

ACTION PLAN FOR CONTROL OF AIR POLLUTION IN NON-ATTAINMENT TOWNS

Name of City/Town: Byrnihat including EPIP Industrial Area

District: Ri-Bhoi, Meghalaya

(Revised)

PREPARED BY

AIR QUALITY MONITORING COMMITTEE

MEGHALAYA

ACTION PLAN FOR CONTROL OF AIR POLLUTION IN NON-ATTAINMENT TOWNS

Name of City/Town: Byrnihat including EPIP Industrial Area

District: Ri-Bhoi, Meghalaya

The Meghalaya State Pollution Control Board is operating the following 10(ten) nos. of Ambient Air Quality Monitoring stations in the State as part of the air quality network under National Air Monitoring Programme (NAMP), a Centrally CPCB sponsored programme.

1. State Board's Premises, Shillong (established during 1989)
2. State central library (established during 1989) shifted to Police Bazar then to Barik, Shillong
3. Upper Shillong (established during 2016)
4. Polo, Shillong (established during 2016)
5. Tura, West Garo Hills District (established during 2010)
6. Nongstoin, West Khasi Hills District (established during 2011)
7. Khliehriat, Jaintia Hills District (established during 2011)
8. Export Promotion Industrial Park, Byrnihat, Ri-Bhoi District (established during 2009)
9. Umiam industrial estate, Ri-Bhoi District (established during 2009)
10. Dawki, Jaintia Hills District (established during 2009)

Under the programme 3(three) pollutants viz. Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), Particulate Matter (PM₁₀) has been monitoring regularly from the stations. Monitoring is being carried out for 24 hours (4 hourly sampling for gaseous pollutants & 8 hourly sampling for particulate matter). The monitoring of meteorological parameters such as wind speed and direction, relative humidity and temperature was also integrated with the monitoring of the air quality. Air quality monitoring Data is regularly submitted on monthly basis to for compilation and interpretation.

Based on the Air monitoring data, the level of Particulate Matter (PM₁₀) were observed to be exceeding the National Ambient Air Quality Standards(NAAQS),2009 consecutively during 2011-2015, Byrnihat including EPIP Industrial Area is declared as non-attainment towns by CPCB.

The air quality generated over the years in the monitored station reveal that PM₁₀ (Particulate Matter) concentration exceeds the National Ambient Air Quality Standard (Annual Average). High concentrations of Particulate Matter (PM₁₀) levels may be attributable to the build-up of pollutants owing to emissions from industries located in the industrial area, emission from vehicle, dust generated due to movement of vehicles, natural dust and construction activities.

Therefore, in order to prevent further deterioration and improvement of the ambient air quality in the area there is an immediate need for taking necessary preventive and control measures to reduce the emission/pollutants at source.

ACTION PLAN FOR CONTROL OF AIR POLLUTION IN NON-ATTAINMENT TOWNS

Name of City/Town: Byrnihat including EPIP Industrial Area

District: Ri-Bhoi

Air Pollution Concerns: PM₁₀

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
1.	Vehicles	Prevent parking of vehicles in the non-designated areas	long term	Regular activity	Superintendent of Police	
		Synchronize traffic movements/Introduce intelligent traffic systems for lane-driving				
		Launch extensive drive against polluting vehicles for ensuring strict compliance - Strict vigilance and no tolerance for visible emissions – stop plying of visibly polluting vehicles by impounding or heavy fine	long term	Regular activity	Superintendent of Police/District Transport Officer	
		Introduction of public transport system in Byrnihat-Nongpoh route section	Long term	180 Days	Urban Affairs Deptt under JNNURM	
		Introduction of electric vehicle in Byrnihat - Nongpoh route section	Long term	180 Days	Transport Deptt	
		Introducing of Mobile Vehicular Emission Testing unit in Nongpoh-Byrnihat section	Long term	180 Days		
		Maintaining and enforcing of permissible loading limits of vehicle	Long term	180 Days		
		Launch public awareness campaign for air pollution control, vehicle maintenance, minimizing use of personal vehicles, lane discipline, etc	long term	Regular activity	District Transport Officer	
		Setting up of Pollution under Control (PUC) Certification Centres	Long term	180 Days		
		Strict vigilance and enforcement of PUC norms	long term	180 Days		

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
		and Link PUC certificates with annual vehicle insurance to ensure 100 % compliance				
		Prepare action plan to check fuel adulteration and random monitoring of fuel quality data	Short term	30 days	Deputy Commissioner (Supply)	
2.	Road Dust	Control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units	Long term	Regular activity	District Administration/ Executive Engineer, Public Works Department (Rds), / Meghalaya Industrial Development Corporation in Industrial Area/ Industries Department	
		Ensure carriage of construction material in closed/covered vessels	Short term	90 days		
		Blacktopping of metalled road including pavement of road shoulders	Long term	180 days		
		Prepare plan for widening of road and improvement of infrastructure for decongestion of road	Long term	180 days		
		Prepare plan for construction of expressways/bypasses to avoid congestion due to non-destined vehicles	Long term	180 days		
		Maintain potholes free roads for free-flow of traffic	Short term	90 days		
		Prepare plan for creation of green buffers along the traffic corridors	Long term	180 days	Forest & Environment Dept. / Meghalaya Industrial Development Corporation in Industrial Area/Industries Deptt.	
		Introduce water fountains at major traffic intersection, wherever feasible	Short term	90 days		
		Greening of open areas, gardens, community places, schools and housing societies	Long term	180 days		
		Industrial units to install water spraying system of internal roads and washing of tyres of vehicles	Long term	Regular	Industrial units	

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
3.	Biomass and Garbage burning/Jhum cultivation	Launch extensive drive against open burning of bio-mass, crop residue, garbage, leaves etc.	Long term	Regular activity	Agriculture Dept.,/ District Administration/ Local Bodies	
		Proper collection of horticulture waste (bio-mass) and its disposal following composting-cum-gardening approach	Long term	Regular activity		
		Ensure ban on burning of agriculture waste and crop residues and its implementation	Long term	180 days		
		Creation of awareness to farmers to stop burning of crops residue and biomass	Long term	180 days	Agriculture Deptt	
		Stress on promotion of horticulture programme and use of organic manures/compost	Long term	180 days		
4.	Industries	Identification of brick kilns and their regular monitoring including use of designated fuel, and closure of unauthorized units	Short term	60 days	State Pollution Control Board/Industries Deptt.	
		Conversion of natural draft brick kilns to induced draft kilns (zigzag Technology)	Long term	180 days		
		Strict enforcement of air pollution control measures in all industries, includes those located in unauthorized areas and Action against non-complying industrial units	Long term	Regular activity	State Pollution Control Board/Industries Deptt.	
		Urgent ban on furnace oil, pet coke, which are dirty industrial fuels with high Sulphur and heavy metals	Mid term	120 days		
5.	Air Quality	Air quality monitoring Station expansion.	Long term	1 year		

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
	Monitoring	Air Quality Index to be calculated and disseminated to the people through website and print/electronic media in local vernacular(on maximum weekly basis for manually operated monitoring stations and real time basis for continuous monitoring stations)	Long term	Regular activity	State Pollution Control Board	
		Research studies including air pollution inventory, source apportionment, health impact studies, exposure impacts and other relevant studies	Long term	2 years		
		Establish an Air Quality Management Division at SPCB/PCC Head Quarters to oversee air quality management activities in the State and interact with CPCB	Long term	1 year		
		Set-up and publicize helpline in each city/town as well as SPCB/PCC HQ for complaints against reported non-compliance	Short term	30 days		
		Monitoring of DG sets to ensure that only those DG sets that meet the standards are allowed to operate and action against violations	Long term	Regular activity		
6.	Vehicle, Road Dust, Biomass and Garbage burning/Jhum cultivation/ Domestic fuel	Emission inventory to carry our source apportionment study and carrying capacity assessment in EPIP, Byrnihat /Town	Long term	3 yrs	MSPCB	

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
	Industries/Air Quality monitoring					
7.	Vehicle, Road Dust, Biomass and Garbage burning/Jhum cultivation/ Industries /Air Quality monitoring	The interim emission targets with regards to control of emissions from sources viz Vehicle, Road dust, Biomass and garbage burning, hum cultivation, industries,	Long term	Regular activity	District Administration/Executive Engineer, Public Works Department (Rds.)/Meghalaya Industrial Development Corporation in Industrial Area/Industries Department	
8.	Vehicle	Introduction of CNG or PNG driven vehicles to reduce vehicular exhaust emission	Long term	-	Transport Deptt. in coordination with concerned Central Govt. Agencies	
9.	Vehicle, Road Dust, Biomass and Garbage burning/Jhum cultivation/ Industries /Air Quality monitoring	To constitute a District Level Monitoring Committee – to review the progress and ensure smooth implementation of the plan	Short term	Regular activity	District Administration/ Executive Engineer, Public Works Department (Rds), / Meghalaya Industrial Development Corporation in Industrial Area/ Industries Department	
10.	Vehicle / Industries Air Quality monitoring	Noise level monitoring	Long term	Regular activity	MSPCB may undertake NLM in conjunction with Police Deptt. and take remedial action. The Police	

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
					<p>Department of the States may obtain the noise monitoring devices within a period of three months and specification of such devices may be finalized in consultation with the State PCBs. The Police Department of the State may also train their staff regarding the use of such devices and develop a robust protocol for taking appropriate action against the defaulters</p> <p>The CPCB may explore the possibility in consultation with the leading manufacturers of public address systems and other manufacturers of such instruments, to manufacture such equipment wherein the noise meters with data loggers are fitted therein so that as and when the prescribed parameters are</p>	

Sl. No.	Source Group	Control Option	Implementation Period (Short/Mid/Long term)	Time target for Implementation	Responsible Agencies	Any other information
					violated, the same gets recorded and retrieved by the regulators for fixing the responsibility on the violators	
11.	Domestic fuel - Residential /commercial cooking Domestic combustion	Household wood and cow-dung burning is to be reduced. Increase in LPG usage. Alternate fuel options e.g. solar needs to be assessed and exercised.	Long term	Regular activity	District Administration/ Food Civil Supplies and Consumers Affairs Deptt. Ri-Bhoi District/ Industries Department.	
	Hotels,restaurants ,dhaba and open eat-outs	Use of LPG in hotels,restaurants,dhaba and eateries	Long term	Regular activity	The Food Civil Supplies and Consumers Affairs Deptt., Ri-Bhoi District	
	Bakery	Reduction in wood usage is to emphasized through replacement with other options such as electric ovens.	Long term	Regular activity	The Food Civil Supplies and Consumers Affairs Deptt., Ri-Bhoi District// Industries Department.	

Graded Response Action Plan (GRAP) for Control of Air Pollution In Non-Attainment Towns

Name of City/Town: Byrnihat including EPIP Industrial Area

District: Ri-Bhoi

MSPCB has formulated a Graded Response Action Plan (GRAP) for Byrnihat, Ri Bhoi District, Meghalaya based on air quality trend [Annexure-I] as hereunder:

Moderate to poor(ambient PM _{2.5} or PM ₁₀ concentration value is between 61-120 µg/m ³ or 101-350 µg/m ³ respectively)	Implementing Agency
Stringently enforce/stop garbage burning in landfills and other places and impose heavy fines on person responsible.	District Administration, , Nongpoh / Local Bodies Byrnihat
Close/stringently enforce all pollution control regulations in industries.	Meghalaya State Pollution Control Board.
Strict vigilance and no tolerance for visible	District Transport Officer and Traffic Police, Gaya.
Emissions–stop plying of visibly polluting vehicles by impounding or heavy fine.	Superintendent of Police, Nongpoh, Ri-Bhoi District, District Transport Officer, Nongpoh, Ri- Bhoi District
Strict vigilance and enforcement of PUC norms.	
Stringently enforce rules for dust , control in construction activities and close non- compliant sites.	District Administration, Nongpoh. ublic Works Department(Rds), Nongpoh Division, Managing Director, MIDC, Upland Road, Shillong and National Highway Authority of India.
Deploy traffic police for smooth traffic flow at identified vulnerable areas.	Superintendent of Police, Nongpoh, Ri-Bhoi District
Strictly enforce Supreme Court ban on firecrackers.	District Administration, Nongpoh,Ri Bhoi District,Meghalaya.

Information dissemination through Social media, mobile Apps to inform people about the pollution levels, contact details of control room enable them to report polluting activities/sources to the concerned authorities and actions be taken by government based on the level of pollution.	Meghalaya State Pollution Control Board,
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Monitoring Mechanism for implementation:

The Action Plan will be communicated to all stake holders for compliance for control of Air pollution in Byrnihat area, Meghalaya. Compliance of action points by the concerned stakeholders departments will be reviewed at regular intervals by the Principle Secretary, Environment & Chief Secretary, Government of Meghalaya.

Ambient Air Quality Data- 2015 to 2019 at EPIP, Byrnihat, Ri Bhoi District, Meghalaya.

Sl.No.	Year	Parameters		
		PM10 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO ₂ ($\mu\text{g}/\text{m}^3$)
1.	2015	125.8	28.3	12.4
2.	2016	172.7	44.0	16.1
3.	2017	176.4	33.5	14.1
4.	2018	165.5	26.1	12.2
5.	2019	138.1	21.1	14.0

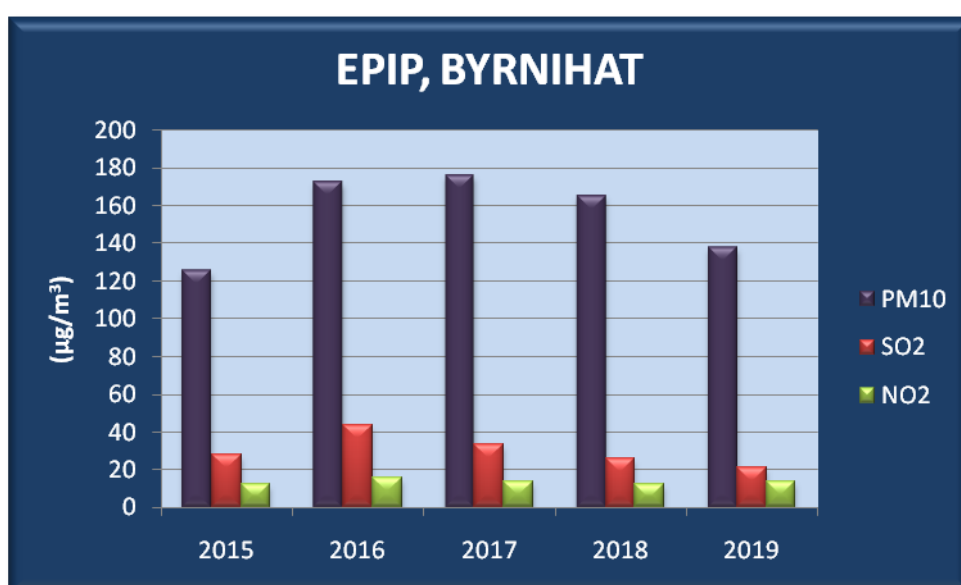


Fig.: Annual Average variation of PM10, SO2, and NO2 at EPIP, Byrnihat, Ri Bhoi District.

Evaluation of Emission Control Options

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
1.	Vehicles	Prevent parking of vehicles in the non-designated areas	Medium	YES	-	Long term	Regular activity	Superintendent of Police, Nongpoh, Ri-Bhoi District	
		Synchronize traffic movements/Introduce intelligent traffic systems for lane-driving	Medium	YES	-	Long term	Regular activity		
		Launch extensive drive against polluting vehicles for ensuring strict compliance - Strict vigilance and no tolerance for visible emissions – stop plying of visibly polluting vehicles by impounding or heavy fine.	High	YES	-	Long term	Regular activity	District Transport Officer, Nongpoh, Ri- Bhoi District	
		Introduction of public transport system in Byrnihat - Nongpoh route section	Medium	Yes	-	Long term	Regular activity	Urban Affairs under JNNURM	
		Introduction of electric vehicle in Byrnihat - Nongpoh route section	Medium	Yes	-	Long term	Regular activity	Transport Deptt.	
		Introducing of Mobile Vehicular Emission Testing unit in Nongpoh-Byrnihat section	Medium	Yes		Long term	Regular activity		
		Maintaining and enforcing of permissible loading limits of vehicle	Medium	Yes	-	Long term	Regular activity		
		Launch public awareness campaign for air pollution control, vehicle maintenance,	High	YES	-	Long term	Regular activity	M.S.P.C.B / District Transport Officer, Nongpoh, Ri- Bhoi District	

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
		minimizing use of personal vehicles, lane discipline, etc.							
		Setting up of Pollution under Control (PUC) certification Centres	Medium	YES	-	Long term	180 Days	District Transport Officer, Nongpoh, Ri- Bhoi District	
		Strict vigilance and enforcement of PUC norms and Link PUC certificates with annual vehicle insurance to ensure 100 % compliance.	Medium	YES	-	Long term	180 Days		
		Prepare action plan to check fuel adulteration and random monitoring of fuel quality data	Medium	YES	-	Long term	180 Days	Deputy Commissioner (Supply), Ri-Bhoi District, Nongpoh	
2.	Road Dust	Control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units.	High	YES	-	Long term	Regular activity	District Administration/Executive Engineer, Public Works Department (Rds), Nongpoh Division/Managing Director, MIDC, Upland Road, Shillong.	
		Ensure carriage of construction material in closed/covered vessels	Medium	YES	-	Short term	90 days		
		Blacktopping of metalled road including pavement of road shoulders	High	YES	-	Long term	180 days		
		Prepare plan for widening of road and improvement of infrastructure for decongestion of road	High	YES	i) Maintenance of road from Byrnihat point- 25 lakhs ii) Construction	Long term	180 days		
		Prepare plan for construction of expressways/bypasses to avoid	High	YES		Long term	180 days		

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
		congestion due to non-destined vehicles			of road from Narbong to Santipur (L=7:00 km)- 700 lakhs				
					iii) Construction of road at Upper Amjok (L=1.50 km)- 150 lakhs				
					iv) Construction of road at Upper Narbong PWD - 400lakhs				
		Maintain potholes free roads for free-flow of traffic	High	YES	Rs. 4.53 crores which include improvement of Roads, Improvement of Road Shoulder and Installation of Water Fountains in compliance to the Action Plan at EPIP,Byrnihat	Short term	90 days	Executive Engineer, Public Works Department (Rds), Nongpoh Division/Managing Director, MIDC, Upland Road, Shillong	
		Prepare plan for creation of green buffers along the traffic corridors	High	YES	-	Short term	90 days	Forest & Environment Deptt./ Managing Director, MIDC, Upland Road,	

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
		Introduce water fountains at major traffic intersection, wherever feasible	High	YES	-	Short term	90 days	Shillong	
		Greening of open areas, gardens, community places, schools and housing societies	High	YES	(i) For raising of 0.5 Ha plantation at Byrnihat Industrial Area during 2019-20- Rs 69,630.00 (iii) Creation of 1km Green Buffer Plantation at Byrnihat Industrial Area- Rs 7,,50,000.00	Long term	180 days		
		Industrial units to install water spraying system of internal roads and washing of tyres of vehicles	Medium	YES	-	Long term	Regular	Industrial units	
3.	Biomass and Garbage burning	Launch extensive drive against open burning of bio-mass, crop residue, garbage, leaves etc.	High	YES	-	Long term	Regular activity	District Administration/ District Agriculture Officer, Nongpoh, Ri-Bhoi District	
		Proper collection of horticulture waste (bio-mass) and its disposal following composting-cum-gardening approach	Medium	YES	-	Long term	Regular activity		
		Ensure ban on burning of agriculture waste and crop residues and its implementation	High	YES	-	Long term	180 days		
		Creation of awareness to farmers to stop burning of crops residue	High	YES	-	Long term	180 days	Agriculture Deptt	

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
		and biomass							
		Stress on promotion of horticulture programme and use of organic manures/compost	High	YES		Long term	180 days		
4.	Industries	Identification of brick kilns and their regular monitoring including use of designated fuel, and closure of unauthorized units	High	YES	-	Short term	60 days	Meghalaya State Pollution Control Board/Industries Deptt	
		Conversion of natural draft brick kilns to induced draft kilns (zigzag Technology)	Medium	Yes	-	Long term	180 days		
		Strict enforcement of air pollution control measures in all industries, includes those located in unauthorized areas and Action against non-complying industrial units	High	Yes	-	Long term	Regular activity		
		Urgent ban on furnace oil, pet coke, which are dirty industrial fuels with high Sulphur and heavy metals:	Medium	Yes	-	Mid term	120 days		
5.	Air Quality Monitoring	Air quality monitoring Station expansion.	Medium	Yes	Rs. 20.0 lakhs	Long term	1 year	Meghalaya State Pollution Control Board	
		Air Quality Index to be calculated and disseminated to the people through website and website and print/ electronic media in local vernacular (on maximum weekly basis for manually operated monitoring stations and real time basis for continuous monitoring stations)	Medium	Yes	-	Long term	Regular activity		

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
		Research studies including air pollution inventory, source apportionment, health impact studies, exposure impacts and other relevant studies	Low	Yes	Rs. 20.0 lakhs	Long term	2 years		
		Establish an Air Quality Management Division at SPCB/PCC Head Quarters to oversee air quality management activities in the State and interact with CPCB	Medium	Yes	-	Long term	1 year		
		Set-up and publicize helpline in each city/town as well as SPCB/PCC HQ for complaints against reported non-compliance.	Medium	Yes	-	Short term	30 days		
		Monitoring of DG sets to ensure that only those DG sets that meet the standards are allowed to operate and action against violations	Medium	Yes	Rs. 10.0 lakhs Annually	Long term	Regular activity		
6.	Vehicle, Road Dust, Biomass and Garbage burning/Jhum cultivation/ Domestic fuel Industries/Air Quality monitoring	Emission inventory to carry out source apportionment study and carrying capacity assessment in EPIP, Byrnihat /Town	Low	Yes	Rs. 73.0 lakhs + taxes	Long term	3 years	MSPCB	
7.	Vehicle,	The interim emission targets with	Medium	Yes	-	Long term	Regular activity	District Administration/	

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
	Road Dust, Biomass and Garbage burning/Jhum cultivation/ Industries /Air Quality monitoring	regards to control of emissions from sources viz Vehicle,Road dust,Biomass and garbage burning,Jhum cultivation,industries,						Executive Engineer, PWD (Rds.)/Meghalaya Industrial Corporation in Industrial areas/Industries Department	
8.	Vehicle	Introduction of CNG or PNG driven vehicles to reduce vehicular exhaust emission	Medium	Yes	-	Long term		Transport Deptt. in coordination with concerned Central Govt. Agencies	
9.	Vehicle, Road Dust, Biomass and Garbage burning/Jhum cultivation/ Industries /Air Quality monitoring	To constitute a District Level Monitoring Committee- to review the progress and ensure smooth implementation of the plan	Medium	Yes	-	Long term	Regular activity	District Administration/ Executive Engineer, Public Works Department (Rds)/ Meghalaya Industrial Development Corporation in Industrial Area/ Industries Department	
10.	Vehicle / Industries Air Quality monitoring	Noise level monitoring	Medium	Yes	4 lakhs	Long term	Regular activity	MSPCB may undertake NLM in conjunction with Police Deptt. and take remedial action. The Police Department of the States may obtain the noise monitoring devices within a period of three months and specification of such devices may be finalized in consultation with the State	

Sl. No.	Source Group	Control Option	Expected reduction and Impacts	Technical feasibility	Requirement of Financial resources	Implementation period (Short/Mid/ Long term)	Time target for Implementation	Responsible Agencies	Any other information
								<p>PCBs. The Police Department of the State may also train their staff regarding the use of such devices and develop a robust protocol for taking appropriate action against the defaulters</p> <p>The CPCB may explore the possibility in consultation with the leading manufacturers of public address systems and other manufacturers of such instruments, to manufacture such equipment wherein the noise meters with data loggers are fitted therein so that as and when the prescribed parameters are violated, the same gets recorded and retrieved by the regulators for fixing the responsibility on the violators.</p>	