

**GOVERNMENT OF INDIA
ENVIRONMENT AND FORESTS
LOK SABHA**

STARRED QUESTION NO:341

ANSWERED ON:18.08.2010

AIR POLLUTION

Agarwal Shri Jai Prakash;Bais Shri Ramesh

Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether the Government has assessed the level of air pollution in Delhi in the aftermath of mass introduction of Compressed Natural Gas/Liquefied Petroleum Gas driven public/private transport vehicles;

(b) if so, the details thereof; and

(c) the details of funds allocated and utilised during the last three years and the current year for improving the quality of air in the Metropolitan cities and the details of the benefits accrued as a result thereof?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT AND FORESTS (SHRI JAIRAM RAMESH)

(a) to (c) : A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF LOK SABHA STARRED QUESTION NO. 341 FOR 18.08.2010 REGARDING AIR POLLUTION.

(a) & (b) : Yes, Sir. The mass introduction of Compressed Natural Gas (CNG) and Liquefied Petroleum Gas (LPG) for public and private transport in Delhi has taken place in the years 2000 and 2003 respectively. Government of Delhi has undertaken a study through Consultancy Development Centre, New Delhi during 2004-05 on 'Cost-Benefit Assessment of CNG introduction in Delhi' for transport sector. The salient features of the study are annexed.

(c) A number of activities have been undertaken by different Ministries and agencies of the Central Government for improving the ambient air quality in metropolitan cities. Source Apportionment Studies, particularly for fine dust (PM10) in the ambient air in six cities, namely, Delhi, Mumbai, Kanpur, Pune, Chennai and Bangalore have been undertaken by the Central Pollution Control Board(CPCB) in collaboration with leading technical bodies like the Indian Institutes of Technology between 2006-2010 at a cost of Rs. 20.6 crores.

The CPCB has set up 12 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) on operation and maintenance basis at a cost of Rs. 10.03 crores during the period 2007-2010 in Delhi, Chennai, Bangalore and Lucknow. In addition, it has set up another 11 CAAQMS, on cost sharing basis with the concerned State Pollution Control Boards in 9 cities, namely, Mumbai, Pune, Hyderabad, Bangalore, Kanpur, Agra, Varanasi, Ahmedabad and Kolkata, at a cost of Rs. 5.88 crores. CPCB has also released an amount of Rs. 5.16 crores during the last three years and current financial year for manual monitoring of ambient air at 145 stations in 35 metro cities.

As per information made available by the Ministry of Petroleum & Natural Gas, an investment of Rs. 32760 crores was made by the refineries in upgradation of fuel quality from Bharat Stage(B.S.) II to B.S.III and from B.S. III to B.S. IV. B.S. IV fuel has been made available in NCR/Delhi, Kolkata, Mumbai, Chennai, Hyderabad & Secunderabad, Ahmedabad, Surat, Pune, Bangalore, Kanpur, Solapur, Lucknow and Agra.

Under Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Bus Rapid Transit (BRT) projects for 437.07 km. in 11 cities, excluding Delhi have been sanctioned and an amount of Rs. 2284.187 crores has been released. In addition, funds to the tune of Rs. 1033.55 crores have been released for buses for urban transport.

The Ministry of Environment & Forests and the CPCB have not undertaken any study to correlate the benefits accrued with the funds allocated for improving the quality of ambient air in metropolitan cities.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF LOK SABHA STARRED QUESTION NO. 341 FOR 18.08.2010 REGARDING AIR POLLUTION.

Department of Environment, Government of Delhi sponsored a study during 2004-05 on "Cost Benefit Assessment of CNG introduction in Delhi". The Study was conducted through Consultancy Development Centre, New Delhi. The salient features of the

study report are the following :

During post CNG intervention period, the concentration of SO₂ has shown a sharp reduction in all the monitoring locations. As compared to 1999, by 2003 the levels reduced by 42%, 54%, & 59% in residential, industrial locations and traffic intersections respectively.

Reduction in SO₂ levels in the ambient air can be attributed to improvement in the fuel quality whereby the percentage of Sulphur in diesel and gasoline has been reduced to a considerable extent. Further, the reduction in SO₂ can also be related to replacement of diesel vehicles with CNG and shifting of polluting industries to conforming zones.

The levels of Suspended Particulate Matter (SPM) in the ambient air do not indicate any particular trend. The levels of SPM abruptly increased during the year 2002. However, levels have followed declining trend during 2003. In 2004, the SPM levels increased in residential areas while for industrial areas and in traffic intersection some improvements were observed.

Undefined trends of SPM in the ambient air can be due to various reasons. These include the natural sources such as dust storms and meteorological conditions as also anthropogenic sources, including construction activities for metro rail network and housing activities.

The RSPM (PM₁₀) levels in different areas of Delhi have been regularly monitored since 2001. A comparison of the available data indicates highest levels of RSPM in the traffic intersection followed by the industrial and residential areas. The annual mean concentrations of RSPM indicate a fluctuating trend with higher values recorded in all the areas in 2002. However, in 2003, the RSPM levels indicated a declining trend in all the areas. In 2004, the declining trend continued in the traffic intersection while in the residential and industrial areas, RSPM levels remained more or less static with a marginal increase in the residential areas. From the annual average of RSPM data, it is difficult to draw any conclusive inference. Hence, an attempt was made to analyze the month wise data to ascertain the influence of seasonal variations vis-à-vis impact of CNG and other measures.

The trend in average annual concentrations of RSPM indicates an attenuated and marginal increase in spite of sharp increase in vehicular population and construction activities.

The levels of NO_x at all the monitoring locations were declining till 2001 and afterwards there has been increment in values of NO_x at all the locations. In residential areas, the value of NO_x in the ambient air has increased by 40% during 2003 (NO_x – 38 Åµg/m³) as compared to 1999 (27 Åµg/m³). While at industrial locations the values have increased marginally by 2%. At traffic intersection, there has been a considerable increase in values of NO_x during 2003 (94 Åµg/m³) as compared to 1999 (60 Åµg/m³). In residential and industrial locations, the levels of NO_x are still within the prescribed standards, but at traffic intersections the values have exceeded the prescribed limits. In residential and industrial areas, the values are below 40 Åµg/m³ while at traffic intersection it reached a high value of 94 Åµg/m³. However, in 2004 the NO_x levels showed a decrease in concentration.

After 2000, a consistent declining trend for CO has been observed at ITO monitoring station. The percentage violation of CO has also decreased consistently since 2000. The reduction in CO concentration is directly attributable to the introduction of CNG as automotive fuel, implementation of stringent emission norms and improvement in the fuel quality.

The Benzene levels monitored in the ambient air indicate a decreasing trend.