

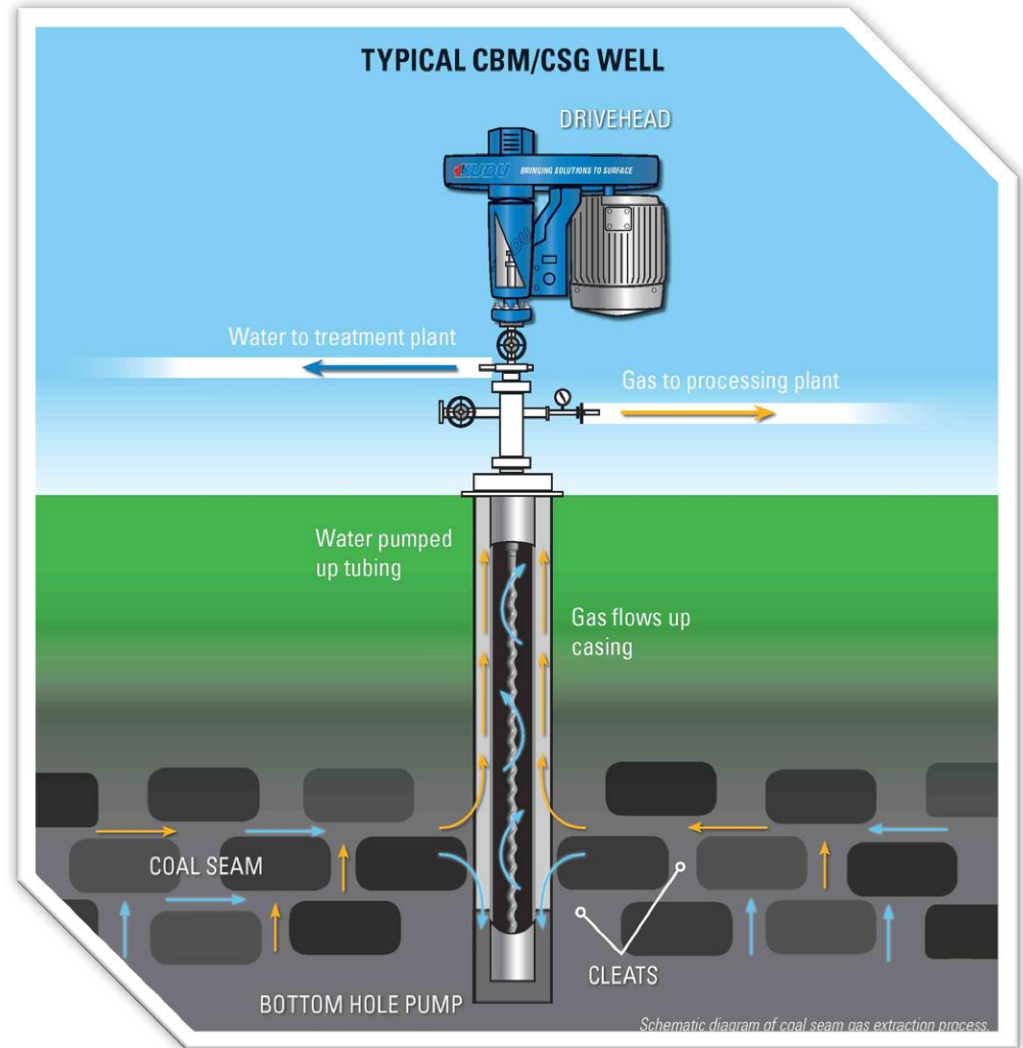
CBM: Indian Scenario



Directorate General of Hydrocarbons
Under Ministry of Petroleum and Natural Gas
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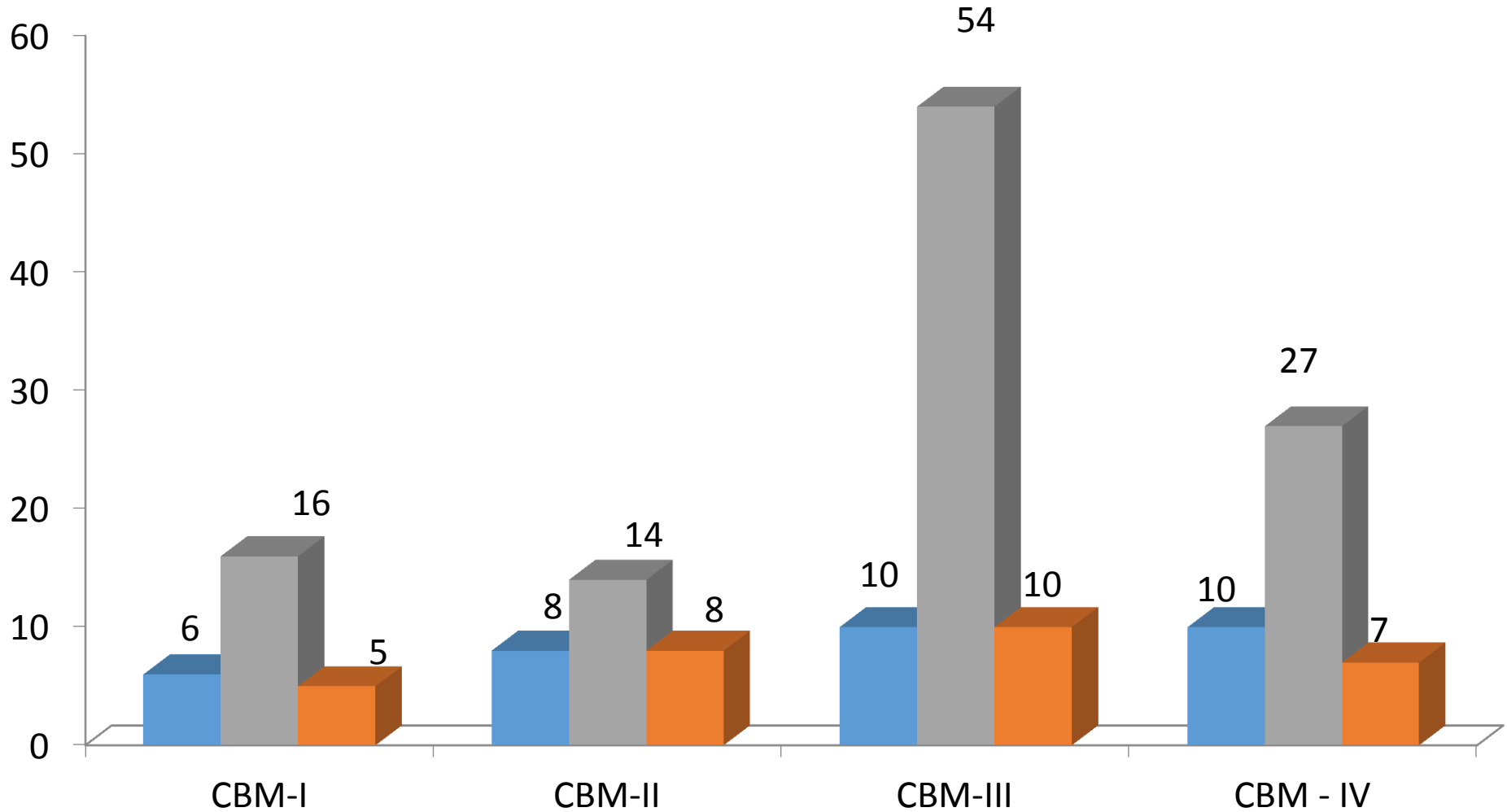


Chronology of CBM in India

- In order to harness CBM resources in the country , CBM Policy was formulated in 1997.
- MoU was signed on 09.09.1997 between MoP&NG & MoC
 - ✓ It provides framework to act in co-operative manner for development of CBM
 - ✓ MoPNG to administer the CBM projects and DGH was made the implementing agency.
- Model Contract drafted in 1998
- Identification of blocks, preparation of Information Dockets & Data Packages of the offered blocks initiated in 1999
- Blocks offered under Bidding Round-I in 2001

CBM Bidding Rounds

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



30 Blocks awarded through 4 Bidding Rounds & 3 Blocks were awarded on Nomination 4

CBM Policy - Main features

- Allotment of blocks through International Competitive Bidding
- No mandatory participating interest of the Government
- No Cost recovery & No Signature bonus
- Biddable Production Level Payment (PLP)
- Royalty and Taxes as per Govt. Rule
- One time lump sum commercial bonus @ US\$ 0.3 MM, once commerciality is declared.

CBM & NELP Policy

CBM

- No Cost recovery
- Sharing of Production Level Payments (PLP)
- Royalty
- BEC
 - WP
 - PLP
 - Technical competence

NELP

- Cost Recovery
- Sharing of Profit Petroleum based on IM
- Royalty
- BEC
 - WP
 - Fiscal (IM & Cost recovery)
 - Technical competence

CBM - Award Process

- DGH identifies blocks in consultation with Coal Mines Planning and Development Institute (CMPDI) & Geological Survey of India(GSI)
- Compilation & Data Package Preparation is done by CMPDI in consultation with DGH
- Joint Committee of MoC & MoPNG clears blocks for offer
- Clearances from MoEF and MoD acquired
- MOPNG takes inter-ministerial approval & offer the blocks under CBM bidding rounds

Grant of right to exploration and exploitation of CBM to CIL & its subsidiaries

- Approval of CCEA accorded on 19.12.2013
- Accordingly, in a meeting held on 10.07.2015, Committee of Secretaries has permitted Coal India Ltd and its subsidiaries to explore and exploit CBM from its coal mining lease hold areas
- A Notification in this respect has been issued by GOI.
- Operational modalities are under examination.

CBM in India: Current Status

CBM policy formulated in:	1997
MoU signed between MoP&NG & MoC	09.09.1997
Total CBM rounds conducted	4
No. of CBM Blocks awarded in 4 rounds	33
Coal bearing Area identified for CBM	26,000 Sq. Km.
Area covered under 33 blocks	16, 613 Sq. Km. (64%)
CBM Resources in the 26,000 sq km area	2599 BCM (91.8TCF)
CBM Resources (from 33 Blocks)	1767.06 BCM (62.4 TCF) ~68% opened up
Established CBM Reserves (GIP)	280.8 BCM (9.9 TCF)
Commercial Production commenced	July 2007
Total No. of Dev. Wells drilled	665
Investment made (till FY 2013-14)	Around US\$ 1167 MM
Present Gas Production (November 2015)	1.023 MMSCMD from 4 CBM blocks
No. of CBM Blocks in Development/Production Phase	8
CBM Blocks in Exploration phase	6
Under relinquishment/ Relinquished	12 / 4
Blocks awaiting PEL	3

State-wise distribution of CBM Resources in India

Sl. No.	STATE	ESTIMATED CBM RESOURCES (IN BCM)	ESTIMATED CBM RESOURCES (IN TCF)
1	JHARKHAND	722.08	25.5
2	RAJASTHAN	359.62	12.7
3	GUJARAT	351.13	12.4
4	ORISSA	243.52	8.6
5	CHATTISGARH	240.69	8.5
6	MADHYA PRADESH	218.04	7.7
7	WEST BENGAL	218.04	7.7
8	TAMILNADU	104.77	3.7
9	TELANGANA & ANDHRA PRADESH	99.11	3.5
10	MAHARASHTRA	33.98	1.2
11	NORTH EAST	8.50	0.3
TOTAL CBM RESOURCE		2599.48	91.8

*Conversion factor: 1 cubic metre = 35.3147 cubic feet

Reserves established in CBM blocks

Sl. No.	Block name	Consortium (PI)	Approx area (SQ.KM.)	Current Status	GIIP (in TCF)	Recoverable Reserves (in TCF)
1	RG(E)-CBM-2001/1	EOL (100)	500	Under Dev.	2.15	0.993
2	SP(W)-CBM-2001/1	RIL (100)	500	Under Dev.	1.96	0.670
3	Raniganj South	GEECL (100)	210	On prodn.	1.92	1.340
4	SP(E)-CBM-2001/1	RIL (100)	495	Under Dev.	1.69	0.620
5	BK-CBM-2001/1	ONGC (80) - IOC (20)	95	Under Dev.	1.06	0.130
6	Jharia	ONGC (90) - CIL(10)	85	Under Dev.	0.52	0.107
7	NK-CBM-2001/1	ONGC (80) - IOC (20)	340	Under Dev.	0.34	0.052
8	Raniganj North	ONGC (74) - CIL (26)	350	Under Dev.	0.26	0.066
TOTAL					9.9	3.978

Phases in CBM Contract

- Phase-I: Exploration phase
 - Duration: 2-3 years + 3 extensions of 6 months under CBM extension policy
 - Major activity: Drilling of Coreholes and Test wells
- Phase-II: Pilot Assessment Phase
 - Duration: 3-4 years + 3 extensions of 6 months under CBM extension policy
 - Major activity: Drilling of Pilot wells, Environmental studies, Techno-economic Evaluation, Market survey
- Phase-III: Development Phase
 - Duration: 5 years + 1 year extension
 - Major Activity: Drilling, completion and testing of development wells
- Phase-IV: Production Phase
 - Duration: 20 -25 years
 - Major Activity: Commercial production from the Block

Highlights of CBM Fiscal Policy

- No Cost Recovery
- Payment of Production Level Payment (PLP)
 - Nomination Blocks: Fixed Rate of PLP @ 2.5 %
 - Other Blocks: At the rate as committed by bidder
- Commercial bonus @ US\$ 0.3 Million at the time of submission of PML application while entering into Phase-III i.e. Development Phase
- No Signature Bonus except in Nomination Blocks

Overview of CBM blocks in India

- Till date, 33 CBM blocks have been awarded in 4 rounds of CBM bidding.
- Out of 33 CBM blocks, 2 blocks have been awarded on nomination basis and 1 block through Foreign Investment Promotion Board (FIPB) route
- 1 CBM Block is in Production Phase [[GEECL-Raniganj\(South\)](#)]
- 7 CBM Blocks are in Development Phase
- 6 CBM Blocks are in Exploration Phase
- 3 CBM Blocks are awaiting PEL from State Govt.
- 4 CBM Blocks have been relinquished by contractor
- 12 CBM Blocks are under relinquishment

Operator-wise status of CBM blocks

Sl. No.	Operator	Blocks	PEL Awaited	Phase				Relinquished/ Under relinquishment
				I	II	III	IV	
1	ONGC	9	-	-	-	4	-	3/2
2	RIL	5	-	-	-	2	-	0/3
3	GEECL	2	-	1	-	-	1	0/0
4	EOL	5	2	2	-	1	-	-
5	DART	5	-	1	-	-	-	1/3
6	BP	1	-	-	-	-	-	0/1
7	Geopetrol	4	-	1	-	-	-	0/3
8	DIL	2	1	1	-	-	-	-
TOTAL		33	3	6	0	5	3	4/12

CBM Production Projection

CBM Block	Operator	Projected figures are in MMSCMD			
		Actual 2014-15	2015-16	2016-17	2017-18
RG(East)-CBM-2001/I	Essar Oil	0.25	1.04	2.36	3.33
Raniganj (South)	GEECL	0.36	0.52	0.68	0.85
SP(West)-CBM-2001/I	RIL	0.00	0.12	0.76	1.13
BK-CBM-2001/I	ONGC	0.00	0.00	0.12	0.16
NK-CBM-2001/I	ONGC	0.00	0.00	0.03	0.14
Jharia	ONGC	0.01	0.01	0.01	0.06
Raniganj (North)	ONGC	0.00	0.00	0.01	0.10
SP(East)-CBM-2001/I	RIL	0.00	0.00	0.00	0.00
Total		0.62	1.69	3.97	5.77

Issues in CBM in India

1. Overlap Issues with Coal Blocks/ Oil/ Gas/ Other projects
2. Land Acquisition
3. Delay in grant of PML/PEL from State Govt.
4. Delay in grant of Statutory Clearances
5. Other Issues: Law & Order

1. Overlap Issues

- Overlapping issues with coal blocks in existing CBM Blocks
- Overlapping of BAPL project with Raniganj North CBM block of ONGC
- Overlapping of SAIL land with Raniganj East CBM block
- Overlapping of ONGC PEL/ML area with Mannargudi CBM block (arbitration)

2. Land Acquisition

- No. of wells required for CBM E&P is large in comparison to conventional HC, hence large area has to be acquired
- Main issues in land acquisition:
 - Tribal Land
 - Poor Land Record
 - Multiple ownership
 - Land use conversion
 - Environmentally sensitive area viz. reserve forests
- State Govt intervention may be encouraged to facilitate land acquisition on fast track

3. Delay in grant of PEL from State Govt.

Sl. No.	Block Name (Area in km ²)	Operator	State	PEL status
1.	GV(N)-CBM-2005/III (386)	Deep Industries Ltd.	Telangana	PEL not granted as SCCL declined to provide NOC which was required for grant of PEL by Govt. of Telangana. Overlapping issue of CBM block with SCCL mining lease area
2.	IB-CBM-2008/IV (209)	Essar Oil Ltd.	Odisha	PEL awaited. Applied in Sep 2010. A high level Odisha Govt. team has recently visited CBM facility of Essar at Raniganj (East) CBM block to decide on grant of PEL. MoPNG has sent a reminder letter to Odisha Govt. on 06.08.2015
3.	TL-CBM-2008/IV (557)			

3. Delay in grant of PML from State Govt

Sl. No.	Block Name (Area in km ²)	Operator	State	PML status
1.	Raniganj (North) (350)	ONGC	West Bengal	GOWB has asked ONGC to re-submit PML application after deducting overlap area of BAPL (Aerotropolis Project) from CBM contract area.

Note: On intervention of MoP&NG, Govt. of Jharkhand has granted PML to Jharia Block on 30.07.2015, North Karanpura block on 31.07.2015 and Bokaro CBM block on 04.09.2015

4. Delay in getting Clearances from State Govt.

- Once PEL is granted and EC is obtained, operator needs to obtain Consent to Establish (CTE) and Consent to Operate (CTO) from State Govt. Pollution Control Board.
- This stage gate process causes intrinsic delays.
- Operators prefer having a direct clearance from State Govt post award of EC from Centre.

Way forward

- DGH will closely monitor CBM blocks to ensure that target CBM production ‘as projected’ is achieved
- Relaxation thru policy intervention in line with NELP
- Co-exploration and development of coal mining and CBM operations in overlap areas
- State Govt. to ease Land acquisition processes by ironing out rigidities
- Statutory clearances from State Government be given at one-time

Thank You