

(E) Revised Action Plan for Air Quality Management in Jammu City:-

a). Background:-

Jammu city, situated on a hillock at the bank of river Tawi, is also known as the city of temples, having an area of **189 sq. km**, at an elevation of **350 msl** with an annual average precipitation of **1088 mm**. The city is the winter capital of Jammu and Kashmir, from November to April, when all the offices move from Srinagar to Jammu. The temperature of this city varies from cold in winter with minimum temperature dipping up to -2°C to heat wave in summers when temperature shoots up to 46°C . The city is bound by Udhampur district in the North and North East, Kathua and Samba districts in the East and South East, Pakistan in West, Rajouri district and POK towards North West directions.

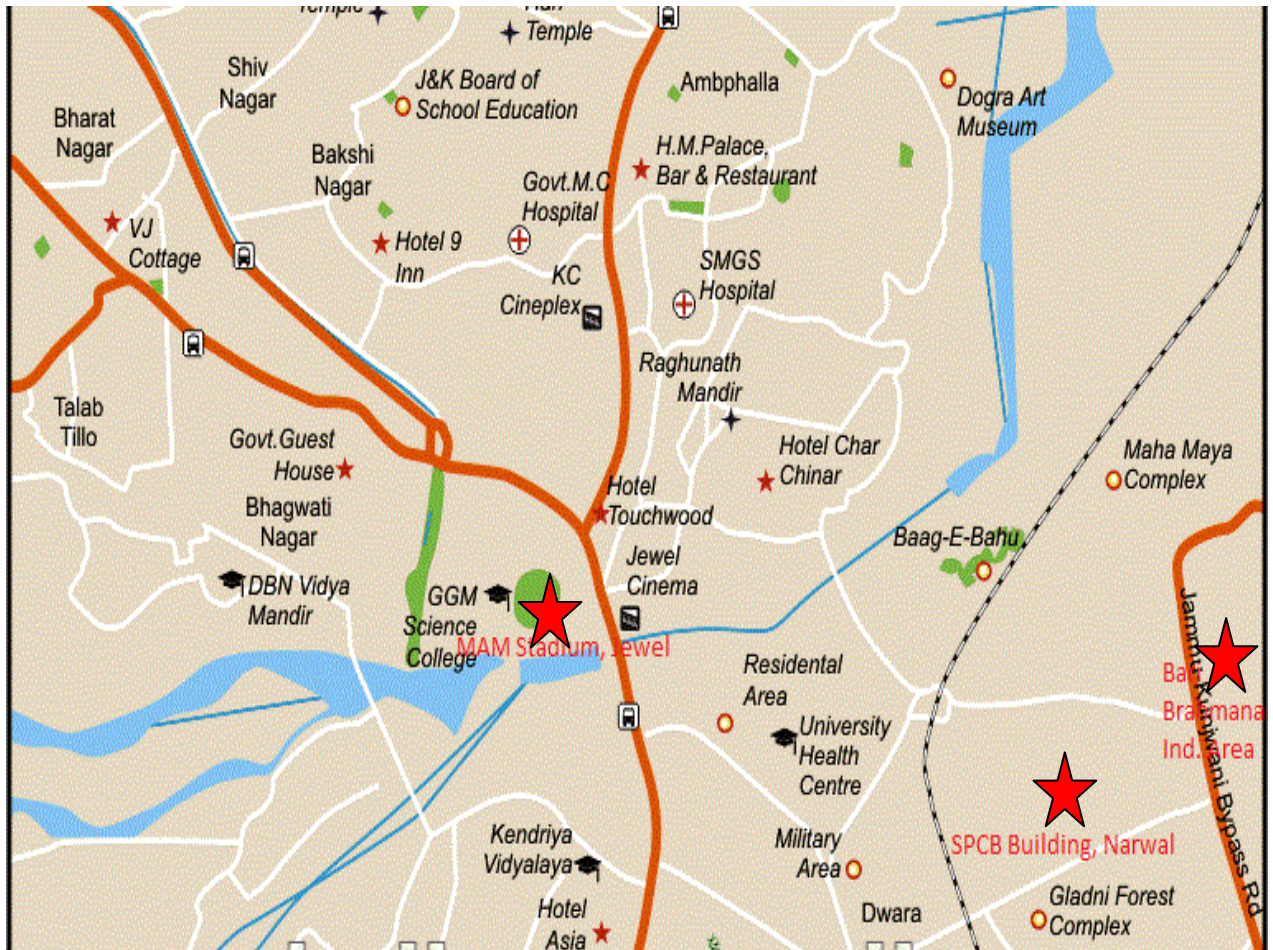
The population of Jammu city with in municipal limits is **6,07,181**, with population density of **3205 persons/sq.km**, whereas, there is a floating population of additional 1.5-2.0 lac, due to pilgrimage en-route to Katra, other state tourism destinations and regular Secretariat (darbar) move for Govt offices. Due to its floating population, with tourist and pilgrim influx, activities in the industrial area of Bari Brahmna, Jammu business, hotels/restaurants/dhabas, transport facilities via roadways, railways, airways, education sector (Universities, Medical colleges, Engineering colleges, B.Ed/Degree Colleges, Schools) , private and government offices, the air pollution load increases by several folds.

The State Pollution Control Board is conducting the regular monitoring of ambient air quality at **three (03) NAMP** sanctioned locations/stations in Jammu District since 2009-10, as per CPCB monitoring guidelines. The Board is regularly submitting the data to CPCB through data portal Environmental Data Bank (**EDB**), which is up-graded since last year, presently named as **EAQDES** (Environmental Air Quality Data Entry System) and the ambient air quality monitored data has been upload upto **Feb. 2019**. Besides this, the ambient air quality monitoring is being

carried out at two locations at the district level i.e. (i) industrial area - Kathua and (ii) Industrial area, IGC-Samba, under State Air Monitoring Program (SAMP).

The details of ambient air quality monitoring sanctioned stations under NAMP for Jammu city/district is given as below:-

S.No	Monitoring Location	Station Code	Category	Location Co-ordinate	Remarks
1	SPCB, Office Building Complex, Narwal Jammu	184	R	N 32° 42.783' E 074° 52.976'	Monitoring location is in residential-cum-commercial area, adjacent to transport yard, Narwal fruit mandi, Railway Station Jammu, and hub of other activities.
2	M.A.M Stadium, Jewel Jammu	482	R	N 32° 43.424' E 074° 51.417'	Monitoring location is in residential cum-commercial area, adjacent to general Bus stand Jammu, with high traffic load, hub of commercial and other activities.
3	Bari Brahamana, Ind. Area	507	I	N32° 38.469' E074° 55.653'	Monitoring location is within Bari-Brahmna Industrial area .



Monitoring locations under NAMP in Jammu city

(★ NAMP Stations)

b). Causes of Air pollution in Jammu City:-

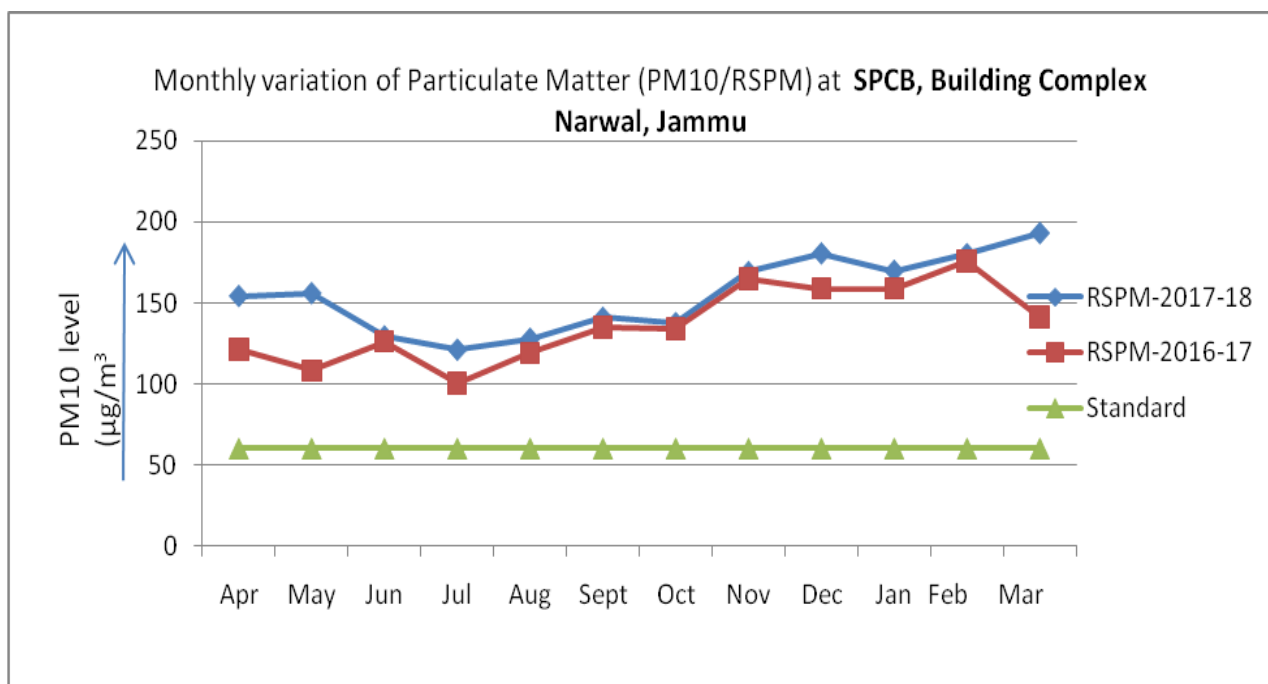
The main activities /causes of air pollution in Jammu city, in order of pollution load are:-

- i. Vehicular emissions from heavy traffic load – major concern.
- ii. Road dust due to bad road conditions.
- iii. Industrial air pollution (Small and medium scale).
- iv. Construction and demolition activities like road /building constructions etc.
- v. Biomass and garbage burning.
- vi. Other activities i.e. D.G sets, adulterated fuel, etc.

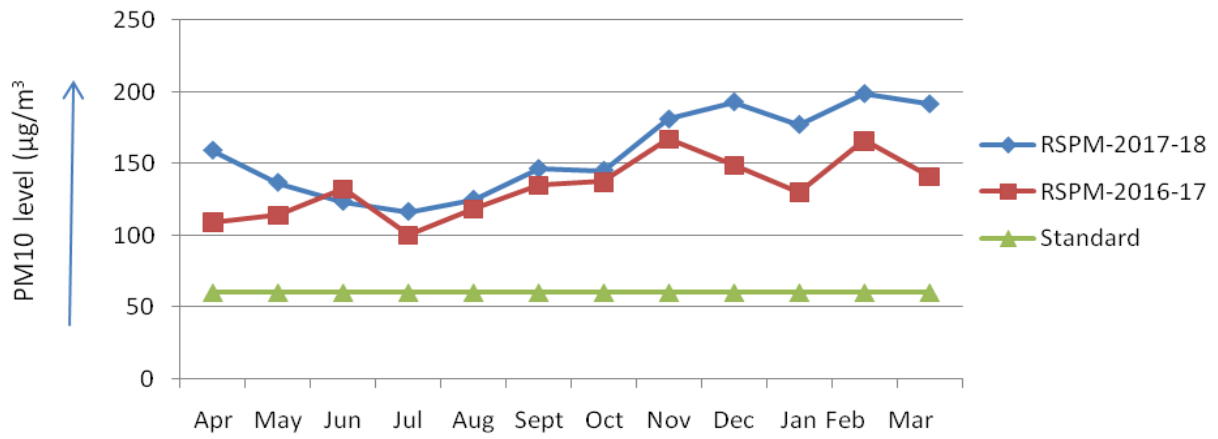
On the basis of monitoring conducted under NAMP during the period 2011-15 and analysis of the data generated, the level of main air pollutant (RSPM / PM10) has been evaluated towards higher side, violating the standard permissible limits consecutively for five years, Jammu city has been identified as one of the cities under Non-attainment cities of India. Similar trend has been observed in air pollutants during last five years period 2013-14 to 2017-18.

Neither the SPCB nor any other agency has made any separate emission inventory with respect to different emission sources, except for the existing network of ambient air quality monitoring under NAMP, the data for last **five years** for the same is annexed in different annexures.

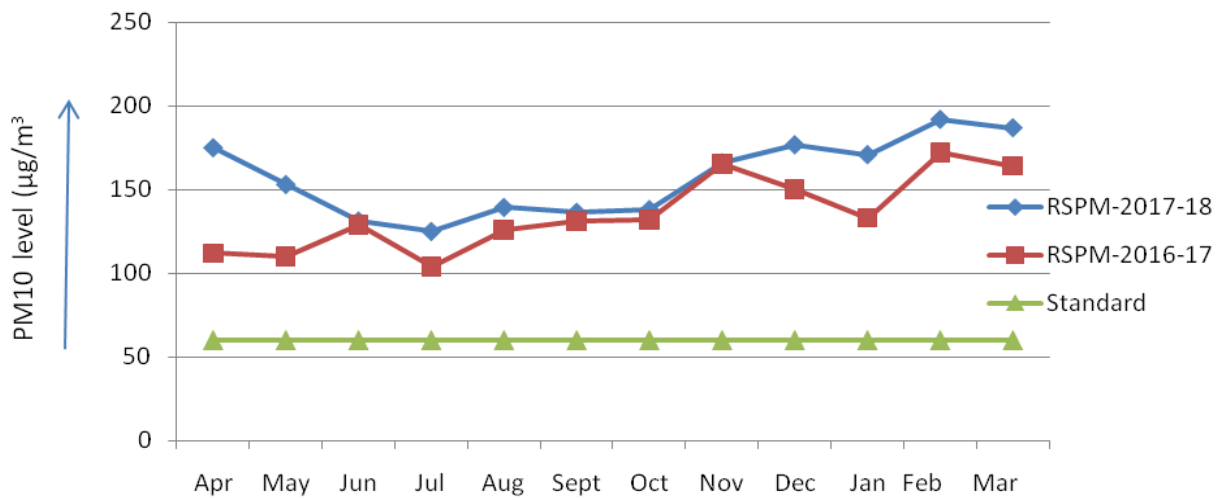
Further, the monthly variation of particulate matter (RSPM/PM10) level at three NAMP monitoring locations in Jammu city, evaluated in last two years is given graphically as :-



Monthly variation of Particulate Matter (PM10/RSPM) at **M.A.M Stadium, Jewel, Jammu**



Monthly variation of Particulate Matter (PM10/RSPM) at **Bari Brahmana Jammu**



(F) Revised Action Plan for Control of Air Pollution and Air Quality Management in Jammu city is given as below :-

1		Name of City	Jammu		
2		Air Pollution concerns	PM₁₀, PM_{2.5}		
3		Data on Air Pollution levels: (Range of 24-hourly average concentration values of PM 10 and NO₂ for past five years i.e. 2013 to 2017-18 and PM 2.5 for the year 2017-18	Annexed as Annexure - A for 2013-14 Annexure – B for 2014-15 Annexure – C for 2015-16 Annexure – D for 2016-17 Annexure – E for 2017-18 Annexure – F for annual average for concentration values of different air Pollutants.		
4		Months with High Air Pollution levels in Jammu city for the last five years	i) 2013-14 (Oct. to Jan.). ii) 2014-15 (Sept. to Feb.). iii) 2015-16 (Sept. to Feb.). iv) 2016-17 (Sept. to Feb.). v) 2017-18 (Sept. to Feb.). Annexed as Annexure- G .		
5		Action Plan to Mitigate the Air Pollution Problem of Jammu City in required Time Frame by the Responsible Implementation Agencies to bring standards of air quality within the prescribed norms.			
Source group	Action	Implementation period (Short / Mid/ Long-term)	Time target for Implementation	a) Responsible agency (ies)	b) Any other information

(i) STEPS TO CONTROL EMISSIONS FROM VEHICULAR POLLUTION	<p>1) Restriction on plying and phasing out of 15 years old commercial Diesel driven vehicles.</p>	<p>Mid Term</p>	<p>Within six months</p>	<p>a):-Transport Department</p> <p>b (i):- At Present, in compliance to Order passed by Hon'ble High Court of J&K in PIL, OWP No. 458/2003 & 1280 /2004 and Cabinet Decision No. 53/6, Dated; 09-03-2007, there is a ban on Commercial/ Passenger Vehicles from plying on road in the state, on attainment of 25 years of age w.e.f 01-04-2007. Further making it compulsory for the vehicles between 15 to 25 years of age to have a fitness test after every six (06) months, vide Govt. order No. 20 TR of 2007 dt. 20.03.2007 issued following the said cabinet decision.</p> <p>b (ii):- In the state of J&K, out of a total of 16,57,433 vehicles registered as on March 2018, the vehicles to the tune of 9,96,806 are registered for Jammu province, and the Jammu district with 7,24,270 vehicles registered, is having the maximum number of vehicles registered amongst all the 22 districts of the state.</p> <p>As per the data from Motor Vehicle department, the category-wise number of vehicles registered in Jammu province along with number of vehicles registered having attained the age of 15 years and less than 25 years is enclosed as Annexure-H.</p> <p>b (iii):- On recommendations of the SPCB vide No. SPCB/LSK/358/17/6074-77 dt. 18.01.2019, the Transport Commissioner J&K, vide No. TC/JK/legal/2019/1997 dt. 11.03.2019, has submitted the proposal to the Govt of J&K, for banning of commercial vehicles above 15 years of age in the state, which is under active consideration of the State Govt.</p> <p>b (iv):- The Govt. of J&K has also proposed to phase out 500 diesel driven commercial vehicles (Buses) of 15 years to 25 years age for which a budget of Rs. 25.00 Crores has also been approved for financial assistance in the form of a soft loan of Rs. 5.00 lac to each such transporter, in compliance to Hon'ble High Court directions.</p> <p>b (v):- State Transport Authority, has also issued a circular vide No. TC/JK/MV/2019/144-68 dt. 03-01-2019, banning Re-registration of BS-III Vehicles, under the pollution emission norms, which are being purchased from outside J&K and re-registered in the State, with immediate effects.</p> <p><i>All such efforts referred above shall definitely mitigate the air pollution load in Jammu city in near future.</i></p>
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	2) Introduction of cleaner fuels (CNG/ LPG) for vehicles.	Long Term	Within three years	<p>a (i):-Department of Food, Civil Supplies and Consumer Affairs, J&K</p> <p>a (ii):- Oil Companies (Indian Oil/HP etc).</p> <p>b(i):-Regarding the introduction of cleaner fuel (CNG/LPG) along with Diesel/Petrol, the matter has been taken up with Chairman / MD, Gas Authority of India Limited (GAIL) by the Transport Department vide communication dt. 02.06.2017 and Central Institute of Road Transport (CIRT), Pune. The GAIL has informed that the CNG can be provided normally through pipe-line and as a temporary measure for transportation, it can also be transported in considerably lesser quantity in compressed form filled in the mobile cascade to any location by road. However, the transportation through the road is highly costly affair which adversely impacts the viability of the 'change-over'. The laying down of the pipe-line as and when done, will lead to cost-effective and bulk availability of CNG to facilitate large scale up-gradation effort.</p> <p>Further, there is a project proposal for GSPL, Bhatinda-Jammu-Srinagar Gas pipe line project, initiated way back in 2011, to make possible round the clock LPG supply in J&K. This project is to be completed under two phases i.e. Phase-I, Gas pipeline from Chak Deviyan (Kathua district) to Smailpur (Samba district), Phase-II, Langath (Samba District) Jammu to Srinagar. The operation of pipeline is controlled by SCADA systems that allows continuous monitoring and immediate closure of valves in case of emergency.</p> <p>The project work has been delayed due to certain legal issues regarding acquisition of underground land for pipe laying.</p> <p>b (ii) There are two LPG dispensing units in Jammu for supply to LPG driven vehicles. Oil Dispensing / Marketing Companies to install more dispensing units to encourage LPG (cleaner fuels) driven vehicles.</p>
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<p>3) Regular Checking of vehicular emission and issue of pollution under Control Certificate (PUC).</p>	<p>Short Term</p>	<p>With in Six months</p>	<p>a):-Transport Department and Traffic Police b (i):- Regular checking of vehicular emissions jointly by traffic police and the SPCB, as per order of Hon'ble High Court dt. 23/11/2005 in WP (Other) No. 458/2003, is in place. Two vehicular emission monitoring laboratories, for Jammu and Kashmir region are regularly carrying out monitoring and checking of vehicular emissions randomly since then. Further, the SPCB has also procured two more such mobile monitoring laboratories recently for the purpose. b (ii):- There are 153 Pollution Checking Centres (PCCs) in the state (79 in Jammu and 74 in Kashmir). These PCCs issue PUCs to the vehicle users and are regularly cross checked by joint teams of Traffic Police and SPCB. b (iii):- Also a common format for issuance of PUC certificate by all the centres needs to be adopted urgently with prescribed standards duly printed therein. b (iv):- Random monitoring of compliance needs to be increased imposing heavy penalties on defaulters so that it may act as deterrent to the careless / negligent automobile drivers / owners.</p>
<p>4) Launching Extensive drive against polluting vehicles for ensuring strict compliance.</p>	<p>Short term</p>	<p>As a regular activity</p>	<p>a) :- The J&K Traffic police / Transport department.</p>
<p>5) Good traffic management including re-direction of traffic movement to avoid congestion.</p>	<p>Short Term</p>	<p>Within Six months</p>	<p>a):-Traffic Police b):- Frequent and regular Traffic congestion and jam density are two most important reasons for air pollution load in the city. Traffic density and carrying capacity of roads are required to be looked into with optimal transport network with effective movement of traffic and minimal traffic congestion with the taming and training of commercial vehicles / matadors (Public Transportation) drivers, who have no concern for specified and designated stoppages for mini buses, and use already congested and narrow roads for stopping vehicles as and when required on "I Stop My Bus Stop" thinking, forcing traffic movement at a snail pace, road blocking, thereby,</p>

			<p>resulting emissions in large quantity. Besides this, unauthorized parking adds on to the traffic congestion which further results in deterioration of air quality in city.</p> <p><i>The traffic police to ensure good traffic management and enforcement of rules.</i></p>
6) To bring Jammu city under Mass Rapid Transportation System (MRTS) , for Urban mobility	Long Term	Within five years	<p>The State Administrative Council (SAC) has also approved the proposal for creation of two corporations in the state, in Feb 2019, a) "Jammu Mass Rapid Transit Corporation Pvt. Ltd. and b) Srinagar Mass Rapid Transit Corporation Pvt. Ltd. , to introduce the Urban mobility in two capital cities of the State. The Two Corporations will have association with Economic Reconstruction Agency, Metro Politian Authorities and Experts from Ministry of Housing and Urban Affairs, for Multi Model Transport System (MMTS) and Mass Rapid Transit System (MRPS). These two corporations shall also undertake bus operations likewise in Delhi/Mumbai to address the problems of congestion in two capital cities of the state by inducting 300/400 buses in each city, all these efforts will have a definite impact on the improvement of Ambient Air Quality to bring the level of air pollutants upto the permissible levels in Jammu city.</p>
7) Ban on registration of Diesel driven auto-rickshaw / Tempo.	Mid Term	Within two years	<p>a):- Transport Department</p> <p>b):- As Per Draft Transport Policy of State Transport Deptt., there is a proposal of switching over to CNG based fuelling auto-rickshaws in near future subject to availability of CNG facility in the State.</p> <p>The AQMC is considering recommendation to the concerned department to ban the registration of fresh diesel driven auto rickshaws / tempos within next one to two years.</p>
8) Promotion and operationalization of E-rickshaw.	Short Term	Within six month	<p>a (i) Transport Department</p> <p>b (i) : E-Rickshaws :- The procurement and operation of E-Rickshaws / E-Carts in the State of Jammu and Kashmir for few select routes of the two capital cities of Jammu and Kashmir State on pilot basis w.e.f. 31.12.2018 has been approved and e-rickshaws shall be introduced within six months.</p>

				<p>b (ii) : E-Buses:- The State Road Transport Corporation has completed the process for procurement of 20 electric buses for Jammu by 31st March 2019 with the object of pollution free mobility system within the state capital city. The procurement of E-Buses is under FAME-India scheme of Gol.</p>
9) Development of Multi-layer parking.	Mid Term	Within 1 to 2 years	<p>a (i):-Jammu Municipal Corporation</p> <p>a (ii):- Housing and Urban Development Department</p> <p>b (i):- A Multi-layer mechanized car parking for about 500 vehicles in City Chowk area in old city by Jammu Development Authority has been made operational since 2017.</p> <p>b (ii):- In smart city action plan, two more such parking have also been approved under the control of JMC, one at Panjtirthi with estimated project cost of Rs. 28 Crore, would accommodate 240 vehicles and other one at Peerkho areas of Jammu city.</p> <p>b (iii):- Jammu Development Authority (JDA) has undertaken the project on state of art Multilayer Parking at General Bus Stand in Jammu city with estimated project cost of Rs. 202 Crore, with the parking facility for 1312 cars, 177 two wheelers.</p> <p>b(iv):- Jammu Development Authority (JDA) has developed the surface level parking near Maharaja Hari Singh Park with the parking capacity of 233 cars which is to be converted into multilayer parking shortly to further decongest traffic in the city.</p> <p><i>Developing the multilayer car parking facilities in Jammu city shall have a definite impact on the improvement of traffic management / congestion with the ultimate goal of improving the Ambient Air Quality of the city to the level of prescribed limits in near future.</i></p>	

	10) Retrofitting of particulate filters in Diesel driven vehicle.	Mid Term	Within two years	<p>a(i):-Transport Department</p> <p>b):- Only those new vehicles in Jammu city to be registered which are having retrofitting of particulate filter feature, as envisaged under BS (VI) Norms, under ARAI, by 2020.</p> <p>The AQMC is considering recommendation to the concerned department for compulsorily retrofitting of particulate filters in all diesel driven vehicles within next one to two years.</p>
	11) Action Plan to Check Fuel adulteration.	Short Term	Within three months on regular basis	<p>a(i):-Department of Consumer Affairs and Public Distribution (Legal Metrology), J&K</p> <p>a (ii):- Oil Companies</p> <p>(b):-Department of legal Metrology, conducts regular checks on fuel quality in the state including Jammu city. As per details provided for the years 2015 to 2017, no case of adulteration has been detected in 51 samples taken in this period. All the samples of fuel collected and analysed have been reported to be within prescribed permissible limits.</p>
	12) Monitoring of vehicle fitness.	Short Term	Within six months to one year	<p>a):- Transport Department</p> <p>b):- As per existing policy of Transport Department, Motor Vehicles Fitness is being carried out on Visual Inspection done by inspecting team. The department is establishing an Inspection and Certification Centre (ICC), in the near future at Samba with the estimated project cost of Rs. 14.40 Crores for which the project stands sanctioned by the GoI vide letter dated 08.02.17, for conducting the fitness of vehicles with an automated process for evaluation of fitness features on scientific lines.</p>

<p>13) Periodic calibration test of vehicular emission monitoring instrument.</p>	<p>Short Term</p>	<p>Immediate implementation (one to six months)</p>	<p>a) :- Transport Department and State Pollution Control Board.</p> <p>b (i):- The mechanism for periodic calibration of the PUC machines / instruments with Annual maintenance contact has to be three times i.e after every four months rather than six months in a year as is the practice presently adopted by majority of these centres in J&K State.</p> <p>b (ii):- Introduction of automatic online network for transmission of PUC data to the central server to minimize manual interference and allow proper analysis of data for remote auditing of Pollution Checking Centers.</p> <p>b (iii):- Though there exists a system of vehicular pollution checking in the state of J & K, number of pollution checking centres is not adequate, which obviously cannot cater to the huge vehicle population of the state. As such the number of Pollution Checking Centres should be increased across all possible points of regular contact points of a vehicle owner to go for auto-emission checking the number of times his vehicle is required to go for it in a year.</p> <p>Since fuel stations are existing in every nook and corner of the state, putting in place a pollution checking centre at every fuel station is a good step and suitable/feasible from traffic point of view, which needs to be taken on priority for an integrated approach towards control of vehicular pollution.</p>
<p>14) Construction of peripheral / ring roads around the city to avoid congestion.</p>	<p>Long Term</p>	<p>One year to two years</p>	<p>a) :- National Highway Authority of India</p> <p>NHAI has started working on the construction of 58.25 km ring road around Jammu city, starting from Raya Morh on Jammu – Pathankot National highway in Samba district to be connected with Jagti, on Jammu-Udhampur National highway in Jammu district. It will have six flyovers and two tunnels connecting sixty villages along this ring road project to be completed by January 2021, which will definitely decongest the traffic load in Jammu city, thereby resulting in the improvement of ambient air quality status.</p>

	15) Installation of Remote sensor based PUC system.	Long Term	One year to two years	a) :- J&K Traffic Police
(ii) CONTROL OF AIR POLLUTION FROM ROAD DUST	1) Regular cleaning of road dust.	Short Term	Within six months	<p>a):- Jammu Municipal Corporation</p> <p>b (i):- Road dust is mainly due to traffic load, worst condition of roads especially without black-topping, absence of water spraying etc. Besides this, sweeping is a major cause of increasing levels of PM10 in the area.</p> <p>b (ii):-Control measures for road dust including sweeping, water spraying on roads, black topping, plantation, etc. to prevent re-suspension of dust.</p> <p>b (iii):-Regular cleaning and sweeping of city roads is being done twice a day, besides that the JMC is also using the road sweeping vacuum cleaning machine twice a week for sweeping dust on the major trunk roads of the city.</p>
	2) Water Sprinkling on road through tankers.	Short Term	Within six months	<p>a):-Jammu Municipal Corporation</p> <p>b):-In the areas where there is road dust, water sprinkling is to be done regularly.</p>
	3) Widening of Roads and Construction of Pucca pavement along the roads.	Mid Term	Within six months to one year	<p>a (i):-Jammu Municipal Corporation, and (ii) Roads and Buildings department</p> <p>b(i):- Both the organizations to take up the issue of road widening and development of <i>Pucca</i> pavements along roads where ever possible.</p> <p>b (ii):- The occupation of roads and foot paths by street vendors and road foot movement by the public also hamper the traffic movement, all such hindrances to be removed by the JMC and Traffic police immediately.</p>
	4) Tree Plantation along the roads and development of green belts in open areas, gardens, parks/ community places schools & housing	Mid Term	Within one to two years	<p>a):- Urban/Social Forestry, Jammu Development Authority, Jammu Municipal Corporation and Department of Floriculture.</p> <p>b(i):-All the departments are responsible for developing tree plantation and greening of the city, as and where space is available, which is part of regular plantation activity of these departments.</p> <p>b (ii):-In Jammu city, 29 parks are being maintained by JMC to add to the greening of city, along with some parks</p>

	societies.			<p>developed by the departments of Floriculture and Forests. Besides this, three (03) community halls have also been operated by JMC, which are :-</p> <p>(i) Chanderbhaga at Bhagwati Nagar, Jammu</p> <p>(ii) Jambulochan at Amphalla, Jammu</p> <p>(iii) Ambedkar hall at Reshamghar Colony, Jammu</p>
	5) Introduction of water fountains at major traffic intersection /circles.	Short Term	Within six months	<p>a):- Jammu Municipal Corporation</p> <p>b):- JMC is the responsible agency for getting the installation of fountains at major traffic intersections/circles, and immediate operationalization and maintenance of existing fountains at CPO chowk, Shaheedi Chowk etc. within a period of six months.</p> <p>In Jammu city, there are 25 Rotaries out of which 5 Rotaries have fountains installed but only one (01) is functional. The process of installing fountains with remaining 20 rotaries has been completed, these shall be operational within six months.</p>
(iii) CONTROL OF AIR POLLUTION FROM CONSTRUCTION AND DEMOLITION ACTIVITIES	1) Covering of construction site.	Short Term	With immediate effect	<p>a(i):- Jammu Municipal Corporation</p> <p>a(ii):- Roads and Buildings</p> <p>b(i):-JMC to issue directions to all the concerned construction agencies for covering of construction sites while granting building permissions.</p> <p>b(ii) :- Roads and Buildings department to enforce the same.</p>
	2) Ensure Carriage / Transportation of construction materials like sand, soil, stone, chips etc. in covered system.	Short Term	With immediate effect	<p>a (i):- J & K SPCB a (ii):- Jammu Municipal Corporation</p> <p>b) :- The J&K SPCB has imposed ban on the un-covered transportation of building material like sand, construction/demolition material, MSW etc. vide J&K SPCB order No. 26 of 2019, dated 30-01-2019.</p> <p>The Traffic police/JMC has to enforce and implement the ban.</p>

<p>3) Restriction on Storage/ dumping of construction materials along the road.</p>	<p>Short Term</p>	<p>Within six months</p>	<p>a):-Jammu Municipal Corporation b):-JMC has put in place the mechanism for preventing people from dumping of the construction material and the C&D waste on road side. At present, the public has been informed by way of notices in the leading newspapers and electronic media that the C&D waste is being now picked up by JMC on nominal rates. The C&D waste is being dumped at Bhagwati Nagar along Tawi River bank side, using covered vessels for transportation to avoid dispersion of particulate matter.</p>
<p>4) Enforcement of Construction and Demolition Waste Management Rules, 2016</p>	<p>Short Term</p>	<p>With immediate effect</p>	<p>a):-Jammu Municipal Corporation b):- Jammu Development Authority (JDA). Strict enforcement of C & D Rules, penalty to be imposed on defaulters.</p>
<p>5) Control Measures for fugitive emissions</p>	<p>Short Term</p>	<p>With immediate effect</p>	<p>a):-Jammu Municipal Corporation b):- Jammu Development Authority (JDA). The above agencies are responsible to take control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units.</p>
<p>6) Builders should leave 25% area for green belt in residential colonies to be made mandatory.</p>	<p>Mid Term</p>	<p>One year to two years</p>	<p>a(i) :- Jammu Municipal Corporation a (ii) :- Jammu Development Authority The agencies responsible must ensure that building permissions for the residential colonies be issued with the mandatory condition of at least 25% area to be covered under green belt.</p>

(iv) CONTROL OF EMISSIONS FROM BIOMASS AND GARBAGE BURNING	1) Regular Check and Control on open burning of municipal solid waste, Biomass, plastic, horticulture waste etc.	Short Term	Within six months	<p>a):-Jammu Municipal Corporation</p> <p>b(i):- JMC is responsible agency for collection, segregation, transportation and scientific disposal of municipal solid waste as per MSW Rules, 2016.</p> <p>b(ii):- Agricultural biomass burning is not taking place in and around city.</p> <p>b(iii) :- JMC is regularly imposing the fines on persons who are found burning the MSW, biomass, plastics, horticulture waste etc., and strict enforcement of directions issued by the Hon'ble NGT in this regard.</p>
	2) Immediate lifting of solid wastes generated from desilting and cleaning of municipal drains for its disposal.	Short Term	Within six months	<p>a):-Jammu Municipal Corporation</p> <p>b):- The main reason for burning of MSW is lack of timely collection of waste. It is as such suggested to strengthen the collection network of such waste immediately, followed by its scientific disposal.</p>
	3) Ensuring promotion & use of cleaner fuel for commercial purposes like locals Dhaba/ eateries.	Short Term	Within two months	<p>a):- Jammu Municipal Corporation</p> <p>b(i):- The J&K SPCB has imposed ban on use of firewood and coal in Dhabas, Restaurants, Eateries with the direction to make the use of clean fuel like LPG, Brickets etc. vide order No. 22 of 2019 dt. 11.03.2019, within a period of 60 days.</p> <p>b(ii):- The circular instructions to all the Dhabas/eateries, restaurants, etc. within the city to be issued, to switch over to LPG as fuel and stop using coal and firewood with immediate effects.</p>
	4) Implementation of Pradhan Mantri Ujjwala Yojana (PMUY) in J&K State.	Short Term	Within six months	<p>The State Govt. has achieved 75% target under PMUY by providing free LPG gas connections to 3.70 lacs below poverty line households out of the target of 4.90 lac. Out of which, 61,924 LPG connections have been distributed among the BPL households in Jammu district as on Feb. 2019.</p> <p>These households are now using cleaner fuel instead of fire wood, cow dung etc. and shall be contributing in improving the ambient air quality status of Jammu city.</p>

(v) CONTROL OF AIR POLLUTION FROM INDUSTRIAL EMISSIONS	1) Ensuring installation and operation of air pollution control devices in industries.	Mid Term	Within one year	<p>a):-J and K State Pollution Control Board</p> <p>b):- There is no industrial unit of Red and Orange Category within the Jammu municipal limits, except two stone crushers which shall be shifted out in due course of time. Whereas, in adjoining area, at Bari Brahmna, there are Industries like cement factories etc. which have been equipped with online monitoring system as per guide lines of CPCB which ensures the monitoring of real time data. Similarly, all industries causing air pollution shall be made compliant for installation of adequate PCDs as per guidelines of CPCB.</p>
	2) Ensuring emission standards in industries.	Short Term	Within six months	<p>a):- J and K State Pollution Control Board.</p> <p>b):- All industries causing Air, Water and Noise pollution shall be made compliant w.r.t causing emission levels with the standard as are issued by SPCB.</p>
	3) Adoption of cleaner technology in industries.	Mid Term	Within one year	<p>a):- J and K State Pollution Control Board.</p> <p>b):-Industries shall be encouraged to adopt cleaner technologies as per guidelines of CPCB.</p>
	4) Shifting of polluting industries.	Mid Term	Within one year to two years	<p>a):-J and K State Pollution Control Board.</p> <p>b):-Many polluting industries like Stone crushers / Brick kilns have been closed and shifted in the past due to pollution load. Further, all the brick kilns nearby and around the city shall be converted to zig zag technology within stipulated period of time.</p>
	5) Ban on Polluting industries.	Mid Term	Within one year	<p>a):- J and K State Pollution Control Board.</p> <p>b):-Many polluting and non compliant industries have been closed down. Presently, there are only two Stone crushers with in the municipal limits of Jammu city, installed at Balol Nallah and other at Majheen, Sidhra, which shall also be shifted in due course of time.</p>

(vi) STRENGTHENING OF AAQ MONITORING	1) Installation of additional NAMP monitoring stations at Jammu.	Mid Term	Within one year	<p>a):- J and K State Pollution Control Board.</p> <p>b):- Presently, there are three (03) NAMP sanctioned stations at identified locations (i) SPCB building complex, Narwal (ii) MAM Stadium, Jewel (iii) Bari Brahmana Industrial area, operational since 2009-10. The Board has proposed to install six more permanent Air Quality Monitoring Stations in Jammu city to strengthen the air quality monitoring network. Out of these, three new stations have been sanctioned during May 2018 and proposal for three new additional monitoring stations have also been approved by SPCB, thus increasing the number of monitoring stations to Nine (09) for the Jammu district.</p> <p>c):- As per Hon'ble NGT directions and the V.C. meeting discussions with the CPCB, a comprehensive project proposal with financial budget requirement of an estimated cost of Rs.75.93 Crore, covering all the districts of State to strengthen the monitoring network on establishing manual and real-time monitoring stations have been submitted to CPCB vide No. SPCB/LSK/402/2018/7065-67 dated 06-02-2019, to strengthen the ambient air quality monitoring in the state.</p>					
	2) Establishment of CAAQMS	Mid Term	Within two year	<p>a):- J and K State Pollution Control Board</p> <p>b):- CPCB has sanctioned two each CAAQMS Stations for Jammu and Srinagar. The procurement of the same for Srinagar city is under process and shall be completed shortly. Besides this, the proposal for two additional real-time monitoring stations for Jammu city have been submitted to CPCB to strengthen the monitoring network vide above para reference.</p>					
	3) Source Apportionment of Jammu city	Short Term	Within six months to one year	<p>a):- J and K State Pollution Control Board</p> <p>b):-Board conducts such studies as Rapid Pollution Assessment and Appraisal studies as and when required to know the pollution status of any particular area. It has been observed that the main sources causing air pollution in Jammu city which have deteriorated the quality of air to the level of non-attainment, are:-</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 70%;">Source identified for causing pollution</th> <th style="width: 20%;">Estimated source proportion</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">(i)</td> <td>Pollution from vehicular emissions</td> <td style="text-align: center;">60-70%</td> </tr> </tbody> </table>	S. No.	Source identified for causing pollution	Estimated source proportion	(i)	Pollution from vehicular emissions
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(vii) PUBLIC AWARENESS	1) Issue of advisory to public for prevention and control of air pollution.	Short Term on regular basis	Within three months	<p>a):-J and K State Pollution Control Board.</p> <p>b):- Advisories have been issued from time to time to the public for prevention and control of pollution. Same needs to be continued in future as well through mass awareness programmes using print and electronic media.</p>															
	2) Involvement of school and other academic institution in awareness program.	Short Term on regular basis	Within six months	<p>a):- J and K State Pollution Control Board</p> <p>b):- State Pollution Control Board conducts programs like painting competitions, essay competitions, symposia etc. amongst students. The National Green Corps registered Eco-Clubs are to be involved in this process, too.</p>															

	3) Air Quality Status/AQI to be calculated and disseminated to the people through SPCB website and other media.	Short Term on regular basis	Within six months	<p>a) :- J and K State Pollution Control Board.</p> <p>b) :- The AQ status is regularly calculated by the Board and being uploaded on SPCB website since April 18, 2017 for general awareness of common masses.</p>
(viii) OTHER STEPS TO CONTROL AIR POLLUTION	1) Compliance of guidelines on :- a) D.G. sets, b) Fire crackers	Short Term	Within six months	<p>a):- J and K State Pollution Control Board</p> <p>b (i):- Board conducts the monitoring/inspection of DG sets/similar installations as and when required, as a DG set with canopy (acoustic enclosure) and requisite stack height on meeting emission norms as per EP standard be allowed to function, failing which strict action including seizure and penalty be imposed.</p> <p>b (ii):- Use of fire crackers as per Hon'ble Supreme Court order dt. 23/10/2018 and directions thereunder to be strictly enforced. The police authorities have been issued advisory for enforcement at the level of each SHO.</p>
	2) Help line to oversee non compliances on aforesaid issues.	Short Term	Within six months	<p>a):- J and K State Pollution Control Board</p> <p>b):- State Pollution Control Board has established separate sections to oversee the compliances on aforesaid issues as per requirement.</p>
	3) Establish an Air Quality Management Division at SPCB (HQ) Jammu/ Srinagar to oversee the air quality management activities in the state and to interact with CPCB.	Short Term	Within six months	<p>a):- J and K State Pollution Control Board</p> <p>Air Quality Management Division headed by I/c Scientist Air Lab SPCB, shall be established in SPCB headquarter, immediately.</p>

<p>4) Steps to Publicize helpline in city as well as in SPCB (HQ) for complaints against reported non-compliance issues related to cause of air pollution.</p>	<p>Short Term</p>	<p>Within six months</p>	<p>a):- J and K State Pollution Control Board b):-District Administration.</p>
<p>5) Involvement of Industrial associations, NGOs, Transport unions associations in awareness program based on ambient air quality status, present prevailing trends .</p>	<p>Short Term</p>	<p>Within six months</p>	<p>a):- J and K State Pollution Control Board & allied associations. Regular awareness programme shall be conducted on regular basis involving NGOs, transport unions and other allied agencies.</p>