

information furnished by Ministry of New and Renewable Energy (MNRE), in the area of Biofuels development, Research and Development (R&D) work is being conducted by them and other Ministries/Agencies, such as, Department of Biotechnology; Council of Scientific and Industrial Research and Public Sector OMCs for developing biofuel technologies, particularly second generation biofuel technologies for production of ethanol from ligno-cellulosic materials. A National Policy on Biofuels has also been announced in the year 2009 for development, production and use of Biofuels. The expenditure under Research and Development on Biofuels Programme during the last three years by MNRE is as follows :

| Financial Year | Expenditure (₹ in Crore) |
|----------------|--------------------------|
| 2012-13        | 0.398                    |
| 2013-14        | 6.38                     |
| 2014-15        | 1.104                    |

(c) Crude oil is processed through several processing units for production of petroleum products. Each of these units produces intermediate products streams, which require further reprocessing and blending. As it is difficult to apportion the total cost amongst individual refined products, product-wise costs are not identified separately.

**On-going projects for exploration of shale oil and gas**

430. SHRI DEREK O'BRIEN: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) the number of on-going projects for the gas exploration of shale oil and gas, and the number of such projects completed since 2005;

(b) the funds allocated and disbursed for these projects;

(c) the results of these exploration projects; and

(d) the details of guidelines set in place to evaluate the environment impact of such explorations?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI DHARMENDRA PRADHAN): (a) In India, Shale gas is still in exploration stage. Oil and Natural Gas Corporation (ONGC), a national oil company, carried out drilling of 4 R & D wells during 2010 in Damodar Valley Coal Basins of West Bengal and Jharkhand.

In order to exploit shale gas and oil in the country, Government of India on 14th October, 2013 announced the Policy Guidelines for Exploration and Exploitation of

Shale Gas and Oil by National Oil Companies (ONGC and Oil India Limited (OIL)) in their onland Petroleum Exploration License (PEL)/Petroleum Mining Lease (PML) areas awarded under the nomination regimes.

In pursuance of this Policy, under the first phase of assessment ONGC has identified and initiated shale gas and oil exploration activities in 50 PEL/PML areas and OIL has identified and initiated shale gas exploration activities in 6 PEL/PML areas. So far ONGC has drilled 17 assessment wells for Shale gas and oil and one well is under testing and has shown some positive indication of shale oil.

(b) Government of India has not allocated any fund for these projects. However, after announcement of policy guidelines for shale gas and oil exploration in nomination blocks ONGC has allocated a sum of ₹ 220.89 crore for the year 2015-16. Out of this total investment made by ONGC is ₹ 159.46 crore upto 30.09.2015.

OIL has allocated a sum of ₹ 13.55 crore for year 2015-16. Out of this ₹ 1.15 crore has been spent by OIL so far on G&G studies.

(c) As far as ONGC's effort is concerned, one well drilled under R&D Pilot Project in Damodar valley has flowed water and gas in surges on 25th January, 2011. It was recorded as first ever event in India from the Barren Measures Shale.

As far as OIL is concerned, G&G evaluation of three blocks viz. Dibrugarh PML, Chabua PML and Dumduma PML has been completed.

(d) As per Policy Guidelines, 2013 the Company shall be responsible for all activities related to Health, Safety and Environment (HSE) and site restoration in respect of Shale Gas and Oil operations in line with guidelines/rules stipulated by Ministry of Petroleum and Natural Gas, Ministry of Environment and Forest or by any statutory authority from time to time.

#### **Extension of CNG/PNG to southern States**

431. SHRIMATI SASIKALA PUSHPA: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether Government is extending the CNG/PNG to other southern States of the country;

(b) if so, the details thereof, and if not, the reasons therefor;

(c) the steps taken by Government in this regard; and

(d) the time by when all the States of the country could be covered by CNG/PNG?