

**GOVERNMENT OF INDIA
COAL
LOK SABHA**

UNSTARRED QUESTION NO:5147
ANSWERED ON:14.08.2014
EFFICIENCY AND EFFICACY OF COAL
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Will the Minister of COAL be pleased to state:

- (a) whether the Government is planning to undertake researches to improve efficiency and efficacy of coal by any method:
- (b) if so, the details thereof :
- (c) whether any research is being carried out to make coal energy to be used in automobiles; and
- (d) if so, the details thereof and the results thereon ?

Answer

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

(a) The Government of India through its Coal Science & Technology (S&T) Plan and Coal India Limited (CIL) through its R&D Board have been promoting R&D activities in Coal & Lignite Sectors for improving efficiency and efficacy of coal for its wider acceptance to various industries.

(b) A number of research projects for improving efficiency and efficacy of coal have been completed and their details are given below:

i) Resource assessment and characterization study of non-coking coal for sponge iron industry

The above study was under taken by Central Mine Planning and Design Institute (CMPDI) to identify non-coking coal resources, which can produce "sponge iron grade coal". The research study proved that the most of the Indian non coking coals including inferior grade are suitable for sponge iron making as such or after beneficiation.

ii) Resource survey, characterization and blending studies of low volatile coal for their use in steel industry

The above research work was undertaken by CMPDI with an aim to identify resource of low volatile coking coals in the lower seams of Jharia Coalfield, Bharat Coking Coal Limited (BCCL) and Karo group of seams of East Bokaro Coalfield, Central Coalfields Limited (CCL) for their use in steel industries.

The findings are as follows:

Coals of Jharia coalfield, BCCL and Karo group of seams of East Bokaro coalfield, which is presently being used for non-metallurgical purpose, shows that there is a high potential of using these coals (after washing) as blend constituent in coke making

The clean coals can be used as a blend constituent for coke making in steel plants and the middlings can be used in power plants.

iii) Effective utilization of low rank and low volatile high rank Indian coking coals for Blast Furnace (BF) coke making.

The above research work was undertaken by CMPDI with an aim to study the suitability of low rank and low volatile rank coals in blast furnace coke after suitable beneficiation and blending.

Under this research study, coal samples from Muraidih(Jharia Coalfields), Jhanjra, SonepurBazari (Raniganj Coalfields), North Urimari&Giddi A (South Karanpura Coalfields) which are presently considered as non-coking coal were collected for laboratory scale washability test and subsequent coal petrography and chemical analysis. It was observed from the analysis that most of the coal have good coking properties and can be used in coke making.

(c) & (d): In this direction, as a first step, one research project related to conversion of Coal-to-Liquid (CTL) is now under implementation by Central Institute of Mining and Fuel Research (CIMFR), Dhanbad in which indigenously suitable catalysts will be developed under the S&T fund of Ministry of Coal. Coal if converted to liquid could be used for automobile and other industries.