

**GOVERNMENT OF INDIA
COAL
LOK SABHA**

UNSTARRED QUESTION NO:6846
ANSWERED ON:07.05.2015
PROMOTION OF CLEAN COAL TECHNOLOGIES
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Will the Minister of COAL be pleased to state:

- (a) whether the Government has taken any steps to promote clean coal technologies to improve the efficiency in production;
- (b) if so, the details thereof;
- (c) whether any technological agreements have been signed with other countries in bringing such technologies to India; and
- (d) if so, the details thereof?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) IN THE MINISTRY OF COAL, POWER AND NEW AND RENEWABLE ENERGY
(SHRI PIYUSH GOYAL)

(a) & (b) : Coal washing is one of the practices being promoted as a measure to encourage clean coal technologies and Coal India Limited (CIL) is in the process of setting up fifteen new coal washeries with a total throughput capacity of 97.6 million tonnes per year through global tendering process. The construction has already started in 3 washeries.

There are a few research projects supported under Science & Technology (S&T) Grant of Ministry of Coal and Research & Development (R&D) fund of Coal India Ltd, to promote Clean Coal Technologies, as given below:

1. Coal Bed Methane (CBM):

- (i) Coal Bed Methane Recovery and Commercial Utilization.
- (ii) Development of optimization of CBM recovery process for CO₂ sequestration.
- (iii) Analysis of in-situ stress for CBM exploration in Jharia Coalfield.
- (iv) Delineation of viable coal mine methane (CMM) /abandoned mine methane (AMM) blocks in the existing and would be mining areas having partly distressed coal in virgin coal seams.
- (v) Exploration of CBM in deep seated coal deposits of Jharia and Raniganj Coalfields .
- (vi) An investigation on adsorption characteristics of Indian coal.
- (vii) CBM reserves estimation for Indian Coalfields.

2. Shale Gas:

- (i) Assessment of prospect of shale gas in Gondwana basin with special reference to CIL areas..
- (ii) Shale gas potentiality evaluation of Damodar basin of India.

3. Coal Liquefaction:

- (i) Development of indigenous catalyst through pilot scale studies of Coal-to-Liquid (CTL) conversion technology.

4. Coal Beneficiation:

- (i) Demonstration of coal dry beneficiation system using Radiometric Technique.
- (ii) Demonstration of Cost effective Technology for dry beneficiation of coal by Allair Jig.
- (iii) Development of an On-line coal washability analyser.

(c) & (d):

(i) An MoU was entered into by MoC with US Energy Protection Agency (USEPA) on 16 November, 2006 for establishing coal bed methane (CBM)/coal mine methane (CMM) Clearing House in India. Accordingly, the CBM Clearing House was established at Central Mine Planning & Design Institute (CMPDI), Ranchi in November, 2008.

The objective of the Clearing House was to undertake activities to support the mitigation of Greenhouse Emissions from coal mines in India and to act as a repository of methane based information in the country and facilitate formulation of projects for utilization of methane recovered from mines.

(ii) A Memorandum of Understanding was signed on 3rd October, 2008 between New Energy and Industrial Technology Development

Organization of Japan (NEDO), the Ministry of Finance, Department of Economic Affairs, Government of India (MOF/DEA), the Ministry of Coal, Government of India (MOC) and Monnet Ispat & Energy Ltd. (MIEL) for joint implementation of a model project for implementation of highly efficient pilot coal preparation technology project for setting up a coal washery with a raw coal throughput capacity of 2.2 million tonnes per annum in Angul District, Block Chhendipada, Odisha.

(iii) Two Studies were instituted by European Union under Energy Dialogue on washability of low volatile medium coking coal; and on exploitation of steeply inclined seams in North Eastern Coalfields of India.

(iv) CMPDIL has entered into an MoU with the Commonwealth Scientific and Industrial Research Organization of Australia on June 2013 for cooperation in research in various technology related areas including 3D seismic survey for coal exploration, Drill hole geophysical logging and data analysis, Underground mine ventilation, Mine gas capture and utilization, Mine fire prevention and control, Underground strata control, Pit wall and overburden dump stability, Coal quality control, Coal cleaning and preparation, Coal to liquids technology, Coal performance impacts on coal gasification and related syngas technologies, Coal blending for combustion and gasification applications, coal mineral matter, ash and slag properties and their management and utilization, Underground mining technologies and Mine reclamation and rehabilitation.