

**GOVERNMENT OF INDIA
PETROLEUM AND NATURAL GAS
LOK SABHA**

UNSTARRED QUESTION NO:5048

ANSWERED ON:28.04.2005

TECHNOLOGY FROM BRAZIL FOR BLENDING OF ETHANOL WITH PETROL DIESEL

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Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) whether the Brazil is providing technology for blending of ethanol with petrol/diesel and giving consultancy on various related aspects;
- (b) if so, the details thereof;
- (c) the foreign exchange saved by the Government by mixing ethanol in petrol and diesel during the last two years;
- (d) the States where ethanol mixed petrol is being sold at present;
- (e) whether the Government exported the petrol rendered surplus through its blending with ethanol;
- (f) if so, the details thereof;
- (g) whether the Government has conducted any study regarding impact of ethanol mixed petrol on environment; and
- (h) if so, the details thereof?

Answer

MINISTER OF PETROLEUM & NATURAL GAS & PANCHAYATI RAJ (SHRI MANI SHANKAR AIYAR)

(a) & (b) Government have signed a Memorandum of Understanding (MoU) with Brazil on 8.4.2002 under which Brazil would share the technology for blending ethanol with petrol/diesel and provide consultancy on various related aspects of the technology. However, the MoU will become operational only after the Brazilian Congress has ratified it.

(c) to (f) India does not import petrol and is, by and large, self sufficient in diesel. There is, therefore, no direct implication of foreign exchange being saved by mixing ethanol in petrol. There is however, the indirect consequence of conserving foreign exchange on importing the crude oil required for refining that quantity of petrol/diesel. The technology for blending ethanol in petrol for use in transportation sector is established, but such a technology for blending ethanol in diesel is not yet established for commercial use.

Government are implementing the ethanol-blended petrol programme in the notified sugar producing states/adjoining States and Union Territories. The States where the programme is notified for implementation are: Maharashtra, Gujarat, Goa, Uttar Pradesh, Uttaranchal, Haryana, Punjab, Karnataka, Andhra Pradesh (All districts except Chittoor & Nellore) & Tamil Nadu (only in Coimbatore, Dindigul, Erode, Kanayakumari, Nilgiri, Ramanathapuram, Tirunelveli, Tuticorin & Virudhunagar) and in the Union Territories of Daman & Diu, Dadra & Nagar Haveli & Chandigarh. In terms of Gazette Notification No. GSR 705(E) dated 27.10.2004, the supply of 5% ethanol-blended petrol in notified areas is mandatory provided the price at which ethanol is offered for the programme is comparable to the price of ethanol for alternative uses, and is comparable to the delivered price of petrol at the notified locations, and provided further that if the supply of ethanol can be maintained at such prices.

India has provisionally exported a total of 2979 thousand metric tonnes of petrol in 2003-2004 valued at Rs. 4021 crore, which could include petrol saved by blending ethanol with petrol.

(g) & (h) Yes, Sir. Emission studies indicated that there was reduction in carbon monoxide (CO) emissions from two wheelers with the use of 5% and 10% ethanol petrol blends but with a marginal increase in hydrocarbon (HC) emissions. Two-wheelers fitted with catalytic converters show substantial reduction in both carbon monoxide and hydrocarbon emissions. In the case of passenger cars, a marginal increase in nitrogen oxide (NO) emissions was observed. However, there is substantial reduction in CO and HC emissions.