

Initiatives of MPCB For Improved Enforcement and Compliance In Maharashtra



P.K.Mirashe
Regional Officer
Maharashtra Pollution Control Board, Pune
<http://mpcb.gov.in>

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MPCB AT A GLANCE

- Regional Offices: 11
- Central laboratory and 6 regional laboratories
- Scientific and technical manpower: 311/704
- Industries
 - Red : 9417
 - Orange : 12524
 - Green : 49068 (Total 70009)
- Health care establishments : 11480
- HW generating industries : 4962
- Plastic manufacturing units : 576
- Industries assessed Cess : 8224

IMPORTANT ACTIVITIES

- Regulatory functions
 - Consent to Establish and operate under Water Act, 1974 and Air Act, 1981
 - Authorization under Hazardous Waste Rules, 1989, Bio-medical waste Rules, 1998, Municipal Solid Waste Rules 2000, Plastic Rules, 2006
- Enforcement and compliance
 - Air and liquid effluent discharge standards
 - Waste management i.e regular disposal of waste to common facility like CETP, CHWTSDF, CBMWTSDF
 - Legal actions including Directions in case of non-compliance
- Environmental Monitoring and Surveillance
 - Water quality and ambient air quality
 - Noise levels surveys
- Public Awareness and information dissemination

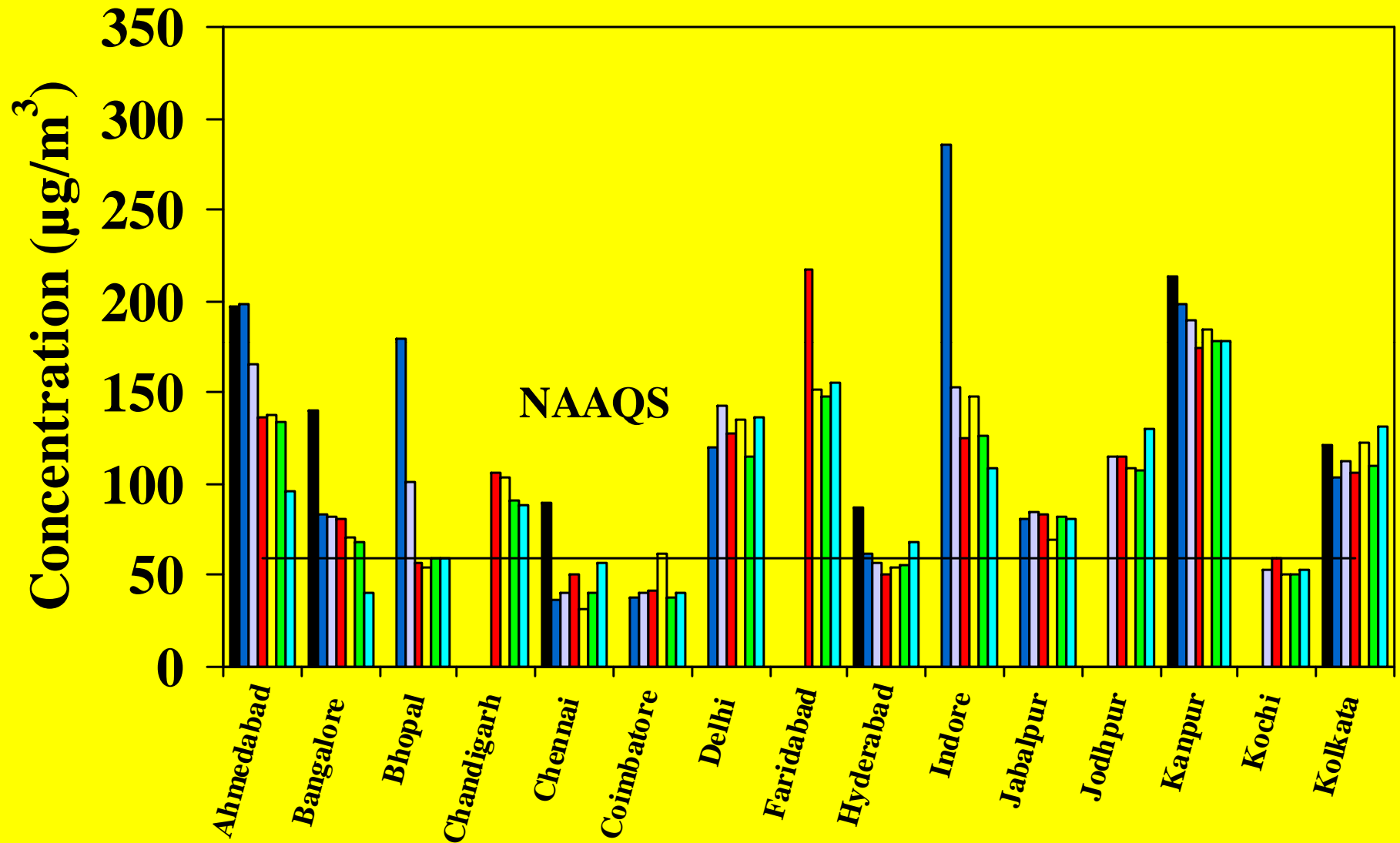
ACTIVITIES AT GLANCE

- Common effluent treatment plants: 26
- Common Hazardous Waste disposal facilities : 4+ 2 (proposed)
- Common Bio-medical waste disposal facilities : 38
- Water monitoring stations (400)
 - National program : 123
 - State program : 127
 - MPCB program : 150
- Ambient Air monitoring stations (67)
 - Continuous : 7
 - Manual : 60

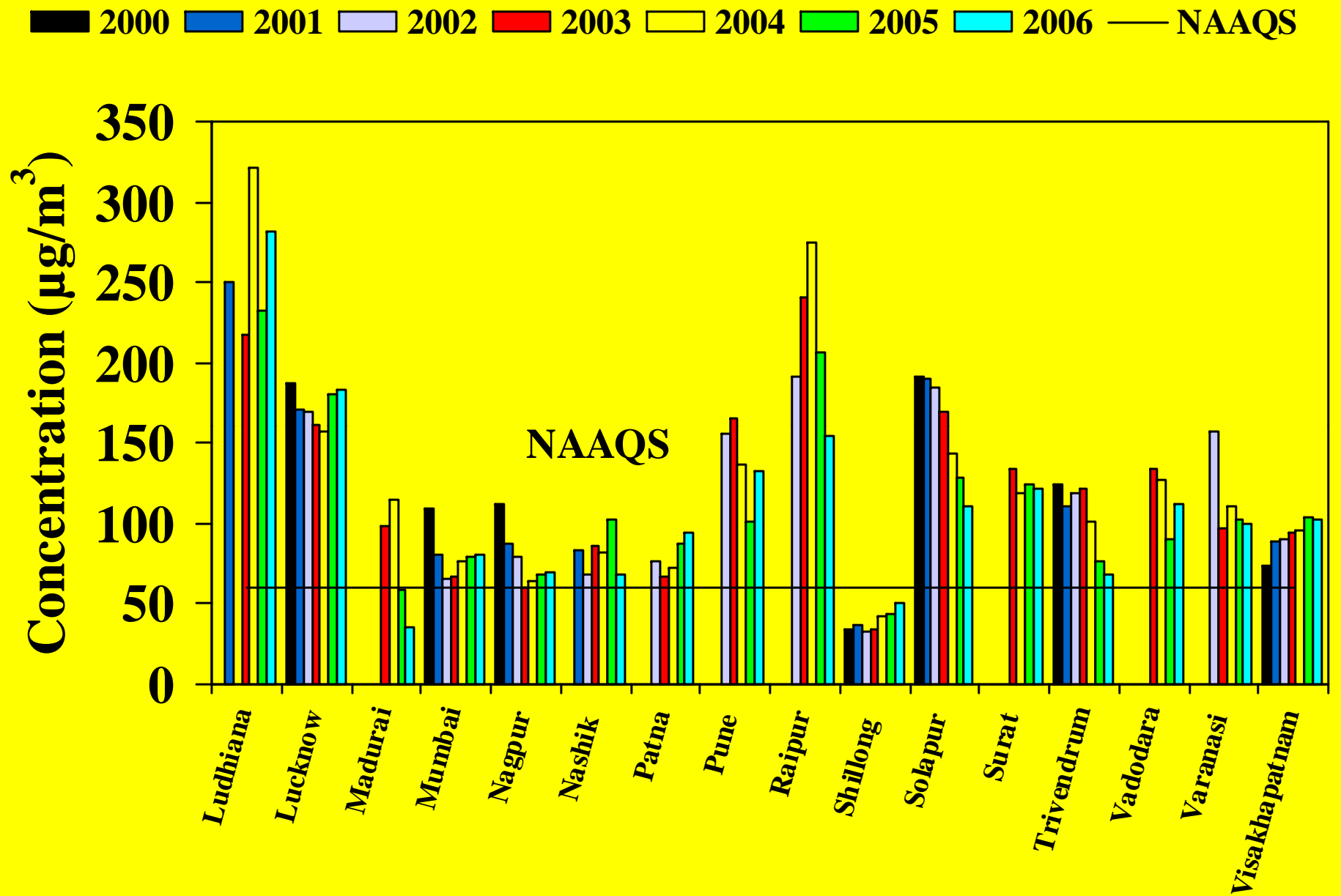
AIR QUALITY CHALLENGES

- Increasing urban air pollution levels
- significant area sources
- Many contributory factors like vehicle numbers, vehicle emission norms, public transport policy, quality of fuel, alternate fuels, road re-suspension dust, refuse burning etc. need an integrated coordinated approach and beyond MPCB mandate
- Electricity cuts and breakdowns
- Technology support to small industries
- Small capacity coal fired boilers
- Good air quality data, Data analysis and prediction modeling

2000
 2001
 2002
 2003
 2004
 2005
 2006
 NAAQS



Trend in Annual Average Concentration of RSPM (Res. Areas)



Trend in Annual Average Concentration of RSPM (Res. Areas)

AIR QUALITY IMPROVEMENT INITIATIVES

- Improved monitoring: Augmentation of air quality network, availability of data in public domain, involvement of educational institutes for capacity building
- Sectoral approach: Air Pollution potential industries dealt by one division for uniform approach.
- Increased vigilance: Thrust on source monitoring, partial outsourcing for increased monitoring
- Area specific action plans: Chandrapur, Jalna, Wada
- City based initiatives: Mumbai, Pune and Solapur
- Science based approach for air pollution control: SA studies and source profile studies, Use of VEO's
- Consultation and industry involvement: CAAQMS by Industry
- Public awareness and participation

AIR MONITORING

- All NAMP stations are operated by MPCB wef 1.7.05.
- Creation of Pollution Assessment, Monitoring and Surveillance group to streamline the activities.
- Augmentation of ambient air quality network in the state.
- Task force to ensure proper operation of CAAQMS in the state
- CAAQMS at Mumbai, Pune and Solapur commissioned. PPP in operation of CAAQMS
- Developed partnership with educational institutions for engaging them in AAQM. Developed a PPP document with suitable financial proposal to achieve reliable AAQM
- Display of ambient air quality in 7 major cities on daily basis in media and website.

ENVIRONMENT MONITORING: AIR

Ambient air quality Monitoring stations

Year	NAMP	SAMP	CAAQMS
2004-05	5	-	3
2005-06	28	5	3
2006-07	45	5	3
2007-08	45	10	6+1 (NMMC)
2008-09	45	15+ (11to start soon)	6+1 (NMMC)

- PM 2.5 monitoring and its chemical characterization initiated in 2007-08
- VOC monitoring at important traffic locations
- Major units have now installed CAAQMS with display system.



CITY BASED ACTION PLANS

- Action plan for control of air pollution in Pune, Mumbai, Solapur are under implementation
- Major thrust on improvement in public transport system including fleet increase, parking policy, traffic improvements, improved fuel quality and emission norms
- Clean fuel like CNG proposed in Pune and already started in Mumbai.
- Improved understanding of air pollution sources and their contribution through emission inventory and source apportionment studies.
- The urban cities in Maharashtra growing and hence the findings are eagerly awaited.

SECTORAL IMPROVEMENT PROGRAM

Thermal Power Plants

- Ammonia Gas Conditioning at old 220 MW units to reduce the TPM emissions, Koradi, Khaperkheda, Nashik, Bhusaval
- Renovations & Modernizations of Major TPS of MEPGCL.
- Review Meetings at highest level to ensure improvement
- Use of software for better Operations of ESP
- New units are planned at 50 mg/Nm³ standards

SPONGE IRON PLANT

- The sponge iron plants involve oxidation of iron ore and basically a dry process. Highly air pollution potential.

SOURCES OF AIR POLLUTION IN SIP

- Kiln:
 - ESP's
 - Operation of emergency vent
 - Kiln leakages (Inlet seal and Exit seal)
- Transfer points
 - APC Adequacy (under designed)
 - Handling of dust
 - Conveyor belts
- Product House
 - Bag houses
 - Adequacy (generally under designed)
 - Handling of dust

Continued....

- Coal feeders:
 - Kiln leakages
 - Bag house at coal crushing, secondary emissions.
- Secondary Sources
 - Roads
 - Loading and unloading operations
 - Storage - raw material and products
 - Sprinkling systems
 - Plant layout, sufficient distance from the plot boundary
 - Disposal of char and dust.

Emissions from Emergency cap



Conveyor belts and transfer points



INITIATIVES IN SIP

- CPCB draft guidelines on sponge iron plants are adopted in consent management.
- Sponge Iron plants of less than 100 MT/d capacity are restricted
- Regular review of all sponge iron plants in special review meetings.
- Directions issued for installation of WHRB captive power plants and many industries are complying.
- Standards are made stringent at clusters firstly 100 mg/Nm³ emission standards for small plants.
- Self monitoring by industries. CAAQMS at major units
- Disposal of char and dust generated in the manufacturing process.

MELTING FURNACES

- Emissions from the melting furnace while movement of furnace for loading, unloading, charging etc cause excessive emissions
- Large number of small and medium melting furnaces mainly induction, using scrap as raw material.
- Traditionally, collection hood is placed at some height with swinging arm to take away the hood during furnace movement.
- Conducted a study for techno-economic solution to this problem with the help of National Metrological laboratory Jamshedpur.
- NML suggested for cross sectional collection hood for continuous dust collection. However, collection efficiency still max 65-70 %. Need of roof top emission collection.

Continued...

- New initiatives like charging cut raw scrap, washing of scrap, loading by chute, use of sponge iron up to 50-70% are taken.
- Increased stack and ambient monitoring
- Uniform policy approach for all melting furnace by incorporating the suitable conditions in the consent.

LIME KILNS

- Majority of lime kilns in small sector
- Non-availability of water and power supply at these sites makes operation of air pollution control devices un-feasible.
- Initiated a study with the help of LIT, Nagpur for techno-economic solution for air pollution control
- Many units have started to provide mechanical raw material charging to avoid the opening of charging door

WAY FORWARD

- Air quality monitoring network strengthening and augmentation
- Data compilation and statistical analysis for its effective use
- City based action plans
- Area based action plans
- Sector specific initiatives like Induction & Cupola Furnace, Sponge Iron Plants with capacity < 100 TPD and ESP Optimization in Coal based TPS's
- Capacity Building for predictive modeling and also new technologies for air pollution control
- Air pollution and health linkages

Save Our Mother Earth



Thank You