

COALBED METHANE

POTENTIAL & PROSPECTS

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WHY CBM



RESOURCES BASE



INDIAN INITIATIVE



PRESENT STATUS



ROAD MAP FOR FUTURE EXPLORATION








POLICY ISSUES



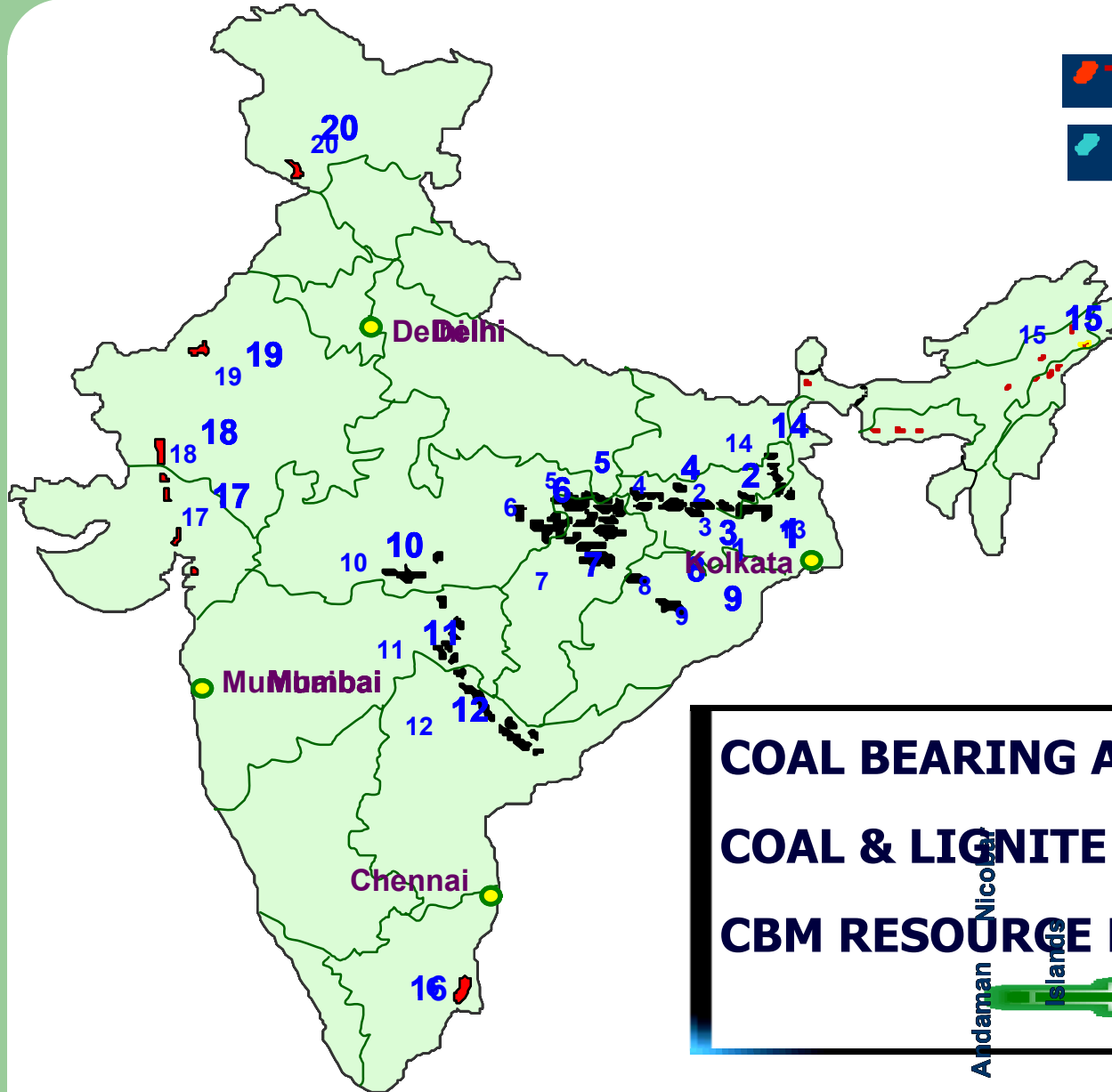
WAY FORWARD

WHY CBM?

-  Clean fuel
-  Important role in energy balance
-  A potent Green House Gas (GHG) - 23 times more harmful than CO₂
-  Wasted asset if not extracted
-  Energy, safety, economic & environmental benefits



- Tertiary Coal / Lignite Fields
- Gondwana Coalfield



COAL BEARING AREA : 35400 sq.km.
COAL & LIGNITE FIELDS : 44 (IN 12 STATES)
CBM RESOURCE BASE : 162 TCF (4.6 TCM)

- * Formulation of CBM policy**
- * DGH made nodal agency**
- * MOU between MOC & MOP&NG**
- * Finalization of model contract & fiscal terms**
- * Delineation of CBM blocks**
- * Generation of data & preparation of Information Docket /
Data package**
- * Award of blocks through open international competitive
bidding system**

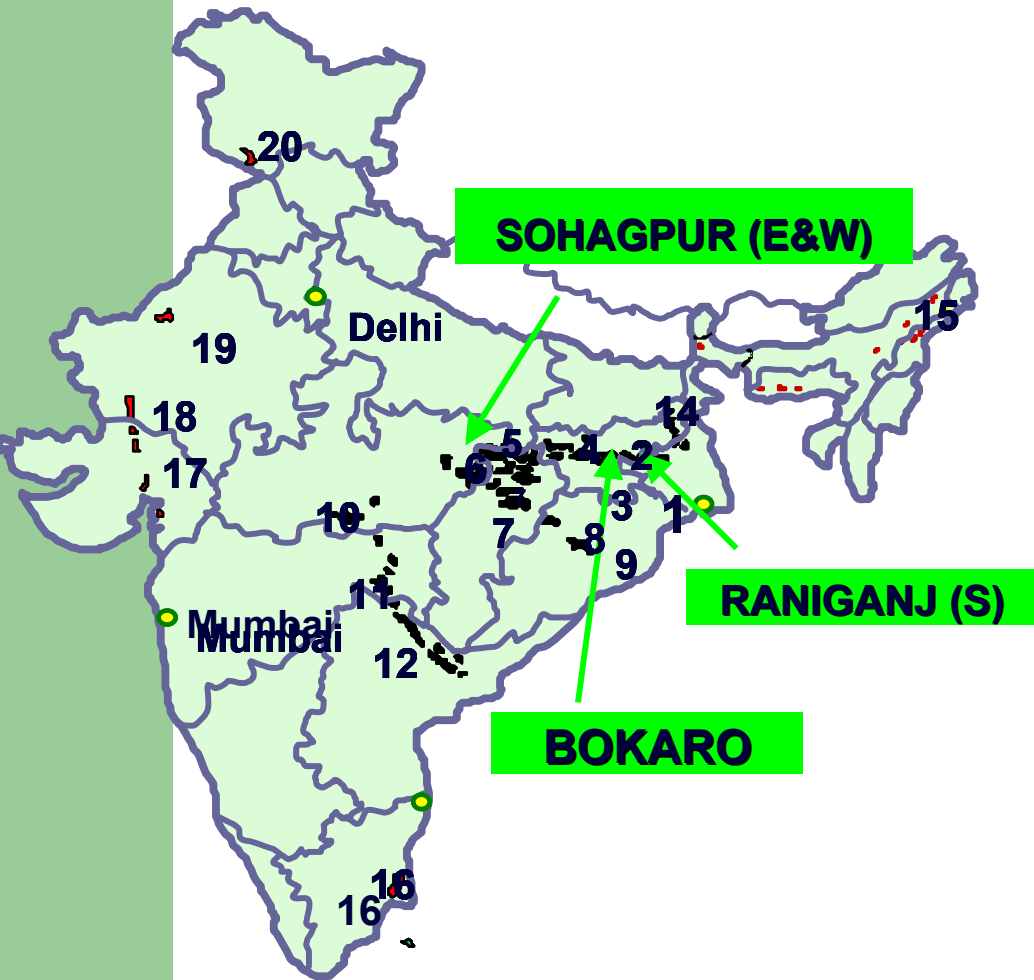
- * Blocks Awarded under CBM-I &II : 16**
- * Area Opened-up for CBM Exploration : 7800 SQ.KM.**
- * CBM Resource in the Awarded Blocks : 820 BCM**
- * Production Potential of these Blocks : 23 MMSCMD**
- * Exploration Commitment**
 - Core Holes : 121**
 - Test / Pilot Wells : 211**
 - Investment : US\$ 150 Million**

ACHIEVEMENTS

- ✳ **Completed Phase-I activities in 5 blocks.**
- ✳ **Commercial potentiality of the identified fairways established**
- ✳ **Significant Discovery in central & eastern India.**
- ✳ **Total number of wells drilled so far :**
 - ✳ **Coreholes : 55**
 - ✳ **Test / Pilot Wells : 22**
- ✳ **Number of wells to be drilled in 2006-07 :**
 - ✳ **Coreholes : 40**
 - ✳ **Test / Pilot Wells : 46**

COMMERCIAL PRODUCTION OF CBM EXPECTED IN 2007-08

RESERVE ACCRETION THROUGH NEW INITIATIVES



BLOCKS	OPERATOR	AREA (KM ²)	GAS IN-PLACE (TCF)
Sohagpur (East)	RIL	495	1.69
Sohagpur (West)	RIL	500	1.96
Raniganj (South)	GEECL	500	1.385
Bokaro	ONGC	95	1.2

TOTAL ESTABLISHED RESERVES = 6.24 TCF

CBM-III NEW EXPLORATION OPPORTUNITIES

- ✱ **No. of blocks offered : 10**
- ✱ **Area opened up (approx) : 6000 Sq.km.**
- ✱ **Expected production potential : 10 MMSCMD**

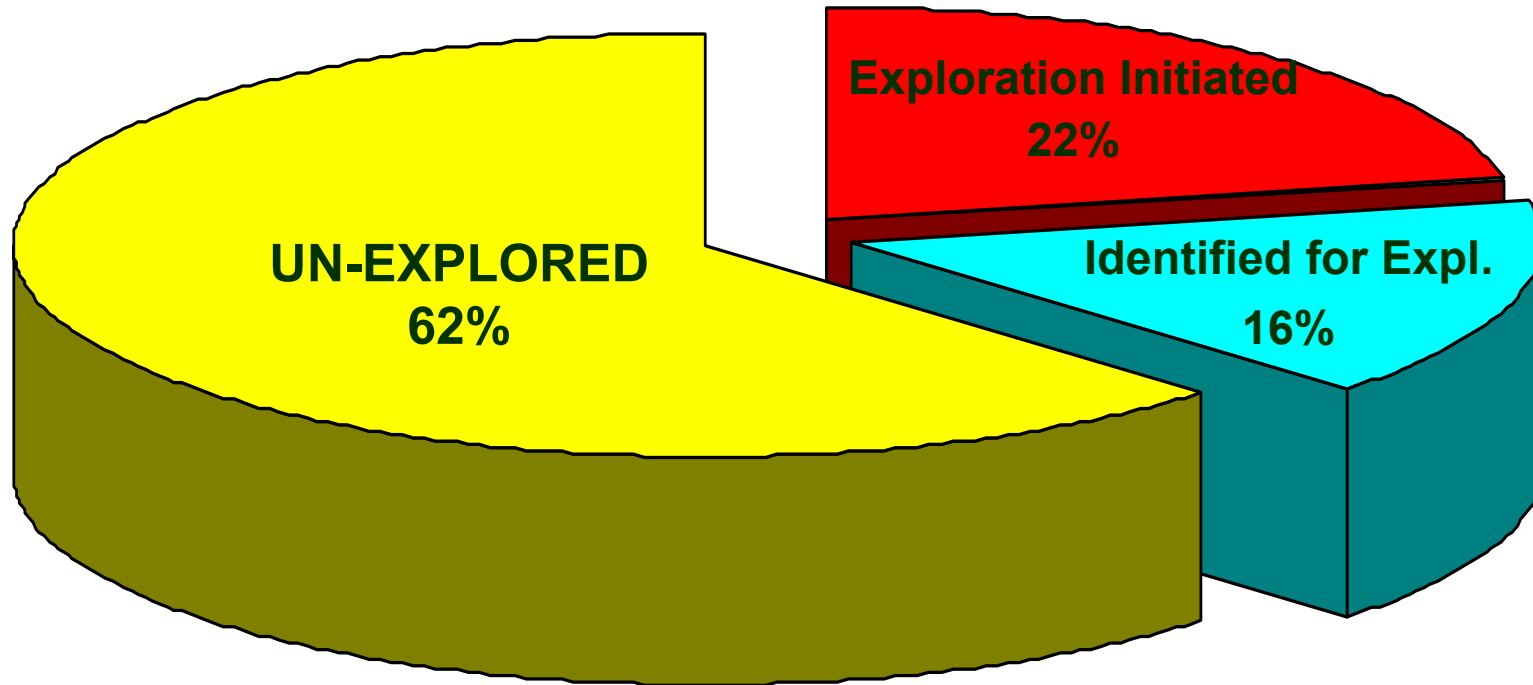
EXCELLENT RESPONSE

- ✱ **Bids Received : 54**
- ✱ **Bids from Indian Companies : 18**
- ✱ **Bids from Foreign Companies : 8**

BLOCKS TO BE AWARDED BY SEPT. 2006

ROAD MAP
FOR
FUTURE EXPLORATION

EXPLORATION STATUS



HIGHLY UNEXPLORED

CHALLENGES IN DEVELOPMENT OF CBM IN INDIA

- ✓ **Involvement of two Ministries**
- ✓ **CBM extraction in advance of mining**
- ✓ **Constraints in offering blocks in & around the coal mines.**
- ✓ **Availability of CBM specific reservoir data**
- ✓ **Technology, equipment and services**
- ✓ **CBM and oil & gas operation in the same block**

WAY FORWARD

- ✳ **Constitution of Task Force to accelerate CBM exploration**
- ✳ **Formation of Mineral Exploration & Energy Committee**
- ✳ **Synergy between coal producers and CBM operators**
- ✳ **Policy guidelines and regulatory framework for simultaneous coal mining and CBM operation**
- ✳ **CBM exploration in advance of mining**
- ✳ **Incentives for attracting Carbon Credit under the Clean Development Mechanism of UNFCCC.**
- ✳ **Establishing National CBM Clearinghouse**
- ✳ **Open acreage principle should be adopted for development of CMM & AMM projects.**

- ✦ **Highly unexplored with very low drilling density**
- ✦ **Good CBM prospectivity**
- ✦ **Ready market for CBM**
- ✦ **Positive climate for investment**
- ✦ **Public Private Partnership**





THANK YOU