GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 3415
TO BE ANSWERED ON WEDNESDAY, 23RD MARCH, 2022

INCREASING POLLUTION LEVELS

3415. SHRI S. MUNISWAMY:
SHRI ANNASAHEB SHANKAR JOLLE:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the department of meteorology is providing timely and crucial alarming statistics of pollution levels to the relevant Government agencies like the MEFCC and others in the eco-system to head towards a solution for the serious issue of pollution levels, especially in the city of Delhi;
(b) if so, whether there is considerable reduction in air pollution after the increased use of battery operated vehicles in the metros;
(c) whether the department has detected a pattern in the system that paves way to increased air pollution levels in the city of Delhi and surrounding areas post the harvest seasons in the States of Haryana and Punjab;
(d) if so, whether analytics of this peculiar pattern of increased pollution levels has been sent to the Delhi Government and the MEFCC for further research; and
(e) if not, the reasons therefor?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

(a) Yes Sir. Ministry of Earth Sciences is providing timely statistics of pollution levels to the Government agencies like the MOEF and CC and others in the eco-system to head towards a solution for the serious issue of pollution levels especially in the city of Delhi. For this, MoES institutions (IITM and IMD) have developed air quality early warning system (AQWES) and Decision Support System (DSS) for advanced air quality management for Delhi NCR region. DSS is designed to deliver quantitative information about a) the contribution of emissions from Delhi and the surrounding 19 districts to the air quality in Delhi b) the contribution of emissions from 8 different sectors in Delhi to the air-quality Delhi c) the contribution from biomass-burning activities in the neighboring states to the degradation of air quality in Delhi. Additionally, DSS also gives information about the quantitative effects of possible emission source-level interventions on the forecast air-quality event in Delhi. All this information would assist in managing the air quality in a timely manner. The system issue timely warnings for forthcoming air quality events and prediction for source contribution for next 5 days to take necessary steps as per the newly designed Graded Response Action Plan (GRAP) of Government of India. This system is now used operationally by newly formed commission for air quality management in Delhi and adjoining area (CAQM) by GoI, Central Pollution Control Board (CPCB), MoEFCC and DPCC. The system also has a feature whereby user can create possible emission reduction scenario (from 20 different districts including Delhi) to examine the possible projected improvement in air quality in

Delhi for the next five days. This information explicitly highlights the most important emission sources responsible for the degraded air quality in Delhi and suggest possible solutions to the policymakers. MoES has also developed Information dissemination system that provides real-time and future air quality information to Government agencies like the MOEF and CC, DPCC and also to the public. This website disseminate air quality forecasts to the public and decision-makers, near real-time observations of air quality for Delhi, Warning Messages, Alerts, and Bulletins.

(b) Currently, Ministry of Earth Sciences (MoES) deals with the observations, research and warning dissemination in respect of air quality and doesn't keep a record on the number of battery vehicles in metros.

(c) The collaborative research work carried out by the MoES institutions and the decision support system developed for Delhi has detected a pattern in the system that paves way to increased air pollution levels in the city of Delhi and surrounding areas post the harvest seasons in the States of Haryana and Punjab. The modelling study carried out by the Indian Institute of Tropical Meteorology (IITM) under MoES and Centre for Development of Advanced Computing (CDAC) under the Ministry of Electronics and Information Technology, indicates that on an average, ~20% of PM2.5 concentration in Delhi during the post-monsoon season (October−November) was found to be contributed by non-local fire emissions. However, on typical air pollution events, fire emissions contributed as high as 50−75% (80−120 µg/m3) to PM2.5 in Delhi, highlighting the importance of both external transport and local emissions to PM2.5 pollution in Delhi.

(d) Yes Sir. The analytics of this peculiar pattern of increased pollution levels due to non-local fires has been made available through the Decision Support System (DSS) and are being communicated to the Delhi Government, Commission for Air Quality Management (CAQM) and the MOEFCC for further research.

(e) Doesn't arise.

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