

Biofuel alliance can make us SAF export hub: Puri

India looking to mandate the blending of 1% SAF in domestic commercial flights

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New Delhi, 13 September

The recently launched Global Biofuel Alliance (GBA) can turn India into a major production and export hub for sustainable aviation fuel (SAF) and give the country a chance to set international standards in the sector, Union Minister for Petroleum and Natural Gas Hardeep Singh Puri told *Business Standard*.

"India has the feedstock for producing 19-24 million tonnes of SAF a year. The estimated maximum requirement of SAF in the country, even considering a 50 per cent blend, is 8-10 million tonnes per year by 2030," he said.

However, domestic demand will also be high. India is looking to mandate the blending of 1 per cent SAF in all domestic commercial flights in the next two years.

"Calculated on the basis of litres, India would require around 140 million litres of SAF per annum by 2025 with 1 per cent SAF blending in jet fuel. With a 5 per cent SAF blend, India will require around 700 million litres per annum," the minister said. Aviation contributes 2 per cent of global energy-related greenhouse gas emissions. However, SAF has the potential to reduce such emissions by up to 80 per cent.

"Countries like the United Arab Emirates or Singapore won't be producing because of their geographical position. Here India has the opportunity to establish norms for SAF and benefit from it," he said.

Changing scenario

In its bid to reduce the carbon footprint in aviation, the International Civil Aviation Organization (ICAO) has adopted an aspirational goal of 2 per cent annual fuel efficiency improvement through 2050. It also wants to hit Carbon Neutral Growth from 2020 onwards, and net zero by 2050.

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HARDEEP SINGH PURI

Union Minister for Petroleum and Natural Gas



What is sustainable aviation fuel?

Sustainable aviation fuel (SAF) refers to waste-derived aviation fuel. Unlike traditional jet fuels, it is made from various sources such as used cooking oil, agricultural waste, municipal solid waste, fats or non-food crops, and forestry

residue. This gives it the potential to reduce greenhouse gas emissions by up to 80 per cent. To date, Airbus and Boeing aircraft are capable of flying with up to a 50 per cent blend of SAF. Both manufacturers aim to enable 100 per cent SAF capability by 2030.

Local production of SAF is critical because Indian airlines will have to offset carbon emissions generated from international flights from 2027. This is part of the global Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), launched by the ICAO. CORSIA is implemented in three phases, with voluntary participation allowed in the first two phases (2021-26).

While India has decided not to participate in these phases, local carriers would need to follow their international counterparts after that date. In May, Puri had inaugurated the first domestic flight powered by a 1 per cent blend of indigenously produced SAF.

Domestic companies are producing SAF. State-owned Indian Oil Corporation has inked a joint venture with industrial biotechnology company Praj Industries, which had produced the SAF for this

flight. The Mumbai-based company has developed a breakthrough in alcohol-to-jet technology, using bio-based feedstock.

Indian Oil Corporation is also in the process of establishing a plant in Panipat, Haryana, to make SAF in a partnership with US-based cleantech company LanzaJet. To come up at its Panipat refinery at ₹3,000 crore over two and a half years, it will convert corn-based cellulosic, or sugar-based ethanol, into SAF, officials have said. It would have an initial capacity to produce 85,000 tonnes of fuel annually.

The segment also has large financial implications for the farming sector. "1 per cent SAF blending can benefit more than 500,000 farmers, who can supply sugarcane as feedstock. Additionally, more than 100,000 green jobs will be generated," the minister said.