# BHU scientists isolate coal degrading bacteria

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In a major scientific breakthrough, scientists of the School of Biotechnology of Banaras Hindu University have isolated a group of bacteria that degrades lignite coal (low energy producing coal) to produce methane gas for increased fuel efficiency.

While the isolation of the special group of bacteria called coal degrading bacteria and methanogens has been achieved at the fag end of three year project costing INR 4000000 where School of Biotechnology of BHU is collaborating with Oil and Natural Gas Commission, the scientists at BHU are already planning to go for field trials at the ONGC Institute of Reservoir Studies.

Prof AK Tripathi senior scientists of the School of Biotechnology of BHU said that "We are planning to go for field trials in different coal beds at the nodal centre in the next two months for testing the results. We would also assess how this energy efficient technology can be successfully translated and transferred in the field."

It may be mentioned that a team of scientists of the School of Biotechnology, BHU, including Prof AK Tripathi and Prof Ashok Kumar and a doctoral student Durgesh Narayan Singh have worked on the isolation of energy efficient bacteria that can survive under extremely high pressure and temperature, nearly one kilometre below the ground-level in coal beds.

Prof Tripathi said that "The isolation of the special group of bacteria is based on DNA isolation technique, where the different nutrient medium for bacteria has been selected to estimate their chances of survival under adverse condition. We have now identified the deficiencies and limitations for nutrients that enable these bacteria to survive and work efficiently under such conditions."

It is also worth mentioning here that BHU is among the four centres selected for energy efficient project of ONGC in the country. While School of Biotechnology, BHU and TATA Energy Research Institute, New Delhi are working on conversion of low energy coal into high energy producing methane gas, the other centres Agarkar Research Centre, Pune and Murugappa Research centre, Chennai are working on crude petroleum.

(Sourced from Timesofindia.indiatimes.com)

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