth largest city of Gujarat. The Municipal Corporation has present population of @ 6.80 lacs, the fresh water supplied is @ 130 MLD. It generates sewage around 81 MLD.

Out of generated sewage, two STPs are put in working condition in the year 2018 having capacity of 75 MLD (45 MLD + 30 MLD).

45 MLD STP is situated in the eastern part of Bhavnagar city. At present 40 MLD waste water is treated in this plant which is based on SBR (sequential batch reactor) technology.

It was planned to reuse treated sewage water for cooling purpose of Lignite based Thermal Power Plant by BECL Plant situated at Padva Village which is 28 Km away from Bhavnagar. Bhavnagar Energy Company Limited is now known as Gujarat State Electricity Corporation Limited (GSECL). It requires 40 MLD treated sewage water for their cooling tower. BMC has already laid 13.5 km, 800 mm Ø rising main pipeline up to sump near Budhel. There are two stages of pumping. One at 45 MLD STP Plant & another at – sump at Budhel. BMC has laid pipeline at the cost of BECL, of cost RS. 26 Cr and also established pumping station at 45 MLD STP site where as other pumping near Budhel is about to be completed under the supervision of BECL.

The treatment cost of sewage water at BMC STP Plant outlet is approx. Rs. 3.6 per KL (which includes only O & M and Electric consumption) whereas total treatment cost is about Rs. 9.61 per KL (which includes O & M, Electric consumption and Expenditure for fuel in collection of sewage).

BMC shall sell treated sewage water at the rate of Rs. 17 per KL and will get Rs. 17000 per ML. i.e. Rs. 6.80 lacs per day (This is based on the maximum requirement of BECL 40 MLD per day). Thus yearly income is assumed to be up to Rs. 25 crores which is quite important for BMC. At the same time this will lead to saving of potable water to the tune of 40 MLD.

The commissioning of the conveyance main is in final stage; Hydro test is already performed. Pumping machinery trial is also performed.

This is the success story in the field of "Best from waste" for BMC.

Jamnagar Municipal Corporation

Concept of Project: To reuse treated waste water from proposed 70 MLD STP in various industries

Name of Project: Refurbishment of Existing Sewage Treatment Plant, Development of Transmission & Distribution Network and Associated Infrastructure on PPP Basis

Location: Jamnagar, Gujarat

Stakeholders: Jamnagar Municipal Corporation (JMC), GWSSB & Concessionaire

User details:

Sr. No.	User	TWW Allocation (MLD)	
		2019	2023
1	Essar Power	11	18
2	GSFC	14	37
3	Essar Oil	06	09
4	Thermal Power Station - Sikka	04	04
5	Reliance Industries Ltd.	15	32

Broad components of work:

- Renovate / modify existing STP
 - Treatment Process: Sequential Batch Reactor (SBR)
- Construction of 35 ML Storage sump and Pumping station near existing STP
- Laying of 29 KM DN 1000mm DI K9 Grade rising main to convey 70MLD treated sewage water from existing JAMNAGAR STP to 35ML Sump at Moti Khavdi (near GWIL HWs).
- Transmission and distribution network up to door step of users
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 122 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, the share of Government would be 60% which shall be given from the fund of the GWSSB. Thereafter STC decided that GWSSB shall provide Capital Grant of Rs. 70 Cr for the Project

Approval: Approved in the 1st State Level High Power Committee (SHPC) dated 21/06/2018 and 1st State Level Technical Committee (STC) dated 31/08/2018.

Current Status: Tender has been approved recently.

Gandhinagar Municipal Corporation

Concept of Project: To reuse treated waste water from proposed 60 MLD STP (50 MLD New and 10 MLD Existing) for Thermal Power Plant

Name of Project: Construction of 50 MLD New STP and refurbishment of Existing 10 MLD STP, Development of Transmission & Distribution Network and Associated Infrastructure on PPP Basis

Location: Gandhinagar, Gujarat

Stakeholders: Gandhinagar Municipal Corporation(GMC), R&B, GWSSB &Concessionaire

User details:

Sr. No.	User	TWW Allocation (MLD)	
		2019	2023
1	Thermal Power Station - Gandhinagar	45	49
2	Sachivalay / Garden	7	7

Broad components of work:

- Construction of new 50 MLD STP and refurbishment of existing 10 MLD STP to achieve BOD $\leq$ 10 PPM, TSS $\leq$ 10 PPM &TN $\leq$ 10 PPM
 - Treatment Process of existing STP: Sequential Bio Reactor (SBR)
- Construction of Storage sump and Pumping station near STP
 - 4 MLD storage sump has been proposed along with pump house to store the treated sewage water.
 - Proposed pump house along with HSCF type pump
- 10 KM DN 800mm DI K9 Grade rising main is proposed to convey treated sewage water from STP to Thermal power plant.
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 52 Cr

Implementation: Hybrid Annuity Model (HAM)

As per decision of the SHPC, the share of Government would be 60% which shall be given from the fund of the GWSSB. Thereafter STC decided that GWSSB shall provide Capital Grant of Rs. 50 Cr for the Project

Approval: Approved in the 1st State Level High Power Committee (SHPC) dated 21/06/2018 and 1st State Level Technical Committee (STC) dated 31/08/2018.

Current Status: Tender has been approved recently.

Ahmedabad Municipal Corporation

Following Projects have been identified and submitted by Ahmedabad Municipal Corporation:

No.	Project Description	Project Capacity (MLD)	Estimated Project Cost (Rs. Cr)
1	Reuse of secondary treated wastewater in Torrent Thermal Power Plant, Sabarmati from 60 MLD STP at Jalvihar, Vadaj	25	6.24
2	Reuse of secondary treated wastewater through decentralized STPs in Gardening and other secondary uses	12-15	62.40
3	Sale of Raw Sewage to Industries (Arvind Ltd.)	8 (raw sewage)	25
4	Reuse of secondary treated wastewater in Dholera SIR from 240 MLD STP at Vasna	150	600
5	Reuse of secondary treated wastewater in Ahmedabad Textile Processors Association (ATPA) in Narol Industrial cluster from 60 MLD and 106 MLD STPs at Pirana	110	200
6	Reuse of secondary treated wastewater in agriculture through Fatehwadi Canal, Ahmedabad	449 (48 MLD is already being reused for agriculture)	80.50

Stakeholders: Ahmedabad Municipal Corporation (AMC), Ahmedabad Urban Development Authority (AUDA), GWSSB and Concessionaire/Agency

Current status: Detailed Project Reports are under preparation by Ahmedabad Municipal Corporation

Vadodara Municipal Corporation

Project - 1

Concept of Project: Reuse of treated sewage generated from the Rajivnagar STP for various industrial users

Name of Project: Reuse of Treated Waste Water in Vadodara City

Location: Vadodara, Gujarat

Stakeholders: GWSSB, Vadodara Municipal Corporation (VMC) & Concessionaire/Agency

User details:

Sr. No.	User	TWW Allocation (MLD)
1	Indian Oil Corporation Ltd. (IOCL)	40
2	Reliance Industries Ltd.	15-20

Broad Components of the Work:

- 15 ML storage sump has been proposed near the STP; along with a pump house. A detention time of 6 hours is considered.
- Chlorination system to disinfect the Treated Waste Water (TWW) before transmission
- 8 nos. of pumps (4 W + 4 SB) Horizontal Split Case Type Centrifugal gland packed pumps with enclosed impeller
- Rising Main from Rajivnagar STP to users:
 - 17.3 Km long 900 mm dia. rising main from Rajivnagar STP to IOCL junction
 - 500 m long 800 mm dia. rising main from IOCL junction to IOCL
 - 4.2 km long 600 mm dia. Rising main from IOCL junction to RIL

Estimated Cost: Rs. 65.72 Cr

Implementation: EPC + O&M for 15 years

Approval: Approved in the 2nd State Level High Power Committee (SHPC) dated 14/05/2018 and 3rd State Level Technical Committee (STC) dated 29/06/2018.

Current Status: In first attempt no bidder had participated. Further second attempt was made; and new Tender is in evaluation stage

Vadodara Municipal Corporation

Project-2

Concept of Project: Reuse of treated sewage generated from the Chhani STP for various industrial users

Name of Project: Reuse of Treated Waste Water in Vadodara City

Location: Vadodara, Gujarat

Stakeholders: GWSSB, Vadodara Municipal Corporation (VMC) & Concessionaire/Agency

User details:

Sl. No.		Proposed TWW Allocation (MLD)	
		Initial Demand	Final Demand
1	Gujarat State Fertilizer Company (GSFC)	23	32
2	Gujarat Alkalies & Chemicals Limited (GACL)	3	5
2	Gujarat Industries Power Company Ltd. (GIPCL)	3	5

Broad Components of the Work:

- Tertiary treatment based on Fiber Disc Filter, UF and RO
- 11 ML storage sump with two compartments has been proposed near the STP; along with a pump house. A detention time of 6 hours is considered.
- Chlorination system to disinfect the Treated Waste Water (TWW) before transmission
- Union of pumps (3 W + 3 S) Horizontal Split Case Type Centrifugal head packed pumps with enclosed impeller
- Rising Main from 50 MLD Chhani STP to users:
 - 5 km long 400 mm dia. rising main from Chhani STP to GSFC premises
 - 5.5 km long 800 mm dia. rising main from GSFC premises GACL premises
 - 4 km long 300 mm dia. rising main from GACL premises to GIPCL premises

Estimated Cost: Rs. 124.70 Cr

Approval: Approved in 3rd State Level Technical Committee (SLC) dated 29/06/2018.

Implementation: PPP/BOOT model

Vadodara Municipal Corporation will invest 40% while Concessionaire will infuse 60% of required capital to execute the project.

Current Status: The project has been approved in the 3rd State Level High Power Committee.

Surat Municipal Corporation

Project-1

Concept of Project: Reuse of treated sewage generated from the STP in Dindoli for various industrial users

Name of Project: Reuse of TWW from existing 66 MLD (under augmentation upto 167 MLD) STP in Dindoli in Industry.

Location: Surat, Gujarat

Stake Holders: GWSSB, Surat Municipal Corporation(SMC) & Concessionaire

User details:

Sr. No.	User	Proposed TWW Allocation (MLD)
1	Colourtex Pvt. Ltd.	40

Broad components of work:

- 1.3 km long 1,400 mm dia. gravity main from Dindoli STP upto Colourtex Pvt. Ltd.

Estimated Cost: Rs. 5.89 Cr

Implementation: Implementation model to be finalized

Approval: Approved in 3rd State Level Technical Committee (STC) dated 29/06/2018.

Current Status: The project has been approved in the 3rd State Level High Power Committee.

Surat Municipal Corporation

Project-2

Concept of Project: Reuse of treated sewage generated from the STPs in Bamroli cluster for various industrial users

Name of Project: Reuse of TWW from existing 162+100 MLD STPs and Proposed 115+115 MLD STPs in Bamroli Cluster in Industry.

Location: Surat, Gujarat

Stake Holders: GWSSB, Surat Municipal Corporation(SMC) & Concessionaire

User details:

Sr. No.	User	Proposed TWW Allocation (MLD)
1	Palsana Enviro Protection Ltd. (PEPL)	215

Broad components of work:

- 6 km long 1,829 mm dia. transmission pipeline to be laid to transfer TWW from Bhatar STP to Bamroli STP.
- 201 MLD TSTP (Fine filtration) near Bamroli STP
- 270 lac litre capacity service reservoir
- 26.22 km long 1829 mm dia. secondary treated water transmission main from Bamroli STP to PEPL, Palsana

Estimated Cost: Rs. 278.83 Cr

Implementation: Implementation model to be finalized

Approval: Approved in 3rd State Level Technical Committee (STC) dated 29/06/2018.

Current Status: Agenda for approval in 3rd State Level High Power Committee was submitted by Surat Municipal Corporation in the 3rd SHPC. As per instruction of SHPC, meetings with users are in progress.

Surat Municipal Corporation

Project-3

- Project:** Reuse of TWW from existing and Proposed STPs in Bhesan Cluster in various industries.
- Current Status:** Revised Detailed Project Report is under preparation by Surat Municipal Corporation. As per instruction of 3rd State Level Technical Committee, meetings with users are in progress.

Details of Reuse of Treated Waste Water in Municipalities

The possibility of reuse of Treated Waste Water in Municipalities has been explored and following Municipalities are identified for implementation of the reuse projects:

Sr. No.	Municipality	STP Capacity (MLD)	STP Status (Existing/Proposed/Under Construction)	TWW reuse already sanctioned (MLD)	TWW reuse project tender stage (MLD)	TWW reuse under planning (MLD)
1	Pethapur	3.8	Proposed	-	3.8	-
2	Balasinor	6.5	Proposed	-	6.5	-
3	Songadh	4.5	Proposed	-	4.5	-
4	Bharuch	29.3	Under Construction	-	-	29.3
5	Ankleshwar	14	Proposed	-	-	14
6	Valsad	20.2	Under Construction	-	-	20.2
7	Pardi	4.6	Proposed	-	-	4.6
8	Vapi	14	Under Construction	-	-	14
9	Morbi	38.1	Under Construction	-	-	38.1
10	Thangadh	9	Proposed	-	-	9
11	Gandhidham	30	Existing	23	-	-
12	Anjar				-	-
Total		174		23	14.8	129.2

1. *Journal of the American Medical Association*, 1997; 277: 1033-1037.

the District of Gujarat state. The
 2011 Census of India reported that

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1. **Administrative** – the Municipality in the role of the administrative authority, which is responsible for the implementation of the tasks assigned to it by the law, the Government of the Republic of Serbia and the City of Belgrade.

It is situated in the northern part of the Gandhidham municipality and is about 10 km from Gandhidham. The main industry is woolspinning. The village is situated on the Gandhidham-Morbi road about 7 km from Gandhidham. The village is situated in the Gandhidham Taluka.

10. It pays Rs 1000 per month for the first 10 months and Rs 1500 per month for the next 10 months. The interest rate is 10% per annum. What is the value of the contract?

Condition	Control (%)	MCI (%)	AD (%)
A	~85	~75	~55
B	~80	~70	~50
C	~85	~75	~55
D	~80	~70	~50

100% of the total suspended solids (TSS) and 100% of the total dissolved solids (TDS) are removed. The MLD STP for Thermal

3.8.1.1 **Manufacturing and commissioning** 3.8.1.2 **Installation and distribution network** 3.8.1.3 **Operation and maintenance** 3.8.1.4 **Decommissioning** 3.8.1.5 **Comprehensive**

1. *Journal of the American Medical Association*, 1997; 277: 1033-1036.

Fournisseur : ... **Revendeur / Importateur / Concessionnaire :**

1. *Chlorophyll a* and *Chlorophyll b* contents were determined by spectrophotometry using the method of Lichtenthaler and Whistler (1987). The absorbance of the chlorophyll extracts was measured at 663 nm and 646 nm. The concentrations of chlorophyll *a* and chlorophyll *b* were calculated using the following equations:

_____ **Signature (MLD)**

Abstract. The purpose of this study was to determine the effect of a 12-week training program on the heart rate variability (HRV) of young adults. The study was conducted in a laboratory setting. The participants were 20 young adults (10 males and 10 females) who were randomly assigned to two groups: a control group and an exercise group. The control group did not participate in any exercise program, while the exercise group participated in a 12-week training program. The HRV was measured using a heart rate monitor and a computer program. The results showed that the exercise group had a significant increase in HRV compared to the control group. The increase in HRV was observed in all parameters measured, including heart rate, standard deviation of normal-to-normal intervals (SDNN), and root mean square of successive differences (RMSSD). The findings suggest that a 12-week training program can improve HRV in young adults.

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1010 spectrophotometer.

[illegible]

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1. $\mathcal{A} = \{A_1, A_2, A_3, A_4, A_5, A_6, A_7, A_8, A_9, A_{10}, A_{11}, A_{12}, A_{13}, A_{14}, A_{15}, A_{16}, A_{17}, A_{18}, A_{19}, A_{20}, A_{21}, A_{22}, A_{23}, A_{24}, A_{25}, A_{26}, A_{27}, A_{28}, A_{29}, A_{30}, A_{31}, A_{32}, A_{33}, A_{34}, A_{35}, A_{36}, A_{37}, A_{38}, A_{39}, A_{40}, A_{41}, A_{42}, A_{43}, A_{44}, A_{45}, A_{46}, A_{47}, A_{48}, A_{49}, A_{50}, A_{51}, A_{52}, A_{53}, A_{54}, A_{55}, A_{56}, A_{57}, A_{58}, A_{59}, A_{60}, A_{61}, A_{62}, A_{63}, A_{64}, A_{65}, A_{66}, A_{67}, A_{68}, A_{69}, A_{70}, A_{71}, A_{72}, A_{73}, A_{74}, A_{75}, A_{76}, A_{77}, A_{78}, A_{79}, A_{80}, A_{81}, A_{82}, A_{83}, A_{84}, A_{85}, A_{86}, A_{87}, A_{88}, A_{89}, A_{90}, A_{91}, A_{92}, A_{93}, A_{94}, A_{95}, A_{96}, A_{97}, A_{98}, A_{99}, A_{100}\}$

© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 103–110

4. The wastewater treatment plant is designed to treat 100,000 m³ of treated waste water per day. The plant is designed to operate at 90% efficiency.

Condition	Control (%)	MCI (%)	AD (%)
A	100	95	85
B	98	92	82
C	96	90	80
D	95	85	75

Grant of Rs. 6.43 Cr for

1. Shanghai High People's Court (SHPC) dated 2014.12.10

2. Shanghai Intermediate People's Court (STC) dated 2015.12.10

Balasinor

Concept of Project: To reuse treated waste water from proposed STP for Wanakbori Thermal Power Plant

Name of Project: Design, engineering, supply, construction, testing and commissioning 6.5 MLD STP including development of transmission and distribution network and associated infrastructure on PPP basis including comprehensive operation & maintenance for 15 years thereafter at Balasinor, Gujarat

Location: Balasinor, Gujarat

Stakeholders: GWSSB, Nagarpalika & Concessionaire

User details:

Sr. No.	User	TWW Allocation (MLD)
1	Thermal Power Station - Wanakbori	6.5

- Construction of 6.5 MLD STP
 - Treatment Process: based on Open Technology
 - Plant Design Value (TWW quality): BOD<10 ppm
TSS<10 ppm
- Construction of Storage sump and Pumping station near proposed STP
 - 3.25 ML storage sump has been proposed along with pump house to store the treated sewage water.
 - Proposed pump house along with 1500 mm dia pipe
- Laying of 10.5 KM DN 400mm DI K9 Grade rising main to convey 6.5 MLD treated waste water from STP to door step of users.
- All associated Civil, Mechanical, Electrical and Instrumentation work
- Comprehensive O&M of complete project for 15 Years

Estimated Cost: Rs. 22.74 Cr

Financement: Hybrid Annuity Model (HAM)

As per decision of the SHPC, GWSSB shall provide Capital Grant of Rs. 9.87 Cr for the Project

Approval: Approved in the 2nd State Level High Power Committee (SHPC) dated 14/05/2019 and 2nd State Level Technical Committee (STC) dated 02/11/2018.

Current Status: Tender for the project is online

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

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[illegible][illegible]

Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher than the number of incorrect responses in all conditions.

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 250 million to 450 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

5. *Journal of the American Statistical Association*, 92(439), 1009-1016.

Bharuch

Concept of Project: Reuse of TWW from 29.3 MLD STP (under construction) at Bharuch in Vilayat GIDC Industrial Estate

Location: Bharuch, Gujarat

Stakeholders: GWSSB, Nagarpalika & User

User details:

Sr. No.	User	TWW Allocation (MLD)
1	Vilayat GIDC Industrial Association (VGIA)	29.3

Estimated Cost: Rs. 30.23 Cr

Implementation: The construction of the transmission pipeline and all incidental work for the purpose of Treatment and Distribution of treated waste water will be done by VGIA. VGIA shall carry out the Operation and Maintenance (O&M) of the STP and distribution network. GWSSB shall enter into agreement with Vilayat GIDC Industrial Association (VGIA) for the project.

Approval: Approved in the 3rd State Level High Power Committee (SHPC) dated 23/08/2019

Ankleshwar

The project for reuse of TWW in Ankleshwar was put up in the 3rd State Level High Power Committee (SHPC) dated 23/08/2019

The committee decided to call for expression of interest from industries of Ankleshwar for receiving 14 MLD raw sewage and treating and reusing it for industrial purpose. The rate offered by industries for raw sewage and quantity of raw sewage to be treated may be obtained and placed before the committee.

Other reuse projects

• Other than the above projects, Reuse of TWW in following municipalities have been identified:

1. Valsad
2. Pardi
3. Vapi
4. Morbi
5. Thangadh
6. Bhachau

The feasibility study and preparation of project reports of these projects is under progress by consultant M/s Infrastructure Development Corporation Karnataka (iDeCK)

Action Plan for Reuse of Treated Waste Water in the State of Gujarat - Compliance Table

Sr. No.	Action Point	Remarks	Comments	Compliance
1.	Estimate Present and Projected Sewage General and Treatment Capacity.	Present volume of fresh water used: 3,627 MLD, Present Sewage Treatment: 2,311 (64%)	Projected Sewage General and Treatment Capacity is missing and need to be provided.	The data for Projected Sewage General and Treatment Capacity has been obtained from Gujarat Urban Development Mission (GUDM); and the same is incorporated in the Revised Action Plan for Reuse of Treated Waste Water; which is attached herewith.
2.	Identify bulk users of Water: Industrial clusters, Metro Rail, Indian Railways, Infrastructure Projects, Agriculture, Bus Depots and PWD.	Proposed to use in Thermal Power Plants, Industrial Units, Construction Activities, Agriculture etc	Expire more possibility to reuse waste water by bulk users as per point no. 2, 3, 4, and 5.	As per Clause 7.1 - Ownership of TWW in the Policy for Reuse of Treated Waste Water - "The prime responsibility for treatment of waste water, waste water recycling and reuse will be with local body. Accordingly, creation of capacity for waste water management and, planning and implementation of waste water reuse infrastructure will be the responsibility of the local body, depending on availability of funds. However, the state government will seek to augment these efforts." Hence, all urban local bodies i.e. Municipal Corporations and Municipalities shall identify bulk users of TWW. GWSSB is in the process of consultation with the Urban Development Department for the same. Also, this office had requested to GPCB for details of Industries consuming more than 1 MLD water, which has been received and being reviewed.
3.	Quantify their potential water demand of above identified bulk user of water.	Missing data yet to be added		
4.	Development of Dead Water Aquatic Sources (Lakes, Pond, etc.)	Rejuvenation of Ponds, Lakes, Rivers etc.		Ahmedabad City Municipal Corporation and Bhavnagar City Municipal Corporation have submitted the concept agenda for utilizing TWW for

			rejuvenation of lakes, and the DPR for these projects are under preparation by the Municipal Corporations.												
5.	Time line for establishing such infrastructure (Treatment, Conveyance and Utilization of Treated Sewage)	Ultimate goal of reusing treated waste water fully by 2030.	As per Clause 6 - Implementation Timeline of the Policy for Reuse of Treated Waste Water, following timeline has been established: <table><tr><th>Existing System in ULB</th><th>Target/ Goal</th><th>Max. duration for implementation of reuse of TWW</th></tr><tr><td>Both UGD Collecting system and STP exists</td><td>Minimum of 25% of Fresh water consumption in ULB or Present output of operational STP(s)</td><td>One year</td></tr><tr><td>UGD Collecting system exist, but STP is not available</td><td>Minimum of 25% of Freshwater consumption in ULB or Treatment capacity of proposed STP(s)</td><td>Six months from the date of start of operation of STP</td></tr><tr><td>No UGD collecting system or STP facility exists</td><td>Minimum of 25% of Freshwater consumption in ULB or Treatment capacity of proposed STP(s)</td><td>Four years</td></tr></table>	Existing System in ULB	Target/ Goal	Max. duration for implementation of reuse of TWW	Both UGD Collecting system and STP exists	Minimum of 25% of Fresh water consumption in ULB or Present output of operational STP(s)	One year	UGD Collecting system exist, but STP is not available	Minimum of 25% of Freshwater consumption in ULB or Treatment capacity of proposed STP(s)	Six months from the date of start of operation of STP	No UGD collecting system or STP facility exists	Minimum of 25% of Freshwater consumption in ULB or Treatment capacity of proposed STP(s)	Four years
Existing System in ULB	Target/ Goal	Max. duration for implementation of reuse of TWW													
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No UGD collecting system or STP facility exists	Minimum of 25% of Freshwater consumption in ULB or Treatment capacity of proposed STP(s)	Four years													
6.	To promote use of treated waste water for various usages.	Agriculture, Toilet flushing, car washing, construction activities, maintenance of parks,	As per Clause 8 – Mandate of use of TWW of the Policy for Reuse of Treated Waste Water, the identified users of TWW are:												

garden, urban of a STP should use treated water in place of fresh surface/ground water.	- Thermal power plants - Industrial units - Construction Industry - Large Commercial or Institutional users - Municipal Bodies - Maintenance of parks and gardens and developing urban landscaping - Rejuvenation of the lakes and rivers - Supplying water for emergency purposes like fire brigade etc. - Other Non-potable use as may be found in local context - Agriculture / Irrigation
Industrial clusters can set up treatment facility to meet their raw water requirement instead of drawing ground water.	To explore possibility as per suggestion at point no. 8. GWSSB is in the process of consultation with Industries Commissioner requesting him to identify and explore the possibility for bulk of TWW by industrial clusters instead of drawing ground water. The same has been discussed and minutised in the 3rd State Level High Power Committee held under the chairmanship of the Addl. Chief Secretary (Finance), Gujarat, held on August 23, 2019.

The draft of the letter to be issued to CBCP submitting the compliance of their points and revised action plan is attached on page no.

C/_____.

Considering the above note, put up for further instructions, please.



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

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12/02/20

No./Single file/GPCB/P-3/230/ *555825*

28 FEB 2020

To,
The Member Secretary,
Central Pollution Control Board,
Parivesh Bhavan, East Arjun Nagar,
Delhi- 110032.

Sub: Submission of action plan with reference to Hon'ble NGT order in O.A. No-681/2018 regarding Noise Pollution.

Ref: Hon'ble NGT order dated: 15/03/2019 and 06/08/2019 in original application no: 681/2018 "News item published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with multiple timelines to clean air in 102 cities to be released around August 15"

Sir,

With reference to the above said subject and reference please find enclosed herewith the action plan finalized by Hon'ble Chief Secretary for the compliance of Hon'ble NGT orders in O.A.No-681/2018 regarding Noise Pollution. In this regard earlier two action taken reports were submitted to CPCB. This is for your information and further necessary action please.

Thanking you,

**For & on behalf of
Gujarat Pollution Control Board**

(Signature)

(N.M.Tabhani)

Member Secretary

Copy To:-

1. PS to Chief Secretary, Block no-1, 5th floor, New Sachivalaya, Gandhinagar___ Kindly bring to the notice of Hon'ble CS Please
2. PS to Additional Chief Secretary—Home department, Block no- 2, 1st floor, Sachivalaya, Gandhi nagar-----Kindly bring to the notice of Hon'ble ACS please
3. Director, Environment and Additional Secretary ,Forest and Environment Department , Block No-14, 8th floor, New Sachivalaya, Gandhinagar-----For information and taking necessary action for the compliance of direction as per item no-11 of para-26 (Sr. no-3 Action point of action plan) and send the details so as to include in succeeding action taken report to be submitted to CPCB. Board has already published notification regarding installation of noise limiter and submitted to you vide this office letter no-GPCB/LGL: NGT: GEN: 115(3)/550560 dated-06/01/2020.

Encl:- Action plan

ok file
27/2/2020

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

**Action Plan for the compliance of para 12 and 14 of NGT order dated-
15.03.2019 in O.A.No- 681/2018 regarding Noise Pollution.**

The increasing ambient noise levels in public places from various sources, inter-alia, industrial activity, construction activity, fire crackers, sound producing instruments, generator sets, loud speakers, public address systems, music systems, vehicular horns and other mechanical devices have deleterious effects on human health and the psychological well being of the people; it is considered necessary to regulate and control noise producing and generating sources with the objective of maintaining the ambient air quality standards in respect of noise.

Government makes "The Noise Pollution (Regulation and Control) Rules, 2000 "for the regulation and control of noise producing and generating sources.

Noise Pollution is covered under Ambient Air Quality and Standards in respect of Noise is declared for four category of Area/Zone as below.

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB(A) Leq *	
		Day Time	Night Time
(A)	Industrial Area	75	70
(B)	Commercial Area	65	55
(C)	Residential Area	55	45
(D)	Silence Zone	50	40

Note :- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.

2. Night time shall mean from 10.00 p.m. to 6.00 a.m.

3. Silence zone is an area comprising not less than 100 metres around hospitals, Educational institutions, courts, religious places or any other area which is declared as such by the competent authority

4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

*** dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.**

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and Corresponds to frequency response characteristics of the human ear.

Leq: It is an energy mean of the noise level over a specified period.

The **"authority"** shall be responsible for the enforcement of noise pollution control measures and the due compliance of the ambient air quality standards in respect of noise.

"authority" means and includes any authority or officer authorized by the Central Government, or as the case may be, the State Government in accordance with the laws in force and includes a **District Magistrate, Police Commissioner, or any other officer not below the rank of the Deputy Superintendent of Police** designated for the maintenance of the ambient air quality standards in respect of noise under any law for the time being in force.

Hon'ble NGT has passed an order with reference to News item published in "The Times of India" Authored by Shri Vishwa Mohan Titled " NCAP(National Clean Air Programme) with multiple timeline to clean air in 102 cities to be released around August 15 "

Hon'ble NGT has covered Noise Pollution Control aspect in para-12,13 and 14 of the above order and directed states to prepare action plan and take necessary action for controlling Noise Pollution.

Directions under para 12 was issued to CPCB as under.

" Hon'ble NGT directed CPCB to prepare noise pollution map and identify hotspots and categorize the cities with specified hotspots and propose a remedial action plan. Such reports may be furnished within 3 months by e-mail at ngt.filing@gmail.com. Hon'ble NGT were informed that in 7 cities noise monitoring mechanism has already been established by CPCB which is functioning on continuous basis and is connected to the server of CPCB. The CPCB may consider setting up such mechanism in all the cities which are found to be having noise level above approved that threshold.

CPCB has identified 46 metropolitan cities for noise mapping and subsequently identification of hotspots in India and developed a methodology for formulation of noise mapping in consultation with NPL, NEERI and CRRI and giving copy of the methodology directed to adopt the methodology for noise mapping for further execution. Out of the 46 cities identified by the CPCB there are four cities of Gujarat. i.e. **Ahmedabad, Vadodara, Rajkot and Surat.**

CPCB has thereafter issued directions to the Chairman GPCB, under section 18(1) B of the Air (Prevention and Control of Pollution) Act-1981 regarding Noise Mapping, identifying hot spots and mitigation plan for control of Noise pollution vide letter dated- 21/06/2019 and directed as under:

- (1) Action plan for preparation of Noise Mapping for the metropolitan city (ies) under GPCB jurisdiction be prepared and executed by 31.11.2019 as per methodology formulated by CPCB
- (2) Hot spots having violation of prescribed norms be identified and mitigation plans be prepared by 31.12.2019 so as to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.
- (3) Reports on Noise Map(s) and Noise Mitigation action plan(s) be provided to CPCB by 31.12.2019 for submission to Hon'ble NGT.

Action taken by Board

- CPCB was requested to advise about the approved agencies from whom noise mapping as per Hon'ble NGT order may be done vide letter dated- 05.08.2019 and 03.10.2019.
- CPCB has suggested name of approved agencies for noise mapping on 16.10.2019. Board has already written letter to the suggested agencies (NEERI- Nagpur, NPL, New Delhi and CRRI, New Delhi) to submit technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules- 2000. Board will decide agency for the same and the work will be assigned very soon.

Directions under para 14 are as under.

- The State PCB may undertake noise level monitoring in conjunction with the Police Department and take remedial action.
- The Police Department of the state may obtain noise monitoring devices within three months and specification of such devices may be finalized in consultation with the state PCB.
- The Police Department of the state may also train their staff regarding use of such device and develop a robust protocol for taking appropriate action against defaulters.
- The chief secretary may finalize action plans in this regard within 3 months and submit the same to CPCB. CPCB may give its report by July 15, 2019

Action taken by Board

- ACS , Forest and Environment Department and Chairman GPCB informed to ACS, Home vide letter dated- 26/06/2019 regarding the Hon'ble NGT order and the action required to be taken.
- Regional Officers of GPCB conducted meeting with all the District Police Department from 25/07/2019 to 31/07/2019 and aware about the NGT order also give demonstration to @ 178 police staff.
- 1st action taken report was submitted to CPCB with copy to Hon'ble Chief Secretary vide letter dated- 06/08/2019.
- 2nd action taken report was submitted to CPCB with copy to Hon'ble Chief Secretary through email on dtd: 14/11/2019.
- Technical specification of noise meter to be purchased by the police department is finalised by the police department in consultation with GPCB.

Hon'ble NGT has directed CPCB to explore the possibility in consultation with leading manufacturers of public address system and other manufacturers of such instruments to manufacture such equipment's wherein the noise meter with data loggers are fitted so that as and when the prescribed parameters are violated the same gets recorded and retrieved by the regulators for fixing the responsibility on the violators.

During further hearing in O.A.No-681/2018 on dated-06/08/2019, Hon'ble NGT has directed in para 25 about installation of Noise limiters in sound system to enforce the norms of Noise Pollution

on the pattern followed in the state of West Bengal and Tripura. Appropriate Notification may be issued by the CPCB/SPCBs/PCCs within three months about the limiters being installed.

Direction for the noise pollution issue is as per item no- 11 of para 26. Which is reproduced here as under.

“Noise limiters need to be installed on potential noise polluting devices, including retrofitting the existing devices. Appropriate directions be issued by the states/UTs within three months in the same manner as directed by this Tribunal for Delhi vide order dated-01.08.2019 in O.A. No. 519/2016, Hardeep Singh % Ors Vs SDMC and Ors. “

- Board has already published notification for installation of Noise limiter in sound level system on 03/12/2019.

List for further consideration for O.A. No 681/2018 and 519/2016 was on 15.11.2019.

Order for the hearing dtd: 15/11/2019 was carried out on 20/11/2019. Looking to the order direction to XI is related to Noise Pollution is reproduced as below:

Remedial action for control of noise pollution including procurement of monitoring device and installation of Noise Limiters

With regard to direction No. (XI), the States/UTs have not furnished the compliance reports. Let the same be complied with and report furnished to CPCB by 31/03/2020. CPCB may furnish a comprehensive report to this Tribunal. If the said direction is not complied with, the defaulting States/UTs will be liable to pay compensation @ Rs. 2 Lakhs per month which may be collected by the CPCB and recovered from the salary of the concerned Heads of the Departments.

Procurement of requisite equipments may preferably be through Government E-marketing (GeM) Portal of Govt. of India. CPCB may take steps to have standard/specifications and accredited/reputed vendors notified on the said portal. CEO, GeM, may also take necessary steps in the matter.

Based on the direction issued by Hon'ble NGT in O.A.No-681/2018 on dated 15.03.2019 and 06.08.2019 Draft Action Plan is prepared for further implementation.

Action plan for Noise pollution with reference to NGT order dated: 15-03-2019 in O.A. No: 681/2018.

Sr. No	Action Point	Responsible agency	Time limit
1	<u>Hon'ble NGT order direction as per para 14.</u> (1) GPCB may undertake noise level monitoring in conjunction with the Police Department and take remedial action.	GPCB (All Regional Officers) and Police department (All district Police Officers) in coordination with each other.	Police will use noise control device wherever required. If any FIR is filed either by police or otherwise, police will act thereupon as per law. It is a continuous process.
	(2) (A) The Police Department may obtain the noise monitoring devises within a period of Three Months. (B) Specification of noise meter may be finalized in consultation with GPCB	Police department GPCB and Police department	As per Hon'ble NGT order, 33 devices are being purchased by Home department. GPCB has also purchased 31 Noise Meter for regular use. Specifications are already finalized by GPCB and sent to Home Department.
	(3) Training of staff regarding use of device	GPCB and Police department	Within one month after procurement of Noise meter. A list of 56 Dy. SP has been given to the Board and training will be organised in mutual arrangement.
	(4) Develop robust protocol for taking action against defaulters.	Police department to prepare in consultation with GPCB.	Within 15 days. As per Hon'ble NGT order Robust protocol is to be developed by the Police Department.

Action Point	Responsible agency	Time limit
<u>CPCB direction with reference to the NGT order para 12.</u> (1) Preparation of action plan for Noise Mapping as per methodology formulated by CPCB and execution for the metropolitan cities	GPCB (for Ahmedabad, Rajkot, Surat and Vadodara)	30.11.2019 (As per CPCB).
(2) Hot spots having violation of prescribed norms be identified and preparation of mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000	GPCB (for RO, Ahmedabad, Rajkot, Surat and Vadodara)	31.12.2019 (As per CPCB)
(3) Submission of reports on Noise Map(s) and Noise Mitigation action Plan(s) to CPCB	GPCB	31.12.2019 (As per CPCB)
(4) Action to be taken as per the mitigation plan prepared and as per protocol developed by the police department	GPCB and Police department	Continuous process

Sr.No	Action Point	Responsible agency	Time limit
3	<u>Para 25 of further hearing in O.A.No- 681/2018 on 06.08.2019.</u> ➤ Appropriate notification regarding installation of noise limiter in sound system on the pattern followed by the state of West Bengal and Tripura <u>Direction as per item no-11 of para-26</u> ➤ Appropriate directions be issued by state regarding Noise limiters to be installed on potential noise polluting devices, including retrofitting the existing devices in the same manner as directed by this tribunal for Delhi vide order dated 01.08.2019 in O.A.No- 519/2016.	CPCB/GPCB Forest and Environment department (GOG)	05/11/2019. 05/11/2019



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

No. GPCB/LGL:NGT:GEN:115(3)/554694/

14 FEB 2020

To,
Shri NarsimhaKomar
Inspector General of Police (L&O),
O/o the DG and IG of Police,
1st Floor, Police Bhavan,
Sector: 18, Gandhinagar- 382018.

Sub: Regarding joint enforcement team for Noise Level Monitoring.

Ref: (1) Your letter no: 30-9/3(XC2)/T-2/NGT/3766/2019 dated: 16/10/2019.

(2) Your letter no: એફ/ ટે-૫/Noise Monitoring/159/2020 dated: 22/01/2020.

Sir,

In connection with above said subject and reference, details of joint enforcement team of 56 DY, SP and GPCB officials are attached herewith for carrying out the noise monitoring and enforcement with reference to Hon'ble NGT order dated 15/03/2019 in O.A. No- 681/2018. I would also like to inform you that in case of transfer of the officer, the officer in charge will automatically become the nodal officer for the activity regarding noise monitoring and enforcement.

You are requested to circulate the matter to concern officers for necessary action and inform accordingly.

Thanking you

Ref. 2.20

(N.M.Tabhani)

Member Secretary

Encl: Joint enforcement team details.

Copy to:-

(1) A Regional officer.

Ahmedabad City, Ahmedabad Rural, Ahmedabad East, Vadodara, Surat, Rajkot, Vapi, Bharuch, Jamnagar, Bhavnagar, Mehsana, Godhra, Kutch East, Kutch West, Nadiad, Junagadh, Gandhinagar, Himmatnagar, Ankleshwar, Surendranagar, Porbandar, Navsari, Palanpur, Anand, Kutch, Sorath, Mahesana.

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001: 2004 Certified Organisation

12/2/2020

Joint Enforcement Team of GPCB and Designated Dy. SPs of Police Department with reference to Hon'ble NGT order in OA No: 681/2018 for Noise Pollution

Sr. No	Team		District/Area of Jurisdiction
	GPCB Officers	Police Department Officers	
1	Regional Officer, Ahmedabad City	Shri L.B.Zala, 'B' Division, Zone-1, Shri S.K.Trivedi, 'C' Division, Zone-2, Shri I.G.Shaikh, 'E' Division, Zone-3, Shri A.M.Desai, 'G' Division, Zone-4, Shri N.L.Desai, 'I' Division, Zone-5, Shri R.B.Rana, 'J' Division, Zone-6, Shri V.G.Patel, 'M' Division, Zone-7.	Danilimda, Bapunagar, Saraspur, Rakhiyal, Gomtipur, CTM area, AMC area, GIDC Vatva, Naroda, Odhav, GVMM, Narol etc.
2	Regional Officer, Ahmedabad East		
3	Regional Officer, Vadodara	Shri P.H.Bhesaniya, 'A' Division, Vadodara City, Zone-1, Shri A.V.Rajgor, 'D' Division, Vadodara City, Zone-2, Shri S.B.Kupavat, 'F' Division, Vadodara City, Zone-3, Shri P.R.Rathod, 'G' Division, Vadodara City, Zone-4, Shri P.R.Patel, Head Quarter Vadodara Rural, Shri M.M.Ganguli, Vadodara Zone, Shri R.D.Dabhi, Western Railway, Head Quarter Vadodara	Vadodara
		Shri J.G.Chavda, Head Quarter, Chotta Udaipur	Chotta Udaipur
4	Regional Officer, Rajkot	Shri P.K.Diyora, West Division, Zone-1, Shri S.R.Tandel, North Division, Zone-2, Shri R.S.Patel, Rajkot Zone, Shri P.P.Pirojiya, SDPO, Western Railway, Rajkot	Rajkot
5	Regional Officer, Surat	Shri A.M.Parmar, 'B' Division, Zone-1, Shri D.J. Chavda, 'D' Division, Zone-2, Shri H.D.Mevada, A.P.C. Region -I, Shri A.K.Verma, 'H' Division, Zone-4, Shri Bhargav Pandya, SC/ST Cell	Surat
6	Regional Officer, Vapi	Shri Manoj Sharma, Head Quarter, Valsad	Valsad
		Shri R.D.Kava, Head Quarter, Dang	Dang
7	Regional Officer, Bharuch	Shri J.S.Nayak, Head Quarter, Bharuch	Bharuch District area, North of Narmada River
8	Regional Officer, Jamnagar	Shri A.B.Saiyad, Head Quarter, Jamnagar	Jamnagar
		Shri C.C.Kharata, Head Quarter, Bhavnagar	Bhavnagar
9	Regional Officer, Bhavnagar	Shri M.S.Rana, Head Quarter, Amreli	Amreli
10	Regional Officer, Mehsana	Shri J.R.Vaghela, SC/ST Cell, Mehsana	Mehsana

	Mehsana	Mehsana	
11	Regional Officer, Godhara	Shri H.M.Kansagara, Head Quarter Panchmahal- Godhara	Panchmahal
		Shri P.I.Solanki, Head Quater, Dahod	Dahod
		Shri V.M.Chauhan, Head Quarter Lunavada- Mahisagar	Mahisagar
12	Regional Officer, Kutch- East	Shri V.R.Patel, Head Quarter East – Gandhidham	Gandhidham, Bhachau, Rapar, Mundra, Anjar
13	Regional Officer, Kutch- West	Shri B.M.Desai, Head Quarter West Kutch- Bhuj	Bhuj, Abdasa, Lakhpat, Nakhtrana, Mandvi
14	Regional Officer, Nadiad	Shri V.J.Rathod, Head Quarter Kheda- Nadiad	Kheda
15	Regional Officer, Junagadh	Shri R.V.Damor, Head Quarter Junagadh	Junagadh
		Shri M.M.Parmar, Head Quarter Girsomnath	Girsomnath
16	Regional Officer, Gandhinagar	Shri M.J.Solanki, Head Quarter, Gandhinagar Shri P.J.Chaudhri, Gandhinagar Zone	Gandhinagar
17	Regional Officer, Himmatnagar	Smt. Minakshi Patel, Head Quarter Sabarkantha	Sabarkantha
		Shri N.V.Patel, Head Quarter Arvalli, Modasa	Arvalli
18	Regional Officer, Ankleshwar	Shri J.S.Nayak, Head Quarter, Bharuch	Ankleshwar, Bharuch District area. South of Narmada River.
		ChetnaChaudhri, Head Quarter, Narmada	Narmada
19	Regional Officer, Surendranagar	Shri P.K.Patel, Head Quarter, Surendranagar	Surendranagar
20	Regional Officer, Porbandar	Shri B.A.Patel, Head Quarter, Porbandar	Porbandar
21	Regional Officer, Navsari	Shri B.S.Mori, Head Quarter Navsari Shri S.K.Rai, Head Quarter, Tapi- Vyara	Navsari Tapi
22	Regional Officer, Palanpur	Shri J.T.Sonara, Head Quarter Patan Shri R.K.Patel, Head Quarter Palanpur	Patan Banaskantha
23	Regional Officer, Anand	Shri D.R.Patel, Head Quarter Anand	Anand
24	Regional Officer, Jetpur	Shri P.S.Goswami, Head Quarter Rajkot Rural Rajkot	Jetpur, Dhoraji, Jamkandoriya, Upleta
25	Regional Officer, Ahmedabad Rural	Shri S.H.Sarada, Head Quarter Ahmedabad Rural Shri G.P.Chauhan, Head Quarter Botad	Ahmedabad (Rural) Botad
26	Regional Officer, Sarigam	Shri Manoj Sharma, Head Quarter Valsad	Sarigam, Umargam
27	Regional Officer, Morbi	Shri D.G.Chaudhri, Head Quarter Morbi	Morbi, Malia, Tankara, Wankaner, Halvad


 (N.M. Tabbani)
 Member Secretary



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, **Gandhinagar** 382 010

Phone : (079) 23222425

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Fax : (079) 23232156

Website : www.gpcb.gov.in

No. GPCB/LGL: NGT: GEN: 115(3)/554693/

14 FEB 2020

To,
Shri NarsimhaKomar
Inspector General of Police (L&O),
O/o the DG and IG of Police,
1st Floor, Police Bhavan,
Sector: 18, Gandhinagar- 382018.

Sub: Training regarding Noise Level Meter/Monitoring to designated 56 Dy. SP of Police Department for the compliance of Hon'ble NGT order dated 15.03.2019 in O.A. No-681/2018 regarding Noise Pollution aspect.

Ref: (1) Your letter no: જી-૧/૩૮૪૮/T-2/NGT/3766/2019 dated:16/10/2019.

(2) Your letter no: એ/૩-૫/Noise Monitoring/159/2020 dated: 22/01/2020.

Sir,

With reference to the above subject and reference, Board conducted training regarding Noise level Meter to officials of Police Department from 25/07/2019 through its regional offices. Around 200Nos of Police officers/staff were given training. As decided during last meeting training to the concern designated 56 Dy. SP are organized as under. The concern Regional officer of GPCB will organize the training as per the schedule below.

For Ahmedabad and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
1	Shri L.B.Zala, 'B' Division, Zone-1.	Training Center Police Stadium Sahibaug, Ahmedabad	Date: 29/02/2020 Time: 03:00 PM	Smt. N.D. Ajmera Regional Officer, Regional Office, Ahmedabad (City), M.No- 9898003096
2	Shri S.K.Trivedi, 'C' Division, Zone-2.			
3	Shri I.G.Shaikh, 'E' Division, Zone-3.			
4	Shri A.M.Desai, 'G' Division, Zone-4.			
5	Shri N.L.Desai, 'I' Division, Zone-5.			
6	Shri R.B.Rana, 'J' Division, Zone-6.			
7	Shri V.G.Patel, 'M' Division, Zone-7			
8	Shri S.H.Sarada, Head Quarter Ahmedabad Rural			
9	Shri D.R.Patel, Head Quarter Anand			
10	Shri V.J.Rathod, Head Quarter Kheda- Nadiad			

11	Shri M.J.Solanki, Head Quarter, Gandhinagar			
12	Shri J.R.Vaghela, SC/ST Cell, Mehsana			
13	Smt. Minakshi Patel, Head Quarter Sabarkantha			
14	Shri N.V.Patel, Head Quarter Arvalli, Modasa			
15	Shri J.T.Sonara, Head Quarter Patan			
16	Shri R.K.Patel, , Head Quarter Palanpur			
17	Shri P.J.Chaudhri, Gandhinagar Zone			

For Vadodara and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
18	Shri P.H.Bhesaniya, 'A' Division, Vadodara City, Zone-1,			
19	Shri A.V.Rajgor, 'D' Division, Vadodara City, Zone-2,			
20	Shri S.B.Kupavat, 'F' Division, Vadodara City, Zone-3.			
21	Shri P.R.Rathod, 'G' Division, Vadodara City, Zone-4.			
22	Shri P.R.Patel, Head Quarter Vadodara Rural			
23	Shri J.S.Nayak, , Head Quarter, Bharuch	Vadodara Commissioner of Police		Shri R.B.Trivedi Regional Officer, Regional Office,
24	ChetnaChaudhri, Head Quarter, Narmada	Conference Room, Police Bhavan, Near KuberBhavan, Vadodara	Date: 27/02/2020 Time: 03:00 PM	Vadodara M. No: 7574827582
25	Shri J.G.Chavda, Head Quarter, Chotta Udaipur			
26	Shri H.M.Kansagara, Head Quarter Panchmahal- Godhara			
27	Shri P.I.Solanki, Head Quater, Dahod			
28	Shri V.M.Chauhan, Head Quarter Lunavada- Mahisagar			
29	Shri M.M.Ganguli, Vadodara Zone,			
30	Shri R.D.Dabhi, Western Railway, Head Quarter Vadodara			



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

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For Rajkot and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
31	Shri P.K.Diyora, West Division, Zone- 1	Conference Room, Rajkot Engineering Association, Bhaktinagar Industrial Estate, Tagor Road, Rajkot	Date: 27/02/2020 Time: 03:00 PM	Shri B.G.Sutreja Regional Officer, Regional Office, Rajkot M. No: 9825854318
32	Shri S.R.Tandel, North Division, Zone-2.			
33	Shri P.S.Goswami, Head Quarter Rajkot Rural Rajkot			
34	Shri P.K.Patel, Head Quarter, Surendranagar			
35	Shri A.B.Saiyad, Head Quarter, Jamnagar			
36	Shri C.C.Khatana, Head Quarter, Khambhadiya, (DevbhumiDwarka)			
37	Shri D.G.Chaudhri, Head Quarter Morbi			
38	Shri R.V.Damor, Head Quarter Junagadh			
39	Shri B.A.Patel, Head Quarter, Porbandar			
40	Shri M.M.Parmar, Head Quarter Girsomnath			
41	Shri D.D.Chaudhri, Head Quarter Bhavnagar			
42	Shri M.S.Rana, Head Quarter Amreli			
43	Shri G.P.Chauhan, Head Quarter Botad			
44	Shri B.M.Desai, Head Quarter West Kutch- Bhuj			
45	Shri V.R.Patel, Head Quarter East - Gandhidham			
46	Shri R.S.Patel, Rajkot Zone			
47	Shri P.P.Pirojiya, SDPO, Western Railway, Rajkot			

For Surat and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
48	Shri Manoj Sharma, Head Quarter, Valsad	Meeting hall, Range IG Office, Athvalines, Surat.	Date: 03/03/2020 Time: 03:00 PM	Shri P.U.Dave Regional Officer, Regional Office. Surat M. No: 7574827442
49	Shri Bhargav Pandya, SC/ST Cell			
50	Shri S.K.Rai, Head Quarter, Tapi- Vyara			
51	Shri R.D.Kava, Head Quater, Dang.			
52	Shri B.S.Mori, Head Quarter Navsari			
53	Shri A.M.Parmar, 'B' Division, Zone-1,			
54	Shri D.J. Chavda, 'D' Division, Zone-2.			
55	Shri H.D.Mevada, A.P.C, Region -1			
56	Shri A.K.Verma, 'H' Division, Zone-4.			

You are requested accordingly to inform all Dy. SPs to attend and obtain training under intimation to this office.


(N.M. Tabhani)
Member Secretary

Copy to:

- 1) The Regional Officer, Regional Office, Ahmedabad (City)
- 2) The Regional Officer, Regional Office, Vadodara
- 3) The Regional Officer, Regional Office, Rajkot
- 4) The Regional Officer, Regional Office, Surat

You are instructed to organize the training Programmes above and submit the detail report within 3 days after the programme.


12/2/2020

Annexure-XVI

Minutes of Training

Minutes of the meeting held on 27/02/2020 at 15:00 Hrs. at an Engineering Association Hall, Bhaktinagar GIDC, Rajkot.

With reference to Head office letter no. : GPCB/LGL-NGT-Gen : 115 (3)/ 554693 dated 14/02/2020 one day training program for Dy. Sp of Saurashtra region was organized on 27/02/2020 at an Engineering Association Hall, Bhaktinagar GIDC, Rajkot at 15:00 Hrs. The brief note about the Noise ,Noise Rules and sound level meter was presented during the first half of the meeting and the demonstration of the instrument was done during the second half.

The meeting was start with the welcome note by Regional Officer, Shri B. G. Sutreja. He also discussed the agenda of the meeting and about Noise Rules and Sound Level Meter.

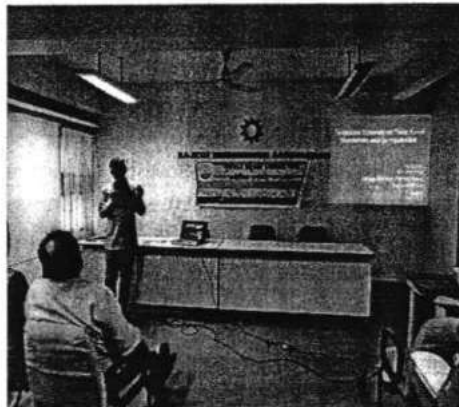
Shri P. H. Bhatt, S.O., GPCB-RO Rajkot has made the presentation before the Dy. SPs. First he brief about the difference between the voice and Noise. He also informed about the sources of the Noise pollution generation and its Physiological and auditory effects on human health. He also brief about the various part of the Sound Level Meter. Later on he brief about the various section of the Noise Rules and its various amendments. Two short videos were screened to the participants.

ACP West zone – Rajkot Shri P.K.Diyora, Dy.Sp Devbhumi Dwarka –Shri C.C.Khatana, PSI-Surendranagar –Shri C.P.Rathod, HC-Surendranagar Shri M.B.Rathod, PI-Railway Rajkot –Shri L.H.Bhuva , Regional Office-Morbi staff and Regional office- Rajkot staff attended this training program. Total 19 participants attended this training programme. The attendance sheet is attached here as Annexure-I.

During second half Sound Level Meter was demonstrated. Operation of the Sound Level Meter and its calibration was also shown to the participants.

This training program was ended with what of thanks by Shri R. V. Chauhan, Dy. Env. Eng.

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Training on Noise level monitoring in conjunction with Police Department vide
Hon'ble NGT order dated 15/03/2019 in O.A No 681/2018 regarding Noise Pollution aspect.

Training Place: Conference Room, Rajkot Engineering Association, Bhaktinagar Industrial Estate, Tagore Road, Rajkot.

Date: 27/02/2020 Time: 03:00 pm.

PRESENCE SHEET

Sr. No	Name	Designation	Contact No.	Signature
1	V. S. Patel	ACP. West. Rajkot	9925020148	
2	C. B. Rathod	PSS	98259	
3	M B Maheshwari	Executive HC Bilaspur	75983 9106566138	
4	S. P. M. V. V. V.	DySP	8980046092	
5	L. H. Bhavsani	Deputy Police Bilaspur	942893374	
6	G. M. S. S.	PO	7874627580	
7	P. B. K. K. K.	EE-CPB Bilaspur	94282054	
8	J. D. Patel	SSP	9824181191	
9	K. B. S. S.	PO M. B.	9824718030	

Sr. No	Name	Designation	Contact No.	Signature
12	R. V. CHANDRAN IAS	DEC	—	
13	B. M. Baidya IAS	AFLE	—	
14	P. J. Suresh, IAS	DEL	—	
15	H. M. P. S. S. S. S. S.	SSP	—	6
16	R. J. S. S. S. S. S.	SO	—	
17	S. S. S. S. S. S. S.	IAS	—	HIS
18	P. H. S. S. S. S. S.	SO	—	
19	P. R. K. S. S. S. S. S.	SO	—	

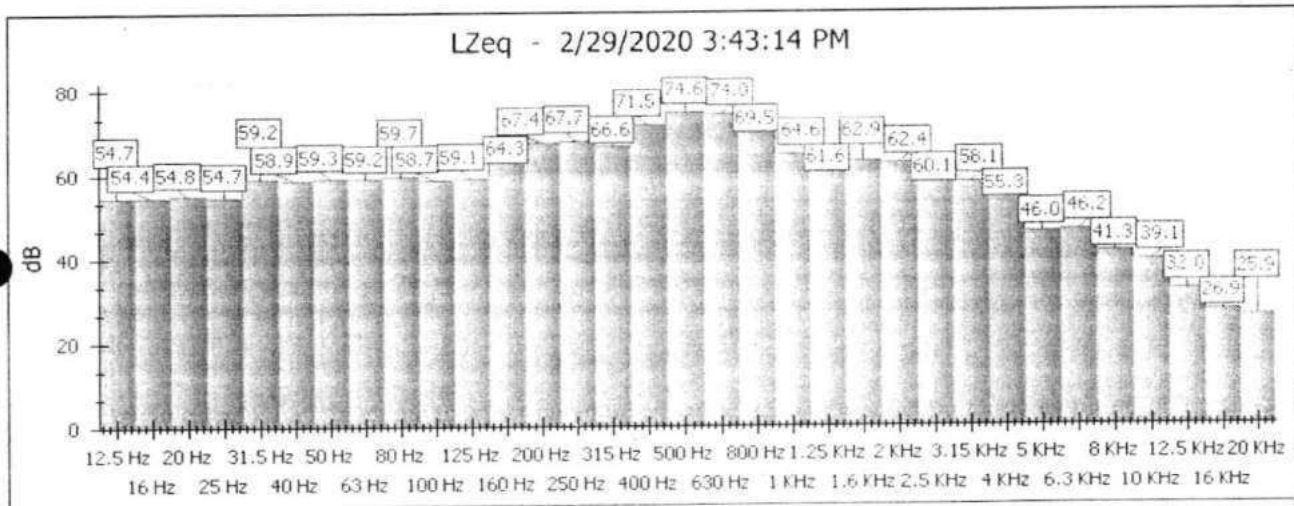
GUJARAT POLLUTION CONTROL BOARD, RO-ABD-CITY

Location : Training Center, Police Stadium, Shahibaug, Ahmedabad.



333

Instrument Model	CEL-633C		
Serial Number	2382982	LCeq	80.5 dB
Location	Unallocated	LCeq-LAeq	2.9 dB
Start Date & Time	2/29/2020 3:43:14 PM	LAeq	83.8 dB
Duration	00:01:08 HH:MM:SS	LAE	95.9 dB
LAeq	77.6 dB	Response	Random
LCpeak with Time	101.1 dB (2/29/2020 3:44:09 PM)	End Date & Time	2/29/2020 3:44:22 PM
Lepd(Projected)	77.6 dB	Pause Duration	00:00:00 HH:MM:SS
Lex8h(Projected)	77.6 dB	Calibration (Before) Date	2/29/2020 3:17:25 PM
LAFmax with Time	88.3 dB (2/29/2020 3:43:32 PM)	Calibration (Before) SPL	114 dB
LAlmax with Time	90.5 dB (2/29/2020 3:43:32 PM)	Calibration (After) Date	
Lfmin with Time	54.3 dB (2/29/2020 3:44:01 PM)	Calibration Drift	-2.2 dB
LAlmin with Time	73.7 dB (2/29/2020 3:43:47 PM)	Overload	No
LZeq	80.7 dB	Result	Cumulative
Notes			



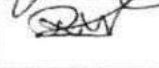
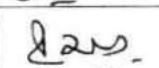
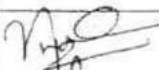
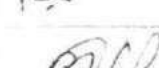
**Photographs of Training of Noise Meter with data Logger,
at Training Centre, Police stadium, Shahibaug, Ahmedabad.**

Date : 29/02/2020.



Training of Noise Meter with Data Logger

Date: 29/02/2020

Sr. No.	Name	Designation	Mobile No.	Sign
1	J. R. Vaghela	DySP Muhesana	992540801	
2	R. K. Patel	DySP HD Palampur	8200981392	
3	મુ. ર. પાવેલી	ACP - COIR Muhesana	9978407975	
4	ગી. રા. બાટોડ	DySP SCST cell S.K	9825122022	
5	ક. જ. તરેલિ	ACP M'Div Albadul	9978913796	
6	N. V. Patel.	DySP HO Aravalli	9925330000	
7	ડી. સી. મરેલ	ACP SCST cell	8758411511	
8	સી. પાલકી રાણી	ACP 'J'	9978408209	
9	ગી. ર. દાદેલી	DySP. G'Nagore SCST cell	9512336094	
10				
11				
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21				

TRAINING REPORT

Subject : Training regarding Noise Level Meter/Monitoring to designated Dy. SP of Police Department of South Gujarat Region for the compliance of Hon'ble NGT order dated.15.03.2019 in O.A. No-681/2018 regarding Noise Pollution aspect.

Reference : Our H.O. letter no. GPCB/LGL: NGT: GEN: 115(3)/554693, dtd.14/02/2020.

Venue : Meeting Hall, Range IG Office, Athwalines, Surat, Gujarat

Date & Time : 03/03/2020 & 03:00 PM

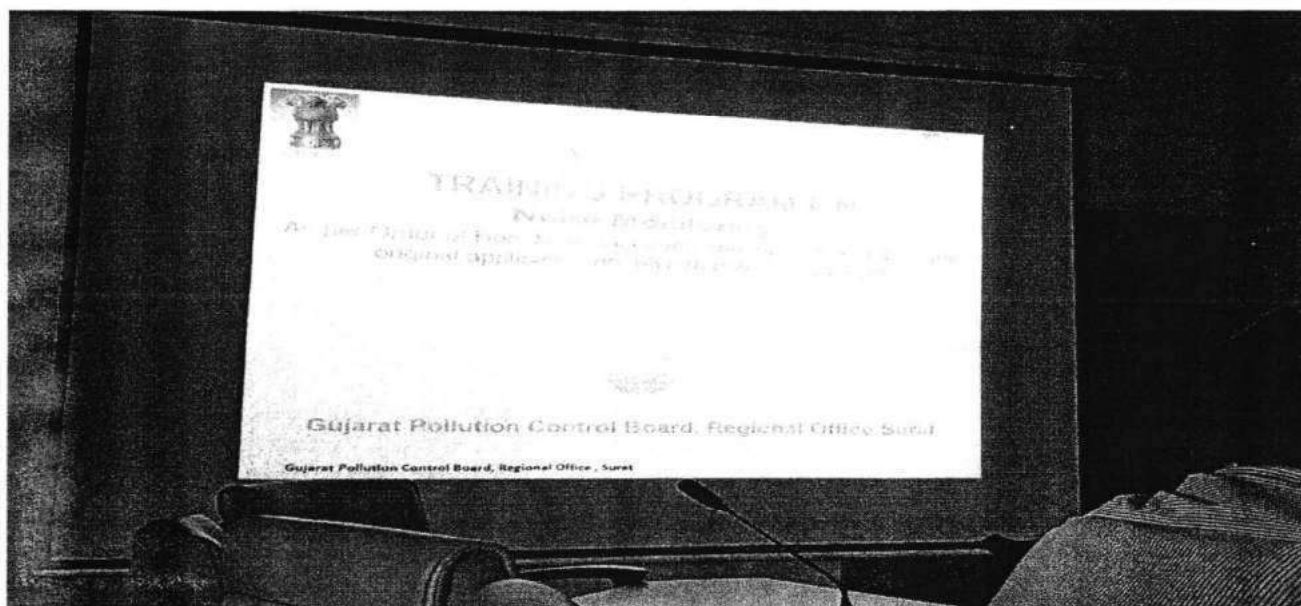
In connection with above subject and reference training program on Noise Level Meter/Monitoring was organized. Senior Police Officers along with officers of Gujarat Pollution Control Board - South Gujarat Region were remained present in this program. The List of participants is attached herewith.

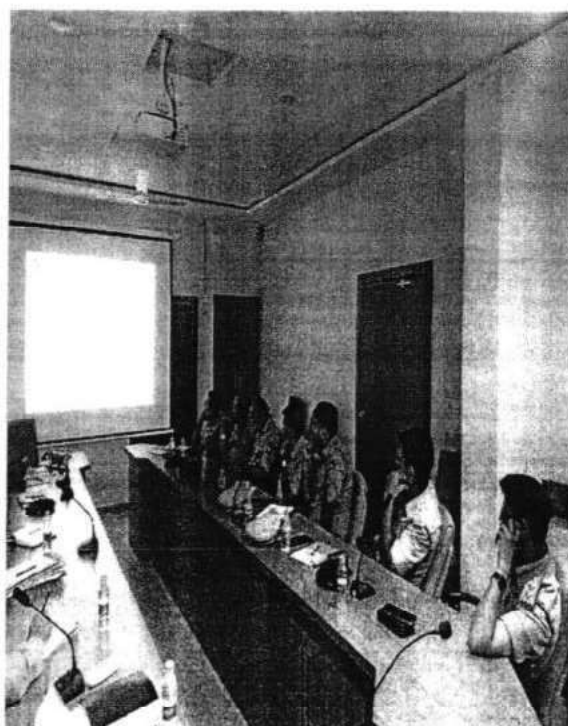
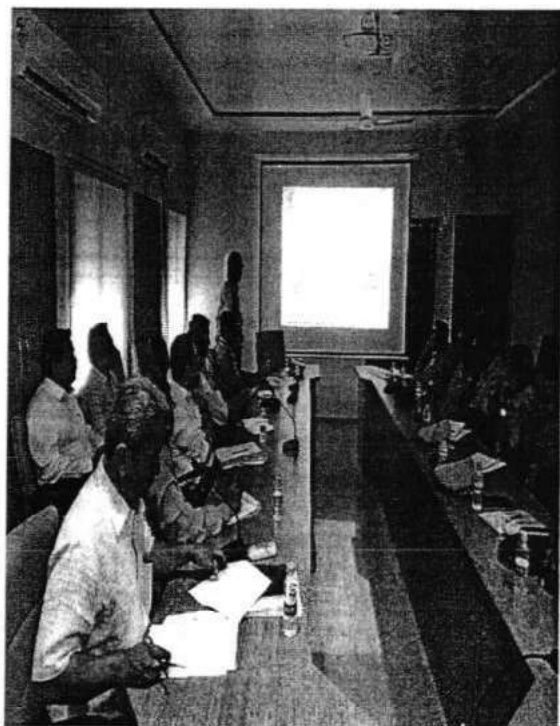
Dr.S.P.Rajkumar (IPS), Range IG-Surat welcomed all and briefed about the importance of the training. P.U.Dave (R.O-GPCB, Surat) informed about the objective of the training and also about Noise pollution (Regulation & Control) Rule-2000 and amended thereof.

N.K.Valand (Sr.Sci.Asst.) of G.P.C.B. Surat has made detailed presentation on Noise Pollution & monitoring and about Noise pollution (Regulation & Control) Rule-2000 and amended thereof with legislative provision & objective of the rule covering various issues and topics e.g. What is Noise? , Source and effects of Noise, about Sound level meter and its Monitoring procedure about Restriction of use of loud speakers/public address system etc. Then after L. V. Brahmabhatt (Sr.Sci.Asst) of G.P.C.B. Surat has made demonstrations and training of the Noise Level Meter and monitoring aspects to the participants.

The training program is ended with vote of thanks by B.R.Gajjar (R.O. GPCB, Vapi)

PHOTOGRAPHS TAKEN DURING THE TRAINING SESSION





Gujarat Pollution Control Board, Regional Office – Surat

Sub: Training regarding Noise Level Meter/Monitoring to designated 56 Dy.SP of Police Department for the compliance of Hon'ble NGT order dated 15.03.2019 in O.A. No-681/2018 regarding Noise Pollution aspect.

- Details of officials remain present in the training.
- Venue - Meeting Hall, Range IG Office, Athwalines, Surat.
- Date : 03/03/2020 Time: 03:00 PM

SR No.	Name of Officer	Designation	Office Address	Contact No	E-Mail-Id	Sign.
1						
2						
3	Shri Manoj Sharma	Dy.SP	Head Quarter, Valsad	9978477322	manojsharmapi@gmail.com	Un
4	Shri Bhargav Pandya.	Dy.SP	SC/ST Cell	9427127171		Hy
5	Shri S.K. Rai,	Dy.SP	Head Quarter, Tapi-Vyara	9925029085	dyspbq-tapi@gujarat.gov.in	gpr
6	Shri R.D. Kava	Dy.SP	Head Quarter, Dang	9925826158	dysp-hq-danga@gujarat.gov.in	Wysp
7	Shri B.S. Mori R.D. Faidu	Dy.SP	Head Quarter, Navsari	8320161361 7709050105		Papad
8	Shri A M Parmar	A.C.P	B-Div Zone-2, Udn, Surat	8980047500	acpbdivson.surat@gmail.com acpbdivson@gujarat.gov.in	MF

9	Shri D.J. Chavda	A.C.P.	H-Div. Zone-2, Uda. Surat Kutangan	9825612071	djchavda75@gmail.com acpdolivision@gmail.com	OK
10	Shri H.D. Mevada	A.C.P.	Region-1, Surat	9099913977	hreshdmevada@gmail.com hreshdmevada@gmail.com	Hdy
11	Shri A.K. Varma	A.C.P.	H-Div. Zone-4, Surat	9978499000	piakvarma@gmail.com	A
12	B. R. Gejari	R.O.	Vapi	9824019594	ro-gpcb-vapi@ gujarat.gov.in	f
13	A. G. Patel	RO	Narsali	9824110053	ro-gpcb-Narsali@ gujarat.gov.in	Chuv
14	H. M. Ganvi	RO	Saigam	9825151421	ro-gpcb-saigam@ gujarat.gov.in	SBGuf
15	A. O. Trivedi	DEE	Narsali	9426366533	—	9
16	N. M. Kavar	SSA	Vapi	9712588365	ro-gpcb-vapi@ gujarat.gov.in	OK
17	N. K. Vaid	SSA	Surat	9824372284	OK	OK
18	L. V. Brahmbhatt	SSA	Surat	9828244054	—	Inshakti
19	P. L. Dewe	RO	Surat	9428049808	ro-gpcb-surat@ gujarat.gov.in	OK

SR No.	Name of Officer	Designation	Office Address	Contact No	E-Mail-Id	Sign.
20	D.M. Anuradha	DEE	• Surat	9823303029	— d. —	
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						



REGIONAL OFFICE

GUJARAT POLLUTION CONTROL BOARD

IS/ISO 9001 : 2008 AND IS/ISO 14001 : 2004 CERTIFIED ORGANIZATION

GERI COMPOUND, RACECOURSE ROAD, VADODARA – 390 007 Phone : 2354850 Fax : 2339205

WEB SITE: www.gpcb.gov.in ONLINE APPLICATION SITE : <http://gpcbngn.gujarat.gov.in>

Subject	Training regarding Noise Level Meter/Monitoring to designated 56 Dy. SP of Police Department for the compliance of Hon'ble NGT order dated 15-03-2019 in O.A. No-681/2018 regarding Noise Pollution aspect.
Reference	GPCB/LGL : NGT: GEN : 115(3)/554693/ 14 FEB 2020
In connection with above subject and reference, we under sign had personally contacted with smt. Tejalben Patel ACP, commissioner office Vadodara on 26.02.2020 During discussion, she had stated that Vadodara division will contact and communicate the mention DySp as per letter Vadodara control office had approach the relevant office and given the contact number of DySp and Sp officers. We had contacted remaining DySp Sp of Bharuch, Narmada, Chhota udepur, Godhra, Dahod, Mahisagar, Western Rail way of Vadodara and Vadodara rural. Officers of the Bharuch Narmada, Chhotaudepur and Dahod had not pick up the call. Officer of Mahisagar had requested to give copy of the order of training to his office through E-mail. hence we have also E-mail copy of training Order. - As per schedule on 27.2.2020 at 15.00 hours we under sign reached the training place, Vadodara Commissioner of police conference room Police Bhavan Vadodara to deliver the training regarding Noise Level Meter/Monitoring. - During training total 8 DySP/SP out of total 13 to be instructed remained presence in training in Vadodara zone (Presence sheet attached herewith) - During training following points are covered during training.	

A) Brief knowledge about Noise Control Management Rules 2000 and its amendments through presentation, Brief presentation regarding noise rules and its amendments Related legal provisions, norm etc. thereof, moreover other technical and legal aspects has been explained to all the participants.

B) Thereafter with the available noise level meter with data logger and without data logger the function and operation aspects were explained by operation both the instrument in presence of all the participants and make them aware as well as taught them how to operate practically the noise level meter.

Photographs of training are attached here with...

A.G.Patel
A.E.E

Dr. M.M.Page
S.O



Presentation given by Dr. M.M.Page

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WEB SITE: www.gpcb.gov.in **ONLINE APPLICATION SITE :** <http://gpcbxgn.gujarat.gov.in>

Sr. No	Name Of Dy. SP	Signature
1	M. Suresh Kumar	P.P.R.
2	M. Suresh Kumar	A.C.P.'A' Div PBL
3	H.M.Kansagara	DySP (H&S) - Gadchiroli
4	M. M. Kulkarni ACP, Gadchiroli DySP, H&S, Gadchiroli	(P. R. Kulkarni) velocity
5	A.V. Rajgopal ACP - D.D. Div	A.V. Rajgopal ACP
6	S.B. Kumaramani ACP 'F' Div	S.B. Kumaramani
7	J.I. Mahalingam	J.I. Mahalingam
8		
9		
10		
11		
12		
13		

तालीम आपनात

 એ.જી પટેલ મદદનીશ પર્યાવરણ ઇન્જનેર ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ, વડોદરા	 ડૉ. એમ. એમ. પાળે વૈજ્ઞાનિક અધિકારી ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ, વડોદરા
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GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

No. GPCB/LGL: NGT: GEN: 115(3)/554693/

14 FEB 2020

To,
Shri Narsimhakumar
Inspector General of Police (L&O),
O/o the DG and IG of Police,
1st Floor, Police Bhavan,
Sector: 18, Gandhinagar- 382018.

Sub: Training regarding Noise Level Meter/Monitoring to designated 56 Dy. SP of Police Department for the compliance of Hon'ble NGT order dated 15.03.2019 in O.A. No- 681/2018 regarding Noise Pollution aspect.

Ref: (1) Your letter no: 30-9/51X22/T-2/NGT/3766/2019 dated:16/10/2019.

(2) Your letter no: 22/2-4/Noise Monitoring/159/2020 dated: 22/01/2020.

Sir,

With reference to the above subject and reference, Board conducted training regarding Noise level Meter to officials of Police Department from 25/07/2019 through its regional offices. Around 200Nos of Police officers/staff were given training. As decided during last meeting training to the concern designated 56 Dy. SP are organized as under. The concern Regional officer of GPCB will organize the training as per the schedule below.

For Ahmedabad and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
1	Shri L.B.Zala, 'B' Division, Zone-1.	Training Center Police Stadium Sahibaug, Ahmedabad	Date: 29/02/2020 Time: 03:00 PM	Smt. N.D. Ajmera Regional Officer, Regional Office, Ahmedabad (City). M No 9898003096
2	Shri S.K. Trivedi, 'C' Division, Zone-2.			
3	Shri I.G. Shaikh, 'T' Division, Zone-3.			
4	Shri A.M. Desai, 'G' Division, Zone-4.			
5	Shri N.L. Desai, 'F' Division, Zone-5.			
6	Shri R.B. Rana, 'J' Division, Zone-6.			
7	Shri V.G. Patel, 'M' Division, Zone-7.			
8	Shri S.H. Sarada, Head Quarter Ahmedabad Rural			
9	Shri D.R. Patel, Head Quarter Anand			
10	Shri V.J. Rathod, Head Quarter Kheda- Nadiad			

Clean Gujarat Green Gujarat

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Page 1 of 4

11	Shri M.J.Solanki. Head Quarter, Gandhinagar			
12	Shri J.R.Vaghela, SC/ST Cell, Mehsana			
13	Smt. Minakshi Patel, Head Quarter Sabarkantha			
14	Shri N.V.Patel, Head Quarter Arvalli, Modasa			
15	Shri J.T.Sonara. Head Quarter Patan			
16	Shri R.K.Patel, . Head Quarter Palanpur			
17	Shri P.J.Chaudhri. Gandhinagar Zone			

For Vadodara and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
18	Shri P.H.Bhesaniya, 'A' Division, Vadodara City, Zone-1.	Vadodara Commissioner of Police Conference Room, Police Bhavan, Near KuberBhavan, Vadodara	Date: 27/02/2020 Time: 03:00 PM	Shri R.B.Trivedi Regional Officer, Regional Office. Vadodara M. No: 7574827582
19	Shri A.V.Rajgor, 'D' Division, Vadodara City, Zone-2.			
20	Shri S.B.Kupavat, 'F' Division, Vadodara City, Zone-3.			
21	Shri P.R.Rathod, 'G' Division, Vadodara City, Zone-4.			
22	Shri P.R.Patel, Head Quarter Vadodara Rural			
23	Shri J.S.Nayak, . Head Quarter, Bharuch			
24	ChetnaChaudhri, Head Quarter, Narmada			
25	Shri J.G.Chavda, Head Quarter, Chotta Udaipur			
26	Shri H.M.Kansagara, Head Quarter Panchmahal- Godhara			
27	Shri P.I.Solanki, Head Quater, Dahod			
28	Shri V.M.Chauhan, Head Quarter Lunavada- Mahisagar			
29	Shri M.M.Ganguli, Vadodara Zone.			
30	Shri R.D.Dabhi, Western Railway, Head Quarter Vadodara			



GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

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Fax : (079) 23232156

Website : www.gpcb.gov.in

For Rajkot and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
31	Shri P.K.Diyora. West Division, Zone- 1	Conference Room,		
32	Shri S.R.Tandel. North Division, Zone-2.	Rajkot Engineering		
33	Shri P.S.Goswami, Head Quarter Rajkot Rural Rajkot	Association Bhaktinagar		
34	Shri P.K.Patel, Head Quarter, Surendranagar	Industrial Estate,		
35	Shri A.B.Saiyad, Head Quarter, Jamnagar	Lagan Road, Karsol		
36	Shri C.C.Khasana, Head Quarter, Khambladiya, (DevbhumiDwarka)			
37	Shri D.G.Chaudhri, Head Quarter Morbi			Shri B.G.Sutreja Regional Officer, Regional Office,
38	Shri R.V.Damor, Head Quarter Junagadh		Date: 27.02.2020 Time: 03:00 PM	Rajkot
39	Shri B.A.Patel, Head Quarter, Porbandar			M. No: 9825854318
40	Shri M.M.Parmar, Head Quarter Girsomnath			
41	Shri D.D.Chaudhri, Head Quarter Bhavnagar			
42	Shri M.S.Rana, Head Quarter Amreli			
43	Shri G.P.Chauhan, Head Quarter Botad			
44	Shri B.M.Desai, Head Quarter West Kutch- Bhuj			
45	Shri V.R.Patel, Head Quarter East - Gandhidham			
46	Shri R.S.Patel, Rajkot Zone			
47	Shri P.P.Pirojiya, SDPO Western Railway, Rajkot			

For Surat and surrounding area

Sr. No	Name of Dy. SP	Place of Training	Date and Time of Training	Concern RO of GPCB
48	Shri Manoj Sharma. Head Quarter. Valsad	Meeting hall, Range IG Office, Athvalines, Surat.	Date: 03/03/2020 Time: 03:00 PM	Shri P.U.Dave Regional Officer, Regional Office. Surat M. No: 7574827442
49	Shri Bhargav Pandya, SC/ST Cell			
50	Shri S.K.Rai. Head Quarter. Tapi- Vyara			
51	Shri R.D.Kava. Head Quater. Dang.			
52	Shri B.S.Mori, Head Quarter Navsari			
53	Shri A.M Parmar, 'B' Division, Zone-1,			
54	Shri D.J Chavda, 'D' Division, Zone-2,			
55	Shri H.D.Mevada, A.P.C, Region-1			
56	Shri A.K.Verma, 'H' Division, Zone-4,			

You are requested accordingly to inform all Dy. SPs to attend and obtain training under intimation to this office.


(N.M. Tabham)
Member Secretary

Copy to:

- 1) The Regional Officer, Regional Office, Ahmedabad (City)
- 2) The Regional Officer, Regional Office, Vadodara
- 3) The Regional Officer, Regional Office, Rajkot
- 4) The Regional Officer, Regional Office, Surat

You are instructed to organize the training Programme as above and submit the detail report within 3 days after the programme.

Annexure-XVII

Attendance sheet of present officers in training regarding Digital Sound Level
Meter Use & Maintenance held on dated: 23/03/2020.

Sr.No.	Name & Designation	District	Numbers of Sound Level Meter allocated
1.	Shri R.V Damor DY SP	Junagadh	1
2.	Shri P.I.Solanki DY SP	Dahod	1
3.	Shri B.J.Chaudhari DY SP	Gandhinagar	1
4.	Shri J.S. Nayak DY SP	Bharuch	1
5.	Shri H.M. Kanasagara DY SP	Godhara	1
6.	Shri R.K.Patel DY SP	Banasakantha	1
7.	Shri H.D.Mevada DY SP	Surat City	1
8.	Shri D.R.Patel DY SP	Anand	1
9.	Shri H.M. Solanki PI	Sabarakantha	1
10.	Shri J.T.Sonara DY SP	Patan	1
11.	Shri N.V.Patel DY SP	Arvalli	1
12.	Shri C.N.Chaudhari DY SP	Narmada	1
13.	Shri D.P.Bhatt DY SP	Mahi sagar	1
14.	Shri V.G.Rathod DY SP	Kheda- Nadiad	1
15.	Shri P.R.Patel DY SP	Vadodara Rural	1

Protocol on Noise Level Monitoring and Enforcement to curb Noise Pollution:

(1) Purpose:

This Protocol envisages regulation and control of Noise producing sources with the objective of maintaining ambient air quality standards in respect of Noise by establishing a proper enforcement mechanism in place with the coordination of GPCB and Police Department. It is developed to monitor the Noise Levels at a particular site or place on routine basis and on the basis of public complaints to curb Noise Pollution with the joint efforts of Gujarat Pollution Control Board (GPCB) and Gujarat Police Department using latest equipment.

The data generated regularly with the help of modern devices will be used for evaluating the Noise Pollution levels at the different places of the State and also to develop strategies to keep the Noise level within the prescribed limit. Generally Noise Pollution sources are Industrial areas, Road Traffic, Rail Traffic, Construction and Public Works and Indoor sources like Air Coolers, Radio, Television and other Home Appliances. Of all these major nuisance of Noise Pollution emanates from indiscriminate use of Public Address System and Music System in our conditions.

(2) Introduction:

The State of Gujarat constituted a Joint Enforcement Team consisting members of Gujarat Pollution Control Board (GPCB) and Gujarat Police Department and procured the necessary devices like Sound Level Meters to monitor Noise Pollution Levels on the directions of National Green Tribunal (NGT) vide its order dated: 15/03/2019 to check Noise Pollution in the States. Further, Gujarat Police Department has imparted training to its nodal officers in the rank of Deputy Superintendent of Police on the usage of such devices in order to take appropriate action against the violators of noise pollution rules.

(3) Protocol:

A comprehensive protocol is framed as below to take appropriate action against the violators of noise pollution rules:

A. Available Legal Provisions:

(I) Noise Pollution (Regulation & Control) Rules, 2000, framed under Environment Protection Act, 1986 specifies the limit of noise permissible in specific areas of land use as under:

Area/Zone	dB (A) Leq	
	Day	Night
Industrial area	75	70
Commercial area	65	55
Residential area	55	45
Silence Zone	50	40

(dB: Decibels, Leq: Equivalent continuous sound level)

Note: (1) The period from 6 am to 10 pm will be considered as day time.

(2) The period from 10 pm to 6 am will be considered as night time.

(II) Noise Standards notified in Part 'E', schedule-VI of Environment (Protection) Rules, 1986.

- Noise Limits for Automobiles [Free Field Distance at 7.5 Metre] in dB(A) at manufacturing Stage:

Category of Vehicle	dB (A)
Motorcycle, Scooters and Three Wheelers	80
Passenger Cars	82
Passenger or Commercial Vehicles up to 4MT	85
Passenger or Commercial Vehicle up to 12MT	89
Passenger or Commercial Vehicle exceeding 12MT	91

- Domestic Appliances and Construction equipments at the manufacturing Stage:

Category of Domestic Appliances / Construction Equipment's	dB (A)
Window Air Conditioners of 1 Ton to 1.5	68
Air Coolers	60
Refrigerator	46
Compactors (rollers), Front loaders, Concrete Mixers, Cranes (Movable), Vibrators and Saws	75

(III) Notifications of District Collectors/Commissioners of Police issued from time to time under Section 144 of Criminal Procedure Code (Cr. PC), pronouncing areas around 100 meters of places like Hospitals, Religious Places, Courts, Educational Institutes as "Silence Zone" and restricting the use of loud speakers and other instruments generating heavy noise beyond the permissible level. Bursting of Crackers during festival time are again regulated with notifications. Any violation of this notification is treated as an offence under Section 188 of Indian Penal Code (IPC), authorizing Police to register and investigate the case. (IV) In the same way

Section 37(e) of Gujarat Police Act, 1951 also authorizes District Collectors/Commissioners of Police to issue notification prohibiting heavy sound or noise by playing music through loud speakers which in turn empowers Police to register an offence under Section 188 of Indian Penal Code (IPC) for violation of the notification.

(V) Noise Pollution is also dealt under Section 268 of IPC which defines public nuisance wherever there is no specific notification of "Silence Zone" is pronounced and the penal provisions under Section 290 and Section 291 of the IPC for the same.

(VI) Police Act, 1861 also deals Noise Pollution under Section 30 of the Act authorizing District Superintendent of Police to regulate all the assemblies and processions in which Music is used as part on certain occasions like festivals and other celebrations. Any such processions will take place after obtaining due approval of the authorities.

B. Enforcement of Noise Pollution Control:

(I) Whenever such complaints of Noise Pollution are received or violations are noticed in an area the Jurisdiction of Police along with GPCB officials shall monitor the noise using the Noise Level Monitoring Device in the presence of witnesses, and if the noise is more than the acceptable level a proceeding covering date, time, location and duration of the measurement along with weather conditions will be drawn to that effect for initiating further legal action in this regard.

(II) The Noise Level Monitoring Device has to be calibrated without fail before use. It generates a slip containing the details of volume of Noise measured in decibels which has to be authorized by the GPCB Officials and witnesses for to be used as a proof in the court of law. Protocol for Ambient Level Noise Monitoring issued by Central Pollution Control Board, New Delhi has also to be strictly adhered to while using the Noise Level Monitoring Device.

(III) For taking cognisance on noise pollution either the Police or the Officials of GPCB can lodge the complaint in such events on behalf of the State. The same procedure can be adopted when complaints are received in cases of public meetings/processions/agitation carried out without proper permissions and using instruments generating noise beyond the permissible levels. After receiving the complaints the Noise Level has to be measured with Noise Level Monitoring Device in the presence of witness and if the level is above the prescribed ambient level a case is lodged with the necessary details to proceed further. The musical instruments or Public Address System or the Vehicle or Any Other Source causing noise pollution can be seized under Section-102 of CrPC as material evidence.

(IV) Whenever complaints of Noise Pollution are received from Industrial areas/Vulnerable areas, a Joint Enforcement Team consisting of Police and Officials of Gujarat Pollution Control Board, shall carry out inspection of the site and measure the Noise Levels using Noise Level Monitoring Device and suitable action may be taken accordingly.

C. Power to prohibit continuance of music sound or noise: The Noise Pollution Control Rules, 2000 also provides the Deputy Superintendent of Police and above the authority for preventing, prohibiting, controlling or regulating the incidence or upon any premises of any vocal or instrumental music, Sounds caused by playing, beating, clashing, blowing or use in any manner whatsoever of any instrument including loudspeakers, public address systems, horn, construction equipment, appliance or apparatus or Sound caused by bursting of sound emitting fire crackers or the carrying on in or upon, any premises of any trade, avocation in order to prevent annoyance, disturbance, discomfort or injury or risk of annoyance, discomfort or injury to the public or to any person who dwell or occupy property on the vicinity.

D. Loud Speakers and Noise Control: The use of Public Address System and Loud Speakers are regulated by administrative restrictions. Whenever they are used necessary permission has to be taken from the concern authorities. Public address system and loud speakers should not be used at night between 10.00 p.m. to 6.00 a.m. except in closed premises. The permitted strength of the power amplifier should be adjusted to cover the audience, and noise level beyond the boundary limit of the noise source premises should not be increased by more than 5 dB above the ambient noise level.

E. Vehicles and Noise Control: The Noise Pollution (Regulation and Control) Rules, 2000 specifies the limit for the Noise Levels for the vehicles at the manufacturing stage and Section 190(2) of the Motor Vehicle Act, 1968 provides for penalty on the violation of standards prescribed in relation to control of Noise Pollution emanating from the Vehicles. Further, Section 119 and 120 of Central Motor Vehicle Rules, 1989 describes the regulation on use of Horns and Silencers in the Vehicles respectively.

F. Joint Enforcement Team Monitoring Noise Levels: The Joint Enforcement Team of the Officials of Police and GPCB of the concerned district/city will identify the vulnerable areas creating noise pollution of their jurisdiction and visit such areas

from time to time and will take legal action if the noise pollution is found to be more than acceptable level. The regional officer of GPCB and the nodal officers of the city/district (Dy.SP) will hold meeting every three months and review the situation and take necessary action. They will submit a report on the action taken in this regard regularly to Commissioner of Police/District Collector/District Superintendent of Police and the Head Office of GPCB every three months for regular monitoring.

G. Upgradation/Revision of Provisions: Any other Central/State/ Special Acts or Rules framed and revision in the existing Acts/Provisions from time to time concerning with Noise Pollution may be adhered while enforcing the measures to curb Noise Pollution.



GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

No/ GPCB/LGL/NGT/Gen:- 115(2)/525518

By RPAD

24 OCT 2019

To,
Dr. Padma S Rao ,
 Senior Principal Scientist & Head,
 Air Pollution Control Division,
 National Environmental Engineering Research Institute (NEERI),
 Nehru Marg, Nagpur- 440020.

Sub:- Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

Ref:- 1) Hon'ble NGT order dated-15.03.2019 in O.A No- 681/2018.
 2) Direction issued by CPCB on 21.06.2019.

Sir,

With reference to Hon'ble NGT order mentioned above, Central Pollution Control Board has issued directions to GPCB under section 18(1) B of the Air (Prevention and Control of Pollution) Act, 1981 regarding Noise mapping, identifying hot spots and mitigation plan for control of noise pollution vide letter under reference no 2.

CPCB has developed a methodology for formulation of noise mapping in consultation with NPL, NEERI and CRRI and directed to carry out noise mapping for further execution. CPCB has identified 4 cities of Gujarat (Ahmedabad, Rajkot, Surat and Vadodara) and following directions are issued to Chairman GPCB.

- (1) Action plan for preparation of Noise Mapping for the 4 cities (Ahmedabad, Rajkot, Surat, and Vadodara) be prepared and executed by 30.11.2019 as per methodology formulated by CPCB.
- (2) Hot spots having violation of prescribed norms be identified and mitigation plans be prepared by 31.12.2019 so as to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.
- (3) Reports on Noise Maps and Noise Mitigation action plans be provided to CPCB by 31.12.2019 for submission to Hon'ble NGT.

➤ As this is a special type of deed, and required to be completed in specific time period, CPCB was requested to advice about the approved agencies from whom noise mapping as per Hon'ble NGT order may be done. CPCB has suggested your name for the above work.

In view of above you are requested to submit Technical and financial proposal for the work for the Ahmedabad, Rajkot, Surat and Vadodara cities immediately writing "Technical and financial proposal for Noise Mapping" on envelope.

This letter is issued after approval of competent authority.

Thanking You,

For and on Behalf of
 Gujarat Pollution Control Board,

(B.M. Makwana)

Senior Scientific Officer

Unit Head P3- Branch

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation



GPCB

GUJARAT POLLUTION CONTROL BOARD

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(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

No/ GPCB/LGL/NGT/Gen:- 115(2) / 525521 /

24 OCT 2019

To,
Dr. C.Sharma ,
Chief Scientist,
CSIR- National Physical Laboratory,
Dr.K.S.Krishnan Marg,
New Delhi- 110012.

Sub:- Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

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➤ As this is a special type of deed, and required to be completed in specific time period, CPCB was requested to advice about the approved agencies from whom noise mapping as per Hon'ble NGT order may be done. CPCB has suggested your name for the above work.

In view of above you are requested to submit Technical and financial proposal for the work for the Ahmedabad, Rajkot, Surat and Vadodara cities immediately writing "Technical and financial proposal for Noise Mapping" on envelope.

This letter is issued after approval of competent authority.

Thanking You,

For and on Behalf of
Gujarat Pollution Control Board,

(B.M.Makwana)

Senior Scientific Officer

Unit Head P3- Branch

Clean Gujarat Green Gujarat
ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

24/10/19



GPCB

GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

No/ GPCB/LGL/NGT/Gen:- 115(2) 1525517

By RPAD
24 OCT 2019

To,
Dr. Ravindra Kumar,
Head - Transportation Planning and Environment (TPE),
Central Road Research Institute
Delhi - Mathura Road,
PO CRRI, New Delhi 110025.

Sub:- Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

Ref:- 1) Hon'ble NGT order dated-15.03.2019 in O.A No- 681/2018.
2) Direction issued by CPCB on 21.06.2019.

Sir,

With reference to Hon'ble NGT order mentioned above, Central Pollution Control Board has issued directions to GPCB under section 18(1) B of the Air (Prevention and Control of Pollution) Act, 1981 regarding Noise mapping, identifying hot spots and mitigation plan for control of noise pollution vide letter under reference no 2.

CPCB has developed a methodology for formulation of noise mapping in consultation with NPL, NEERI and CRRI and directed to carry out noise mapping for further execution. CPCB has identified 4 cities of Gujarat (Ahmedabad, Rajkot, Surat and Vadodara) and following directions are issued to Chairman GPCB.

- (1) Action plan for preparation of Noise Mapping for the 4 cities (Ahmedabad, Rajkot, Surat, and Vadodara) be prepared and executed by 30.11.2019 as per methodology formulated by CPCB.
- (2) Hot spots having violation of prescribed norms be identified and mitigation plans be prepared by 31.12.2019 so as to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.
- (3) Reports on Noise Maps and Noise Mitigation action plans be provided to CPCB by 31.12.2019 for submission to Hon'ble NGT.

➤ As this is a special type of deed, and required to be completed in specific time period, CPCB was requested to advice about the approved agencies from whom noise mapping as per Hon'ble NGT order may be done. CPCB has suggested your name for the above work.

In view of above you are requested to submit Technical and financial proposal for the work for the Ahmedabad, Rajkot, Surat and Vadodara cities immediately writing "Technical and financial proposal for Noise Mapping" on envelope.

This letter is issued after approval of competent authority.

Thanking You,

For and on Behalf of
Gujarat Pollution Control Board,

(B.M. Makwana)

Senior Scientific Officer

Unit Head P3- Branch

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

5.11.19

Annexure-XX

OFFICE ORDER

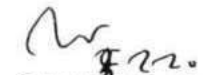
CONSTITUTION OF THE COMMITTEE FOR EVALUATION OF TECHNICAL & FINANCIAL PROPOSAL FOR NOISE MAPPING, IDENTIFICATION FOR HOT SPOTS HAVING VIOLATION OF PRESCRIBED NORMS AND MITIGATION PLAN TO ENSURE COMPLIANCE OF NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 IN THE GUJARAT.

With reference to CPCB's directions to the board under section 18(1) B of the Air (Prevention and Control of Pollution) Act, 1981 for the compliance of NGT order dated 15-03-2019 in OA-No 681/2018, regarding Noise Mapping, Identification for HOT spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000. Board is going to carry out said activities through outsourcing.

In view of above, it is decided to constitute following committee for evaluation of technical & financial proposal & recommendation for assigning the said work to suitable agency in the Gujarat from proposal received.

1	Member Secretary, GPCB, Gandhinagar	Chairman
2	Mr. G.H.Trivedi(SEE), GPCB, Gandhinagar	Member
3	Mr. A. V.Shah (SEE), GPCB, Gandhinagar	Member
4	Prof. Manishkumar IIT, Gandhinagar	Member
5	Regional Director, West Zone, CPCB, Vadodara	Member
6	Dr. P.A. Joshi (Professor), DDIT, Nadiyad	Member
7	Mr. D.M. Thakar (EE), GPCB, Gandhinagar	Member
8	Mr. B.M.Makawana (SSO)GPCB, Gandhinagar	Convener

The committee will meet as and when required. This committee is constituted after approval of competent authority of the Board.


(N.M. Tabhani)

Member Secretary

No: LGL: NGT: GEN: 115(3) / 553860/

05 FEB 2020

Copy to:

1. The PS to the Hon. Chairman, GPCB, HO, Gandhinagar....for information pl.
2. The PS to the Member Secretary, GPCB, HO, Gandhinagar....for information pl.
3. Unit Head, P-3 Branch, HO, Gandhinagar.
4. All the Members of the Committee.

OIS
alt
5/2/20

Annexure-XXI

22 MAY 2020

No/ GPCB/LGL/NGT/Gen:- 115(3) 1560352

By RPAD

To,
Dr. Ravindra Kumar,
Head - Transportation Planning and Environment (TPE),
Central Road Research Institute
Delhi - Mathura Road,
PO CRRI, New Delhi 110025.

Sub:- Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

Ref:- 1) Hon'ble NGT order dated-15.03.2019 in O.A No- 681/2018.
2) Direction issued by CPCB on 21.06.2019.
3) This office letter no-GPCB/LGL/NGT/Gen:-115(2)/525517 dated- 24/10/2019
4) Minutes of committee meeting on 28/02/2020.

Sir,

In connection with above said subject and letter under reference -3 you have submitted technical and financial proposal. For the evaluation of the proposal committee meeting was held on 28/02/2020 at 11:00 AM at room no-106, Head office, GPCB, Gandhinagar. Shree Naseem Akhtar from CRRI attended the meeting and gave a presentation on the proposal. Looking to the presentation from CRRI, the Committee decided to obtain following required information/details from CRRI

1. Grid Size
2. No. of sampling location
3. Frequency of sampling including bifurcation of working and non-working days
4. Details of Device to be used for monitoring.
5. Hotspot identification and detailed mitigation plan
6. Type of Model & Software to be used and its Accuracy, Validation and features
7. Contour Mapping

You are requested to submit the above information/details within 10 days.

This letter is issued after approval of competent authority.

Thanking You,

For and on Behalf of
Gujarat Pollution Control Board,


(B.M. Makwana)

Senior Scientific Officer
Unit Head P3- Branch

OTC



22/05/2020



Reminder -2

No/ GPCB/LGL/NGT/Gen: - 115(3)/560349

22 MAY 2020 By RPAD

To,
Dr. C.Sharma,
Chief Scientist,
CSIR- National Physical Laboratory,
Dr.K.S.Krishnan Marg,
New Delhi- 110012

Sub:- Reminder for submitting Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

Ref:- 1) Hon'ble NGT order dated-15.03.2019 in O.A No- 681/2018.
2) Direction issued by CPCB on 21.06.2019.
3) This office letter No./GPCB/LGL/NGT/Gen:-115 (2)/525521 dated 24/10/2019.
4) This office letter No./GPCB/LGL/NGT/Gen: -115(2)/528924 dated-03/12/2019.

Sir,

This is with reference to this office letters under reference 3 and 4. You were requested to submit Technical and financial proposal to carry out Noise Mapping, identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) rules, 2000 for Ahmedabad, Rajkot, Surat and Vadodara cities immediately writing "Technical and financial proposal for Noise Mapping" on envelope.

We have not received your technical and financial proposal for the same till date. In the last committee meeting it was decided that NPL should be given last chance to submit technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules-2000, along with

- Grid Size
- No. of sampling location
- Frequency of sampling including bifurcation of working and non-working days
- Details of Device to be used for monitoring.
- Hotspot identification and detailed mitigation plan
- Type of Model & Software to be used and its Accuracy, Validation and features
- Contour Mapping

Within 10 days.

It is therefore requested to kindly submit the technical and financial proposal in closed envelope within 10 days to proceed further in the matter. If you will not submit the same it will be assumed that you are not interested to carry out the work

An early reply in the matter will be highly appreciated.

This letter is issued after approval of competent authority.

Thanking You,

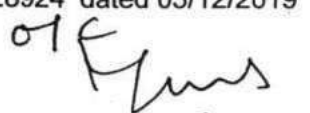
For and on Behalf of
Gujarat Pollution Control Board,


(B.M.Makwana)

Senior Scientific Officer
Unit Head P-3 Branch

Encl: 1. This office letter No./GPCB/LGL/NGT/Gen:-115 (2)/525521 dated 24/10/2019
2. This office letter No./GPCB/LGL/NGT/Gen:-115 (2)/528924 dated 03/12/2019




22/05/2020

Reminder

No/ GPCB/LGL/NGT/Gen:- 115(2) / 528324 /

03 DEC 2019 By RPAD

To,
Dr. C.Sharma ,
Chief Scientist,
CSIR- National Physical Laboratory,
Dr.K.S.Krishnan Marg,
New Delhi- 110012

Sub:- Reminder for submitting Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

Ref:- 1) Hon'ble NGT order dated-15.03.2019 in O.A No- 681/2018.
2) Direction issued by CPCB on 21.06.2019.
3) This office letter No./GPCB/LGL/NGT/Gen:-115 (2)/525521 dated 24/10/2019.

Sir,

This is with reference to this office letter No./GPCB/LGL/NGT/Gen:-115 (2)/525521 dated 24/10/2019, you were requested to submit Technical and financial proposal to carry out Noise Mapping, identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) rules, 2000 for Ahmedabad, Rajkot, Surat and Vadodara cities immediately writing "Technical and financial proposal for Noise Mapping" on envelope.

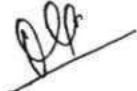
We have not received your technical and financial proposal for the same till date. It is therefore requested to kindly submit the technical and financial proposal in closed envelope within 5 days to proceed further in the matter.

An early reply in the matter will be highly appreciated.

This letter is issued after approval of competent authority.

Thanking You,

For and on Behalf of
Gujarat Pollution Control Board,



(B.M.Makwana)
Senior Scientific Officer
Unit Head P-3 Branch

Encl:

1. This office letter No./GPCB/LGL/NGT/Gen:-115 (2)/525521 dated 24/10/2019



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

By RPAD

No/ GPCB/LGL/NGT/Gen:- 115(2) / 525521

24 OCT 2019.

To,
Dr. C.Sharma ,
Chief Scientist,
CSIR- National Physical Laboratory,
Dr.K.S.Krishnan Marg,
New Delhi- 110012.

Sub:- Technical and financial proposal to carry out Noise Mapping, Identification for Hot spots having violation of prescribed norms and mitigation plan to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.

Ref:- 1) Hon'ble NGT order dated-15.03.2019 in O.A No- 681/2018.
2) Direction issued by CPCB on 21.06.2019.

Sir,

With reference to Hon'ble NGT order mentioned above, Central Pollution Control Board has issued directions to GPCB under section 18(1) B of the Air (Prevention and Control of Pollution) Act, 1981 regarding Noise mapping, identifying hot spots and mitigation plan for control of noise pollution vide letter under reference no 2.

CPCB has developed a methodology for formulation of noise mapping in consultation with NPL, NEERI and CRRRI and directed to carry out noise mapping for further execution. CPCB has identified 4 cities of Gujarat (Ahmedabad, Rajkot, Surat and Vadodara) and following directions are issued to Chairman GPCB.

- (1) Action plan for preparation of Noise Mapping for the 4 cities (Ahmedabad, Rajkot, Surat, and Vadodara) be prepared and executed by 30.11.2019 as per methodology formulated by CPCB.
- (2) Hot spots having violation of prescribed norms be identified and mitigation plans be prepared by 31.12.2019 so as to ensure compliance of Noise Pollution (Regulation and Control) Rules, 2000.
- (3) Reports on Noise Maps and Noise Mitigation action plans be provided to CPCB by 31.12.2019 for submission to Hon'ble NGT.

➤ As this is a special type of deed, and required to be completed in specific time period, CPCB was requested to advice about the approved agencies from whom noise mapping as per Hon'ble NGT order may be done. CPCB has suggested your name for the above work.

In view of above you are requested to submit Technical and financial proposal for the work for the Ahmedabad, Rajkot, Surat and Vadodara cities immediately writing "Technical and financial proposal for Noise Mapping" on envelope.

This letter is issued after approval of competent authority.

Thanking You,

For and on Behalf of
Gujarat Pollution Control Board,

(B.M.Makwana)

Senior Scientific Officer

Unit Head P3- Branch

Clean Gujarat Green Gujarat

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

Extra No. 333

વાર્ષિક લેવાજમનો દર રૂ. ૪,૦૦૦/-



सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

Vol. LX] TUESDAY, DECEMBER 3, 2019 / AGRAHAYANA 12, 1941

Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-C

Statutory Rules and Orders (Other than those published in Parts I, I-A and I-L) made by Statutory Authorities other than the Government of Gujarat including those made by the Government of India, the High Courts, the Director of Municipalities, the Commissioner of Police, the Director of Prohibition and Excise, the District Magistrates and the Election Commission, Election Tribunals, Returning Officers and other authorities under the Election Commission.

GUJARAT POLLUTION CONTROL BOARD

NOTIFICATION

PARYAVARAN BHAVAN, SECTOR -10 A,

GANDHINAGAR, Date: 03rd December, 2019.

No: GPCB/LGL:NGT:GENERAL:115(2)/528796: In exercise of the power conferred by rule 5(3) of the Noise Pollution (Regulation and Control) Rules 2000 issued under the Environment (Protection) Act, 1986, the Member Secretary of Gujarat Pollution Control Board is pleased to issue this Notification for mandatory use of Sound Limiter(s) in all Sound System/Public Address System for effective control of Noise pollution in the whole state with immediate effect as an addendum to rule 5.

No sound system should be sold/purchased/supplied/installed/let out/used by any manufacturer/dealer/shopkeeper/any agency who lets out the public address system etc./ individual without having sound limiter in it. Installation/retrofitting of sound limiter is also mandatory to existing sound system. Further, all Licensing Authorities including Police Authorities, Municipal Corporation, Municipal Councils, Nagar Panchayats, Panchayat shall ensure that no audio system or public address system shall be let out/installed without being fitted with sound limiters in any government or non-government function and this condition be included in all licenses issued by respective agencies.

N.M.TABHANI,

MEMBER SECRETARY

GUJARAT POLLUTION CONTROL BOARD

GANDHINAGAR



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, **Gandhinagar** 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

06 JAN 2020

No: GPCB/LGL: NGT: GEN: 115(3)/ 550560 /

05 JAN 2020

To,
Director Shri Environment and Additional Secretary
Forest and Environment Department,
Block No: 14, 8th Floor,
New Sachivalay, Gandhinagar.

Sub: Installation of Sound Limiters in all sound system/public address system.

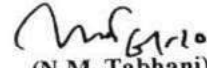
Ref: Hon'ble National Green Tribunal Orders in O.A.No-681/2018, dated: 15/03/2019 and 06/08/2019.

Sir,

In connection with above said subject and reference, Gujarat Pollution Control Board has published a notification on 03/12/2019. Please find enclosed herewith the notification for your information and further necessary action.

Thanking You,

For and behalf of
Gujarat Pollution Control Board

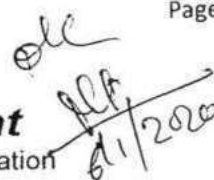

(N.M. Tabhani)
Member Secretary

Encl: As above

Copy To:

PS to Chief Secretary, Block No:1, 5 th Floor, New Sachivalay, Gandhinagar	PS to Additional Chief Secretary Home Department, Block No: 2, 1 st Floor, Sachivalay, Gandhinagar
Inspector General of Police 1 st Floor, Police Bhavan, Sector:18, Gandhinagar	Joint Secretary Shri Home Department, Block No: 2, 2 nd Floor, Sachivalay, Gandhinagar

Page 1 of 8



Collector Shri, Collector Office, Ahmedabad.	Collector Shri, Collector Office, Amreli
Collector Shri, Collector Office, Modasa, Dist: Arvali.	Collector Shri, Collector Office, Anand.
Collector Shri, Collector Office, Bhuj, Dist: Kutch.	Collector Shri, Collector Office, Nadiad, Dist: Kheda.
Collector Shri, Collector Office, Gandhinagar.	Collector Shri, Collector Office, Vill: Inaj, Veraval Talala Road, Tal: Veraval, Dist: Gir somnath.
Collector Shri, Collector Office, Chhota Udaipur.	Collector Shri, Collector Office, Jamnagar.
Collector Shri, Collector Office, Junagadh.	Collector Shri, Collector Office, Ahwa Dist: Dang.
Collector Shri, Collector Office, Vyara, Dist: Tapi.	Collector Shri, Collector Office, Dahod.
Collector Shri, Collector Office, Khambhalia, Dist: Devbhoomi Dwarka.	Collector Shri, Collector Office, Rajpipla, Dist: Narmada.
Collector Shri, Collector Office, Navsari.	Collector Shri, Collector Office, Patan.
Collector Shri, Collector Office, Porbandar.	Collector Shri, Collector Office, Godhra, Dist: Panchmahal.
Collector Shri, Collector Office, Palanpur, Dist: Banaskantha.	Collector Shri, Collector Office, Botad.
Collector Shri, Collector Office, Bharuch.	Collector Shri, Collector Office, Bhavnagar.
Collector Shri, Collector Office, Lunavada, Dist: Mahisagar.	Collector Shri, Collector Office, Mehsana.
Collector Shri, Collector Office, Morbi.	Collector Shri, Collector Office, Rajkot.
Collector Shri, Collector Office, Vadodara.	Collector Shri, Collector Office, Valsad.
Collector Shri, Collector Office, Himmatnagar, Dist: Sabarkanth.	Collector Shri, Collector Office, Surat.
Collector Shri, Collector Office, Surendranagar.	Principal Secretary, Panchayat, Gramin Avas and Gramin Vikas Vibhag, Block No:8, 3 rd Floor, Sachivalay, Gandhinagar.
Police Commissioner Shri, Police Commissioner Office, Ahmedabad City,	Police Commissioner Shri, Police Commissioner Office, Surat City,
Police Commissioner Shri, Police Commissioner Office, Rajkot City,	Police Commissioner Shri, Police Commissioner Office, Vadodara City,
Superintendent of Police SP. Office, Ahmedabad Rural.	Superintendent of Police SP. Office, Anand
Superintendent of Police SP. Office, Kheda	Superintendent of Police SP. Office, Gandhinagar
Superintendent of Police SP. Office, Himmatnagar, Dist: Sabarkantha.	Superintendent of Police SP. Office, Modasa, Dist: Arvalli.

Superintendent of Police SP. Office, Mehsana	Superintendent of Police SP. Office, Vadodara Rural.
Superintendent of Police SP. Office, Chhota Udaipur.	Superintendent of Police SP. Office, Bharuch
Superintendent of Police SP. Office, Rajpipla, Dist: Narmada	Superintendent of Police SP. Office, Godhra.
Superintendent of Police SP. Office, Lunavala, Dist: Mahisagar.	Superintendent of Police SP. Office, Dahod.
Superintendent of Police SP. Office, Surat Rural.	Superintendent of Police SP. Office, Valsad.
Superintendent of Police SP. Office, Navsari.	Superintendent of Police SP. Office, Dang, Dist: Ahwa .
Superintendent of Police SP. Office, Vyara., Dist: Tapi.	Superintendent of Police SP. Office, Rajkot Rural.
Superintendent of Police SP. Office, Morbi	Superintendent of Police SP. Office, Jamnagar.
Superintendent of Police SP. Office, Khambhaliya, Dist: Devbhoomi Dwarka.	Superintendent of Police SP. Office, Surendranagar.
Superintendent of Police SP. Office, Junagadh.	Superintendent of Police SP. Office, Veraval, Dist: Gir somnath.
Superintendent of Police SP. Office, Porbandar.	Superintendent of Police SP. Office, Bhavnagar.
Superintendent of Police SP. Office, Botad.	Superintendent of Police SP. Office, Amreli
Superintendent of Police SP. Office, Bhuj, Dist: Kutch.	Superintendent of Police SP. Office, Gandhidham, Dist: Kutch.
Superintendent of Police SP. Office, Palanpur.	Superintendent of Police SP. Office, Patan.
Superintendent of Police SP. Office, West Railway, Vadodara.	Superintendent of Police SP. Office, West Railway, Ahmedabad.
Municipal Commissioner, Mahanagar Seva Sadan, Sardar Patel Bhavan, Danapith, Ahmedabad.-380001	Municipal Commissioner, Main Building, Palace Road, Near Dandiya Bajar Cross Road, Khaderao Market, Kevdabaug, Vadodara - 390001
Municipal Commissioner, Surat Mahanagar Seva Sadan, Gordhandas Chokhaval Marg, Muglisarai, Surat - 395003.	Municipal Commissioner, Municipal Commissioner Office, Dhebar Road, Manohar pura, Rajkot - 360003.
Municipal Commissioner, Municipal Commissioner Office, Shilpi Nagar, Bhavnagar 364001.	Municipal Commissioner, Municipal Commissioner Office, Jubilee Garden, Government Colony, Jamnagar- 361001.
Municipal Commissioner, Municipal Commissioner Office, 10-B. GH Road, Beside Sahyog Sankul, Sector - 11, Gandhinagar- 382011.	Municipal Commissioner, Municipal Commissioner Office, 101, MG Road, Vanzari Chowk, Nava Nagarwada, Talav Gate, Junagadh - 362001.
The Member Secretary Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, Delhi- 110032.	Regional Directorate (West) "Parevesh Bhavan", Near Ward Office No-10, Subhanpura, Vadodara-390023.

Commissioner of Municipality (Administration), 4 th Floor, Karma yogi Bhavan, Sector: 10/A, Gandhinagar.	Regional Commissioner Shri, Municipality Office, Gujarat Housing Board Building, 5 th Floor, Pragatinagar Char Rasta, Naranpura, Ahmedabad- 380013.
Regional Commissioner Shri, Municipality Office, Surat Sehrivikas Satamandal Kacheri (SUDA Bhavan), 4 th Floor, Abhva Road, Opp: Agman Market, Surat.	Regional Commissioner Shri, Municipality Office, Vadodara Sehrivikas Satamandal Kacheri (VUDA Bhavan), 6 th Floor, L& T Circle, VIP Road, Kareli Bag, Vadodara
Regional Commissioner Shri, Municipality Office, JillaSevasadan Kacheri-3, 3 rd Floor, Near Government Press Road, Rajkot	Regional Commissioner Shri, Municipality Office, Bhavnagar Sehrivikas Satamandal Kacheri (BADA) 2 nd Floor Mahatma Gandhi Sadan, Motibag, 2 nd Floor, Near Town Hall, Bhavnagar
Regional Commissioner Shri, Municipality Office, GUDA Kacheri, Udhyog Bhavan , Block No: 9/G, Sestro: 11, Gandhinagar	Shri L.B.Zala, (Dy.SP.) 'B'Division, Zone-1, Ghatlodiya Police Compound, Ghatlodiya, Ahmedabad.
Shri S.K.Trivedi, (Dy.SP.) 'C' Division, Zone-2, Karanj Bhavan, Opposit Bhadra, Laldarvaja, Ahmedabad.	Shri I.G.Shaikh, (Dy.SP.) 'E'Division, Zone-3, Dy. SP. Office, Karanj Bhavan, Opposit Bhadra, Laldarvaja, Ahmedabad.
Shri A.M.Desai (Dy.SP.) 'G'Division, Zone-4, Assistance Police Commissioner's Office, HansolTalavdi Circle, Airport Road, Ahmedabad	Shri N.L.Desai (Dy.SP.) 'I'Division, Zone-5, Khokhara Char Rasta, Behind Rokadiya Hanuman Mandir, Ahmedabad
Shri R.B.Rana (Dy.SP.) 'J'Division, Zone-6, Rambag Police Station, Rambag Char Rasta, Opposit Reliance, Ahmedabad	Shri V.G.Patel (Dy.SP.) 'M'Division, Zone-7, Assistance Police Commissioner's Office, Near Torrent Power, Sonal Cinema Road, Under Sonal Cinema Choki, Vegapur, Ahmedabad
Shri R.D.Dabhi (Dy.SP.) Western Railway Head Quarter, SP. Office, Near BSNL Office, Ravpura, Vadodara.	Shri P.H.Bhesaniya (Dy.SP.) 'A'Division, Zone-1, Assistance Police Commissioner's Office, Sayajiganj Police Station, 3 rd Floor, Vadodara-390020
Shri A.V.Rajgor (Dy.SP.) 'D'Division, Zone-2, Assistance Police Commissioner's Office, Above J.P.Road Police Station, 1 st Floor, Tandalja, Vadodara.	Shri S.B.Kupavat (Dy.SP.) 'F'Division, Zone-3, Above Manjalpur Police Station, GIDC Vadsar Road, Opposit Jain Oil Mill, Vadodara.
Shri P.R.Rathod (Dy.SP.) 'G'Division, Zone-4, Assistance Police Commissioner's Office, City Police Station, 2 nd Floor, Opposite Jamnabai Hospital, Panigate Road, Vadodara.	Shri A.M.Parmar (Dy.SP.) 'B'Division, Zone-1, Police Commissioner Office, Athvalines, Surat.

Shri D.J. Chavda (Dy.SP.) 'D' Division, Zone-2, Katargam Police Station, 1 st Floor, Sardar Suraksha Bhavan, Surat	Shri H.D.Mevada (Dy.SP.) Assistance Police Commissioner's Office, Athva Gate, Region-1, Traffic Division, Surat.
Shri A.K.Verma (Dy.SP.) 'H' Division, Zone-4, Police Commissioner Office, Athva line, Surat.	Shri P.K.Diyodara (Dy.SP.) Zone- 1, Assistance Police Commissioner's Office, West Division, Gandhigram, 2 nd Floor of Police Station, 150 Foot Ring Road, Rajkot.
Shri S.R.Tandel (Dy.SP.) Old 'B' Division Police Station, North Division, Zone-2, Ramnath Para, Old Jail, Rajkot.	Shri S.H.Sarada (Dy.SP.) S.G.Highway, Rural Office, Near Adani CNG Pump, Makarbag, Ahmedabad.
Shri D.R.Patel (Dy.SP.) S.P.Office, Anand, Opposit Old Seva Sadan, Opposit Borsad Chokdi, Anand	Shri V.J.Rathod (Dy.SP.) S.P.Office, SardarBhavan Mission Road, Under Railway Bridge, Ashram Road, Nadiad.
Shri M.J.Solanki (Dy.SP.) Sector -27, SP Office, Gandhinagar	Shri J.R.Vaghela (Dy.SP.) Police Head Quater, Mehsana, Dist: Mehsana
Smt. Minakshi Patel (Dy.SP.) SP. Office, Himmatnagar, Sabarkantha	Shri N.V.Patel (Dy.SP.) SP. Office, Jilla Seva Sadan, Arvalli, Modasa.
Shri P.R.Patel (Dy.SP.) SP. Office, Kothi Building, Ravpura, Vadodara Rural, Vadodara.	Shri J.S.Nayak (Dy.SP.) Dy. SP. Office, BambaKhana, Kali talavdi, Bharuch
Chetna Chaudhri (Dy.SP.) SP. Office, Rajpipla, Dist: Narmada	Shri J.G.Chavda (Dy.SP.) SP. Office, Old Palace, Chhota Udaipur.
Shri H.M.Kansagara (Dy.SP.) SP. Office, Near Main BSNL Office, Godhara-Vadodara Highway Road, Godhra.	Shri P.I.Solanki (Dy.SP.) Head Quater, SP. Office, Dahod.
Shri V.M.Chauhan (Dy.SP.) Head Quater, Dy. SP. Office, Dhuli Road, Lunavada, Mahisagar.	Shri Manoj Sharma (Dy.SP.) SP. Office, Dharampur Road, Valsad
Shri Bhargav Pandya (Dy.SP.) Jilla Police Bhavan, Near Head Quater, Athvaline, Surat.	Shri S.K.Rai (Dy.SP.) SP. Office, Seva Sadan, Panvadi, Vyara, Dist: Tapi.
Shri R.D.Kava (Dy.SP.) Dy.SP.Office, Head Quater, Dang, Tal: Ahwa , Dist: Dang - 394710	Shri B.S.Mori (Dy.SP.) SP.Office, LumsiKui, Navsari.
Shri P.S.Goswami (Dy.SP.) SP.Office, Rajkot Rural, Opposite Girnar Cinema, Rajkot	Shri P.K.Patel (Dy.SP.) SP.Office, Head Quarter, Surendranagar.
Shri A.B.Saiyad (Dy.SP.) 'B' Division, Dy.SP.Office, Valkeshvari Road, Jamnagar.	Shri C.C.Khatana (Dy.SP.) SP.Office, Jilla Seva Sadan, Khambhadiya, Dist: DevbhumiDwarka
Shri D.G.Chaudhri (Dy.SP.) SP.Office, Near Collector Office, Someshwar Road, Morbi.	Shri R.B.Damor (Dy.SP.) SP.Office, Sardarbag, Junagadh.

Shri B.A.Patel (Dy.SP.) SP.Office, Head Quater, Vadiya Road, Porbandar	Shri M.M.Parmar (Dy.SP.) SP.Office, Nagarpalika Building, Veraval.
Shri D.D.Chaudhri SP.Office, Navapara, Bhavnagar.	Shri M.S.Rana (Dy.SP.) Dy.SP.Office, Head Quater, Chittal Road, Amreli
Shri G.P.Chauhan (Dy.SP.) SP.Office, Near Railway Station, Botad.	Shri J.T.Sonara (Dy.SP.) SP.Office, Near NavjivanCircle, Patan.
Shri R.K.Patel (Dy.SP.) SP.Office, Joravar Palace, Palanpur.	Shri B.M.Desai (Dy.SP.) SP.Office, Near Jubili Ground, Opposit Collector Office, Bhuj.
Shri V.R.Patel (Dy.SP.) SP.Office, Tagor Road, Adipur, Gandhidham.	Shri R.S.Patel (Dy.SP.) Dy.SP.Office, Shrof Road, CID Crime, Rajkot Zone, Opposit Collector Office, Rajkot.
Shri M.M.Ganguli (Dy.SP.) Vadodara Zone, Narmada Bhavan, 8 th Floor, CID Crime, Opposit Collector Office, Vadodara.	Shri P.J.Chaudhri (Dy.SP.) Old Sachivalay, Block No:14, 2 nd Floor, Gandhinagar.
Shri P.P.Pirojiya (Dy.SP.) Divisional Police Officer, Western Railway, Above Old Taluka Police Stataion, Opposit Pathikashram, Jamnagar Road, Rajkot.	Unit Head, Gandhinagar, Head Office, Gandhinagar.
Unit Head, Ahmedabad City, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Jetpur, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Ahmedabad Rural, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Surendranagar, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Ahmedabad East, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Porbandar, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Vadodara, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Bhavnagar, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Bharuch, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Junagadh, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Surat, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Morbi, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Sarigam, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Jamnagar, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Vapi, Gujarat Pollution Control Board,Head Office, Gandhinagar.	Unit Head, Mehsana, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Anand, Gujarat Pollution Control Board,Head Office, Gandhinagar.	Unit Head, Navsari, Gujarat Pollution Control Board,Head Office, Gandhinagar.
Unit Head, Nadiad, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Godhara, Gujarat Pollution Control Board, Head Office, Gandhinagar.

Unit Head, Himmtangar, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Ankleshwar, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Palanpur, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Kutch East, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Unit Head, Kutch West, Gujarat Pollution Control Board, Head Office, Gandhinagar.	Unit Head, Rajkot, Gujarat Pollution Control Board, Head Office, Gandhinagar.
Regional Officer, Regional Office, Gujarat Pollution Control Board, Gandhinagar	Regional Officer, Regional Office, Gujarat Pollution Control Board, Ahmedabad City
Regional Officer, Regional Office, Gujarat Pollution Control Board, Ahmedabad Rural	Regional Officer, Regional Office, Gujarat Pollution Control Board, Ahmedabad East
Regional Officer, Regional Office, Gujarat Pollution Control Board, Vadodara	Regional Officer, Regional Office, Gujarat Pollution Control Board, Bharuch
Regional Officer, Regional Office, Gujarat Pollution Control Board, Surat	Regional Officer, Regional Office, Gujarat Pollution Control Board, Sarigam
Regional Officer, Regional Office, Gujarat Pollution Control Board, Vapi	Regional Officer, Regional Office, Gujarat Pollution Control Board, Anand
Regional Officer, Regional Office, Gujarat Pollution Control Board, Nadiad	Regional Officer, Regional Office, Gujarat Pollution Control Board, Himmatnagar
Regional Officer, Regional Office, Gujarat Pollution Control Board, Palanpur	Regional Officer, Regional Office, Gujarat Pollution Control Board, Kutch West
Regional Officer, Regional Office, Gujarat Pollution Control Board, Kutch East	Regional Officer, Regional Office, Gujarat Pollution Control Board, Rajkot
Regional Officer, Regional Office, Gujarat Pollution Control Board, Jetpur	Regional Officer, Regional Office, Gujarat Pollution Control Board, Surendranagar
Regional Officer, Regional Office, Gujarat Pollution Control Board, Porbandar	Regional Officer, Regional Office, Gujarat Pollution Control Board, Bhavnagar
Regional Officer, Regional Office, Gujarat Pollution Control Board, Junagadh	Regional Officer, Regional Office, Gujarat Pollution Control Board, Morbi
Regional Officer, Regional Office, Gujarat Pollution Control Board, Jamnagar	Regional Officer, Regional Office, Gujarat Pollution Control Board, Navsari

Regional Officer, Regional Office, Gujarat Pollution Control Board, Godhara	Regional Officer, Regional Office, Gujarat Pollution Control Board, Mehsana
Regional Officer, Regional Office, Gujarat Pollution Control Board, Ankleshwar	Unit Head, P-1 Branch, Gujarat Pollution Control Board Gandhinagar.
Unit Head, P-2 Branch, Gujarat Pollution Control Board Gandhinagar.	Unit Head, P-3 Branch, Gujarat Pollution Control Board Gandhinagar.
Legal Officer, Legal Branch, Gujarat Pollution Control Board Gandhinagar.	Unit Head, IT Branch, Gujarat Pollution Control Board Gandhinagar.....To upload the Notification in XPN and Board's website.

GUJARAT POLLUTION CONTROL BOARD
SECTOR-10 A
GANDHINAGAR
Office Order

Annexure :XXIV

- Subject : Action plan for utilization of Environmental Compensation fund
- Reference: 1. Hon'ble NGT order dated 24/07/2020 in O.A No. 102/2019, Principal Bench. New Delhi.
2. CPCB email dated 04/09/2020 regarding submission of draft EC fund utilization action plan.
3. Draft action plan for utilization of environmental compensation fund prepared by Gujarat Pollution Control Board.
4. CPCB, New Delhi letter No. PCP/ECF/2021-22, dated 24/03/2021 regarding approval of action plans for utilization of Environmental Compensation funds with MOM held on 18/02/2021.
5. GPCB, Office order dated 22/09/2020 regarding formation of EDC utilization committee.

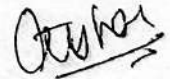
In pursuant to the order of the Hon.NGT in OA No 102/2019 dated 24/07/2020 directed all the State Pollution Control Boards to prepare an Action Plan for utilization of Environmental Compensation Funds which is to be approved by the Central Pollution Control Board (CPCB) and the same is communicated by CPCB vide their letter under reference no.2.

A Committee has been constituted by the Board to prepare an Action Plan for utilization of Environmental Compensation Fund. Action plan finalized by committee is submitted to the CPCB for their approval vide letter under reference no.3.

This Action Plan is approved by the CPCB vide their letter under reference no. 4.

Approved Action Plan is appended herewith as an Annexure-I.

All concerned officers are hereby directed to take steps to implement the action plan in time bound manner, and quarterly Action Taken Report shall be submitted through convener of committee.



(A.V. Shah)

Member Secretary

Enclosure:

- 1) GPCB, Office order dated 22/09/2020 regarding formation of EDC utilization committee.
- 2) Annexure-I

No: GPCB/VRD-C-515/591116

Dated : 28 MAY 2021

01
22/05/21


31/05/21

AE-E-DB

Putup for Basu
CAAMS

To,

1. TO to Chairman, GPCB, Gandhinagar.....with a request to put it to hon'ble chairman sir information.
2. TO to MS, GPCB, Gandhinagar.....with a request to put it to hon'ble MS sir information.
3. Central Lab Head, Central Lab, GPCB, Gandhinagar.....for necessary action in point No. 1, 2, 3 & 12.
4. Unit head, Vadodara, GPCB, Gandhinagar..... for necessary action in point No. 4.
5. Unit head, Bharuch, GPCB, Gandhinagar..... for necessary action in point No. 6 & 7.
6. Unit head, Vapi / Sarigam, GPCB, Gandhinagar..... for necessary action in point No. 5.
- ✓ Unit head, P 3 branch, GPCB, Gandhinagar..... for necessary action in point No. 8, 11 & 15.
8. Unit head, R & D branch, GPCB, Gandhinagar..... for necessary action in point No. 9 & 10.
9. Unit head, Hazardous waste cell, GPCB, Gandhinagar..... for necessary action in point No. 13.
10. Unit head, MSW branch, GPCB, Gandhinagar.....for necessary action in point No. 14.
11. All Regional officer, Regional office, GPCB.....for information please.
12. All unit head, GPCB, Gandhinagar.....for your information please.
13. Account branch head, GPCB, Head office, Gandhinagar.....for necessary action please and with a request to maintain separate record for utilization of environmental compensation fund.
14. Selected file

Annexure - A

Sr No.	Activity	Area	Details	Allocation of fund up to Max. extent	Concern Unit Head
1.	Mobile Monitoring Laboratory vans for chemical estates with portable analyzers (Air & Water parameter)	Vapi, Ankleshwar, Vadodara, Ahmedabad	- Mobile Monitoring Van equipped with Air quality monitoring system, weather monitoring system, Safety PPEs and with portable water / Wastewater analyzer. - Mobile van will be utilize for measuring air, water parameter in case of emergency.	Rs. 15 Crore	Central Lab
2.	Portable gas analyzers	All ROs	- Selection of gas analyzer will be area specific depends upon Industrial cluster, types of Industries etc. - At present price estimated by considering General Environmental concern emission parameters.	Rs. 2 Crore	Central Lab
3.	Mobile or handy COD Tot meter and pH meter	All ROs	Will be utilize during monitoring for instant result.		Central Lab
4.	To establish mechanism to trace out illegal underground pipelines	All ROs	Exploring the feasibility for renting GPR technology equipment.	Rs. 25 Lacks	Vadodara
5.	To establish mechanism to trace out buried hazardous waste	All ROs	To trace out illegally buried hazardous waste.	Rs. 25 Lacks	Vapi Sarigam
6.	Surveillance monitoring of chimney through CCTV camera in GIDC estates.	Vapi, Surat, Ahmedabad, Bharuch, Ankleshwar, Panoli, Nandesari	Industrial cluster contains many solid fuel fired boilers/ TFHs, smoke emissions of which are required to be monitored on continuous basis, to give alert/ warning to fine tune/ control visible black smoke emission.	Rs. 38 Lacks	Bharuch

Sr No.	Activity	Area	Details	Allocation of fund up to Max. extent	Concern Unit Head
7.	Sensor base air quality monitoring stations in GIDC estates with dashboard for effective evaluation of air quality status.	Vapi, Surat, Ahmedabad, Ankleshwar, Panoli, Nandesari	Industrial cluster contains many chemical industries, organic & inorganic, process emissions of which leads to frequent complains of air pollution (especially of bad odour). Besides it's required to monitor the ambient air quality for better planning.	Rs. 4.2 Crore	Bharuch
8.	Installation of Online water Quality Monitoring System for river/lake	River: Damanganga, Tapi, Sabarmati, Lake: Kankariya, Sursagar	- Quotation procurement from agencies under process - Quotation and award of work to agencies will be completed within the two years.	Rs. 5 Crore gross for installation and one year O & M CMC at 5 locations.	P 3 branch
9.	R & D Activities for pollution control, waste minimization, promotion of recycle/reuse etc.	Gujarat	- Assistance to students enrolled under A scheme on Research and Development through PhD: Financial and Pertinent Assistance for PhD / Research exertion R & D Branch and Central laboratory. - Best available Techniques reference documents (BREFs) / Best Available Technology (BAT): A part of amount would be utilized to prepare the documents for the industries which are having high pollution potential such as Pesticides, Pharmaceutical-Bulk drugs, Paper and Pulp, Dyes & dyes intermediates etc.	Financial assistance: Rs. $20,000 \times 12 = 2,40,000$ per student per year. Pertinent Expenses = Rs 60,000 per student per year. Total: Rs 15,00,000 for 5 students/year. Approximately Rs 50,00,000 for each industrial sector.	R & D branch
10.	Increase scope of R & D activities	Gujarat	Extending support to national / state accredited academic institutions / universities for their research.	Rs. 25 Lakhs	R & D branch

Sr No.	Activity	Area	Details	Allocation of fund up to Max. extent	Concern Unit Head
11.	Noise mapping of cities and identification of hotspots under National Clean Air Programme.	NCAP cities (Ahmedabad, Vadodara, Surat)	As per the AP of Noise: NGT: OA-681/2018 Quotation and award of mapping work to CPCB suggested agencies / universities in Gujarat within 4 months. Work will be completed within the one year.	Rs. 2 crore gross for 4 cities Results will be presented as per NGT: OA-681/2018.	P 3 branch
12.	Strengthening & upgradation of Laboratory.	All laboratories of the board.	Up gradation of Laboratories.	Rs. 19 crore	Central Lab
13.	Remediation of contaminated sites.	Gujarat	- Hiring of experts/ consultants for specific requirement for review the progress regarding remediation of sites. - Develop infrastructure includes procurement of equipment to analyze specific parameters. - Budget allotment for Regional Office to carry out site investigation through expert agency to assess the contamination.	Rs. 25 lac budget shall be allotted for Head Office. Rs. 25 lac budget shall be allotted for Regional Offices.	Hazardous waste cell
14.	District Environment Plan	Gujarat	Effective management of solid waste from entire Villages of Dev Bhumi Dwarka District as a Model District – Pilot Project.	The cost of the entire project will be around Re 6 to 7 crores.	MSW branch
15.	Installation CAAQM System	Gujarat	- Additional 3 nos. of CAAQM stations will be installed at Surat (NCAP) within the Six Months. - Additional 3 CAAQMS in as per the AP of Noise: NGT: OA-681/2018 cities will be completed within one year.	Rs. 4 crore gross for installation and one year O&M CMC (at Vadodara)	P 3 branch

GUJARAT POLLUTION CONTROL BOARD
SECTOR-10 A
GANDHINAGAR
Office Order

GPCB is maintaining separate account for the recovered amount of Environmental Damage Compensation from defaulting industries. Hon'ble NGT, Vide orders dated 22-01-2019 in OA no 101/2019 (Annexure 1) has granted approval for utilization of 25% environmental compensation for specified activities.

A Committee has been constituted for evaluation and recommendation of the project for financial assistance from Environmental Damage Compensation fund. The constitution of the committee and its Terms of Reference (TOR) is as follows:

1.0 CONSTITUTION OF COMMITTEE:

1	Shri G.H. Trivedi	Chairman
2	Unit Head, Hazardous Waste Cell	Member
3	Legal Officer	Member
4	Concerned Unit Head	Member
5	Concerned RO	Member
6	Unit Head, Account	Member
7	Unit Head, Vadodara	Convener

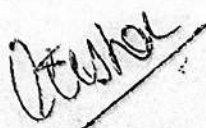
2.0 TERMS OF REFERENCE:

- The committee shall frame Guidelines and finalize format for submission of project proposal to utilize the funds accrued under Environmental Damage Compensation.
- The committee shall ensure that proposals are in line with specific activities as mentioned in Hon'ble NGT order dated 22-01-2019 for utilization of Environmental Damage Compensation.
- The committee shall examine and recommend the receive project proposals for financial assistance under Environmental Damage Compensation fund.
- The committee shall monitor progress of the approved project activities from time to time.
- The Committee will meet at regular interval (at least once in two month) and ensure that the fund is judiciously utilized for the approved scheme and activities.
- The committee shall invite an expert as a invite member as and when required.

3.0 EXPENSES

- Non-official members will be paid TA and DA as per prevailing rules applicable.

This order is issue with approval of Competent Authority.


(A.V. Shah)

Member Secretary

NO: GPCB/VRD-C-439/568259

22/09/2020