

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF SCIENCE & TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION No. 2820
TO BE ANSWERED ON 15/12/2021**

BIOGAS PRODUCTION FROM DAIRY INDUSTRY

**†2820. SHRI JASWANT SINGH BHABHOR:
SHRI PARBATBHAI SAVABHAI PATEL:
SHRI NARANBHAI KACHHADIYA:**

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether the Government is aware that the scientists have developed the technology to enhance biogas production from fat-rich sludge from dairy industry;**
- (b) if so, the manner in which the said technology is likely to work and the details thereof;**
- (c) the manner in which it is likely to be useful for dairy industry of Gujarat; and**
- (d) whether the said technology is likely to be used in the dairy industry situated in the tribal areas of Gujarat?**

ANSWER

**MINISTER OF STATE (INDEPENDENT CHARGE) OF THE
MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(DR. JITENDRA SINGH)**

**विज्ञान और प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्रालय के राज्य मंत्री (स्वतंत्र प्रभार)
(डॉ. जितेंद्र सिंह)**

(a) & (b) Yes Sir. CSIR- Central Food Technological Research Institute (CSIR-CFTRI), Mysuru, a constituent laboratory of Council of Scientific and Industrial Research (CSIR) has developed a technology to enhance biogas production from fat-rich sludge from dairy industry with the financial support of Department of Science

and Technology. The developed technology can be used for robust biogas production for all types of solid and liquid waste from dairy industry. The technology features sustainable pretreatment and improved bioreactor design to ensure robust performance with enhanced biogas production (15-30%) than conventional technologies.

The technology can be applied for anaerobic digestion of complex solid waste containing fats and oils and can be coupled with wastewater treatment to enable Zero Liquid discharge. Further, the technology can be used for solid and liquid waste management in food and allied industries. The sustainable pre-treatment technique is applicable to all types of complex solid wastes to enhance biogas production as well as robustness of anaerobic digestion process. Dairy and food industries are the likely industries which can take up the technology. The technology will also be applicable for any biodegradable solid waste sludge and food waste from any food industry as well as food industry wastewater.

(c) & (d) The aforesaid technology can be implemented anywhere in the country including dairy industry situated in the tribal areas of Gujarat depending upon the requirements of the dairy industry.
