



# CBM DEVELOPMENT IN INDIA

**DGH**

**Directorate General of Hydrocarbons  
India**



# PRESENTATION OUTLINE



- CBM Policy & Regulatory Framework
- Status of CBM Development
- Conclusion



# COAL BED METHANE - FISCAL POLICY



- No participating interest of the Government
- No Signature Bonus
- Award of blocks through International Competitive Bidding
- Provision for bidding for any number of blocks
- Production Linked Payment Biddable
- Commercial bonus



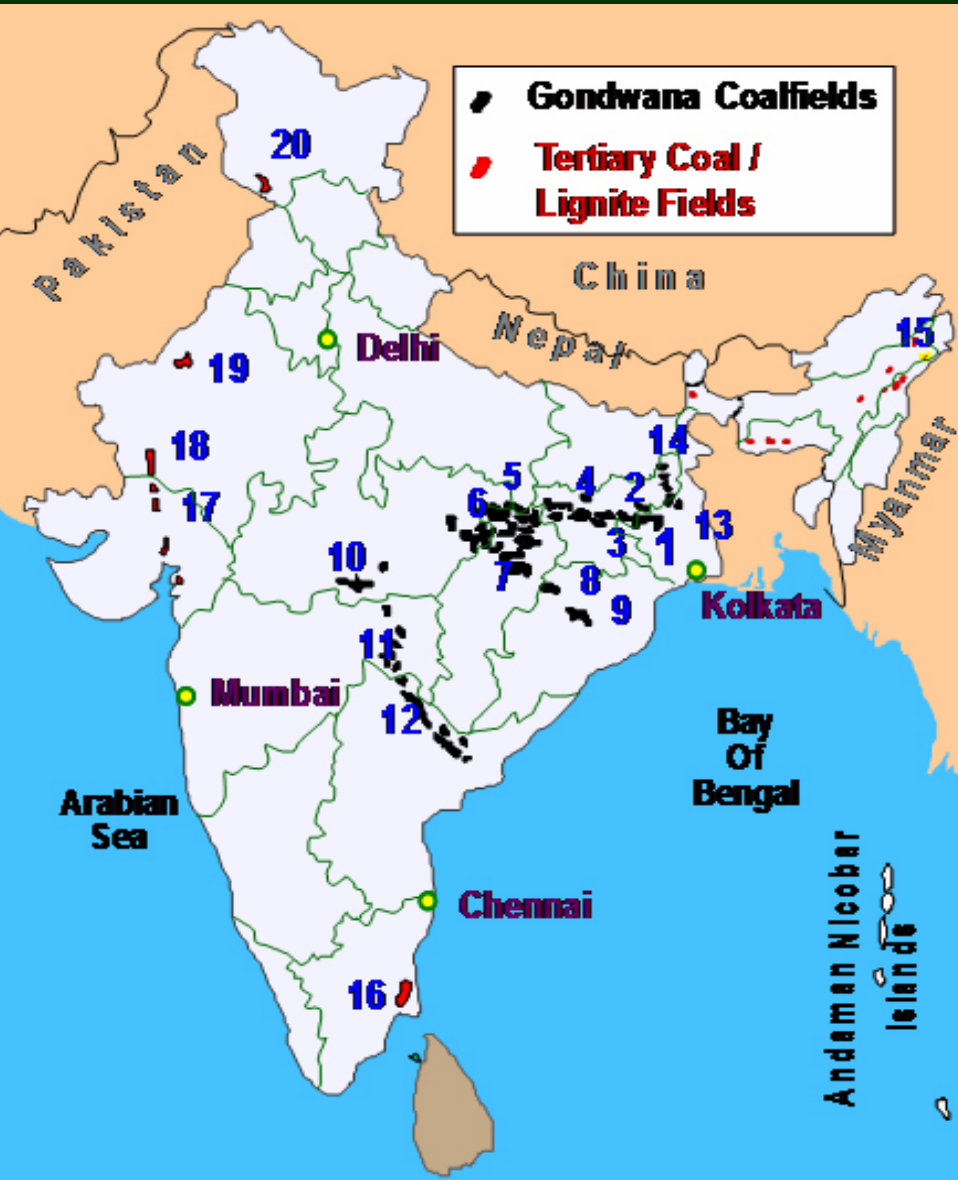
# CHRONOLOGY OF CBM DEVELOPMENT



- CBM Policy formulated in 1997
- Model Contract drafted in 1998
- Blocks offered under Round-I in 2001
- So far, 3 rounds of bidding completed and 26 CBM blocks already awarded
- Award of blocks under Round-IV is under progress.



# MAJOR COAL FIELDS



## GONDWANA COALFIELDS (266.137 bt)

Ref. No.	Coalfield	Ref. No.	Coalfield
1.	Raniganj	8.	Ib-valley
2.	Jharia	9.	Talchir
3.	Bokaro	10.	Satpura
4.	N. Karanpura	11.	Wardha
5.	Singrauli	12.	Godavari
6.	Sohagpur	13.	Birbhum
7.	Korba	14.	Rajmahal

## TERTIARY COAL FIELDS (1.073 bt)

Ref. No.	Coalfield	Ref. No.	Coalfield
15.	Assam-Meghalaya	18.	Barmer-Sanchor
16.	Neyveli	19.	Bikaner
17.	Cambay	20.	Jammu & Kashmir



# STATEWISE CBM RESOURCES



SL. NO.	STATE	ESTIMATED CBM RESOURCES (IN PJ)
1	ANDHRA PRADESH	3675
2	CHATTISGARH	8925
3	GUJARAT	13020
4	JHARKHAND	26775
5	MADHYA PRADESH	8085
6	MAHARASHTRA	1260
7	NORTH EAST	315
8	ORISSA	9030
9	RAJASTHAN	13335
10	TAMILNADU	3885
11	WEST BENGAL	8085
	<b>TOTAL</b>	<b>96390</b>



# GLOBAL PERSPECTIVE



Sl. No.	COUNTRY	COAL RESOURCES (BILLION TONNES)	CBM RESOURCES TCM
1	CANADA	7000	6.5 – 76.4
2.	RUSSIA	6500	13.3 – 73.6
3.	CHINA	4000	16.4 – 34.0
4.	USA	3970	12.7 – 25.5
5.	AUSTRALIA	1700	8.8 – 14.2
6.	INDIA	522 (272+ 250)	1.4 – 2.6
7.	GERMANY	320	1.7 – 2.5
8.	U.K	190	1.1 – 1.7
9.	POLAND	160	1.4 – 2.0
10.	SOUTH AFRICA	150	1.4 – 2.0
11.	INDONESIA	17	0.1 – 0.2
12.	ZIMBABWE	8	0.04 – 0.05



# GAS RESOURCE BASE



- **Prognosticated Gas Resources : 420,000 PJ (In 15 Basins)**
- **CBM Gas Resources : 52,500 PJ (For 26 Blocks)**
- **Total Gas Resources : 472,500 PJ (Approx)**
- **In Place Gas Reserves Established (As on 01.06.2010)**
  - **GIIP : 109,200 PJ**
  - **CGIIP : 8,820 PJ**

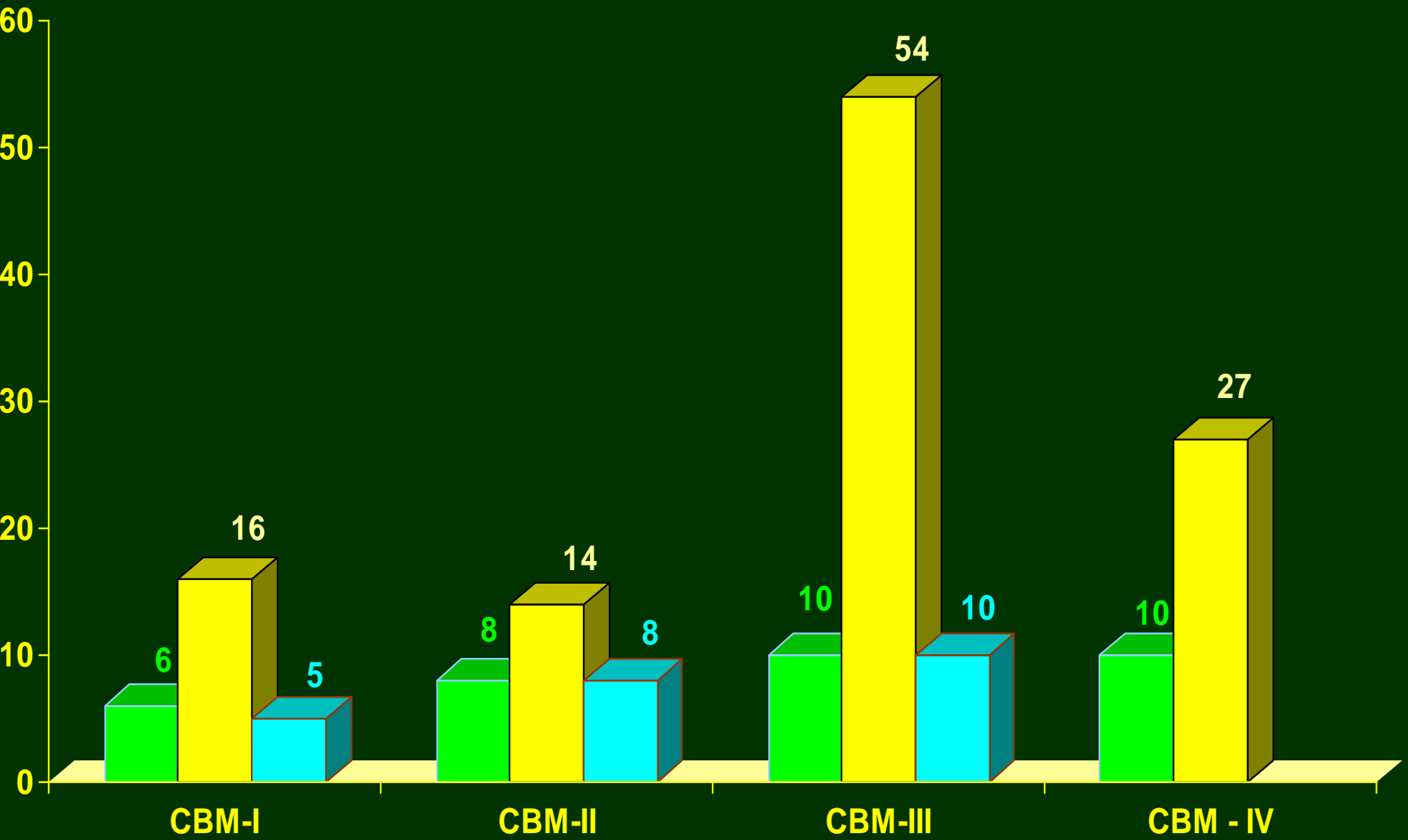




# BIDDING ROUNDS



■ No. of Blocks Offered   ■ No. of bids received   ■ Blocks Awarded

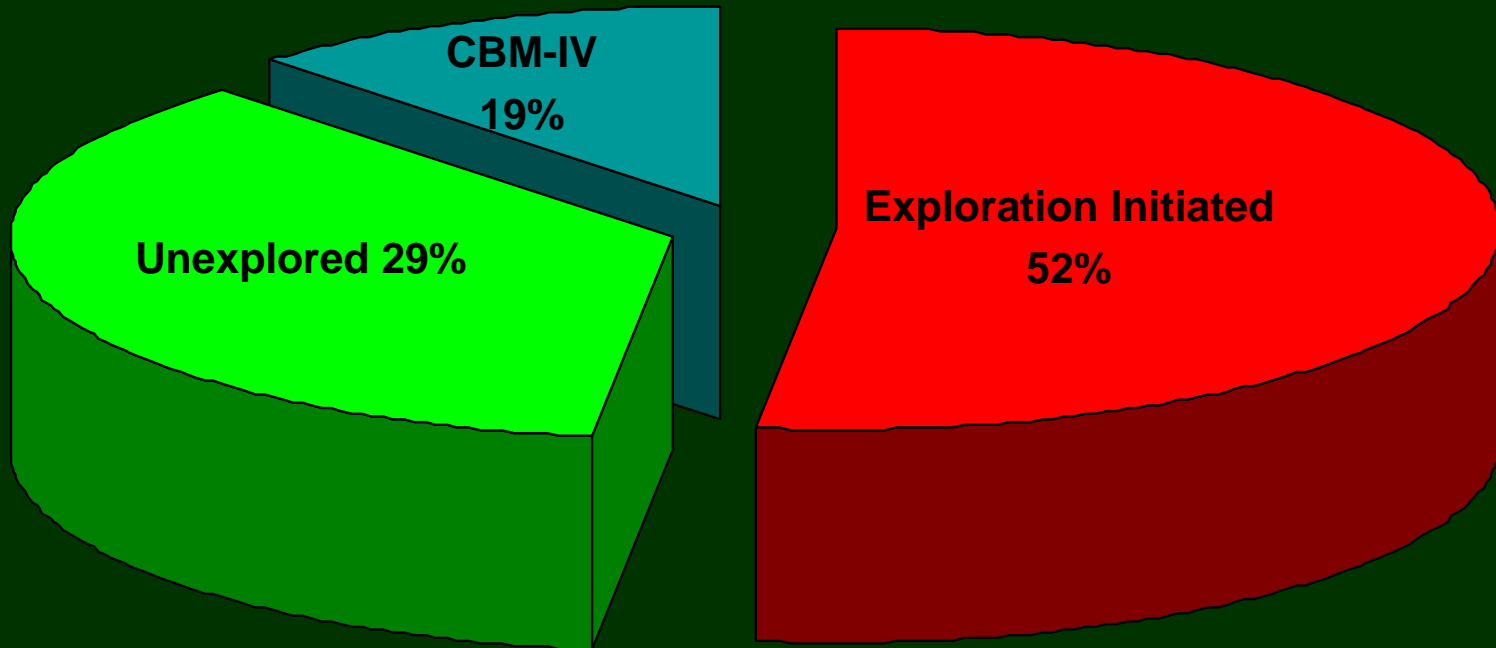




# EXPLORATION STATUS



**Total available coal bearing area : 26,000 sq. km.**



 Exploration Initiated

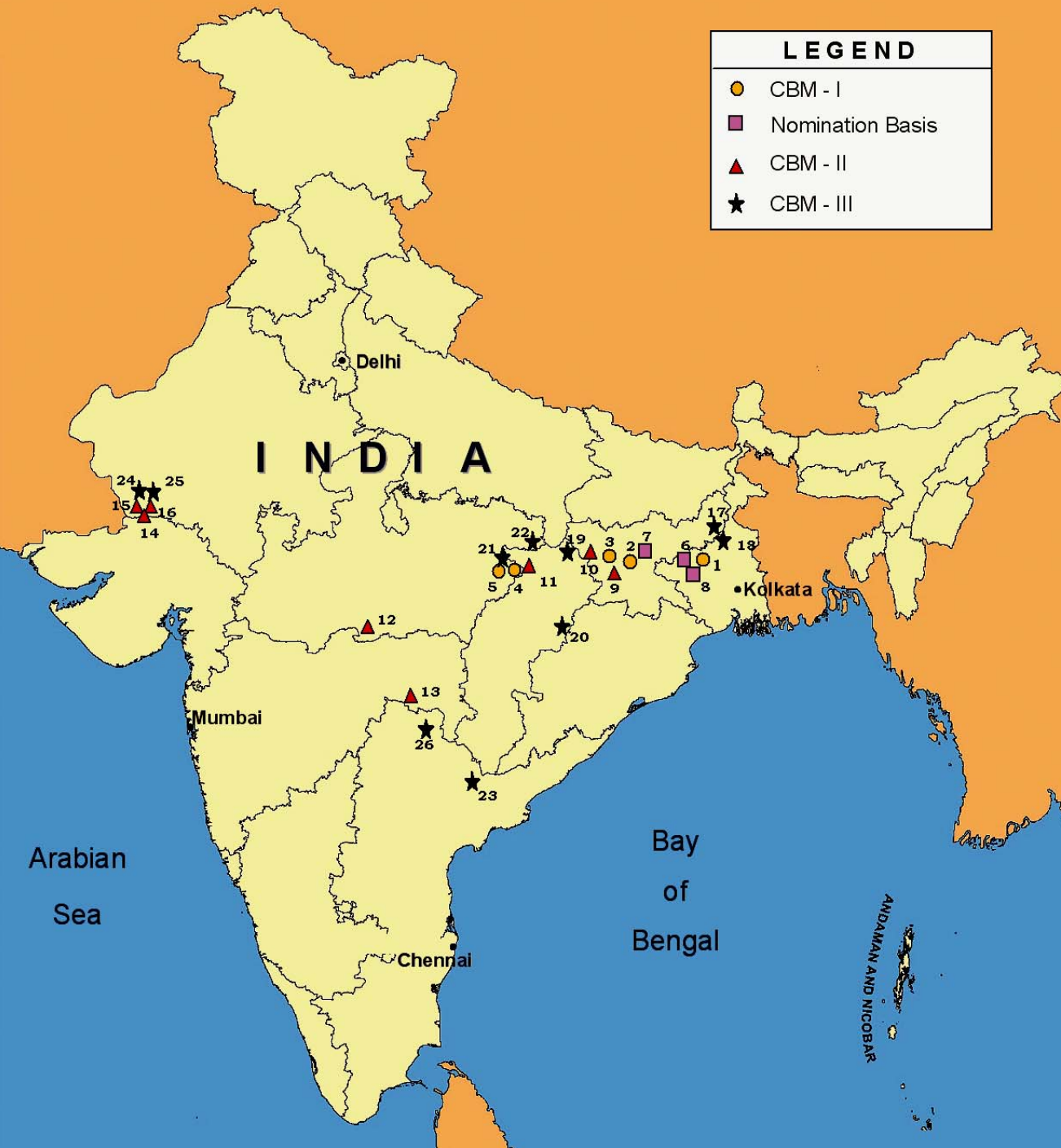
 Unexplored

 CBM - IV



### LEGEND

- CBM - I
- Nomination Basis
- ▲ CBM - II
- ★ CBM - III



# CBM BLOCKS OFFERED SO FAR

**Blocks Awarded : 26**

- Nomination : 3
- Round-I : 5
- Round-II : 8
- Round-III : 10

**Development  
Phase : 03**



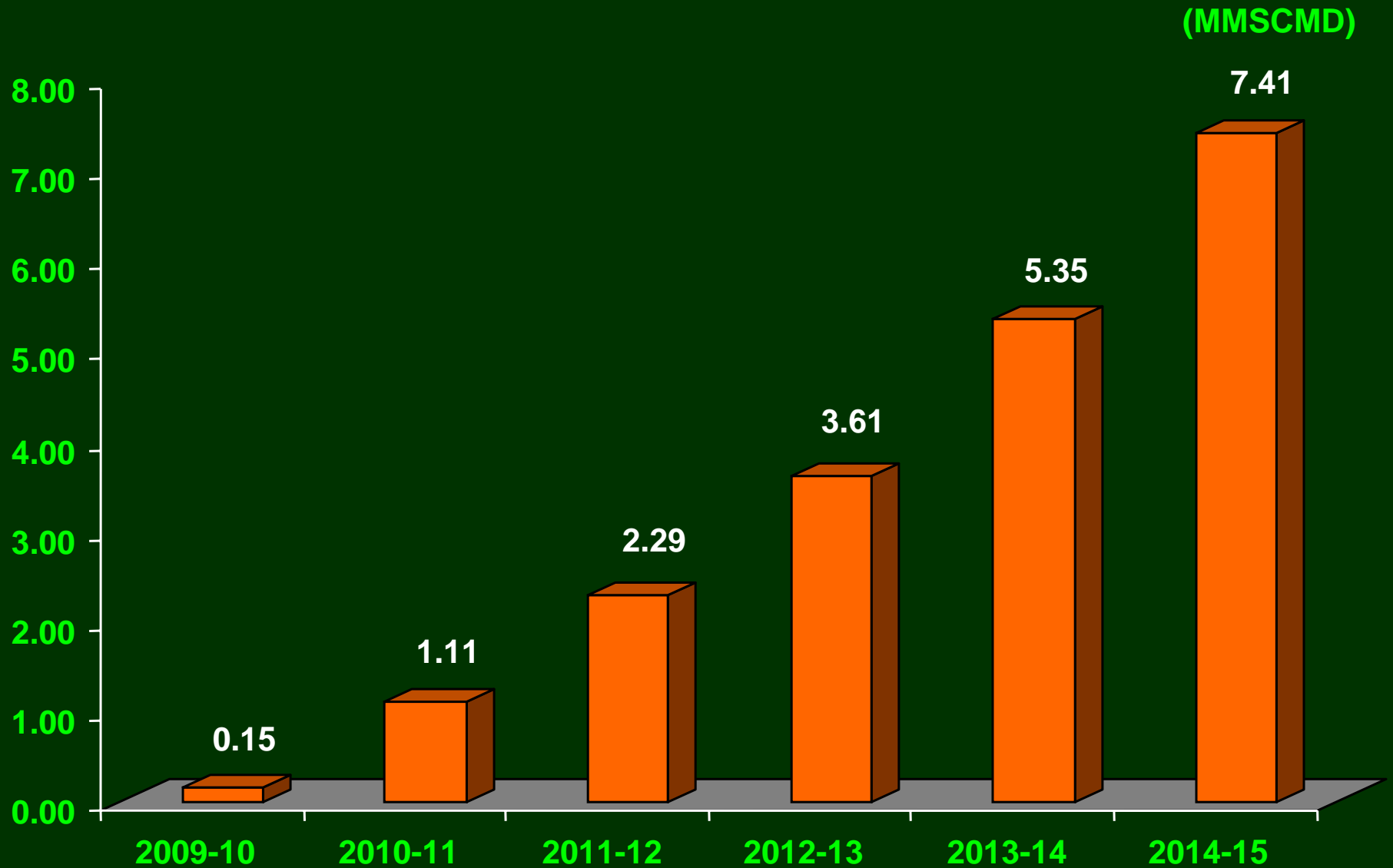
# STATUS OF EXPLORATION



- Area opened up : 13,600 Sq. Km.
- Blocks Awarded : 26
- Total CBM Resources : 54,600 PJ
- CBM Reserve Established : 8804 PJ
- Expected Production Potential : 38 MMSCMD
- Estimated Production by 2014-15 : 7.41 MMSCMD
- CBM Wells drilled so far : 300
- Investment Commitment : 3797 Million USD  
(Exploration Phase only)
- Actual Investment (Expln Phase) : 375 Million USD  
( as on 01.01.2010)



# PRODUCTION PROFILE





# CBM IN INDIA



## SUCCESS STORY



PRODUCTION > 7 MMS **CMD BY 2014-15**  
ATTRACTIVE PRICE **6.79 USD / MMBTU**  
COMERCIAL **PRODN FROM JULY 2009**  
DEVEOPMENT ACTIVITY IN 3 BLOCKS  
8804 **PJ OF RESERVES ESTABLISHED**  
**MORE THAN 300 WELLS DRILLED**



# CBM in India - A Dream to Reality





# CONCLUSION



- Good CBM prospectivity
- Attractive Fiscal and Contractual Terms
- Widening demand - supply gap
- Opportunity for CBM related services
- Ready market for CBM at attractive price





# THANK YOU

