# 1<sup>st</sup> JAPAN – INDIA SEMINAR, 2021 Presentation by MAHARASHTRA STATE POLLUTION CONTROL BOARD

(MPCB) Date: 24.02.2021



# **Establishment of the Board**

- Established on 7<sup>th</sup> September 1970 (under the provisions of Maharashtra Prevention of Water Pollution Act, 1969).
- The Air (P&CP) Act 1981 was adopted in the Maharashtra in 1983 and initially, some areas were declared as Air Pollution Control Area on 02.05.1983.
- The entire state of Maharashtra has been declared as Air Pollution Control area since 06.11.1996.
- The Board is also functioning as the State Board under section 5 of the Air (P&CP) Act, 1981.

## **Major Functions of the Board**

#### **Regulatory functions:**

- Consent to Establish and Operate under Water Act, 1974 and Air Act, 1981
- Authorization under Hazardous Waste Rules, 2016, Bio-medical waste Rules, 2016, Municipal Solid Waste Rules 2016, E Waste Rule, 2016
  - Plastic Rules, 2016

#### Enforcement and compliance :

- Air emission and liquid effluent discharge standards through proper vigilance (visits & samplings)
- Legal actions including Directions & Bank Guarantee's in case of non-compliances

#### **Common Waste Disposal Facilities**

 To promote common infrastructure facilities for Waste management i.e., CETP, CHWTSDF, CBMWTSDF and facilities for Plastic Waste and E-waste.

#### **Environmental Monitoring and Surveillance:**

- Water quality and ambient air quality monitoring network
- Noise levels monitoring network

#### Public Awareness and information dissemination.

## Legislations, Regulations & Notifications

#### Various Acts implemented & followed by Board:

- Water (Prevention & Control of Pollution) Act, 1974
- Air (Prevention & Control of Pollution) Act, 1981
- Environment (Protection) Act, 1986
- Hazardous & Other Waste (M & T M) Rules, 2016
- Bio-Medical Waste Management Rules, 2016
- Solid Waste Management Rules, 2016
- Construction & Demolition Waste Rule, 2016
- Plastic Waste Management Rule, 2016
- E Waste Rule, 2016
- Batteries (Management & Handling) Rules, 2010.
- Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.
- Noise Pollution (Regulation & Control) Rules, 2000

#### Continued...

- Environment Impact Assessment Notification, 2006 and amendments thereof.
- CRZ Notification, 2011.
- Public Liability Insurance Act, 1991.
- Right to Information Act, 2005
- National Green Tribunal Act, 2010
- Various Notifications issued by MoEF, Gol in respect of Environmental Sensitive Areas.

# Brief overview of activities by: <u>MAHARASHTRA POLLUTION CONTROL</u> <u>BOARD</u>

## Activities undertaken for Improvement of Air & Water Quality in Maharashtra

- Presently, Board is monitoring Ambient Air Quality under National Ambient Air Quality Monitoring Program (NAMP) across the state of Maharashtra at 85 locations for three parameters (SO<sub>2</sub>, NO<sub>2</sub> and PM<sub>10</sub>)
- Also, Board has set up Continuous Ambient Air Quality Monitoring Stations (CAAQMS) at 23 locations for monitoring 08 number of parameters as per National Ambient Air Quality Standards (NAAQS), 2009 notification.
- Central Pollution Control Board (CPCB) has identified 18 non-attainment cities in Maharashtra with respect to Particulate matter(PM<sub>10</sub>) concentration exceeding prescribed norms of 60 mg/m3.
- Board has developed Action Plan for 18 non attainment cities which are approved by CPCB)

Continued....

- Board is implementing <u>National Clean Air Program (NCAP)</u> for improvement of Air Quality in Urban areas in a time bound period. NCAP aims to reduce dust concentration up to 30% by 2024.
- Noise monitoring during festival period (Diwali and Ganesh) at selected locations 158 and 132 respectively to assess impact of noise levels due to festival celebrations and has also executed monitoring during working and non-working days in metro cities.
- Board has carried-out <u>Noise Mapping of 27 Municipal Corporations</u>.
- CPCB has declared 09 industrial clusters under Comprehensive Environmental Pollution Index (CEPI). Board has prepared short term and long-term action plan and same are under implementation for the CEPI areas.
- Sensor based air quality monitoring has been executed by Board at major locations in Mumbai city.

#### Continued...

- SODAR (Sound Detection And Ranging a form of remote sensing device) set up in Mumbai by Board, to determine the height of the Atmospheric Boundary layer (ABL) and turbulence in the atmosphere.
- First Pollution Control Board in the country having set the SODAR device.
- Board has carried out the study to determine the vertical dispersion of the pollutants using DRONES.
- It has also undertaken projects to study the dispersion of air pollutants through dispersion modeling in the critically polluted industrial areas of the state.

### Water Quality Monitoring Network

- Water Quality monitoring is done under National Water Monitoring Programme (NWMP):
  - Total monitoring stations : 250
  - Of which Surface water : 200 (in Rivers 155, Sea -15,

Creek -19, Dam-1, Nala -10)

- Ground Water :50
- Water Quality monitoring under SWMP (State Water Quality Monitoring Programme) Total : 43 Surface : 28( Sea-1, Creek-1,Dam-3,Nalla-2, Rivers – 21) Ground : 15
- Continuous online Water Quality Monitoring: for 17- Category of Industry.
- All the Data is hosted on Board's website and CPCB's Environment Data Bank (EDB) on Monthly basis.
- Water Quality Index (WQI) is calculated and hosted on Board's website.

### Plastic Waste management in Maharashtra.

- Maharashtra Plastic and Thermocol Products (Manufacture, Usage, Sale, Transport, Handling and Storage) Notification, 2018 dated and amendments thereof.
- Around 4.43 lakh tonnes of plastic waste is generated in Maharashtra.
- Use of single-use plastic and thermocol items for decoration purpose is banned under the notification.
- This notification is applicable for the whole of Maharashtra.
- Action taken under Plastic Notification, 2018 include:
  - Around Rs.10 crore fine has been collected from shops/establishments for using banned plastic during joint action taken by Board with local bodies
  - Around 1400 tonnes of banned plastic seized.
  - 415 plastic industries given closure directions from MPCB for non-compliance with Notification.

## Profile of Hazardous Waste (HW) in the State (2019-20):

- Total number of industries generating and handling HW: 7257 nos.
- Total HW generation in the State as per authorization/consent
  - Landfilling: 7,14,880.12 MT
  - Incinerable: 2,99,802.84 MT
  - Recyclable: 8,29,389.13 MT
  - Utilizable : 11,62,987.25 MT.
- Total HW treated/disposed at CHWTSDF : 3,53,284.814 MT
- Total HW recyclables : 3,38,002.2 MT
- Total recyclers/ re-processors : 392 Nos.
- Number of Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) in the state : 04 nos.

#### Status of E-Waste Generation and Recycling

- The E-Waste (Management & Handling) Rules, 2011 notified in May 2011 and came into effect from May 2012 in the entire State.
- Current status of the Inventory:
  - E waste Producers (which includes Manufacturers and bulk consumers) : 462

<u> Total : 462</u>

 E-waste collection / dismantling and recycling capacity / Centers: E waste dismantlers : 90
 E waste recyclers : 09
 Total :99

## **Biomedical Waste Management Rules, 2016**

- Maharashtra facilitated development of 30 Common Treatment and Disposal facilities for Treatment and Disposal of Bio Medical Waste (BMW).
- All the incineration-based facilities have installed online Continuous Emission Monitoring System.
- Obtaining BMW authorization is mandatory for all non-bedded Health Care centers (HCEs)
- Facility for real time "online" Consent and BMW Authorization for all non-bedded HCEs is provided on MPCB Portal.
- MPCB is monitoring Beded HCEs through randomized inception schedule.
- Awareness trainings are provided by MPCB and Common BMW Management facility operators to HCEs.

#### **Status of Bio Medical Waste Management**

- 1. Total CBMWDTSF = 30.
- 2. Number of Incineration based facilities = 29.
- 3. Number of deep burial based facilities = 01.
- 4. Total number of bedded HCEs = 20,231.
- 5. Total number of non-bedded HCEs = 34,742.
- 6. Total number of HCEs covered = 63,642.
- 7. Total beds served by CBMWTSDF = 2,83,042.
- 8. Qty. of BMW collected & treated = 62.255 Tonnes /day.

# **E-Governance and Reforms**

- Reduction in timeline for grant of Consent from 120 days to 60 days.
- Introduced Randomized Risk based inspection & sampling (RRBIS) module
- resulting in total transparency and eliminates discretions
  - benefitting 62,677 industries through No Inspection, Now converted to CIS.
- Scheme of Auto-Renewal of Consent based on selfcertification for Red, Orange & Green Category industriesincentivizing complying industries.
- Introduced Web Portal (ecMPCB) for accepting online applications.

Continued...

 Introduced Simplified Consent Application form for Green Category industries.

- Grant for Renewal of Consent to Operate for a minimum period of 05 years for Red category industries, 10 years for Orange category industries and 15 years for white category industries excluding Sugar industries.
- Uniform Integrated Enforcement Policy for Consent Management - <u>First in Maharashtra.</u>
- Enforced online monitoring facility for 17 categories of critically polluting industries.

# WAY FOREWARD

- Policy for development and implementation of Urban Environmental Infrastructure.
- At least 25% of the Annual Capital Budget of the Local Body should be reserved for urban Environmental Facilities (Municipal Solid Waste facility and Sewage Treatment Plants).
- Policy on Minimum Environmental Flow in the River.
- Restoration of all Water Bodies.
- Integration of climate concerns in the policy and programs of the state.
- Recycling of treated effluent in infrastructure projects and local bodies for secondary uses and Agriculture to reduce raw water requirement.
- Improvement of Air Quality in Urban area and industrial clusters.
- Technology excellence centre / cell in association with recognised institute for adoption of cleaner processes (Green Chemistry).

# Future Plans / Investments for abatement of Air pollution

- Board has planned to install 126 nos. of additional ambient air quality monitoring stations (AAQMS).
- Board has invited bids for procuring of 47 nos. of CAAQM stations for strengthening of existing network.
- Whereas proposal for additional 49 nos. of Continuous Ambient Air Quality Monitoring stations (CAAQMS) is in pipeline.
- Creation of state-of-art Air care centre at all the major regional offices of the Board.



- Source Apportionment and Emission Inventory studies of Non-Attainment cities under NCAP is ongoing.
- Carrying capacity studies in the CEPI Industrial areas.
- Implementation of National Clean Air Programme (NCAP) throughout the State.
- Thus, Board serves a possible investment destination for global investors and all the concerned stakeholders.

## Commuter Choice Program-Initiative for Congested Business Areas



### **Deployment of Electric Micro- Mobility**

Need for electric micro-mobility	Objectives of the MPCB study
<ul> <li>Provide a eco-friendly means for mobility</li> <li>Relieve traffic congestion and efficient parking management</li> <li>Improve first- and last-mile connectivity to enhance public transport usage</li> <li>Road safety</li> </ul>	<ul> <li>Provide a proof of concept for electric 2-wheeler deployment in Maharashtra</li> <li>Develop scalable business models to ensure mass adoption</li> <li>Develop replicable implementation strategies to ensure mass adoption</li> </ul>
Cities selected	Approach
<ul> <li>Pune: A metro city bustling working class and student population</li> <li>Nagpur: A non-metro city which is hub of economic activity in Maharashtra</li> </ul>	<ul> <li>Site identification through extensive primary and secondary research</li> <li>Establishing partnerships with state govt. entities, mobility solution providers (such as Yulu, Bounce), corporates (such as TCS), educational institutes (such as VNIT) and local entrepreneurs</li> <li>Yulu and Bounce will take care of charging infrastructure issue for their assets.</li> </ul>

#### Key outcomes

- Successful deployment of electric 2-Wheelers in Pune and Nagpur
- Replicable partnership strategies with clear-cut roles and responsibilities for stakeholder involved
- Reliable implementation strategies for deployment across Maharashtra

Source: Ease of Mobility (2018) and ITDP India

### **Electric Vehicles Policy, 2021**

- With Central Govt. announcing FAME (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles)- II in 2017, Maharashtra state Government announced its EV policy in February 2018.
- Mission Statement of the EV Policy 2021, "To position Maharashtra state as the most preferred investment destination for global electric automotive investors and other stakeholders, through promotional strategies, combined with a competitive and sustainable investment ecosystem".
- The Policy targets are aimed towards development of EV ecosystem with defined targets.
- It is envisaged that Maharashtra will contribute to 30% of all electric vehicles manufactured in the country by 2030.

Thank You