

# **Policy Developments to Encourage CBM/CMM Production in India**

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of CMM/CBM in India**

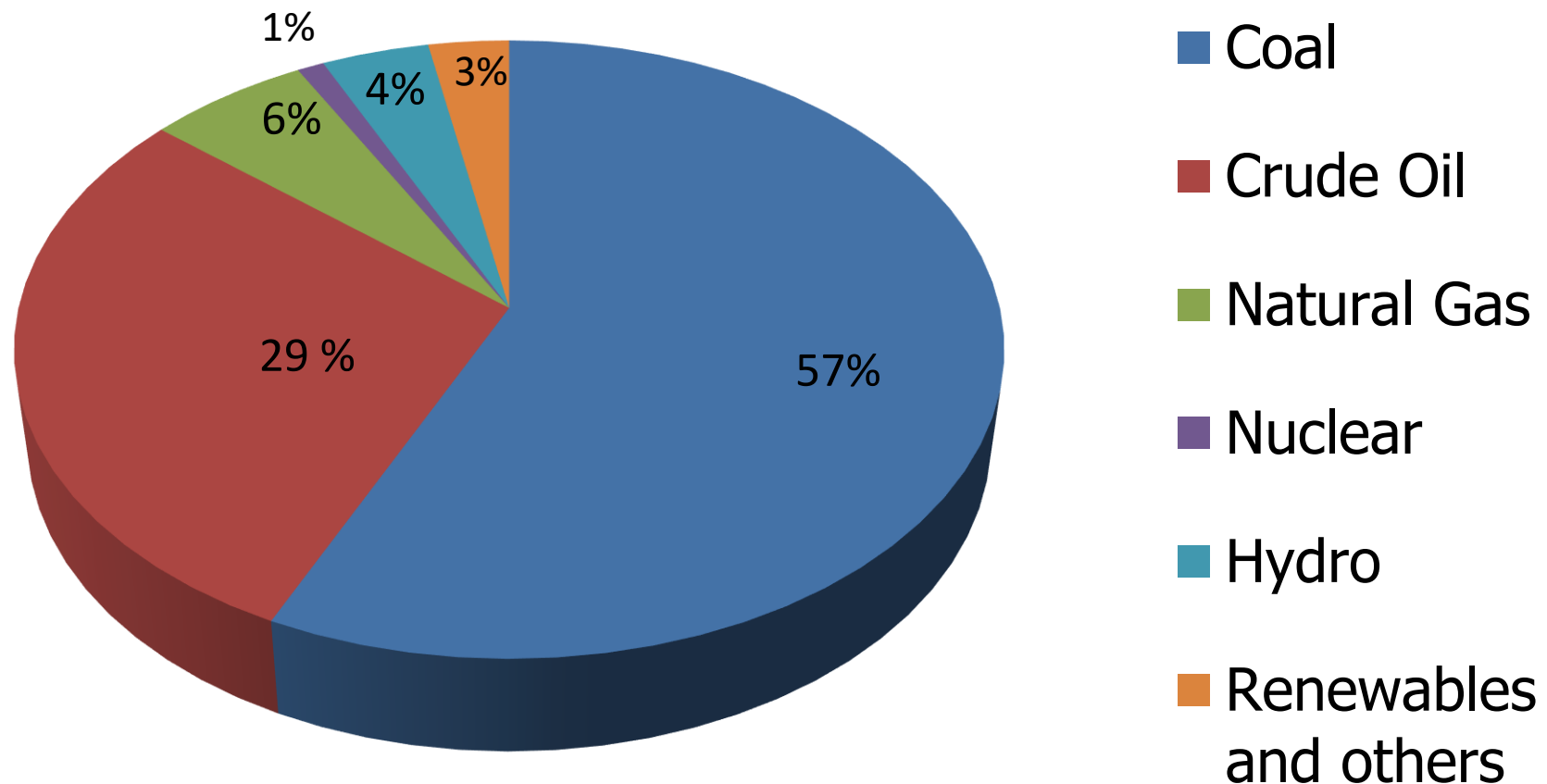
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# **Coal – Integral to India's Energy Security**



# Coal : Primary Driver of Economy

Coal is the major source of Primary Energy Supply of the Country with 57% of share (Ref. BP Energy Outlook 2018).



Coal-based Electricity Generation: 56.70% of installed capacity (Ref. CEA Data, Nov-18).

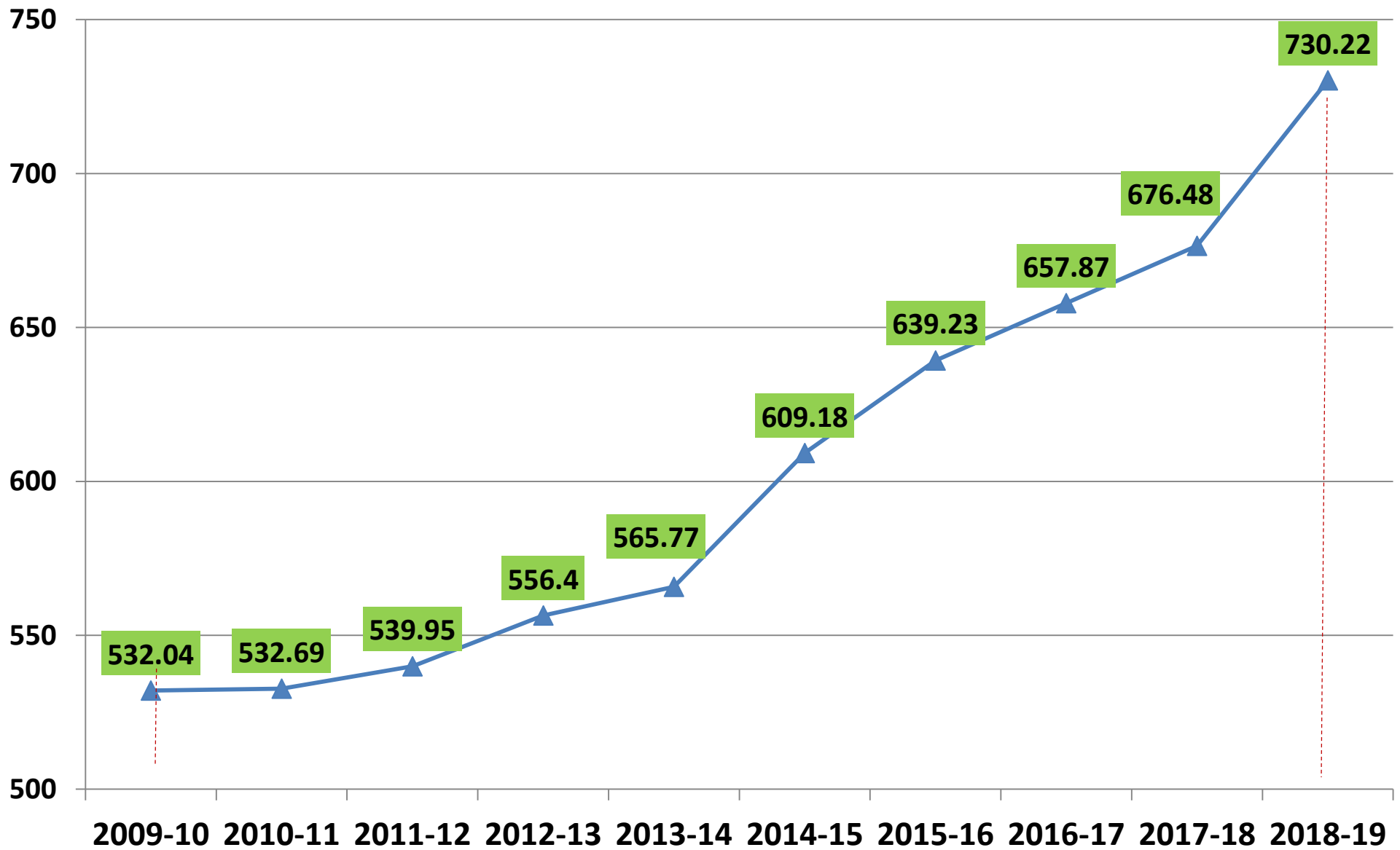
# Coal : Integral Part to India's energy security

- # India plans to bring electricity access to all its citizens, including people currently off-grid.
- # Being an affordable source of energy with substantial reserve, coal is going to remain as the major source of energy till 2030 and beyond.
- # Despite push for renewable energy (RE) (30-40% in energy mix by 2030), "cyclic behaviour" of RE calls for baseline capacity of coal based generation for stability.

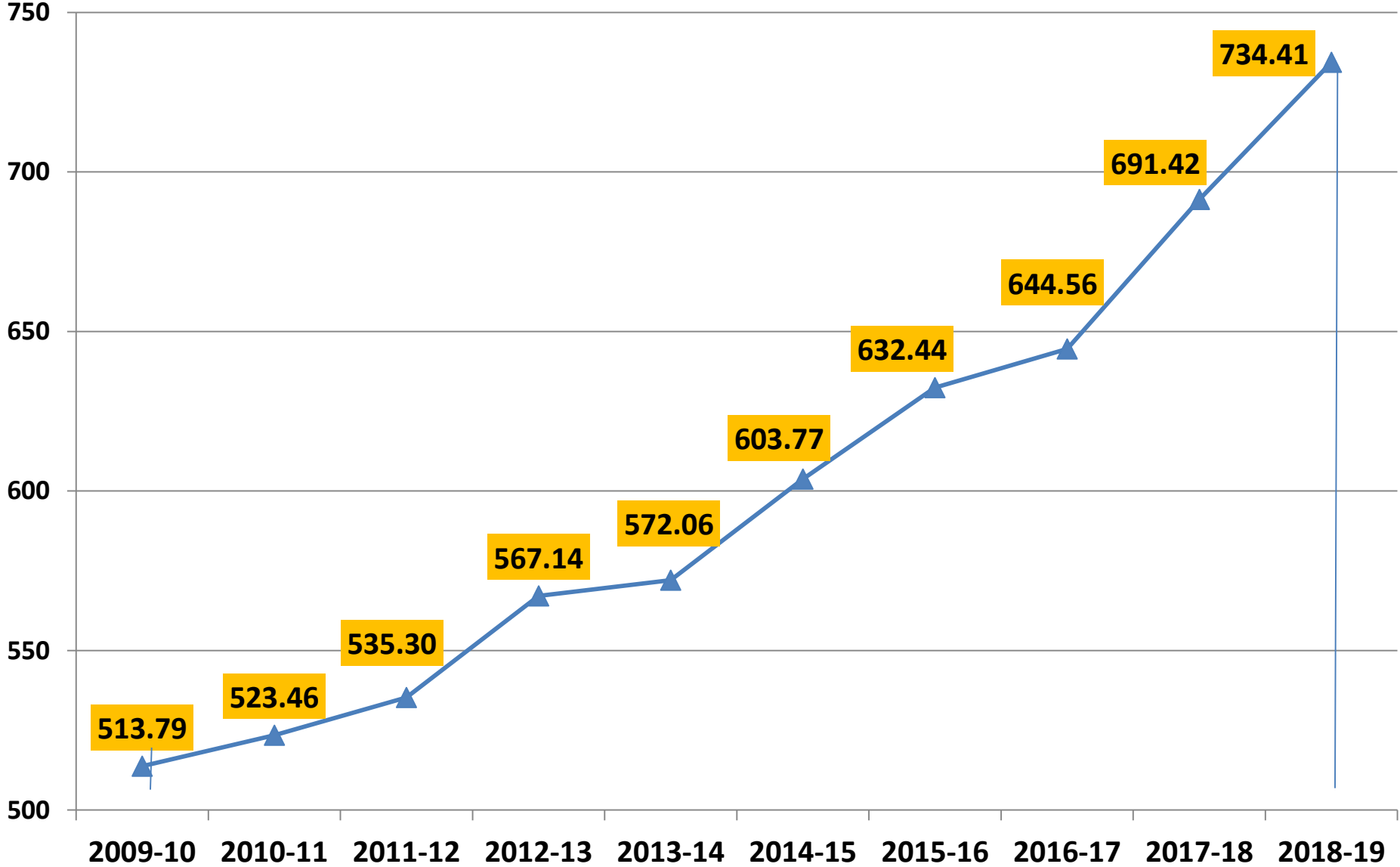
# **Highlights of Coal Sector**



# Coal Production Trend: Last 10 years



# Coal Supply Trend: Last 10 years



# Highlights of Coal Sector: 2018-19

- ❑ Achieved the cumulative target (730 MT) for domestic coal production [comparable to 2017-18 : 676 MT]
- ❑ 7.9% increase in coal production in 2018-19
- ❑ 31 MT coal stock with the power plants & 56 MT with the coal companies
- ❑ No power plant critical/ super critical at year end (i.e. on 31.03.2019)
- ❑ 7.4% increase in coal supplies to power sector from CIL with 11% increase in rakes



# **Meeting NDC Goals**

# India's NDCs

- India has to achieve the following major targets amongst others:
  - To reduce the emissions intensity of its GDP by 33-35% by 2030 from 2005 level.
  - To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030.
  - To create an additional carbon sink of 2.5 to 3 billion tonne of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.
- Based on India's NDC, coal companies have taken suitable steps to contribute towards the above set targets.

# Action Taken towards NDC Implementation

- Creation of National Clean Environment Fund for financing for adaptation & mitigation of climate change.
- Total collection of INR 170.84 billion till 2014-15 is being used for 46 clean energy projects worth INR 165.11 billion.
- Schemes identified for reduction in Carbon footprint:
  - Coal Bed Methane (CBM)/Coal Mine Methane (CMM)
  - Coal to Methanol
  - Underground Coal Gasification (UCG)
  - Coal Beneficiation

# **CBM Policy**

# CBM Policy

- The Ministry of Petroleum & Natural Gas (MoP&NG) is the Nodal Ministry and the Directorate General of Hydrocarbon (DGH) is Nodal Agency for CBM development;
- A MoU was signed between MoC and MoP&NG in Sept. 1997 for CBM development;
- Joint Committee of MoC and MoP&NG is in-place since 1998 to address issues related to CBM;
- CBM blocks were carved out as per Joint Committee discussion and decisions;

# Salient features of CBM Policy, 1997

- Blocks to be awarded through open international competitive bidding system
- No Participating Interest (PI) of the Government. Foreign/ Indian companies could have 100% participating interest
- No signature bonus
- No upfront payment
- Exemption from payment of customs duty on import of equipments required for CBM operation
- Freedom to sell gas in the domestic market
- A seven years tax holiday
- Income tax 35% for Indian Company and 48% for foreign Company
- Provision of 100% cost recovery
- Nominal commercial bonus of US\$ 0.3 million on declaration of commercial assessment

# Development of Coal Bed Methane (CBM)

- ❖ **33 CBM blocks** have been allotted for commercial development of CBM based on four rounds of global bidding by MoP&NG.
- ❖ Out of these allotted blocks, 2 blocks i.e. Raniganj and Jharia CBM blocks have been allotted to the consortium of CIL and ONGC
- ❖ These blocks have entered into development stage as the development plan for these blocks has been approved by the Government.
- ❖ CBM production of the country is approximately 1.8 mmscmd.

# Modification in CBM Policy Guidelines

- In partial modification of CBM Policy, 1997, MoP&NG has notified the consolidated terms and conditions on 8<sup>th</sup> May, 2018 for grant of exploration and exploitation rights for CBM to Coal India Limited (CIL) and its subsidiaries from its coal bearing areas for which they possess mining lease for coal mining and it will also be deemed lease for CBM extraction.
- Through this amendment, relaxation is granted under the Petroleum & Natural Gas Rules 1959 (PNG Rules, 1959) to Coal India Limited (CIL) and its subsidiaries **for not applying for grant of license/ lease under the PNG Rules, 1959** for extraction of Coal Bed Methane (CBM) under their Coal Bearing Areas.
- Simultaneous development of coal & CBM overlap blocks.



# Modification in CBM Policy Guidelines ...

- Relinquishment of CBM mining lease will be co-terminus with coal lease.
- CBM areas covered under coal mining lease area will be utilized in a manner so as to facilitate extraction of CBM prior to coal mining operations or simultaneously with coal mining operations to optimally develop and conserve CBM.
- Accordingly, initially CBM blocks under CIL areas have been carved out in Jharia Coalfield, Raniganj Coalfield and Sohagpur Coalfield and more under delineation.

# Modification in CBM Policy Guidelines ...

- The decision is in line with the Government's initiatives of 'Ease of Doing Business' & reducing the hydrocarbon import. It will expedite the exploration and exploitation of CBM, enhance the availability of natural gas and reduce the gap in demand and supply of natural gas.
- The increased development activities for exploration and exploitation of CBM gas reserves in-and-around the block will generate economic activities which in turn has potential to create employment opportunities in CBM operations and in the industries.
- The policy is expected to boost CBM production to 6 MMSCMD by 2019-20.

# **Future Strategy**

# Simultaneous extraction of CBM and Coal

- Projects planned for simultaneous extraction of CBM and Coal:
  - Pre-drainage of Coal Mine Methane and Utilization from Moonidih UG Mine (BCCL), Jharia Coalfield;
  - Jharia CBM Block – I (BCCL), Jharia Coalfield;
  - Raniganj CBM Block (ECL), Raniganj Coalfield.
- Blocks identified for extraction of CBM/CMM:
  - East Bokaro CBM Block (CCL), East Bokaro Coalfield;
  - Sohagpur CBM Block (SECL), Sohagpur Coalfield;
  - Jharia CBM Block - II (BCCL), Jharia Coalfield;
  - Jharia CBM Block – III (BCCL), Jharia Coalfield;
  - Assam CBM Block (NEC), Assam Coalfield.

# Development of CBM in Leasehold of CIL

SN	CIL CBM BLOCKS	AREA (Sq. Km)	COAL RESOURCE (MT)	PROGNOSTICATED CBM RESOURCE (BCM)
1	<b>JHARIA CBM Block - I</b> (Jharia Coalfield)	24	1962	25
2	<b>RANIGANJ CBM Block</b> (Raniganj Coalfield)	57	998	3.9
3	<b>EAST BOKARO CBM Block</b> (East Bokaro Coalfield)	15	1560	5
4	<b>SOHAGPUR CBM Block</b> (Sohagpur Coalfield)	97	321	2.5
5	<b>JHARIA CBM Block - II</b> (Jharia Coalfield)	16	1116	7
6	<b>JHARIA CBM Block -III</b> (Jharia Coalfield)	34	1470	5
7	<b>ASSAM CBM Block</b> (Assam Coalfields)	19	408	1
		<b>262</b>	<b>7835</b>	<b>49.4</b>

**Thank You**