GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH
RAJYA SABHA
UNSTARRED QUESTION NO.-2370
(ANSWERED ON. 20.03.2025)

SUSTAINABLE AVIATION FUEL TECHNOLOGY

2370. SHRI AMAR PAL MAURYA

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether Council of Scientific & Industrial Research (CSIR) has developed Sustainable Aviation Fuel Technology; and

(b) if so, the details and areas of application thereof, if not, the reasons therefor?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) FOR THE
MINISTRY SCIENCE AND TECHNOLOGY AND EARTH SCIENCES

(DR. JITENDRA SINGH)

(a)&(b) Yes, Sir. CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradun - a constituent laboratory of the Council of Scientific & Industrial Research (CSIR) has developed a Sustainable Aviation Fuel Technology (SAF). A single-step process has been developed to convert lipids (plant-derived oil including Jatropha oil and animal-derived fats) into Sustainable Aviation Fuel (SAF). The fuel has been demonstrated on a single civilian aircraft flight (Bombardier Q400 Turboprop) at 25%, blending with Jet A1 and multiple military transport plane sorties totalling over 50 hours (Antonov AN-32) at 10% bio-jet blending with Jet A1.

CSIR-IIP has transferred the technology information to Engineers India Limited (EIL) to commercialise the technology, which is to be marketed by EIL to interested investors. An agreement (NDA) and MoU with MRPL-CSIR-IIP and EIL have been signed to set up a demonstration plant of capacity 9000 tons per annum (TPA) SAF at Mangalore Refinery and Petrochemicals Limited (MRPL), Mangalore.

Further, to get International (American Society for Testing and Materials-ASTM) approval for the developed SAF, CSIR-IIP has submitted a report to ASTM, which is under evaluation at ASTM.

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