

Proposed Action Plan for Control of Air Pollution in Dharwad city

1	Name of the City					: Dharwad
2	Air Pollution concerns					: PM ₁₀ , PM _{2.5} , SO ₂ and NO ₂
3	Air pollution levels: (provide range of 24-hourly average concentration values; annual average for past five years; No. days in various AQI categories)					: Annexed as Annexure-III
4	Months with high air pollution levels					: January, February, November, December
5	Action plan					:
Source group	Sl No	Action	Implementation period (Short- Mid-Long) term	Time Target for implementation	Responsible Agency	Actions are in progress
Strengthening of AAQ monitoring	1.	Establishment of additional CAAQM station	Mid	March 2020	KSPCB	At present one CAAQM and two manual stations are working and the monthly reports are being regularly sent to Board and also displayed in KSPCB website. One more additional CAAQM station is sanctioned by GoK at the cost of Rs. 2.3 Crores. The new station will be established by March 2020.
Identification, Source apportionment	2.	Source apportionment studies and emission inventory in Non attainment cities at the cost of Rs. 3.0 Crores each (Approx).	Long	March-2021	KSPCB	Emission inventory and Source apportionment study would be conducted in Hubli –Dharwad on the same lines of work order given to M/s C- STEP and study would be completed by June 2020 at a cost of Rs.1.55 Crores.
Vehicles	3.	Phasing out of 15 years old commercial Diesel vehicles	Long	January 2020	RTO	Government has issued the GO to ban 15 years old 6 seater and above passenger vehicles in Karnataka dated:14-02-2019

4.	Regular checking of vehicular emission for ensuring compliance to emission norms and drive against polluting vehicles	Short	Continuous Process	RTO	The KSPCB along with RTO Authorities is conducting joint vehicular emission monitoring since 2016 . And so far 1981 vehicles have been tested in the year 2018-19 including both petrol and diesel vehicles. Further there are 30 vehicle emission testing centers by private agencies authorized by the Transport Department are working in Dharwad district.
5.	Good traffic management and re-direction of traffic movement. Identifying Traffic Choke Points & Installing traffic signal systems	Mid	December 2019	Police Department (Traffic)	There are mainly six traffic choking points identified which are: 1. Traffic Island, Hubli, 2. Rani chennamma Circle, Hubli, 3. Hosur Cross Hubli 4. Gadag Road near Railway underpass hubli 5. Gandhi nagar cross, Dharwad, 6. Jubli Circle, Dharwad. In order to avoid the congestion in the road and also to reduce the vehicular emission, the Traffic Police have initiated action to install traffic signals to ease the movement of vehicles.
6.	Promotion of LPG Operated vehicles	Mid	Continuous programme	Food and Civil supplies Department	There are already 3 LPG dispensing stations operating.
7.	Prevent and penalize adulteration of fuel with cheap oils and solvents	Short	Continuous Process	Food and Civil supplies Department	It is a continuous program and in progress.
8.	Gradually restrict sale of un-scientificallly reprocessed oil by the street vendors	Mid	June -2019	Food and Civil Supplies Department	

	9.	Periodic check of all petrol bunks established in Urban and Rural Districts of Bangalore and initiate action against the violators.	Short	It is a continuous program and in progress	Food and Civil Supplies Department	once in Six Months
	10.	Periodic checking of Emission monitoring equipments housed in Emission Testing Centers	Short	Continuous Process once in Six Months	Transport Department	once in Six Months
	11.	Introduction of battery operated bus service.	Long		NWKRTC	The NWKRTC will introduce one battery operated bus between Hubli & Dharwad by March-2020.
	12.	Usage of Bio Fuel in KSRTC buses.	Continuous process		NWKRTC	The NWKRTC has agreed to mix 10% of Bio Fuel for operating diesel vehicles and blending of Ethanol for petrol vehicles is being done by the Oil companies.
Road dust	13.	Regular cleaning and sweeping of roads	Short	Continuous Process	The Commissioner, HDMC	There are 2 sweeping machines procured at a cost of Rs. 1.10 crores by HDMC one is used at Hubli and another at Dharwad.
	14.	Procurement of more no of mechanical road sweeping machines	Mid	December 2019	The Commissioner HDMC	17 nos of mechanical sweeping machines are proposed to be procured at a cost of Rs. 55.00 lakhs each.
	15.	Filling potholes and road cuttings to facilitate smooth flow of vehicles	Short	Continuous Process	The Commissioner HDMC	Hubli Dharwad Municipal Corporation

	16.	Tree plantation along the roads and development of green belt in open areas, traffic corridors, public places, vacant CA sites.	Short	Continuous Process	The Commissioner HDMC	The Forest department has planted a total of 56,340 trees & shrubs in Hubli-Dharwad city under Urban Tree Plantation program for the year 2018-19. It is also planned to plant 4,500 trees for 2019-20 as per the present allotment and the additional allotment by the department is awaited.
	17.	Adoption of Parks by industries under CSR	Short	September 2019	The Commissioner HDMC	Three parks are proposed to be adopted by the TATA Group of Industries in Dharwad.
Construction activity	18.	Identification and development of C & D waste processing site	Mid	March 2022	The Commissioner HDMC	HDMC has identified a site for C & D waste processing plant at Shivalli MSW site and issued work order for installation of C & D waste processing plant at a cost of Rs.1.64 crores.
	19.	Covering of constructional site	Short	Continuous Process	The Commissioner HDMC	HDMC
	20.	Restriction on storage of constructional materials along the road	short	Continuous Process	The Commissioner HDMC	HDMC
	21.	Transportation of construction materials and wastes in covered system	Short	Continuous Process	The Commissioner HDMC	HDMC
Burning of garbage and	22.	Prohibition on open burning of municipal solid waste, plastic, horticulture waste, biomass	Short	Continuous Process	The Commissioner HDMC	As per the SWM Rules 2016 Government of India, Notification has been issued by the Corporation banning the open burning of garbage in the public places. The Environmental Engineers are monitoring regularly.

	23.	Secondary Transportation of municipal solid waste in covered system	Short	Continuous Process	The Commissioner HDMC	Solid Waste Management Task Force is constituted at district level to monitor and to take action in this regard. Complaints redressal system is started.
	24.	Promotion for use of cleaner fuel in commercial establishments	Short	Continuous Process	Food and Civil supplies Department	HDMC
Industries	25.	Ensuring operation of air pollution control systems in industries to meet emission standards	Short	Continuous Process	KSPCB	Regular monitoring of air polluting industries for effective operation of APC equipments is being done. The stack monitoring conducted during 2018-19 is 04.
	26.	Regular monitoring of industries and initiation of action against defaulting units.	Short	Continuous Process	KSPCB	406 No. of industries inspected during 2018-19 and 109 No. of notices issued and 09 No. of NPD issued and Board has issued 56 closure orders during 2018-19.
Public awareness	27.	Publishing Air quality monitoring data in local news media. Strengthening of Compliant redressal Mechanism Awareness programmes on urban pollution issues- 50 No's at the total cost of Rs 5.00 Laks	Short Short Short & Mid	Continuous Process Sept 2019 March 2020	KSPCB	The monitored air quality data is being submitted to Hubli-Dharwad Corporation , DC Dharwad and also being displayed in KSPCB web site Also the yearly data is being published in the local print media. Compliant redressal Mechanism has been strengthened and complaints are being received through Telephone No 080-25589114 and through e-mail dharwad@kspcb.gov.in total no of awareness programs conducted during 2018-19 are 15 .

Annexure - III

Ambient air quality data at Lakkamanahalli Indl Area Dharwad 2012-18			
	SO2 µg/m3	NO2 µg/m3	PM10 µg/m3
2012-13	7.0	16.0	80.0
2013-14	6.0	15.0	86.0
2014-15	5.3	19.7	75.0
2015-16	5.5	20.3	69.0
2016-17	5.5	22.1	76.0
2017-18	5.2	21.4	67.2
Standards	50.0	40.0	60.0