GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 22
TO BE ANSWERED ON MONDAY, FEBRUARY 04, 2019

PROPOSAL TO BUY AIRCRAFT FOR METEOROLOGICAL ISSUES

22. SHRI RIPUN BORA :

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether it is a fact that Government proposes to buy aircraft to study impact of air pollution on the meteorological issues of the country;
(b) if so, whether the special plane will cover entire weather forecast and pollution level across the country ;
(c) the cost of the project and whether the airborne research will also control the air pollutants therein; and
(d) details of project and its project liability costs and the budget sanctioned thereof?

ANSWER
MINISTER FOR SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(DR. HARSH VARDHAN)

(a) Yes Sir. Ministry of Earth Sciences (MoES) proposes to buy an atmospheric research aircraft under the program National Facility for Airborne Research (NFAR).

(b) This research aircraft will be utilised to undertake research in the areas of atmospheric aerosols, clouds, precipitation and their interactions as well as to study the atmospheric state parameters and trace gases. The data collected from the sophisticated scientific instrumentation on board the aircraft will be utilized to improve the weather prediction models in predicting different types of weather phenomena.

(c) Total cost of the project is Rs. 184.67 Crores. The airborne research and the airborne observations will help us to study air pollution and methods to control air pollution.

(d) The Major aims and objectives of the scheme to be implemented during 2017-20 are:

- **To procure an instrumented research aircraft as national facility for atmospheric studies.**
- **To make simultaneous measurements of aerosols, trace gases, cloud microphysics and large scale meteorological parameters at high temporal resolution and at different altitudes in different seasons over the Indian sub-continent.**
- **To study the cloud-aerosol interactions and the changes in the precipitation processes over different parts of the Indian monsoon region.**
- **To understand the interactions between the clouds and the large-scale environment using the simultaneous measurements of clouds and large-scale meteorological parameters at high temporal resolution and using them in cloud resolving models.**
- **Aerosol and radiative effects and aerosol-radiation closure studies. Aerosol, cloud microphysical and dynamical data generated will be provided to researchers for developing the parameterization schemes for monsoon clouds.**

This program will also be useful in air pollution assessment and associated impacts over India (health, visibility, climate) hydrological and water resources studies and enhancement of research infrastructure.

The Total Expenditure in terms of recurring & non-recurring expenses is as follows:

(in Crores)

National Facility for Airborne Research (NFAR)	2017-18	2018-19	2019-20	Total
Total (Recurring)	0.67	4.25	19.75	24.67
Total (Non-Recurring)	40.50	36.0	83.5	160.00
Total (Recurring + Non-recurring)	41.17	40.25	103.25	184.67

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