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STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII
Bhubaneswar – 751 012, INDIA

No. 8401 /

IND-II-Misc-1727

Dt. 12.08.19 /

To

The Director Environment cum Special Secretary to the Govt.
Forest and Environment Department
Govt. of Odisha, Bhubaneswar

Sub: Submission of Quarterly Progress Report for 1st Quarter of Comprehensive Action Plans for Clean Air in six non-attainment cities

Ref: i. F & E Letter No-3325 dtd. 14-02-2019
ii. F & E Letter No-3325 dtd. 05-07-2019

Sir,

With reference to the above, it is to intimate that, State Pollution Control Board has prepared the quarterly progress report for 1st quarter of action plans in six non-attainment cities. The quarterly progress report contains the status of compliance of actions points earmarked for the Board. However, the Board has no information on the progress of other action points earmarked for other Govt. Departments.

The city wise quarterly progress for six non-attainment cities- Angul, Talcher, Balasore, Bhubaneswar, Cuttack and Rourkela are enclosed as Annexure-I to Annexure-VI respectively.

Yours faithfully,

Encl: As above.


MEMBER SECRETARY

Quarterly Progress Report of Comprehensive Action Plan for Non-Attainment Cities in Odisha



(Quarterly Progress Report for Angul)

STATE POLLUTION CONTROL BOARD, ODISHA

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII

Bhubaneswar – 751012

August, 2019

Introduction

Central Pollution Control Board (CPCB) has identified 102 non-attainment cities. In Odisha, there are six non-attainment cities - Bhubaneswar, Cuttack, Angul, Talcher, Balasore and Rourkela. In these cities, the ambient air quality remains above the National Ambient Air Quality Standards (NAAQS) with respect to PM₁₀ and PM_{2.5}.

Hon'ble National Green Tribunal has taken up the matter of urban air pollution in India and directed the respective State Governments to prepare city-wise Action Plans for combating air pollution in non-attainment cities. Accordingly, Action Plans were prepared for improving the air quality for each of the non-attainment city by Forest and Environment Department, in association with State Pollution Control Board and Centre for Science and Environment (CSE) New Delhi.

The Action Plan envisages air quality monitoring and assessment and control of air pollution from various sectors like, Industries, Power Plant, DG Sets, Brick Kilns, Vehicular Emissions, Road dust, Construction dust, Public Transport, Open Burning, Burning raw coal in dhabas etc. The Action Plan also envisages abatement of air pollution through taking measures like greening activities and adopting renewable energy practices and providing adequate training to concerned officials.

The CPCB has issued a direction under 31 (A) of Air (PCP) Act, 1981 to the Additional Chief Secretary, Forest & Env Department, Govt. of Odisha on 12-02-2019 to implement the Action Plan and submit progress report on quarterly basis. The action plans have vested responsibility of implementation of several action points on various primary Govt. Department/ Agencies.

Forest and Environment Department, Govt. of Odisha vide its order dtd. 01-06-2019 has constituted "*Steering Committee*" under the supervision of Chief Secretary, with other members comprising of Head of Other Departments, Member Secretary, SPCB and Director Env-cum-Spl. Secretary to F & E Deptt, as Member Convenor to provide overall guidance and directions for effective implementation of NCAP and review the progress of components/ activities of NCAP.

The Quarterly progress report on the action points earmarked for State Pollution Control Board, Odisha for **Angul** is presented in this Report.

FORMAT FOR PROGRESS OF IMPLEMENTATION OF ACTION PLAN

State : Odisha

City : Angul

Year : 2019-20

Date of direction for ground implementation of action plan (Zero Date) : 12-02-2019

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
1.	To set up adequate number (03) of real time automatic monitoring stations	Short	The data from 03 CAAQMS installed at NALCO and Bhusan Steel will be used for air quality monitoring and assessment.	11-08-2019	Nil	Completed	Nil	
2.	To assess ground level air quality data from information provided by satellite-based data.	Short	<ul style="list-style-type: none">• SPCB has requested IMD/ORSAC to provide required expertise in carrying out the job of obtaining ground level air quality data from satellite observations.• Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha.	11-08-2019	Under implementation	Under implementation	Not estimated.	
3.	To develop capacity for pollution	Medium	<ul style="list-style-type: none">• SPCB has requested IMD and ORSAC to provide	11-02-2020	No deviation	Under implementation	Not estimated.	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	forecasting		<p>required expertise in developing capacity for pollution forecasting.</p> <ul style="list-style-type: none"> Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha. 					
4.	To set up daily air quality public information dissemination system based on National Air Quality Index	Medium	Air Quality Index value for the NAAQM stations established in six non-attainment cities are displayed at Board's website. The health advisory for different values of AQI is also displayed at Board's website for public information.	11-02-2020	No deviation	Completed	Nil	
5.	Assess application of low-cost sensor-based monitors in areas that are not being monitored	Medium	SPCB has requested CPCB to provide required expertise and assistance in this regard.	11-02-2020	No deviation	Under implementation	Not estimated.	
6.	Do one source apportionment and emission inventory study	Long	SPC Board, Odisha has floated Expression of Interest (EoI) dtd. 10-06-2019 to engage educational and	11-02-2021	No deviation	Under implementation	Under estimation	

Sl. No.	Action Point	Implement ation period (Short/Medium/Long	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			research institutions of National and International repute, to carry out Source Apportionment and Emission Inventory study for i. Angul, Talcher and Rourkela and ii. Cuttack, Bhubaneswar & Balasore City and prepare strategy for cost effective measures for abatement of air pollution in these areas. The study will be two separate assignments for a period of one and half years. IIT Kanpur, CUBE Govt of Tamilnadu, IIT Mumbai, NEERI Nagpur, TERI New Delhi, CSIR-IITR Lucknow and ARAI Pune have expressed their willingness to conduct the study. The proposal is under evaluation.					
7.	Set up rural and peri-urban air quality monitoring to assess the airshed / influence area.	Long	SPC Board, Odisha has signed one tripartite MOU on 06-06-2019 proposing collaboration between MoEF & CC, IIT Bhubaneswar and SPCB Odisha for implementation of NCAP in	11-02-2021	No deviation	Under implementation	Not estimated.	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			Odisha. Expertise has been sought from IIT Bhubaneswar to assess the air shed area of each non-attainment city.					
8.	Implement of SO _x and NO _x standards notified by MOEF&CC on January 29, 2018 for 35 categories of industries.	Short	Direction has been issued to Thermal Power industries to achieve new SO ₂ and NO _x emission standard and to furnish action plan for the same.	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB.	
9.	To strengthen the star rating programme to include full compliance to standards	Short	140 nos. of 17 Category of highly polluting industries have connected their 579 CEMS with the RT-DAS server of the Board as on 1st May 2019. The number of CEMS in Angul is 60. The Star Rating Programme is a joint effort of SPCB, Odisha and Energy Policy Institute at the University of Chicago (EPIC-India). The star rating program is being constantly strengthened.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB.	
10.	To prepare a clean fuel policy	Short	F&E Dept., may formulate a policy like Delhi Model for use of clean fuel in major	11-08-2019				Not under the purview of the Board

Sl. No.	Action Point	Implement ation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			cities of Odisha. Preparation of fuel policy does not fall within the purview of the Board.					
11.	Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable polluting industry and ensure calibration.:	Short	SPCB Odisha have directed industries for installation of remote calibration system for gaseous parameters and at the same time initiated the physical calibration and validation exercise of PM in CEMS in a phased manner for all the 17 categories of highly polluting industries in Odisha.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	
12.	Identification of cumulative impact of industrial emissions and prescribe more stringent pollution control action for industries	Short	The new methodology proposed for Cumulative Environmental Impact Index-2016 will be used for carrying out cumulative impact on Air Quality of the area. Based on index value for air, stringent pollution control measures will be prescribed for the industries.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
13.	Identification and implementation of fugitive emission control measures in	Short	SPCB is enforcing such polluting activities through its consent administration. However, the respective	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	

Sl. No.	Action Point	Implement ation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	ancillary units, material transfer and handling and emissions during industrial processes.		Regional Officers have been instructed to make further assessment in this regard.					
14.	Enforce restrictions on operations of intensively polluting industries within urban air shed zones during high pollution periods.	Short	As per the Action Point SPCB is developing its capacity in air quality monitoring and air pollution forecasting. During high pollution periods restrictions on operations of intensively polluting industries within urban air shed zones will be enforced.	11-08-2019	Under implementation	Under implementation	Not estimated.	
15.	Use CEMS data for enforcement and legal compliance monitoring	Medium	Action in this regard is being taken as per CPCB guidelines.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
16.	Prepare and implement local area action plan for pollution hotspots and enforce it.	Medium	The local pollution hot spots will be identified and appropriate measures will be initiated for its management and control.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
17.	Strengthen the current siting policy for industries to be set up in future	Medium	To be taken up.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
18.	Implementation of new thermal power plant standards in all	Long	As per direction of for new emission standards for thermal power plants, all	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implement ation period (Short/Medium/Long	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	power plants by the outer date of 2022.		thermal power plants have achieved the new standard for PM @ 50mg/Nm ³ . Regular monitoring is being carried out by the Regional Offices of the Board to verify compliance of the emission standard. CPCB has allowed extension of time up to June, 2020 for installation of FGD to meet prescribed standard w.r.t. SO ₂ emission. Similarly, CPCB has extended time up to 2022 to achieve new emission standard of NO _x . The power plants have been asked to submit action plan to achieve the new prescribed standard w.r.t. SO ₂ & NO _x . A review meeting will be conducted by the Board after getting compliance from the industries.					
19.	Implement plan for full utilization of fly ash, and effective management of fly ash pond for	Long	A Fly Ash Resource Centre (FARC) has been functional in SPCB to oversee and take up various promotional activities to enhance fly ash	11-02-2021	No deviation	Under implementation	FARC Cell is maintained is by OSPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	reduction of fugitive emissions		<p>utilization. For the year 2018-19 a total of 31.23 Million Tons of fly-ash was generated and 25.83 Million tons of fly ash was utilized. Thus, the utilization percentage is 82.7 % for whole state.</p> <p>The Flyash generation for power plants in Angul is 3.66 MTPY for 2018-19 and utilisation is 82.5%.</p> <p>All the thermal power plants have been directed to provide water sprinkling system in ash ponds or to cover in active portion under earth to curb fugitive emissions during summer months.</p>					
20.	Progressively close the older and more polluting thermal power plants and to move to cleaner natural gas.	Long	There is no older Thermal Power Plant in Angul.	11-02-2021	No deviation	-	No financial out lay by SPCB	
21.	Chart a roadmap for cleaner plants and incentivize their operation by giving them the priority over other polluting plants.	Long	A roadmap for cleaner plants and incentivize their operation by giving them the priority over other polluting plants- It is beyond the scope of SPCB.	Not Applicable				Not under the purview of the Board

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
22.	Restrict operations of brick kilns within urban air-shed zones during high pollution periods	Short	As per the Action Point SPCB is developing its capacity in air quality monitoring and air pollution forecasting. During high pollution period as prescribed in this action points, operations of brick kilns within urban air-shed zones during high pollution periods will be restricted.	11-08-2019	Under implementation	Under implementation	No financial outlay by SPCB	
23.	Prescribe design specifications and convert all brick kilns to zigzag technology—from natural draft kilns to induced-draft kilns (zigzag technology).	Medium	As per information available, the brick kilns are not operating within the municipal limits of non-attainment cities. SPCB is conducting a survey of all the brick kilns operating in close vicinity/ air shed (approx. 10-15 km from city limit). As such SPCB is undertaking a source apportionment/ emission inventory study for all six cities. Depending on the source contribution of brick kilns steps will be initiated for conversion all brick kilns to zigzag technology—from natural	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial outlay by SPCB	

Sl. No.	Action Point	Implement ation period (Short/Medium/Long	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			draft kilns to induced-draft kilns (zigzag technology).					
24.	Ensure DG sets that meet the standards in terms of emission or design of chimneys/ exhaust and acoustic enclosures operate	Short	SPCB regulates the DG Sets with capacity 1000 KVA and above. However, the concerned Regional Officers have been instructed identify the DG Sets operating within City Limits or operating within tentative air shed of the City to make an inventory of DG Sets. The concerned District and Local Administrations has been sensitized in this matter.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
25.	Curtail use of DG sets in social events by providing temporary electric connections	Short	The concerned District and Local Administrations has been sensitized in this matter. The progress report in this regard will be prepared after getting feedback from them.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
26.	Implement emission norms for incinerators	Short	In Angul city there is no BMW incinerators.	Not Applicable for Angul				
27.	Implement CEMS for incinerators	Short	In Angul city there is no BMW incinerators.	Not Applicable for Angul				
28.	Develop a siting policy for	Short	In Angul city there is no BMW incinerators However,	-				

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	biomedical incinerators.		Siting Criteria as prescribed by BMW Management Rules, 2016 and guidelines prepared by CPCB are being followed.					
29.	Enforcement of air pollution control in concrete batching plants	Long	The concrete batching plants mostly temporary in nature. All the concrete batching plants are regulated under the consent administration of the Board. The air pollution control measures are enforced by respective Regional Officers of the Board in their jurisdiction through Consent to Operate Order. Preparation of inventory of such batching plants in Angul city or its air shed is under progress.	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	
30.	Use satellite based monitoring and on-ground enforcement to control forest fires/biomass/crop residue burning episodes.	Long	SPCB has sought assistance from ORSAC/ IMD and IIT Bhubaneswar so as to enable it to monitor forest fires/biomass/crop residue burning episodes with the help of satellites using remote sensing technology. The date will be shared with the supporting agencies to	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implement ation period (Short/Medium/Long	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			control such air pollution causing forest fires/ biomass/ crop residue burning episodes.					
31.	Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data.	Short	SPCB does not have technical knowhow in this regard. It may be implemented by concerned Oil Marketing Companies/ Transport Department.	Not Applicable for SPCB				Not Applicable for SPCB

Quarterly Progress Report of Comprehensive Action Plan for Non-Attainment Cities in Odisha



(Quarterly Progress Report for Talcher)

STATE POLLUTION CONTROL BOARD, ODISHA

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII

Bhubaneswar – 751012

August, 2019

Introduction

Central Pollution Control Board (CPCB) has identified 102 non-attainment cities. In Odisha, there are six non-attainment cities—Bhubaneswar, Cuttack, Angul, Talcher, Balasore and Rourkela. In these cities, the ambient air quality remains above the National Ambient Air Quality Standards (NAAQS) with respect to PM₁₀ and PM_{2.5}.

Hon'ble National Green Tribunal has taken up the matter of urban air pollution in India and directed the respective State Governments to prepare city-wise Action Plans for combating air pollution in non-attainment cities. Accordingly, Action Plans were prepared for improving the air quality for each of the non-attainment city by Forest and Environment Department, in association with State Pollution Control Board and Centre for Science and Environment (CSE) New Delhi.

The Action Plan envisages air quality monitoring and assessment and control of air pollution from various sectors like, Industries, Power Plant, DG Sets, Brick Kilns, Vehicular Emissions, Road dust, Construction dust, Public Transport, Open Burning, Burning raw coal in dhabas etc. The Action Plan also envisages abatement of air pollution through taking measures like greening activities and adopting renewable energy practices and providing adequate training to concerned officials.

The CPCB has issued a direction under 31 (A) of Air (PCP) Act, 1981 to the Additional Chief Secretary, Forest & Env Department, Govt. of Odisha on 12-02-2019 to implement the Action Plan and submit progress report on quarterly basis. The action plans have vested responsibility of implementation of several action points on various primary Govt. Department/ Agencies.

Forest and Environment Department, Govt. of Odisha vide its order dtd. 01-06-2019 has constituted “*Steering Committee*” under the supervision of Chief Secretary, with other members comprising of Head of Other Departments, Member Secretary, SPCB and Director Env-cum-Spl. Secretary to F & E Deptt, as Member Convenor to provide overall guidance and directions for effective implementation of NCAP and review the progress of components/ activities of NCAP.

The Quarterly progress report on the action points earmarked for State Pollution Control Board, Odisha for **Talcher** is presented in this Report.

FORMAT FOR PROGRESS OF IMPLEMENTATION OF ACTION PLAN

State : Odisha
City : Talcher
Year : 2019-20

Date of direction for ground implementation of action plan (Zero Date) : 12-02-2019

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
1.	To set up 03 number of real time automatic monitoring stations	Short	01 CAAQMS is operating and installation of 02 more CAAQMS by MCL is under process.	11-08-2019	Under implementation	Under implementation	No financial outlay by the Board.	
2.	To assess ground level air quality data from information provided by satellite-based data.	Short	<ul style="list-style-type: none">• SPCB has requested IMD/ORSAC to provide required expertise in carrying out the job of obtaining ground level air quality data from satellite observations.• Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha.	11-08-2019	Under implementation	Under implementation	Not estimated.	
3.	To develop capacity for pollution forecasting	Medium	<ul style="list-style-type: none">• SPCB has requested IMD and ORSAC to provide	11-02-2020	No deviation	Under implementation	Not estimated.	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			<p>required expertise in developing capacity for pollution forecasting.</p> <ul style="list-style-type: none"> Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha. 					
4.	To set up daily air quality public information dissemination system based on National Air Quality Index	Medium	Air Quality Index value for the NAAQM stations established in six non-attainment cities are displayed at Board's website. The health advisory for different values of AQI is also displayed at Board's website for public information.	11-02-2020	No deviation	Completed	Nil	
5.	Assess application of low cost sensor based monitors in areas that are not being monitored	Medium	SPCB has requested CPCB to provide required expertise and assistance in this regard.	11-02-2020	No deviation	Under implementation	Not estimated.	
6.	Do one source apportionment and emission inventory study	Long	SPC Board, Odisha has floated Expression of Interest (EoI) dtd. 10-06-2019 to engage educational and research institutions of National and International	11-02-2021	No deviation	Under implementation	Under estimation	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			repute, to carry out Source Apportionment and Emission Inventory study for i. Angul, Talcher and Rourkela and ii. Cuttack, Bhubaneswar & Balasore City and prepare strategy for cost effective measures for abatement of air pollution in these areas. The study will be two separate assignments for a period of one and half years. IIT Kanpur, CUBE Govt of Tamilnadu, IIT Mumbai, NEERI Nagpur, TERI New Delhi, CSIR-IITR Lucknow and ARAI Pune have expressed their willingness to conduct the study. The proposal is under evaluation.					
7.	Set up rural and peri-urban air quality monitoring to assess the airshed / influence area.	Long	SPC Board, Odisha has signed one tripartite MOU on 06-06-2019 proposing collaboration between MoEF & CC, IIT Bhubaneswar and SPCB Odisha for implementation of NCAP in Odisha. Expertise has been sought from IIT	11-02-2021	No deviation	Under implementation	Not estimated.	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			Bhubaneswar to assess the air shed area of each non-attainment city.					
8.	Implement of SO _x and NO _x standards notified by MOEF&CC on January 29, 2018 for 35 categories of industries.	Short	Direction has been issued to Thermal Power industries to achieve new SO ₂ and NO _x emission standard and to furnish action plan for the same.	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB.	
9.	To strengthen the star rating programme to include full compliance to standards	Short	140 nos. of 17 Category of highly polluting industries have connected their 579 CEMS with the RT-DAS server of the Board as on 1st May 2019. The number of CEMS in Talcher city is 06. The Star Rating Programme is a joint effort of SPCB, Odisha and Energy Policy Institute at the University of Chicago (EPIC-India). The star rating program is being constantly strengthened	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB.	
10.	To prepare a clean fuel policy	Short	F&E Dept., may formulate a policy like Delhi Model for use of clean fuel in major cities of Odisha. Preparation of fuel policy does not fall	11-08-2019				Not under the purview of the Board

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			within the purview of the Board.					
11.	Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable polluting industry and ensure calibration.:	Short	SPCB Odisha have directed industries for installation of remote calibration system for gaseous parameters and at the same time initiated the physical calibration and validation exercise of PM in CEMS in a phased manner for all the 17 categories of highly polluting industries in Odisha.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	
12.	Identification of cumulative impact of industrial emissions and prescribe more stringent pollution control action for industries	Short	The new methodology proposed for Cumulative Environmental Impact Index-2016 will be used for carrying out cumulative impact on Air Quality of the area. Based on index value for air stringent pollution control measures will be prescribed for the industries.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
13.	Identification and implementation of fugitive emission control measures in ancillary units, material transfer and handling	Short	SPCB is enforcing such polluting activities through its consent administration. However, the respective Regional Officers have been instructed to make further	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	and emissions during industrial processes.		assessment in this regard.					
14.	Enforce restrictions on operations of intensively polluting industries within urban air shed zones during high pollution periods.	Short	As per the Action Point SPCB is developing its capacity air quality monitoring and air pollution forecasting. During high pollution periods restrictions on operations of intensively polluting industries within urban air shed zones will be enforced.	11-08-2019	Under implementation	Under implementation	Not estimated.	
15.	Use CEMS data for enforcement and legal compliance monitoring	Medium	Action in this regard is being taken as per CPCB guidelines.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
16.	Prepare and implement local area action plan for pollution hotspots and enforce it.	Medium	The local pollution hot spots will be identified and appropriate measures will be initiated for its management and control.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
17.	Strengthen the current siting policy for industries to be set up in future	Medium	To be taken up.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
18.	Implementation of new thermal power plant standards in all power plants by the outer date of 2022.	Long	As per direction of for new emission standards for thermal power plants, all thermal power plants have achieved the new standard for PM @ 50mg/Nm ³ . Regular monitoring is being	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			carried out by the Regional Offices of the Board to verify compliance of the emission standard. CPCB has allowed extension of time up to June, 2020 for installation of FGD to meet prescribed standard w.r.t. SO ₂ emission. Similarly, CPCB has extended time up to 2022 to achieve new emission standard of NO _x . The power plants have been asked to submit action plan to achieve the new prescribed standard w.r.t. SO ₂ & NO _x . A review meeting will be conducted by the Board after getting compliance from the industries.					
19.	Implement plan for full utilization of fly ash, and effective management of fly ash pond for reduction of fugitive emissions	Long	A Fly Ash Resource Centre (FARC) has been functional in SPCB to oversee and take up various promotional activities to enhance fly ash utilization. For the year	11-02-2021	No deviation	Under implementation	FARC Cell is maintained is by OSPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			<p>2018-19 a total of 31.23 Million Tons of fly ash was generated and 25.83 Million tons of fly ash was utilized. Thus the utilization percentage is 82.7 % for whole state.</p> <p>The Flyash generation capacity for Talcher 10.0 MTPY for 2018-19 and utilisation is 58.9%.</p> <p>All the thermal power plants have been directed to provide water sprinkling system in ash ponds or to cover in active portion under earth to curb fugitive emissions during summer months.</p>					
20.	Progressively close the older and more polluting thermal power plants and to move to cleaner natural gas.	Long	M/s. Talcher Thermal Power Station (TTPS), NTPC Angul has a proposal to close down its old unit, which has been installed since, 1967 after the new unit of 2x660 MW Power Plant is commissioned.	11-02-2021	No deviation	Under Implementation	No financial outlay by the Board.	
21.	Chart a roadmap for	Long	A roadmap for cleaner plants	Not				Not under

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	cleaner plants and incentivize their operation by giving them the priority over other polluting plants.		and incentivize their operation by giving them the priority over other polluting plants- It is beyond the scope of SPCB.	Applicable				the purview of the Board.
22.	Restrict operations of brick kilns within urban air-shed zones during high pollution periods	Short	As per the Action Point SPCB is developing its capacity in air quality monitoring and air pollution forecasting. During high pollution period as prescribed in this action points operations of brick kilns within urban air-shed zones during high pollution periods will be restricted.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
23.	Prescribe design specifications and convert all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).	Medium	As per information available, the brick kilns are not operating within the municipal limits of non-attainment cities. SPCB is conducting a survey of all the brick kilns operating in close vicinity/ air shed (approx. 10-15 km from city limit). As such SPCB is undertaking a source apportionment/ emission inventory study for all six cities. Depending on	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			the source contribution of brick kilns steps will be initiated for conversion all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).					
24.	Ensure DG sets that meet the standards in terms of emission or design of chimneys/exhaust and acoustic enclosures operate	Short	SPCB regulates the DG Sets with capacity 1000 KVA and above However, the concerned Regional Officers have been instructed identify the DG Sets operating within City Limits or operating within tentative air shed of the City make an inventory of DG Sets. The concerned District and Local Administrations has been sensitized in this matter.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
25.	Curtail use of DG sets in social events by providing temporary electric connections	Short	The concerned District and Local Administrations has been sensitized in this matter. The progress report in this regard will be prepared after getting feedback from them.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
26.	Implement emission norms for incinerators	Short	In Talcher city there is no BMW incinerators.	Not Applicable				

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
27.	Implement CEMS for incinerators	Short	In Talcher city there is no BMW incinerator.	Not Applicable				
28.	Develop a siting policy for biomedical incinerators.	Short	In Talcher city there is no BMW incinerators. However, Siting Criteria as prescribed by BMW Management Rules, 2016 and guidelines prepared by CPCB are being followed.	Not Applicable				
29.	Enforcement of air pollution control in concrete batching plants	Long	The concrete batching plants mostly temporary in nature. All the concrete batching plants are regulated under the consent administration of the Board. The air pollution control measures are enforced through by respective Regional Officers of the Board in their jurisdiction through Consent to Operate Order. Preparation of inventory of such batching plants in the six non-attainment cities or its air shed is under progress.	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	
30.	Use satellite based monitoring and on-ground enforcement to control forest fires/biomass/crop residue burning		SPCB has sought assistance from ORSAC/ IMD and IIT Bhubaneswar so as to enable it to monitor forest fires/biomass/crop residue burning episodes with the	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	episodes.		help of satellites using remote sensing technology. The date will be shared with the supporting agencies to control such air pollution causing forest fires/biomass/crop residue burning episodes.					
31.	Implement measures for effective dust suppression during mining and allied activities such as crushing, loading, unloading, transportation, blasting etc.	Short	The air pollution control measures in all the coal mines in Talcher Coal Fields are being enforced by stipulating conditions while granting consent to operate to these mines. The conditions include the measures for effective dust suppression during mining and allied activities such as crushing, loading, unloading, transportation, blasting etc. Moreover, a separate Action Plan for control of Air Pollution	11-08-2019	No deviation	This is a continuous activity and is under implementation	No financial outlay by SPCB	
32.	All related provision of the SPCB action plan for critically polluted	Short	The Action Plan for abatement of environmental pollution (Air/Water/	11-08-2019	No deviation	This is a continuous activity and is	No financial outlay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	area should be implemented.		Groundwater/Soil) in Critically Polluted Area (CPA) of Angul-Talcher is under implementation. The action points are verified by the District Level Committee constituted under chairmanship of Collector and District Magistrate, Angul from time to time.			under implementation		
33.	Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data.	Short	SPCB does not have technical knowhow in this regard. It may be implemented by concerned Oil Marketing Companies/ Transport Department.	-				Not Applicable for SPCB

Quarterly Progress Report of Comprehensive Action Plan for Non-Attainment Cities in Odisha



(Quarterly Progress Report for Balasore)

STATE POLLUTION CONTROL BOARD, ODISHA

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII

Bhubaneswar – 751012

August, 2019

Introduction

Central Pollution Control Board (CPCB) has identified 102 non-attainment cities. In Odisha, there are six non-attainment cities—Bhubaneswar, Cuttack, Angul, Talcher, Balasore and Rourkela. In these cities, the ambient air quality remains above the National Ambient Air Quality Standards (NAAQS) with respect to PM₁₀ and PM_{2.5}.

Hon'ble National Green Tribunal has taken up the matter of urban air pollution in India and directed the respective State Governments to prepare city-wise Action Plans for combating air pollution in non-attainment cities. Accordingly, Action Plans were prepared for improving the air quality for each of the non-attainment city by Forest and Environment Department, in association with State Pollution Control Board and Centre for Science and Environment (CSE) New Delhi.

The Action Plan envisages air quality monitoring and assessment and control of air pollution from various sectors like, Industries, Power Plant, DG Sets, Brick Kilns, Vehicular Emissions, Road dust, Construction dust, Public Transport, Open Burning, Burning raw coal in dhabas etc. The Action Plan also envisages abatement of air pollution through taking measures like greening activities and adopting renewable energy practices and providing adequate training to concerned officials.

The CPCB has issued a direction under 31 (A) of Air (PCP) Act, 1981 to the Additional Chief Secretary, Forest & Env Department, Govt. of Odisha on 12-02-2019 to implement the Action Plan and submit progress report on quarterly basis. The action plans have vested responsibility of implementation of several action points on various primary Govt. Department/ Agencies.

Forest and Environment Department, Govt. of Odisha vide its order dtd. 01-06-2019 has constituted "*Steering Committee*" under the supervision of Chief Secretary, with other members comprising of Head of Other Departments, Member Secretary, SPCB and Director Env-cum-Spl. Secretary to F & E Deptt, as Member Convenor to provide overall guidance and directions for effective implementation of NCAP and review the progress of components/ activities of NCAP.

The Quarterly progress report on the action points earmarked for State Pollution Control Board, Odisha for **Balasore** is presented in this Report.

FORMAT FOR PROGRESS OF IMPLEMENTATION OF ACTION PLAN

State : Odisha
City : Balasore
Year : 2019-20

Date of direction for ground implementation of action plan (Zero Date) : 12-02-2018

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
1.	To set up adequate number of real time automatic monitoring stations	Short	CAAQMS installed at Birla Tyres will be used for AQM and assessment. Proposal has been submitted to CPCB for funding for 01 station.	11-08-2019	Under implementation	Under implementation	Not estimated	
2.	To assess ground level air quality data from information provided by satellite-based data.	Short	<ul style="list-style-type: none">• SPCB has requested IMD/ORSAC to provide required expertise in carrying out the job of obtaining ground level air quality data from satellite observations.• Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha.	11-08-2019	Under implementation	Under implementation	Not estimated	
3.	To develop capacity for	Medium	<ul style="list-style-type: none">• SPCB has requested IMD	11-02-2020	No deviation	Under implementation	Not estimated	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	pollution forecasting		and ORSAC to provide required expertise in developing capacity for pollution forecasting. <ul style="list-style-type: none"> Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha. 					
4.	To set up daily air quality public information dissemination system based on National Air Quality Index	Medium	Air Quality Index value for the NAAQM stations established in six non-attainment cities are displayed at Board's website. The health advisory for different values of AQI is also displayed at Board's website for public information.	11-02-2020	No deviation	Completed	Nil	
5.	Assess application of low cost sensor based monitors in areas that are not being monitored	Medium	SPCB has requested CPCB to provide required expertise and assistance in this regard.	11-02-2020	No deviation	Under implementation	Not estimated	
6.	Do one source apportionment and emission inventory study	Long	SPC Board, Odisha has floated Expression of Interest (EoI) dtd. 10-06-2019 to engage educational and	11-02-2021	No deviation	Under implementation	Under estimation	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			research institutions of National and International repute, to carry out Source Apportionment and Emission Inventory study for i. Angul, Talcher and Rourkela and ii. Cuttack, Bhubaneswar & Balasore City and prepare strategy for cost effective measures for abatement of air pollution in these areas. The study will be two separate assignments for a period of one and half years. IIT Kanpur, CUBE Govt of Tamilnadu, IIT Mumbai, NEERI Nagpur, TERI New Delhi, CSIR-IITR Lucknow and ARAI Pune have expressed their willingness to conduct the study. The proposal is under evaluation.					
7.	Set up rural and peri-urban air quality monitoring to assess the airshed / influence area.	Long	SPC Board, Odisha has signed one tripartite MOU on 06-06-2019 proposing collaboration between MoEF & CC, IIT Bhubaneswar and SPCB Odisha for implementation of NCAP in	11-02-2021	No deviation	Under implementation	Not estimated	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			Odisha. Expertise has been sought from IIT Bhubaneswar to assess the air shed area of each non-attainment city.					
8.	Implement of SO _x and NO _x standards notified by MOEF&CC on January 29, 2018 for 35 categories of industries.	Short	Direction has been issued to Pulp & Paper industries to achieve new SO ₂ and NO _x emission standard and to furnish action plan for the same.	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB.	
9.	To strengthen the star rating programme to include full compliance to standards	Short	<p>140 nos. of 17 Category of highly polluting industries have connected their 579 CEMS with the RT-DAS server of the Board as on 1st May 2019. The number of CEMS in Balasore city is 03.</p> <p>The Star Rating Programme is a joint effort of SPCB, Odisha and Energy Policy Institute at the University of Chicago (EPIC-India). The star rating program is being constantly strengthened.</p>	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB.	
10.	To prepare a clean fuel	Short	F&E Dept., may formulate a	11-08-2019				Not under the

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	policy		policy like Delhi Model for use of clean fuel in major cities of Odisha. Preparation of fuel policy does not fall within the purview of the Board.					purview of the Board
11.	Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable polluting industry and ensure calibration.:	Short	SPCB Odisha have directed industries for installation of remote calibration system for gaseous parameters and at the same time initiated the physical calibration and validation exercise of PM in CEMS in a phased manner for all the 17 categories of highly polluting industries in Odisha.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	
12.	Identification of cumulative impact of industrial emissions and prescribe more stringent pollution control action for industries	Short	The new methodology proposed for Cumulative Environmental Impact Index-2016 will be used for carrying out cumulative impact on Air Quality of the area. Based on index value for air stringent pollution control measures will be prescribed for the industries.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
13.	Identification and implementation of	Short	SPCB is enforcing such polluting activities through	11-08-2019	No deviation	It is a continuous	No financial out lay by	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	fugitive emission control measures in ancillary units, material transfer and handling and emissions during industrial processes.		its consent administration. However, the respective Regional Officers have been instructed to make further assessment in this regard.			activity	SPCB	
14.	Enforce restrictions on operations of intensively polluting industries within urban air shed zones during high pollution periods.	Short	As per the Action Point SPCB is developing its capacity air quality monitoring and air pollution forecasting. During high pollution periods restrictions on operations of intensively polluting industries within urban air shed zones will be enforced.	11-08-2019	Under implementation	Under implementation	Not estimated	
15.	Use CEMS data for enforcement and legal compliance monitoring	Medium	Action in this regard is being taken as per CPCB guidelines.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
16.	Prepare and implement local area action plan for pollution hotspots and enforce it.	Medium	The local pollution hot spots will be identified and appropriate measures will be initiated for its management and control.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
17.	Strengthen the current siting policy for industries to be set up in future	Medium	To be taken up.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
18.	Restrict operations of brick kilns within urban air-shed zones during	Short	As per the Action Point SPCB is developing its capacity air quality	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	high pollution periods		monitoring and air pollution forecasting. During high pollution period as prescribed in this action points, operations of brick kilns within urban air-shed zones during high pollution periods will be restricted.					
19.	Prescribe design specifications and convert all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).	Medium	As per information available, the brick kilns are not operating within the municipal limits of non-attainment cities. SPCB is conducting a survey of all the brick kilns operating in close vicinity/ air shed (approx. 10-15 km from city limit). As such SPCB is undertaking a source apportionment/ emission inventory study for all six cities. Depending on the source contribution of brick kilns steps will be initiated for conversion all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial out lay by SPCB	
20.	Ensure DG sets that	Short	SPCB regulates the DG Sets	11-08-2019	Under	Under	No financial	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	meet the standards in terms of emission or design of chimneys/exhaust and acoustic enclosures operate		with capacity 1000 KVA and above However, the concerned Regional Officers have been instructed identify the DG Sets operating within City Limits or operating within tentative air shed of the City make an inventory of DG Sets. The concerned District and Local Administrations has been sensitized in this matter.		implementation	implementation	out lay by SPCB	
21.	Curtail use of DG sets in social events by providing temporary electric connections	Short	The concerned District and Local Administrations has been sensitized in this matter. The progress report in this regard will be prepared after getting feedback from them.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
22.	Implement emission norms for incinerators	Short	In Balasore city there is no BMW incinerators.	Not Applicable for Balasore				
23.	Implement CEMS for incinerators	Short	In Balasore city there is no BMW incinerators.	Not Applicable for Balasore				
24.	Develop a siting policy for biomedical incinerators.	Short	In Balasore city there is no BMW incinerators However, Siting Criteria as prescribed	-				

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			by BMW Management Rules, 2016 and guidelines prepared by CPCB are being followed.					
25.	Enforcement of air pollution control in concrete batching plants	Long	The concrete batching plants mostly temporary in nature. All the concrete batching plants are regulated under the consent administration of the Board. The air pollution control measures are enforced through by respective Regional Officers of the Board in their jurisdiction through Consent to Operate Order. Preparation of inventory of such batching plants in the six non-attainment cities or its air shed is under progress.	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	
26.	Use satellite based monitoring and on-ground enforcement to control forest fires/biomass/crop residue burning episodes.	Long	SPCB has sought assistance from ORSAC/ IMD and IIT Bhubaneswar so as to enable it to monitor forest fires/biomass/crop residue burning episodes with the help of satellites using remote sensing technology. The date will be shared with the supporting agencies to control such air pollution	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			causing forest fires/biomass/crop residue burning episodes..					
27.	Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data.	Short	SPCB does not have technical knowhow in this regard. It may be implemented by concerned Oil Marketing Companies/ Transport Department.	Not Applicable for SPCB				Not Applicable for SPCB

Quarterly Progress Report of Comprehensive Action Plan for Non-Attainment Cities in Odisha



(Quarterly Progress Report for Bhubaneswar)

STATE POLLUTION CONTROL BOARD, ODISHA

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII

Bhubaneswar – 751012

August, 2019

Introduction

Central Pollution Control Board (CPCB) has identified 102 non-attainment cities. In Odisha, there are six non-attainment cities—Bhubaneswar, Cuttack, Angul, Talcher, Balasore and Rourkela. In these cities, the ambient air quality remains above the National Ambient Air Quality Standards (NAAQS) with respect to PM₁₀ and PM_{2.5}.

Hon'ble National Green Tribunal has taken up the matter of urban air pollution in India and directed the respective State Governments to prepare city-wise Action Plans for combating air pollution in non-attainment cities. Accordingly, Action Plans were prepared for improving the air quality for each of the non-attainment city by Forest and Environment Department, in association with State Pollution Control Board and Centre for Science and Environment (CSE) New Delhi.

The Action Plan envisages air quality monitoring and assessment and control of air pollution from various sectors like, Industries, Power Plant, DG Sets, Brick Kilns, Vehicular Emissions, Road dust, Construction dust, Public Transport, Open Burning, Burning raw coal in dhabas etc. The Action Plan also envisages abatement of air pollution through taking measures like greening activities and adopting renewable energy practices and providing adequate training to concerned officials.

The CPCB has issued a direction under 31 (A) of Air (PCP) Act, 1981 to the Additional Chief Secretary, Forest & Env Department, Govt. of Odisha on 12-02-2019 to implement the Action Plan and submit progress report on quarterly basis. The action plans have vested responsibility of implementation of several action points on various primary Govt. Department/ Agencies.

Forest and Environment Department, Govt. of Odisha vide its order dtd. 01-06-2019 has constituted "*Steering Committee*" under the supervision of Chief Secretary, with other members comprising of Head of Other Departments, Member Secretary, SPCB and Director Env-cum-Spl. Secretary to F & E Deptt, as Member Convenor to provide overall guidance and directions for effective implementation of NCAP and review the progress of components/ activities of NCAP.

The Quarterly progress report on the action points earmarked for State Pollution Control Board, Odisha for Bhubaneswar is presented in this Report.

FORMAT FOR PROGRESS OF IMPLEMENTATION OF ACTION PLAN

State : Odisha
City : Bhubaneswar
Year : 2019-20

Date of direction for ground implementation of action plan (Zero Date) :12-02-2019

Sl. No.	Action Point	Implement ation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
1.	To set up adequate number of real time automatic monitoring stations	Short	Proposal submitted to CPCB for funding for 03 stations. Steering Committee Meeting for NCAP of MoEF & CC held at Delhi on 10-06-2019, has approved to install 03 CAAQMS for twin city of Cuttack and Bhubaneswar	11-08-2019	Under implementation	Under implementation	Under estimation	
2.	To assess ground level air quality data from information provided by satellite-based data.	Short	<ul style="list-style-type: none">• SPCB has requested IMD/ORSAC to provide required expertise in carrying out the job of obtaining ground level air quality data from satellite observations.• Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha.	11-08-2019	Under implementation	Under implementation	Not estimated	
3.	To develop capacity for pollution	Medium	<ul style="list-style-type: none">• SPCB has requested IMD and ORSAC to provide required expertise in developing	11-02-2020	No deviation	Under implementation	Not estimated	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	forecasting		<p>capacity for pollution forecasting.</p> <ul style="list-style-type: none"> Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha. 					
4.	To set up daily air quality public information dissemination system based on National Air Quality Index	Medium	Air Quality Index value for the NAAQM stations established in six non-attainment cities are displayed at Board's website. The health advisory for different values of AQI is also displayed at Board's website for public information.	11-02-2020	No deviation	Completed	Nil	
5.	Assess application of low cost sensor based monitors in areas that are not being monitored	Medium	SPCB has requested CPCB to provide required expertise and assistance in this regard.	11-02-2020	No deviation	Under implementation	Not estimated	
6.	Do one source apportionment and emission inventory study	Long	SPC Board, Odisha has floated Expression of Interest (EoI) dtd. 10-06-2019 to engage educational and research institutions of National and International repute, to carry out Source Apportionment and Emission Inventory study for i. Angul, Talcher and Rourkela and ii. Cuttack, Bhubaneswar &	11-02-2021	No deviation	Under implementation	Under estimation	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			Balasore City and prepare strategy for cost effective measures for abatement of air pollution in these areas. The study will be two separate assignments for a period of one and half years. IIT Kanpur, CUBE Govt of Tamilnadu, IIT Mumbai, NEERI Nagpur, TERI New Delhi, CSIR-IITR Lucknow and ARAI Pune have expressed their willingness to conduct the study. The proposal is under evaluation.					
7.	Set up rural and peri-urban air quality monitoring to assess the airshed / influence area.	Long	SPC Board, Odisha has signed one tripartite MOU on 06-06-2019 proposing collaboration between MoEF & CC, IIT Bhubaneswar and SPCB Odisha for implementation of NCAP in Odisha. Expertise has been sought from IIT Bhubaneswar to assess the air shed area of each non-attainment city.	11-02-2021	No deviation	Under implementation	Not estimated	
8.	Implement of SO _x and NO _x standards notified by MOEF&CC on January 29, 2018	Short	In Bhubaneswar city there are no Sugar, Thermal Power, Pulp & Paper, Distilleries & Caustic Soda industries to achieve new SO ₂ and NO _x emission standard and to	Not Applicable				Not applicable for Bhubaneswar

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	for 35 categories of industries.		furnish action plan for the same.					
9.	To strengthen the star rating programme to include full compliance to standards	Short	Star rating Program utilises CEMs data for its evaluation process. But In Bhubaneswar city there is no CEMs connected to any industry.	Not Applicable for Bhubaneswar				Not applicable for Bhubaneswar
10.	Not to allow new air polluting industry inside the city.	Short	As a matter of policy SPCB does not grant consent to establish within the industrial estates of Bhubaneswar that use coal/ fossil fuel for industrial purpose.	11-08-2019	No deviation	Completed	Nil	
11.	To prepare a clean fuel policy	Short	F&E Dept., may formulate a policy like Delhi Model for use of clean fuel in major cities of Odisha. Preparation of fuel policy does not fall within the purview of the Board.	11-08-2019				Not under the purview of the Board
12.	Strengthen the current siting policy for industries to be set up in future	Medium	To be taken up	11-02-2020	No deviation	It is a continuous activity	No financial out lay by SPCB	
13.	Restrict operations of brick kilns within urban air-shed zones during high pollution periods	Short	As per the Action Point SPCB is developing its capacity air quality monitoring and air pollution forecasting. During high pollution period as prescribed in this action points, operations of brick kilns	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			within urban air-shed zones during high pollution periods will be restricted.					
14.	Prescribe design specifications and convert all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).	Medium	As per information available, the brick kilns are not operating within the municipal limits of non-attainment cities. SPCB is conducting a survey of all the brick kilns operating in close vicinity/ air shed (approx. 10-15 km from city limit). As such SPCB is undertaking a source apportionment/ emission inventory study for all six cities. Depending on the source contribution of brick kilns steps will be initiated for conversion all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial out lay by SPCB	
15.	Remove stone crushers that are close to the city;	Medium	SPCB is undertaking a source apportionment/ emission inventory study for Bhubaneswar. Depending on the source contribution of Stone Crushers operating in air shed of Bhubaneswar steps will be initiated for removal of these stone crushers.	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
16	Ensure DG sets that meet the standards in terms of emission or design of chimneys/ exhaust and acoustic enclosures operate	Short	SPCB regulates the DG Sets with capacity 1000 KVA and above. However, the concerned Regional Officers have been instructed to identify the DG Sets operating within City Limits or operating within tentative air shed of the City, make an inventory of DG Sets. The concerned District and Local Administrations have been sensitized in this matter.	11-08-2019	Under implementation	Under implementation	No financial outlay by SPCB	
17.	Curtail use of DG sets in social events by providing temporary electric connections	Short	The concerned District and Local Administrations have been sensitized in this matter. The progress report in this regard will be prepared after getting feedback from them.	11-08-2019	Under implementation	Under implementation	No financial outlay by SPCB	
18.	Implement emission norms for incinerators	Short	In Bhubaneswar city, there is one BMW incinerator at Tangiapada, Khurda by M/s Sani Clean (P) Ltd. The emission norms for incinerator as stipulated in BMW Management Rules, 2016 are being monitored at regular intervals wrt PM, HCL, NOx. The emission data is also displayed online on the display board.	11-08-2019	No deviation	Completed	No financial outlay by SPCB	
19.	Implement CEMS	Short	CEMS has been installed in M/s	11-08-2019	No deviation	Completed	No financial outlay by	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	for incinerators		Sani Clean (P) Ltd. and the data is transmitted to Board's server and CPCB.				SPCB	
20.	Develop a siting policy for biomedical incinerators.	Short	All the Biomedical incinerators are liable to take environmental clearance. The siting of a biomedical incinerator is regulated through EC mechanism. Siting Criteria as prescribed by BMW Management Rules, 2016 and guidelines prepared by CPCB is being followed.	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB	
21.	Enforcement of air pollution control in concrete batching plants	Long	The concrete batching plants mostly temporary in nature. All the concrete batching plants are regulated under the consent administration of the Board. The air pollution control measures are enforced through by respective Regional Officers of the Board in their jurisdiction through Consent to Operate Order. Preparation of inventory of such batching plants in the six non-attainment cities or its air shed is under progress.	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	
22.	Use satellite based monitoring and on-ground enforcement to control forest fires/biomass/crop	Long	SPCB has sought assistance from ORSAC/ IMD and IIT Bhubaneswar so as to enable it to monitor forest fires/biomass/crop residue burning episodes with the help of satellites using remote	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	residue burning episodes.		sensing technology. The date will be shared with the supporting agencies to control such air pollution causing forest fires/biomass/crop residue burning episodes..					
23.	Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data.	Short	SPCB does not have technical knowhow in this regard. It may be implemented by concerned Oil Marketing Companies/ Transport Department.	Not Applicable for SPCB				Not Applicable for SPCB

Quarterly Progress Report of Comprehensive Action Plan for Non-Attainment Cities in Odisha



(Quarterly Progress Report for Cuttack)

STATE POLLUTION CONTROL BOARD, ODISHA

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII

Bhubaneswar – 751012

August, 2019

Introduction

Central Pollution Control Board (CPCB) has identified 102 non-attainment cities. In Odisha, there are six non-attainment cities—Bhubaneswar, Cuttack, Angul, Talcher, Balasore and Rourkela. In these cities, the ambient air quality remains above the National Ambient Air Quality Standards (NAAQS) with respect to PM₁₀ and PM_{2.5}.

Hon'ble National Green Tribunal has taken up the matter of urban air pollution in India and directed the respective State Governments to prepare city-wise Action Plans for combating air pollution in non-attainment cities. Accordingly, Action Plans were prepared for improving the air quality for each of the non-attainment city by Forest and Environment Department, in association with State Pollution Control Board and Centre for Science and Environment (CSE) New Delhi.

The Action Plan envisages air quality monitoring and assessment and control of air pollution from various sectors like, Industries, Power Plant, DG Sets, Brick Kilns, Vehicular Emissions, Road dust, Construction dust, Public Transport, Open Burning, Burning raw coal in dhabas etc. The Action Plan also envisages abatement of air pollution through taking measures like greening activities and adopting renewable energy practices and providing adequate training to concerned officials.

The CPCB has issued a direction under 31 (A) of Air (PCP) Act, 1981 to the Additional Chief Secretary, Forest & Env Department, Govt. of Odisha on 12-02-2019 to implement the Action Plan and submit progress report on quarterly basis. The action plans have vested responsibility of implementation of several action points on various primary Govt. Department/ Agencies.

Forest and Environment Department, Govt. of Odisha vide its order dtd. 01-06-2019 has constituted "*Steering Committee*" under the supervision of Chief Secretary, with other members comprising of Head of Other Departments, Member Secretary, SPCB and Director Env-cum-Spl. Secretary to F & E Deptt, as Member Convenor to provide overall guidance and directions for effective implementation of NCAP and review the progress of components/ activities of NCAP.

The Quarterly progress report on the action points earmarked for State Pollution Control Board, Odisha for **Cuttack** is presented in this Report.

FORMAT FOR PROGRESS OF IMPLEMENTATION OF ACTION PLAN

State : Odisha
City : Cuttack
Year : 2019-20

Date of direction for ground implementation of action plan (Zero Date) : 11-02-2019

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
1.	To set up adequate number of real time automatic monitoring stations	Short	Proposal submitted to CPCB for funding for 03 stations. Steering Committee Meeting for NCAP of MoEF & CC held at Delhi on 10-06-2019, has approved to install 03 CAAQMS for twin city of Bhubaneswar-Cuttack city.	11-08-2019	Under implementation	Under implementation	Under estimation	
2.	To assess ground level air quality data from information provided by satellite-based data.	Short	<ul style="list-style-type: none">• SPCB has requested IMD/ORSAC to provide required expertise in carrying out the job of obtaining ground level air quality data from satellite observations.• Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha.	11-08-2019	Under implementation	Under implementation	Not estimated	
3.	To develop capacity for pollution forecasting	Medium	<ul style="list-style-type: none">• SPCB has requested IMD and ORSAC to provide required expertise in developing	11-02-2020	No deviation	Under implementation	Not estimated	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			<p>capacity for pollution forecasting.</p> <ul style="list-style-type: none"> Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha. 					
4.	To set up daily air quality public information dissemination system based on National Air Quality Index	Medium	Air Quality Index value for the NAAQM stations established in six non-attainment cities are displayed at Board's website. The health advisory for different values of AQI is also displayed at Board's website for public information.	11-02-2020	No deviation	Completed	Nil	
5.	Assess application of low cost sensor based monitors in areas that are not being monitored	Medium	SPCB has requested CPCB to provide required expertise and assistance in this regard.	11-02-2020	No deviation	Under implementation	Not estimated	
6.	Do one source apportionment and emission inventory study	Long	SPC Board, Odisha has floated Expression of Interest (EoI) dtd. 10-06-2019 to engage educational and research institutions of National and International repute, to carry out Source Apportionment and Emission Inventory study for i. Angul, Talcher and Rourkela and ii. Cuttack, Bhubaneswar &	11-02-2021	No deviation	Under implementation	Under estimation	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			Balasore City and prepare strategy for cost effective measures for abatement of air pollution in these areas. The study will be two separate assignments for a period of one and half years IIT Kanpur, CUBE Govt of Tamilnadu, IIT Mumbai, NEERI Nagpur, TERI New Delhi, CSIR-IITR Lucknow and ARAI Pune have expressed their willingness to conduct the study. The proposal is under evaluation.					
7.	Set up rural and peri-urban air quality monitoring to assess the airshed / influence area.	Long	SPC Board, Odisha has signed one tripartite MOU on 06-06-2019 proposing collaboration between MoEF & CC, IIT Bhubaneswar and SPCB Odisha for implementation of NCAP in Odisha. Expertise has been sought from IIT Bhubaneswar to assess the air shed area of each non-attainment city.	11-02-2021	No deviation	Under implementation	Not estimated	
8.	Implement of SO _x and NO _x standards notified by MOEF&CC on January 29, 2018 for	Short	In Cuttack city there are no Sugar, Thermal Power, Pulp & Paper, Distilleries & Caustic Soda industries to achieve new SO ₂ and NO _x emission standard and to	Not applicable for Cuttack				Not applicable for Cuttack

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	35 categories of industries.		furnish action plan for the same.					
9.	To strengthen the star rating programme to include full compliance to standards	Short	140 nos. of 17 Category of highly polluting industries have connected their 579 CEMS with the RT-DAS server of the Board as on 1st May 2019. The number of CEMS in Cuttack city is 02. The Star Rating Programme is a joint effort of SPCB, Odisha and Energy Policy Institute at the University of Chicago (EPIC-India). The star rating program is being constantly strengthened	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB.	
10.	To prepare a clean fuel policy	Short	F&E Dept., may formulate a policy like Delhi Model for use of clean fuel in major cities of Odisha. Preparation of fuel policy does not fall within the purview of the Board.	11-08-2019				Not under the purview of the Board
11.	Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable polluting industry and ensure calibration.	Short	SPCB Odisha have directed industries for installation of remote calibration system for gaseous parameters and at the same time initiated the physical calibration and validation exercise of PM in CEMS in a phased manner for all the 17 categories of highly polluting industries in Odisha.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
12.	Identification of cumulative impact of industrial emissions and prescribe more stringent pollution control action for industries	Short	The new methodology proposed for Cumulative Environmental Impact Index-2016 will be used for carrying out cumulative impact on Air Quality of the area. Based on index value for air stringent pollution control measures will be prescribed for the industries.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
13.	Use CEMS data for enforcement and legal compliance monitoring	Medium	Action in this regard is being taken as per CPCB guidelines.	11-02-2020	No deviation	It is a continuous activity	No financial out lay by SPCB	
14.	Strengthen the current siting policy for industries to be set up in future	Medium	To be taken up	11-02-2020	Under implementation	Under implementation	Not estimated	
15.	Restrict operations of brick kilns within urban air-shed zones during high pollution periods	Short	As per the Action Point SPCB is developing its capacity air quality monitoring and air pollution forecasting. During high pollution period as prescribed in this action points, operations of brick kilns within urban air-shed zones during high pollution periods will be restricted.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
16.	Prescribe design specifications and convert all brick kilns to zigzag	Medium	As per information available, the brick kilns are not operating within the municipal limits of non-attainment cities. SPCB is	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	technology—from natural draft kilns to induced--draft kilns (zigzag technology).		conducting a survey of all the brick kilns operating in close vicinity/ air shed (approx. 10-15 km from city limit). As such SPCB is undertaking a source apportionment/ emission inventory study for all six cities. Depending on the source contribution of brick kilns steps will be initiated for conversion all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).					
17	Ensure DG sets that meet the standards in terms of emission or design of chimneys/ exhaust and acoustic enclosures operate	Short	SPCB regulates the DG Sets with capacity 1000 KVA and above However, the concerned Regional Officers have been instructed identify the DG Sets operating within City Limits or operating within tentative air shed of the City make an inventory of DG Sets. The concerned District and Local Administrations has been sensitized in this matter.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
18.	Curtail use of DG sets in social events by providing temporary electric connections	Short	The concerned District and Local Administrations has been sensitized in this matter. The progress report in this regard will be prepared after getting feedback	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			from them.					
19.	Implement emission norms for incinerators	Short	In Cuttack city there is one BMW incinerator. Manual monitoring is being carried out for enforcement of emission norms.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
20.	Implement CEMS for incinerators	Short	In Cuttack city there is one BMW incinerator. It has been asked to install CEMS.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
21.	Develop a siting policy for biomedical incinerators.	Short	Siting Criteria as prescribed by BMW Management Rules, 2016 and guidelines prepared by CPCB is being followed.	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB	
22.	Enforcement of air pollution control in concrete batching plants	Long	The concrete batching plants mostly temporary in nature. All the concrete batching plants are regulated under the consent administration of the Board. The air pollution control measures are enforced through by respective Regional Officers of the Board in their jurisdiction through Consent to Operate Order. Preparation of inventory of such batching plants in the six non-attainment cities or its air shed is under progress.	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	
23.	Use satellite based monitoring and on-ground enforcement to control forest	Long	SPCB has sought assistance from ORSAC/ IMD and IIT Bhubaneswar so as to enable it to monitor forest fires/biomass/crop	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	fires/biomass/crop residue burning episodes.		residue burning episodes with the help of satellites using remote sensing technology. The date will be shared with the supporting agencies to control such air pollution causing forest fires/biomass/crop residue burning episodes.					
24.	Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data.	Short	SPCB does not have technical knowhow in this regard. It may be implemented by concerned Oil Marketing Companies/ Transport Department.	Not Applicable for SPCB				Not Applicable for SPCB

Quarterly Progress Report of Comprehensive Action Plan for Non-Attainment Cities in Odisha



(Quarterly Progress Report for Rourkela)

STATE POLLUTION CONTROL BOARD, ODISHA

Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII

Bhubaneswar – 751012

August, 2019

Introduction

Central Pollution Control Board (CPCB) has identified 102 non-attainment cities. In Odisha, there are six non-attainment cities—Bhubaneswar, Cuttack, Angul, Talcher, Balasore and Rourkela. In these cities, the ambient air quality remains above the National Ambient Air Quality Standards (NAAQS) with respect to PM₁₀ and PM_{2.5}.

Hon'ble National Green Tribunal has taken up the matter of urban air pollution in India and directed the respective State Governments to prepare city-wise Action Plans for combating air pollution in non-attainment cities. Accordingly, Action Plans were prepared for improving the air quality for each of the non-attainment city by Forest and Environment Department, in association with State Pollution Control Board and Centre for Science and Environment (CSE) New Delhi.

The Action Plan envisages air quality monitoring and assessment and control of air pollution from various sectors like, Industries, Power Plant, DG Sets, Brick Kilns, Vehicular Emissions, Road dust, Construction dust, Public Transport, Open Burning, Burning raw coal in dhabas etc. The Action Plan also envisages abatement of air pollution through taking measures like greening activities and adopting renewable energy practices and providing adequate training to concerned officials.

The CPCB has issued a direction under 31 (A) of Air (PCP) Act, 1981 to the Additional Chief Secretary, Forest & Env Department, Govt. of Odisha on 12-02-2019 to implement the Action Plan and submit progress report on quarterly basis. The action plans have vested responsibility of implementation of several action points on various primary Govt. Department/ Agencies.

Forest and Environment Department, Govt. of Odisha vide its order dtd. 01-06-2019 has constituted "*Steering Committee*" under the supervision of Chief Secretary, with other members comprising of Head of Other Departments, Member Secretary, SPCB and Director Env-cum-Spl. Secretary to F & E Deptt, as Member Convenor to provide overall guidance and directions for effective implementation of NCAP and review the progress of components/ activities of NCAP.

The Quarterly progress report on the action points earmarked for State Pollution Control Board, Odisha for **Rourkela** is presented in this Report.

FORMAT FOR PROGRESS OF IMPLEMENTATION OF ACTION PLAN

State : Odisha

City : Rourkela

Year : 2019-20

Date of direction for ground implementation of action plan (Zero Date) : 12-02-2019

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
1.	To set up adequate number of real time automatic monitoring stations	Short	Data from 03 CAAQMS of Rourkela Steel Plant and Steel Township will be used. 01 CAAQMS will be installed at Panposh with OMBADC funds by 31-03-2020.	11-08-2019	Nil	Completed	To be estimated.	
2.	To assess ground level air quality data from information provided by satellite-based data.	Short	<ul style="list-style-type: none">• SPCB has requested IMD/ORSAC to provide required expertise in carrying out the job of obtaining ground level air quality data from satellite observations.• Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha.	11-08-2019	Under implementation	Under implementation	Not estimated	
3.	To develop capacity for pollution forecasting	Medium	<ul style="list-style-type: none">• SPCB has requested IMD and ORSAC to provide required expertise in developing capacity for pollution forecasting.	11-02-2020	No deviation	Under implementation	Not estimated	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			<ul style="list-style-type: none"> Expertise from IIT Bhubaneswar has been sought as the Technical Partner regarding implementation of NCAP in Odisha. 					
4.	To set up daily air quality public information dissemination system based on National Air Quality Index	Medium	Air Quality Index value for the NAAQM stations established in six non-attainment cities are displayed at Board's website. The health advisory for different values of AQI is also displayed at Board's website for public information.	11-02-2020	No deviation	Completed	Nil	
5.	Assess application of low cost sensor based monitors in areas that are not being monitored	Medium	SPCB has requested CPCB to provide required expertise and assistance in this regard.	11-02-2020	No deviation	Under implementation	Not estimated	
6.	Do one source apportionment and emission inventory study	Long	SPC Board, Odisha has floated Expression of Interest (EoI) dtd. 10-06-2019 to engage educational and research institutions of National and International repute, to carry out Source Apportionment and Emission Inventory study for i. Angul, Talcher and Rourkela and ii. Cuttack, Bhubaneswar & Balasore City and prepare	11-02-2021	No deviation	Under implementation	Under estimation	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			strategy for cost effective measures for abatement of air pollution in these areas. The study will be two separate assignments for a period of one and half years. IIT Kanpur, CUBE Govt of Tamilnadu, IIT Mumbai, NEERI Nagpur, TERI New Delhi, CSIR-IITR Lucknow and ARAI Pune have expressed their willingness to conduct the study. The proposal is under evaluation.					
7.	Set up rural and peri-urban air quality monitoring to assess the airshed / influence area.	Long	SPC Board, Odisha has signed one tripartite MOU on 06-06-2019 proposing collaboration between MoEF & CC, IIT Bhubaneswar and SPCB Odisha for implementation of NCAP in Odisha. Expertise has been sought from IIT Bhubaneswar to assess the air shed area of each non-attainment city.	11-02-2021	No deviation	Under implementation	Not estimated	
8.	Implement of SO _x and NO _x standards notified by MOEF&CC on January 29, 2018 for 35	Short	Direction has been issued to Thermal Power Industries in Rourkela city to achieve new SO ₂ and NO _x emission standard	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB.	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	categories of industries.		and to furnish action plan for the same.					
9.	To strengthen the star rating programme to include full compliance to standards	Short	140 nos. of 17 Category of highly polluting industries have connected their 579 CEMS with the RT-DAS server of the Board as on 1st May 2019. The number of CEMS in Rourkela city is 20. The Star Rating Programme is a joint effort of SPCB, Odisha and Energy Policy Institute at the University of Chicago (EPIC-India). The star rating program is being constantly strengthened.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB.	
10.	To prepare a clean fuel policy	Short	F&E Dept., may formulate a policy like Delhi Model for use of clean fuel in major cities of Odisha. Preparation of fuel policy does not fall within the purview of the Board.	11-08-2019				Not under the purview of the Board
11.	Implement Continuous Emission Monitoring System (CEMS) across all targeted and applicable polluting industry and ensure calibration.	Short	SPCB Odisha have directed industries for installation of remote calibration system for gaseous parameters and at the same time initiated the physical calibration and validation exercise of PM in CEMS in a phased manner for all the 17	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			categories of highly polluting industries in Odisha.					
12.	Identification of cumulative impact of industrial emissions and prescribe more stringent pollution control action for industries	Short	The new methodology proposed for Cumulative Environmental Impact Index-2016 will be used for carrying out cumulative impact on Air Quality of the area. Based on index value for air stringent pollution control measures will be prescribed for the industries.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
13.	Identification and implementation of fugitive emission control measures in ancillary units, material transfer and handling and emissions during industrial processes.	Short	SPCB is enforcing such polluting activities through its consent administration. However, the respective Regional Officers have been instructed to make further assessment in this regard.	11-08-2019	No deviation	It is a continuous activity	No financial out lay by SPCB	
14.	Enforce restrictions on operations of intensively polluting industries within urban air shed zones during high pollution periods.	Short	As per the Action Point SPCB is developing its capacity in air quality monitoring and air pollution forecasting. During high pollution periods restrictions on operations of intensively polluting industries within urban air shed zones will be enforced.	11-08-2019	Under implementation	Under implementation	Not estimated	
15.	Use CEMS data for	Medium	Action in this regard is being	11-02-2020	No deviation	Under	No financial	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	enforcement and legal compliance monitoring		taken as per CPCB guidelines.			implementation	out lay by SPCB	
16.	Prepare and implement local area action plan for pollution hotspots and enforce it.	Medium	The local pollution hot spots will be identified and appropriate measures will be initiated for its management and control.	11-02-2020				
17.	Strengthen the current siting policy for industries to be set up in future	Medium	To be taken up.	11-02-2020	No deviation	Under implementation	No financial out lay by SPCB	
18.	Implementation of new thermal power plant standards in all power plants by the outer date of 2022.	Long	As per direction of for new emission standards for thermal power plants, all thermal power plants have achieved the new standard for PM @ 50mg/Nm ³ . Regular monitoring is being carried out by the Regional Offices of the Board to verify compliance of the emission standard. CPCB has allowed extension of time up to June, 2020 for installation of FGD to meet prescribed standard w.r.t. SO ₂ emission. Similarly, CPCB has extended time up to 2022 to achieve new emission standard of NO _x . The power plants have been asked to submit action plan to achieve the new prescribed standard w.r.t. SO ₂ & NO _x . A	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			review meeting will be conducted by the Board after getting compliance from the industries.					
19.	Implement plan for full utilization of fly ash, and effective management of fly ash pond for reduction of fugitive emissions	Long	<p>A Fly Ash Resource Centre (FARC) has been functional in SPCB to oversee and take up various promotional activities to enhance fly ash utilization. For the year 2018-19 a total of 31.23 Million Tons of fly ash was generated and 25.83 Million tons of fly ash was utilized. Thus the utilization percentage is 82.7 % for whole state.</p> <p>The Flyash generation capacity for Rourkela city is 0.5 MTPY for 2018-19 and utilisation status is 40%.</p> <p>All the thermal power plants have been directed to provide water sprinkling system in ash ponds or to cover in active portion under earth to curb fugitive emissions during summer months.</p>	11-02-2021	No deviation	Under implementation	FARC Cell is maintained is by OSPCB	
20.	Progressively close the	Long	No older and more polluting	11-02-2021	No deviation	-	No financial	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
	older and more polluting thermal power plants and to move to cleaner natural gas.		thermal power plant is located in Rourkela city.				out lay by SPCB	
21.	Chart a roadmap for cleaner plants and incentivize their operation by giving them the priority over other polluting plants.	Long	A roadmap for cleaner plants and incentivize their operation by giving them the priority over other polluting plants- It is beyond the scope of SPCB.	Not Applicable				Not under the purview of the Board
22.	Restrict operations of brick kilns within urban air-shed zones during high pollution periods	Short	As per the Action Point SPCB is developing its capacity air quality monitoring and air pollution forecasting. During high pollution period as prescribed in this action points, operations of brick kilns within urban air-shed zones during high pollution periods will be restricted.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
23.	Prescribe design specifications and convert all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).	Medium	As per information available, the brick kilns are not operating within the municipal limits of non-attainment cities. SPCB is conducting a survey of all the brick kilns operating in close vicinity/ air shed (approx. 10-15 km from city limit). As such SPCB is undertaking a source apportionment/ emission	11-02-2020	Will be implemented after the SA/EI Study.	Will be implemented after the SA/EI Study.	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			inventory study for all six cities. Depending on the source contribution of brick kilns steps will be initiated for conversion all brick kilns to zigzag technology—from natural draft kilns to induced--draft kilns (zigzag technology).					
24.	Ensure DG sets that meet the standards in terms of emission or design of chimneys/exhaust and acoustic enclosures operate	Short	SPCB regulates the DG Sets with capacity 1000 KVA and above. However, the concerned Regional Officers have been instructed to identify the DG Sets operating within City Limits or operating within tentative air shed of the City, make an inventory of DG Sets. The concerned District and Local Administrations have been sensitized in this matter.	11-08-2019	Under implementation	Under implementation	No financial outlay by SPCB	
25.	Curtail use of DG sets in social events by providing temporary electric connections	Short	The concerned District and Local Administrations have been sensitized in this matter. The progress report in this regard will be prepared after getting feedback from them.	11-08-2019				
26.	Implement emission norms for incinerators	Short	In Rourkela city there is one BMW incinerator. Manual monitoring is being carried out	11-08-2019	Under implementation	Under implementation	No financial outlay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			for enforcement of emission norms.					
27.	Implement CEMS for incinerators	Short	In Rourkela city there is one BMW incinerator. It has been asked to install CEMS.	11-08-2019	Under implementation	Under implementation	No financial out lay by SPCB	
28.	Develop a siting policy for biomedical incinerators.	Short	Siting Criteria as prescribed by BMW Management Rules, 2016 and guidelines prepared by CPCB is being followed.	11-08-2019	No deviation	Under implementation	No financial out lay by SPCB	
29.	Enforcement of air pollution control in concrete batching plants	Long	The concrete batching plants mostly temporary in nature. All the concrete batching plants are regulated under the consent administration of the Board. The air pollution control measures are enforced through by respective Regional Officers of the Board in their jurisdiction through Consent to Operate Order. Preparation of inventory of such batching plants in the six non-attainment cities or its air shed is under progress.	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	
30.	Use satellite based monitoring and on-ground enforcement to control forest fires/biomass/crop residue burning episodes.	Long	SPCB has sought assistance from ORSAC/ IMD and IIT Bhubaneswar so as to enable it to monitor forest fires/biomass/crop residue burning episodes with the help of satellites using remote sensing technology. The date will be shared with the supporting	11-02-2021	No deviation	Under implementation	No financial out lay by SPCB	

Sl. No.	Action Point	Implementation period (Short/Medium/Long)	Implementation status	Action Completion Date as per city plan	Deviation from targeted timelines, if any	Expected date of completion	Total Cost	Remarks
			agencies to control such air pollution causing forest fires/biomass/crop residue burning episodes..					
31.	Prepare an action plan to check fuel adulteration and random monitoring of fuel quality data.	Short	SPCB does not have technical knowhow in this regard. It may be implemented by concerned Oil Marketing Companies/ Transport Department.	Not Applicable for SPCB				Not Applicable for SPCB