

**GOVERNMENT OF INDIA  
EARTH SCIENCES  
LOK SABHA**

UNSTARRED QUESTION NO:3444  
ANSWERED ON:15.12.2006  
STUDY IN FOG IN EASTERN AND NORTHERN REGIONS  
Radhakrishnan Shri Varkala

**Will the Minister of EARTH SCIENCES be pleased to state:**

- (a) Whether the Government is aware that the most of the northern and eastern part of the country experiences a thick fog during winter months for more than a decade;
- (b) if so, whether the Government has any plan to conduct research to study the problem; and
- (c) if so, the action taken by the Government in this regard?

**Answer**

MINISTER OF THE STATE IN THE MINISTRY OF SCIENCE & TECHNOLOGY AND EARTH SCIENCES (SHRI KAPIL SIBAL)

- (a). Yes Sir, The fog over most parts of northern and eastern India during winter months is a well known phenomenon.
- (b) & (c) Since the occurrence of fog during winter months has been a concern particularly for aviation sector, a lot of research has been done by IMD and other research institutes/organizations about different aspects of fog, like, onset time, duration, conditions for fog formation etc. Further, to alleviate the problems of aircraft operations in fog conditions, instruments for assessing visibility and other now-casting and soft computing aids are also proposed at all airports by IMD.

The mesoscale models of IMD and NCMRWF have the potential to serve as tools for studying the problem of fog. These models are run in real time and are used by forecasting centres as guidance for providing location specific forecast. With the enhanced observational network, which is included in the modernization plan of IMD, the mesoscale models may be effective aids in improving the fog forecast.

National Physical Laboratory (NPL), New Delhi has been conducting studies on the conditions for fog formation and the role of anthropogenic pollutants in altering fog conditions. They are on a joint programme with Centre for Mathematical Modelling and Computer Simulation (C-MMACS) of Council of Scientific and Industrial Research (CSIR) to predict visibility in fog season using a model built by C-MMACS for Delhi & neighbourhood.