

Delivery of Rafale fighter jets

*58. SHRI SANJAY SINGH: Will the Minister of DEFENCE be pleased to state:

- (a) whether it is a fact that 36 Rafale fighter jets were supposed to be delivered in fly-away condition in a deal struck by the Government;
- (b) if so, how many jets have been delivered to India till now;
- (c) the reasons as to why there is a delay in delivery when the deal was struck for immediate requirement; and
- (d) the timeline of delivery of 36 jets?

THE MINISTER OF DEFENCE (SHRIMATI NIRMALA SITHARAMAN): (a) to (d) As per the Inter-Governmental Agreement (IGA) signed between the Government of India and the Government of French Republic, delivery of 36 Rafale aircraft in a fly-away condition along with associated equipment and weapons will commence from September, 2019 and will be completed by April, 2022. The project is progressing as per schedule.

Advanced technologies to deal with air pollution

*59. DR. BANDA PRAKASH: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether Ministry held meeting with expert agencies to discuss application of advanced technologies to deal with air pollution incidents and improve overall air quality management framework;
- (b) whether Government plans to use satellite-based Aerosol Optical Depth (AOD) data for estimating ground based PM 2.5 levels, establishing early warning system and dissemination protocol to inform public and enforcing agencies about episodic high pollution events in advance; and
- (c) whether Government plans to set up a system for certification of air quality emission monitoring instruments to provide a boost to local manufacturing of air quality monitoring instruments and if so, the details thereof?

THE MINISTER OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (DR. HARSH VARDHAN): (a) Meetings have been held by the Ministry of Environment Forest and Climate Change (MoEF&CC) with experts from institutions such as Satellite Application Centre (SAC), Indian Institute of Remote Sensing (IIRS), India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), Indian Space Research Organisation (ISRO)-Satellite Application Center (SAC),

National Physical Laboratory (NPL), National Environmental Engineering Research Institute (NEERI), IIT Delhi and Central Pollution Control Board (CPCB) to discuss application of advanced technologies to deal with air pollution incidents and improve the overall air quality management.

(b) Establishing early warning system and dissemination protocol to inform public and enforcement agencies about episodic high pollution events in advance is amongst the priorities identified for improving management of air pollution. Government has considered various options in this regard, including use of satellite based Aerosol Optical Depth for estimating ground level $PM_{2.5}$ levels.

(c) A certification system for air quality monitoring instruments and equipment in the country through CSIR - National Physical Laboratory has been mandated for certification of Online Continuous Emission Monitoring System (OCEMS) and Continuous Ambient Air Quality Monitoring System (CAAQMS).

Scientific studies on air pollution and its effects on health

*60. SHRI VINAY DINU TENDULKAR: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

(a) whether Government has carried out any scientific studies on air pollution and to determine its effects on health during the last three years and if so, the details thereof;

(b) if not, the reasons therefor and the details of measures that are intended to be taken; and

(c) the reasons for the standards of the Indian Pollution Index being less stringent as compared to the level of permissible pollution index issued by World Health Organisation?

THE MINISTER OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (DR. HARSH VARDHAN): (a) and (b) Indian Council of Medical Research (ICMR) under the Ministry of Health and Family Welfare, along with Public Health Foundation of India (PHFI) and Institute of Health Metrics and Evaluation (IHME), has published a report titled 'India: Health of the Nation's States', as part of India State-Level Disease Burden Initiative in November, 2017. The report documents that the contribution of air pollution to disease burden remained high in India between 1990 and 2016. Outdoor air pollution caused 6.4% of India's total Disability-Adjusted Life Years (DALY) in 2016, while household air pollution caused 4.8%. The study also States that DALY due to air pollution decreased by 23.6% from 1990 to 2016.