

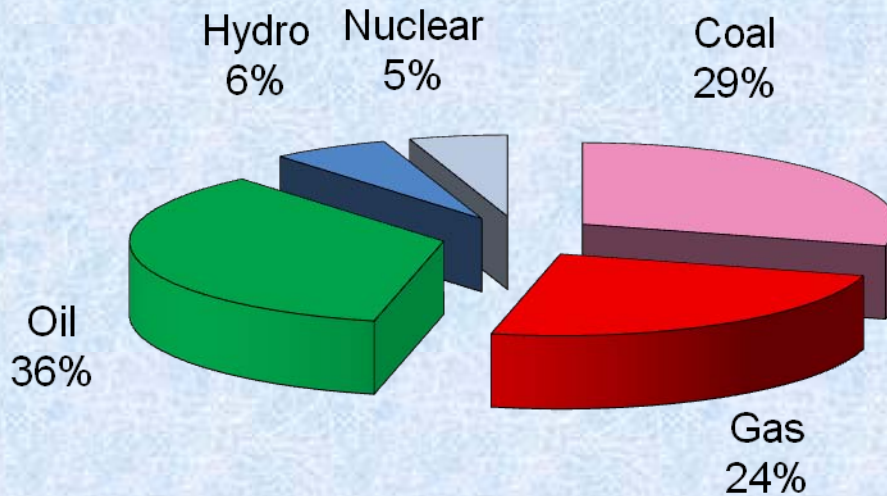
Indian Companies: Domestic versus Overseas Opportunities

**8th Petro India 2009
24th -25th November 2009
New Delhi**

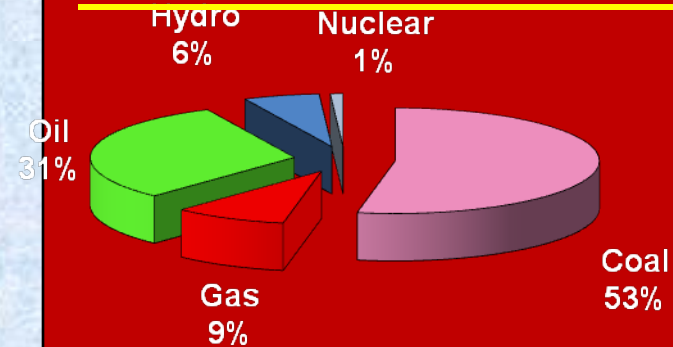
Sequence

- *Energy Overview*
- *Indian Hydrocarbon Scenario*
- *Indian Companies Overseas*
- *The OVL story*
- *Global Hydrocarbon Opportunities*
- *Conclusions*

World 11.3 Bn Tons OE in 2008



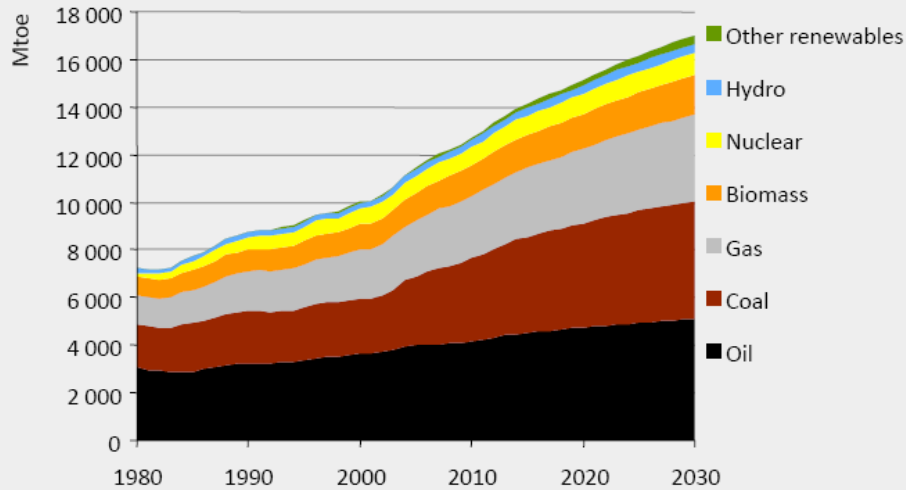
India 430 Mn tons OE in 2008



- India has 16% of world's Population & is 5th Largest Consumer of Energy, Consuming 3.5% of the world's energy
- Per capita energy consumption at 0.5 MMTOE 1/5th of world average – likely to grow to 1.200 MMTOE by 2030
- Energy Demand may grow at 3.5 % - 3.7 % CAGR (2005-2030)

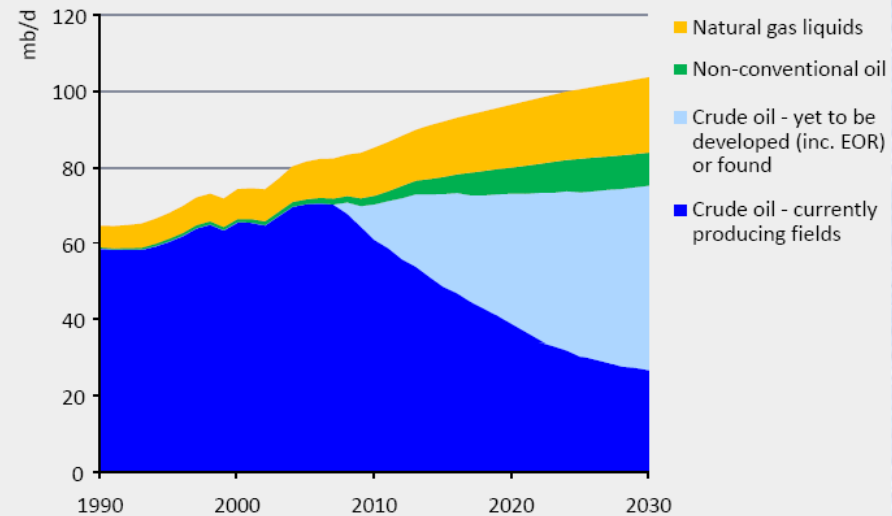
World Energy Demand

World Primary Energy Demand



Source: R.J.Hones, World Energy outlook,2008,Petrotech 2009

World Hydrocarbon Demand

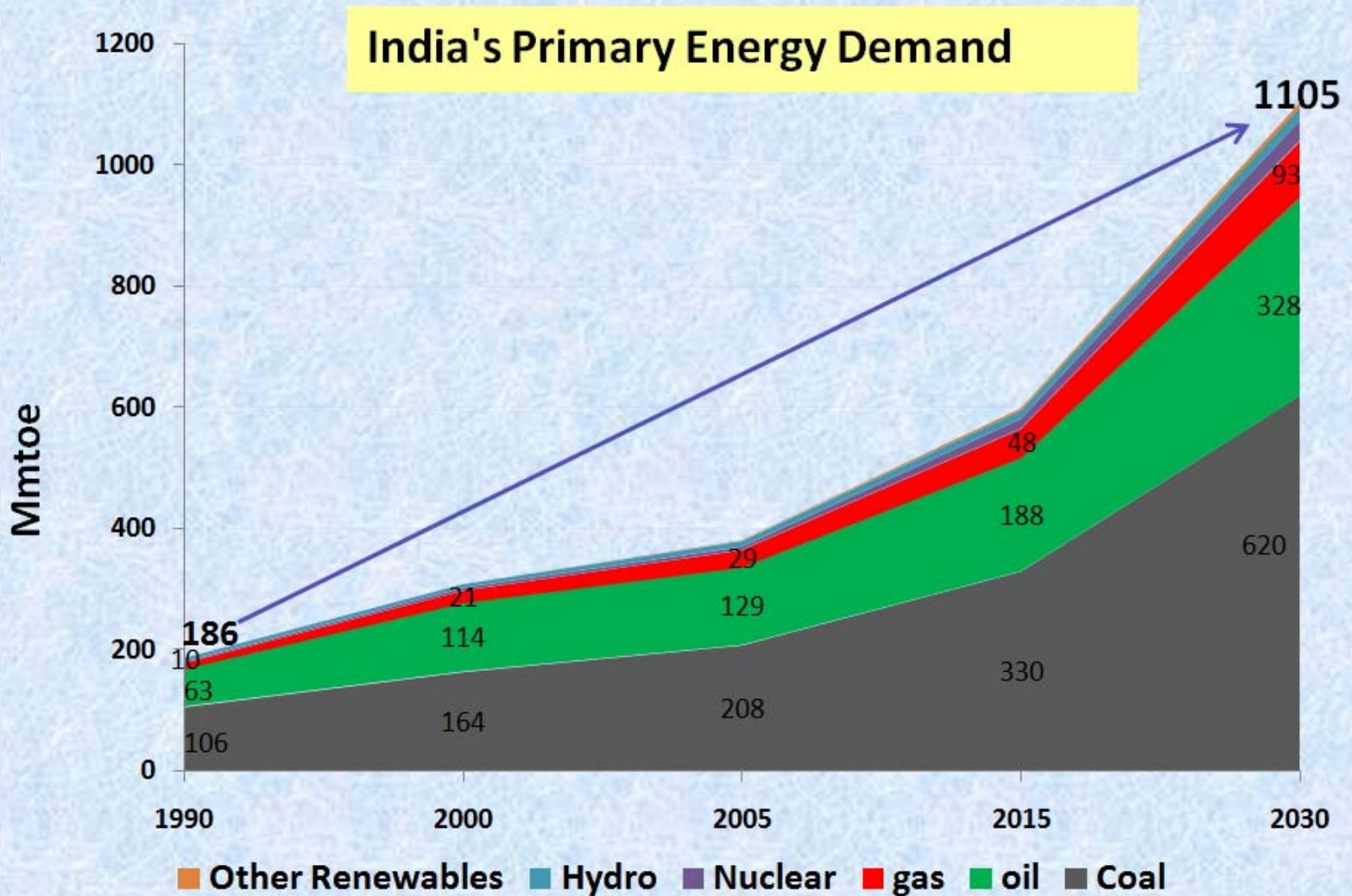


Source: R.J.Hones, World Energy outlook,2008,Petrotech 2009

World energy demand expands by 45% between now and 2030, an average rate of increase by 1.6% per year

Even if oil demand was to remain flat to 2030, 45million bopd would be required just to offset decline from existing fields

Hydrocarbons to stay dominant



excluding biomass

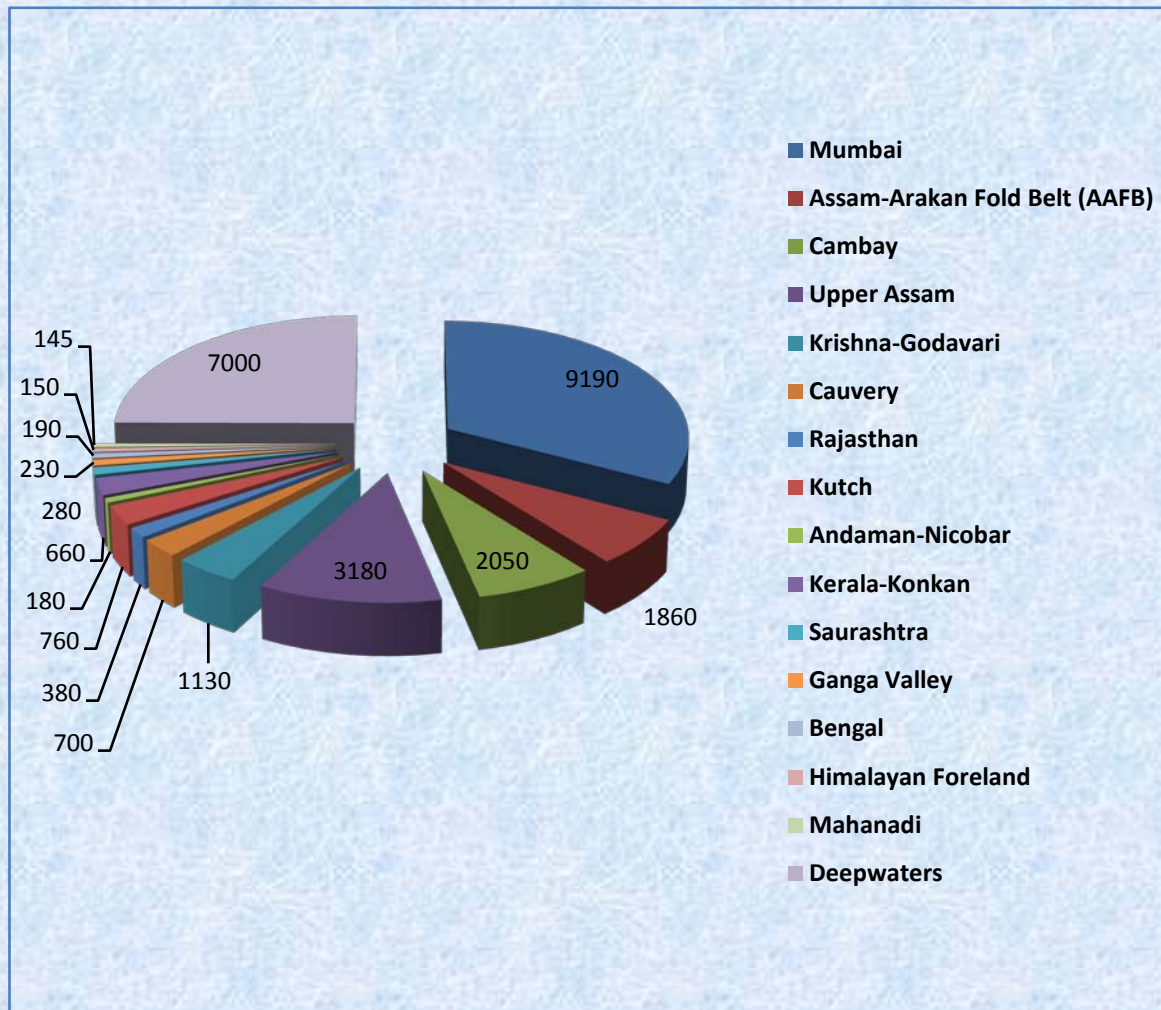
Source: EIA 2007

India: Oil and Gas Production (MMtoe)



India's domestic oil & gas production almost stagnant for last 5 years

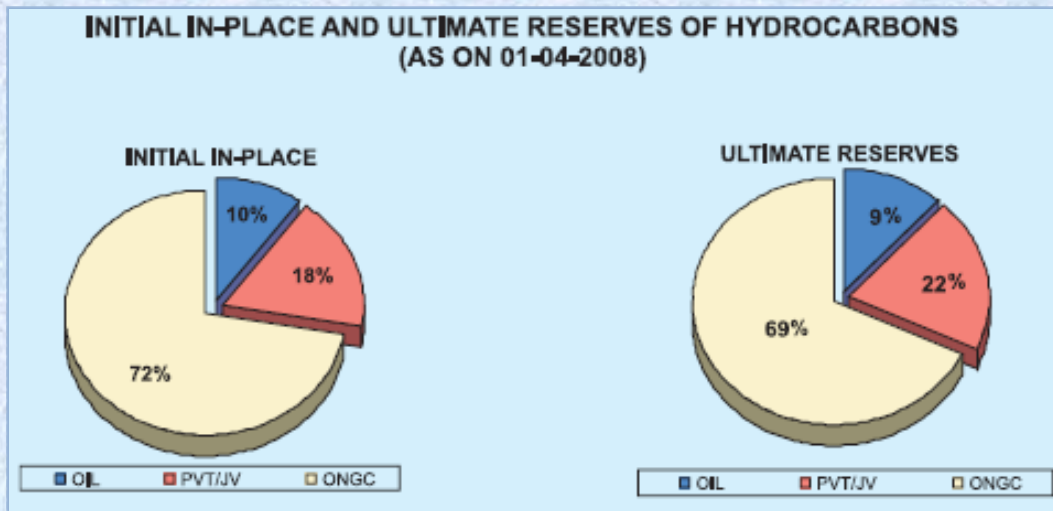
India-Hydrocarbon Resources



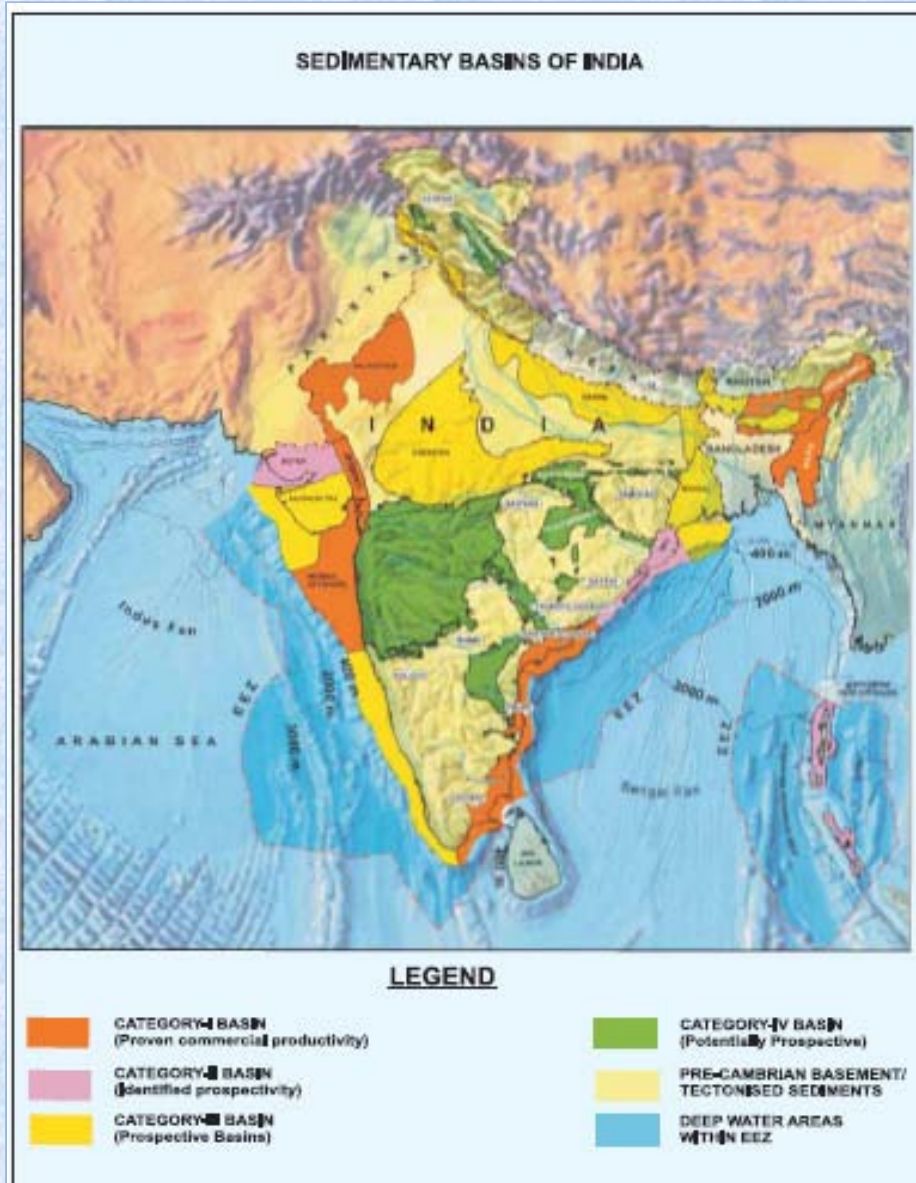
Total hydrocarbon resources: 28,085 MMT

Total Hydrocarbon Reserves of India

S. No.	Parameter	Item	ONGC	OIL	Pvt/JVs	Total
1	Initial In-place reserves	Gas (BCM)	2016.79	242.27	980.42	3239.48
		Oil (MMT)	4588.06	668.17	638.82	5895.00
		O+OEG (MMT)	6604.85	910.44	1619.24	9134.53
2	Ultimate Reserves	Gas (BCM)	1083.48	128.18	550.99	1755.44
		Oil (MMT)	1276.05	197.55	172.35	1645.95
		O+OEG (MMT)	2359.53	325.73	723.34	3401.39



INDIA: Reserves and Production



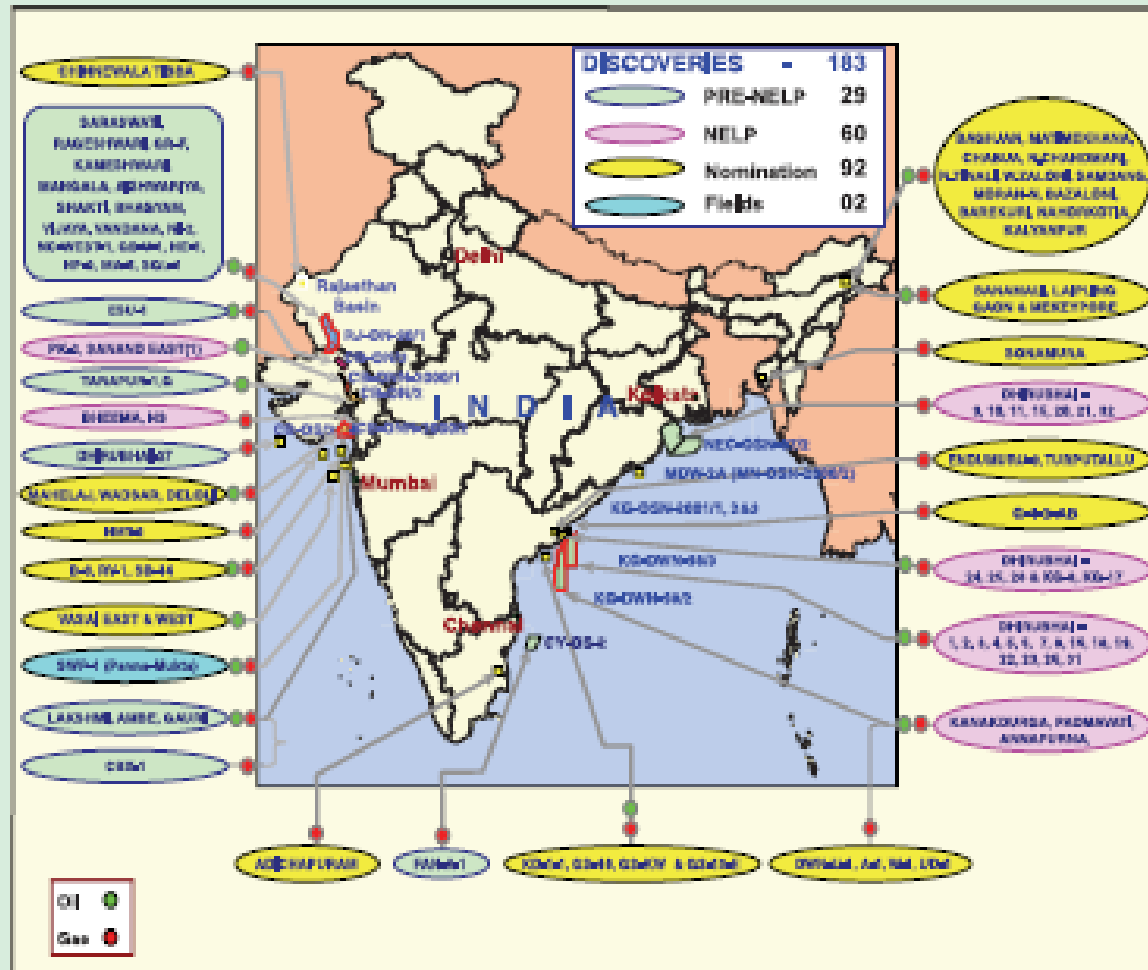
Production from only Six basins.

- **Assam & AAFB**
- **Cambay**
- **Mumbai**
- **Krishna-Godavari**
- **Cauvery**
- **Rajasthan**

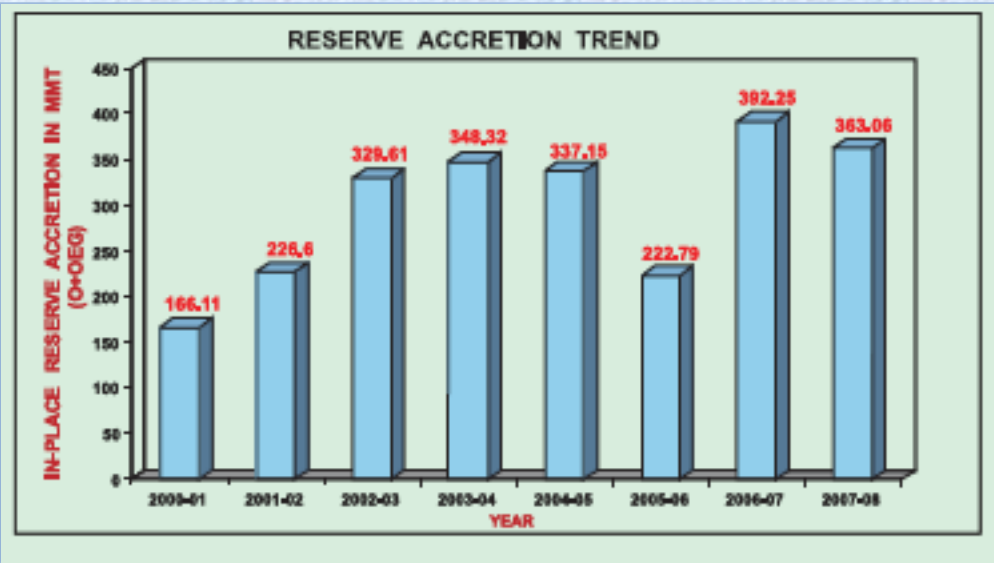
INDIA: Hydrocarbon Discoveries (2000-2008)

DISCOVERIES by NOCs and Pvt/JV COMPANIES (2000-2008)

AS ON 31ST MARCH, 2008

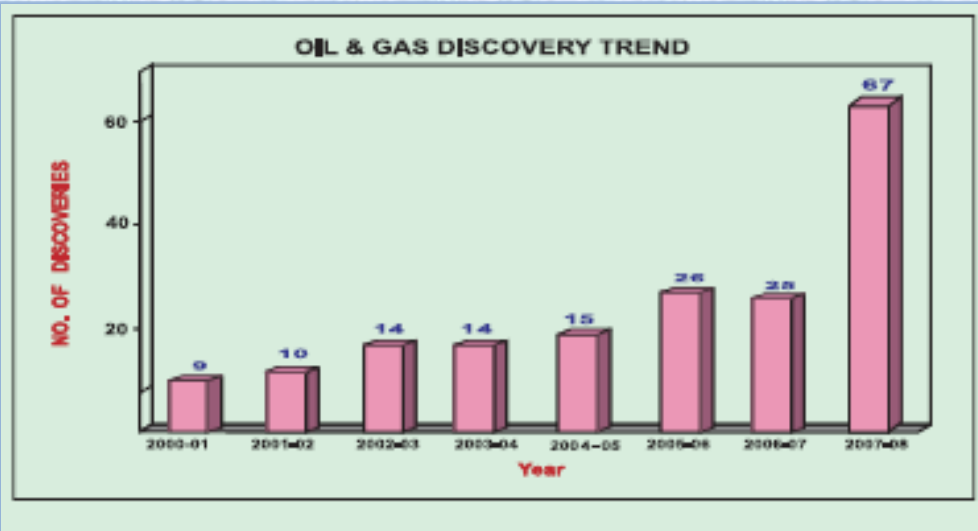


India: Reserve accretion Trend (2000-2008)



Discovery volumes similar over last six years.

Number of discoveries increase.



Domestic resource insufficient

Global dependency to rise

India: Current opportunities

Current opportunities primarily in

1. NELP Blocks for conventional hydrocarbon

2. CBM (Coal Bed Methane)

Gas hydrates is a potential future resource in the experimental/research stage.

Why Overseas Opportunities

- ***Securing overseas reserves for the Country***
- ***Attractive opportunities in rich petroliferous basins***
- ***Global spread will help balance risk***
- ***Insulation from price fluctuations***

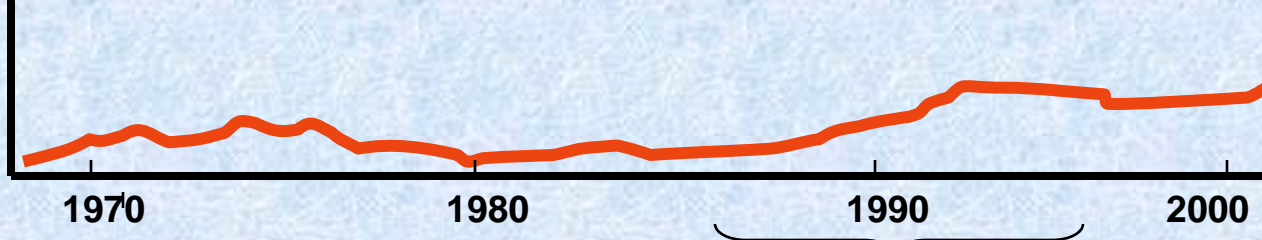
Presence of Indian Companies overseas

COMPANY	COUNTRY	EXPLORATORY ASSETS	PRODUCING ASSETS
RIL	07	13	1
ESSAR	03	06	NIL
VIDEOCON	05	14	NIL
PETRODYNE	02	03	NIL

Presence of Indian Companies overseas

COMPANY	COUNTRY	EXPLORATORY ASSETS	PRODUCING ASSETS
OVL	16	31	09
OIL	07	11	NIL
IOC	04	07	NIL
BPCL	05	16	NIL
HPCL	03	04	NIL
GAIL	02	03	NIL
GSPC	01	06	NIL

OVL's Life Cycle Trend



PATH FINDERS

OVL Scouts for E&P Opportunities

- IranNationalised
- Iraq.....Contract Ended

ONGC/OVL Provide Services

- Tanzania.....Geological Studies
- Abu Dhabi.....Geological Studies
- Iraq.....Reservoir Studies
- Sri Lanka.....Prospects Evaluation
- Malaysia.....Geohistoric Studies
- Thailand.....Geological Studies
- Bhutan.....Exploration

Exploration Attempts

- VietnamExploration
- Egypt.....Exploration
- Tunisia.....Exploration
- Yemen.....Exploration

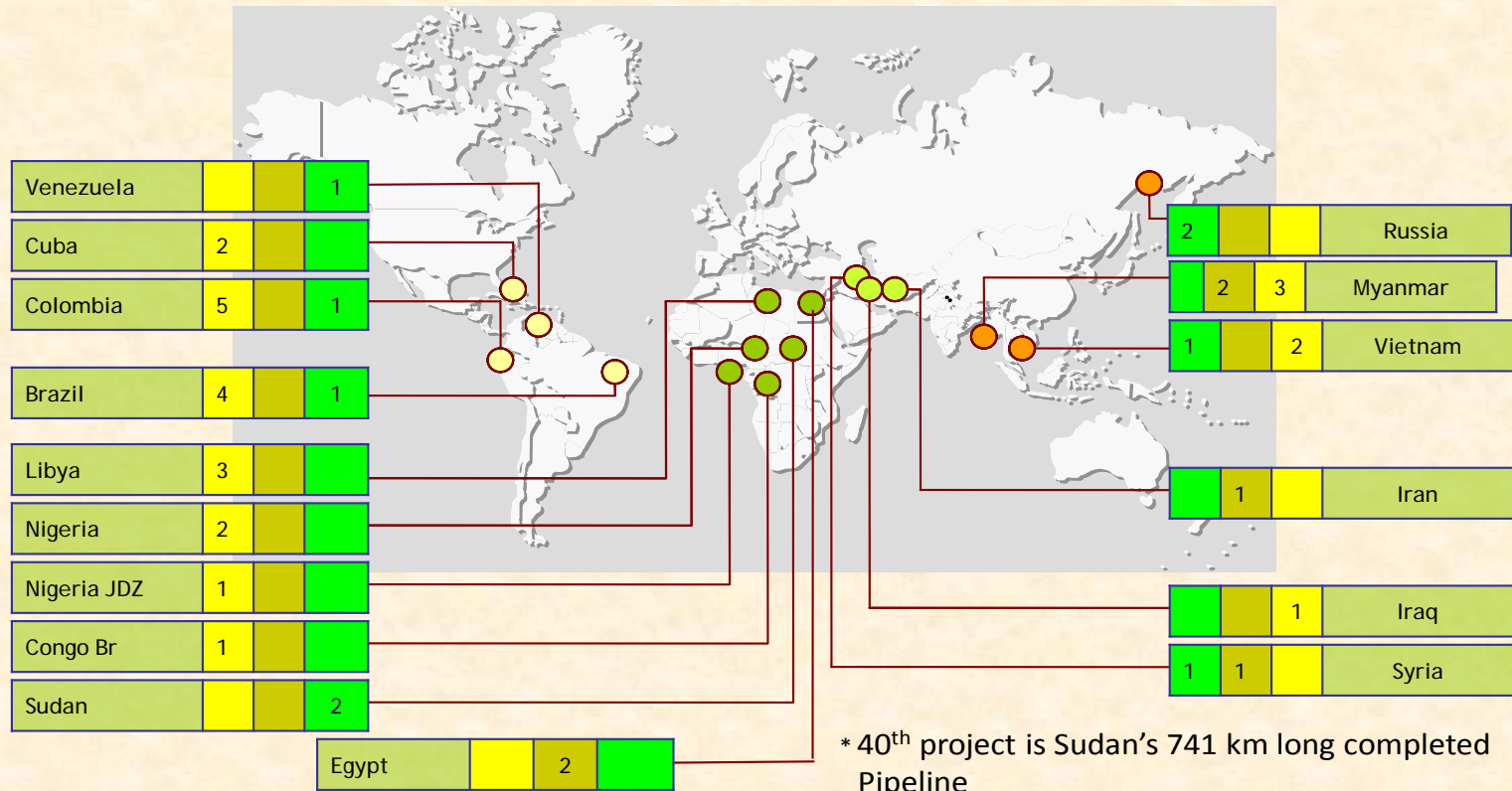
•Producing Assets	9
•Oil & Gas Projects	40
• Countries	16
•Production	8.8 MMT
•Reserves	406 MMT
•Discovered asset	6
•Exploration asset	24
•Other Project	1

Moving Forward

OVL's International holdings

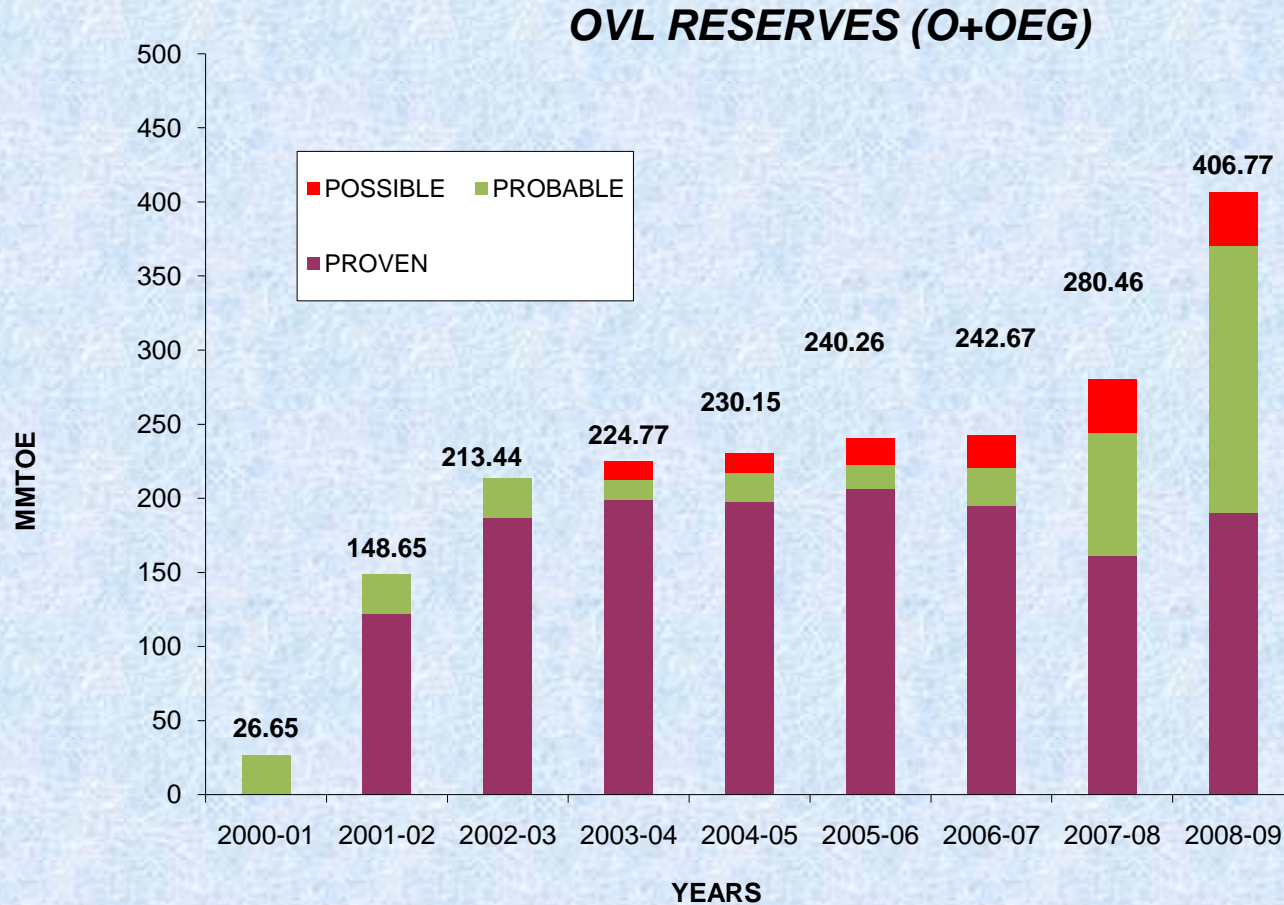
International Presence

40* Projects in 16 Countries	24 Exploration	6 Discovered	9 Producing
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OVL's global foot print

OVL's : Reserve (1.4.2009)

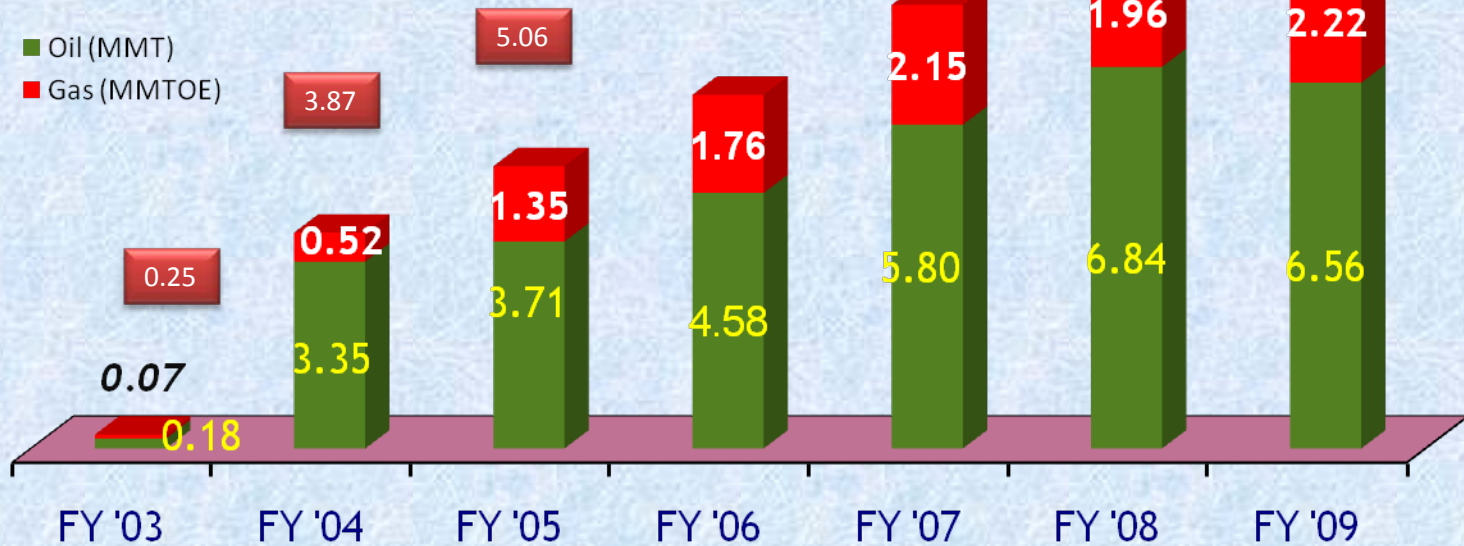


What OVL holds today

OVL Today : Oil & Gas Production (MMTOE)

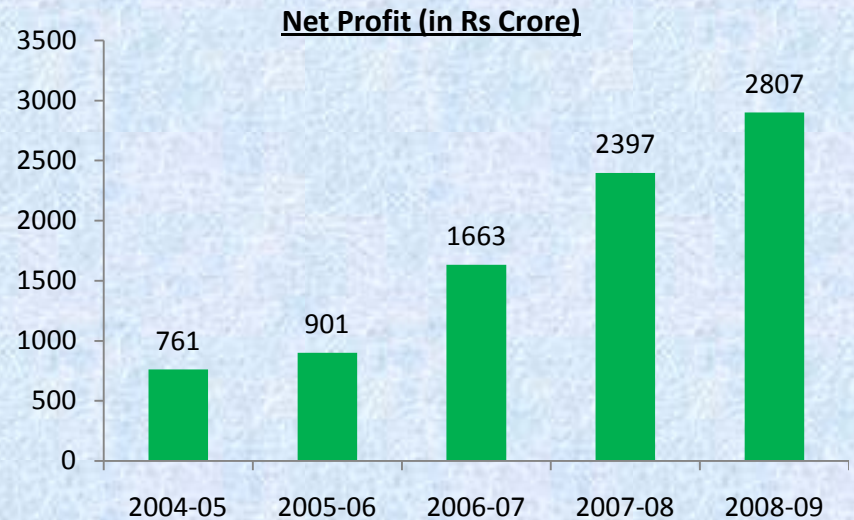
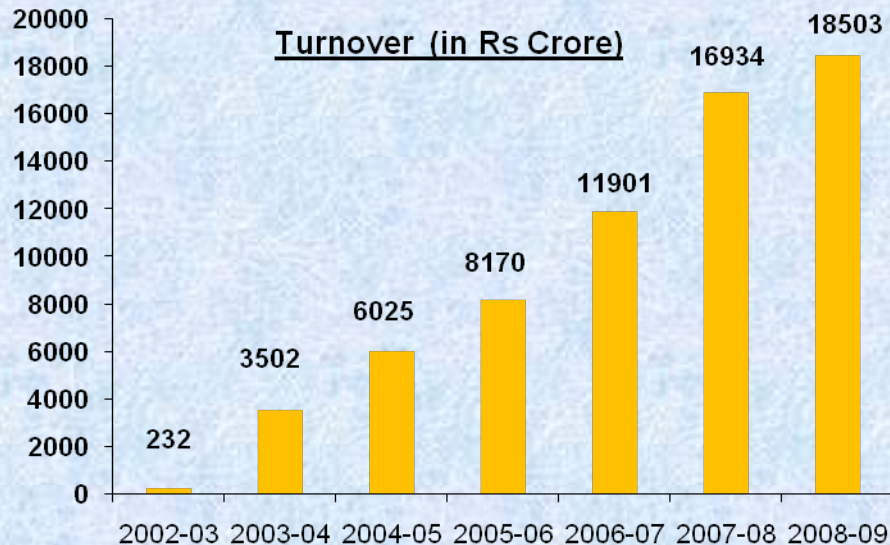
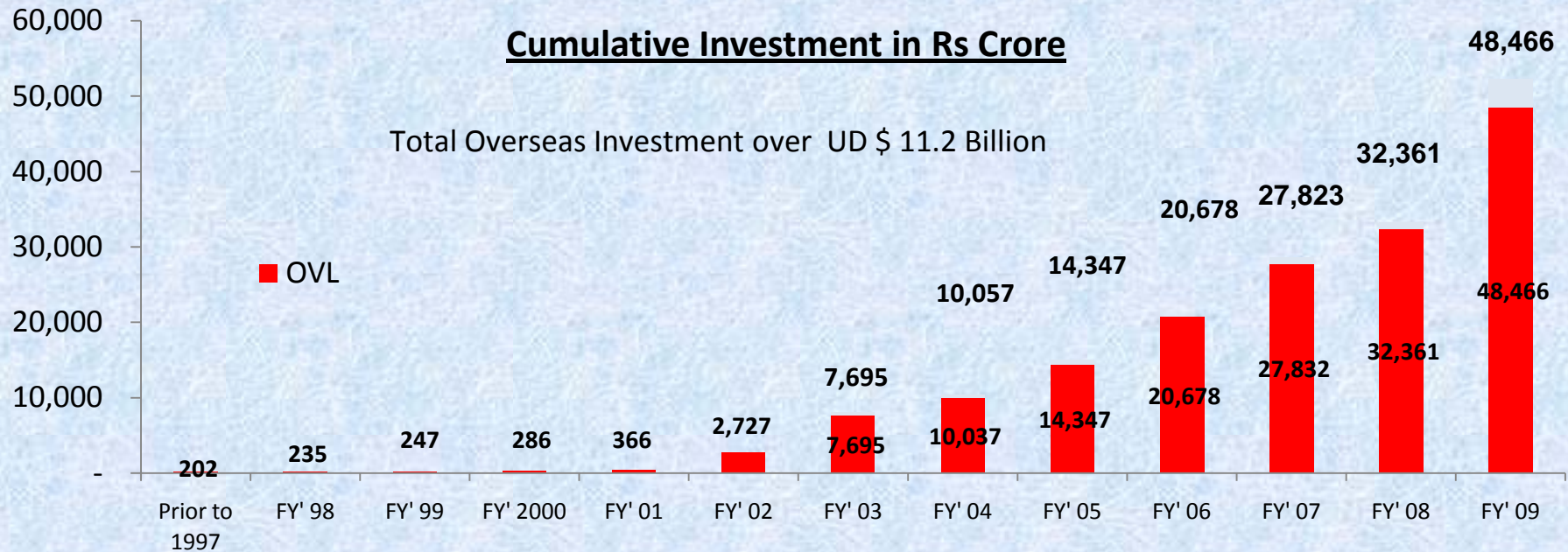
13 % of Domestic Oil & Gas Production

	Oil Domestic	Gas Domestic	Total Domestic	Overseas Production
2002-03	33	31.4	64.4	0.25
2003-04	33.4	32	65.3	3.87
2004-05	34	31.8	65.7	5.06
2005-06	32.2	32.2	64.4	6.34
2006-07	34	31.7	65.7	7.95
2007-08	34.1	32.4	66.5	8.8
2008-09	33.5	32.8	66.3	8.78



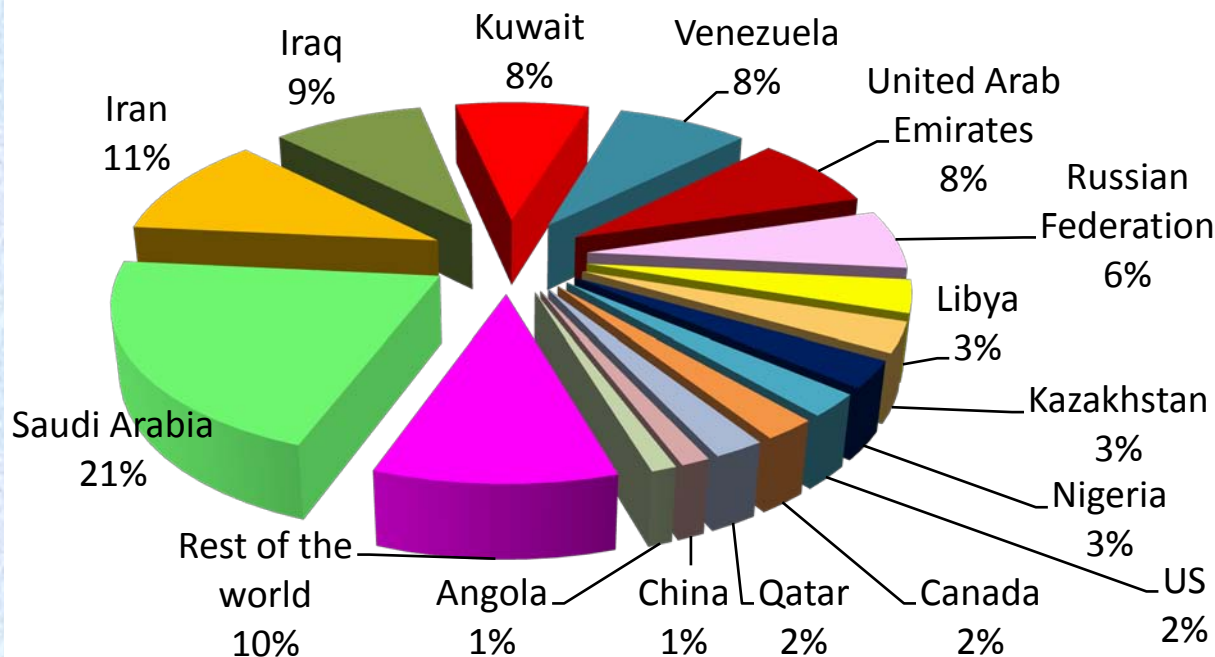
OVL's Financial Performance

Cumulative Investment in Rs Crore



Where are the Reserves

Proven Oil reserves 173 Bn Tons



Nearly 80% of Proven oil reserves are in 10 countries

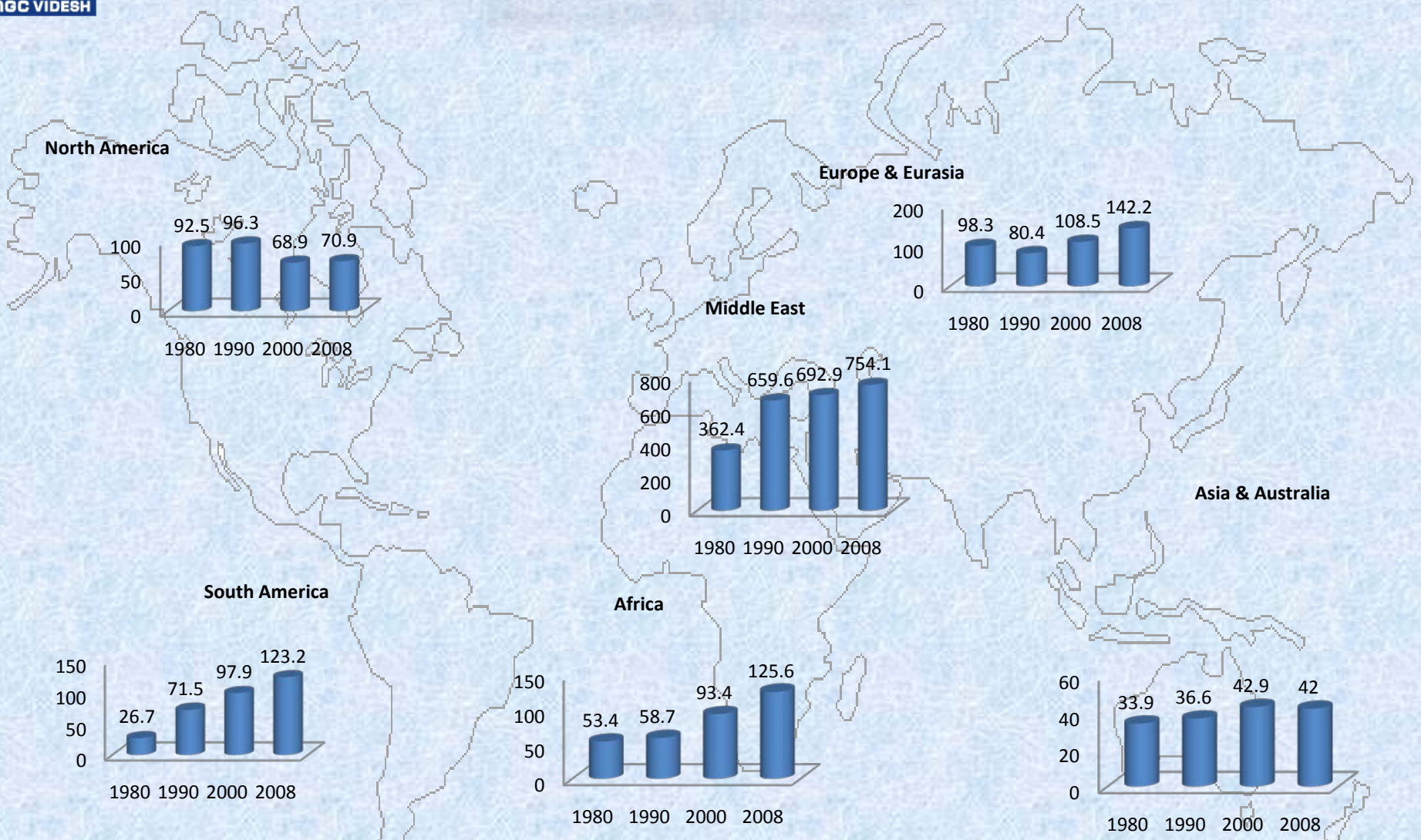


INDIA

Proven Oil Reserves	750 MMT	0.50%
Oil Production	32.5 MMT	0.80%
Oil Consumption	135 MMT	3.40%

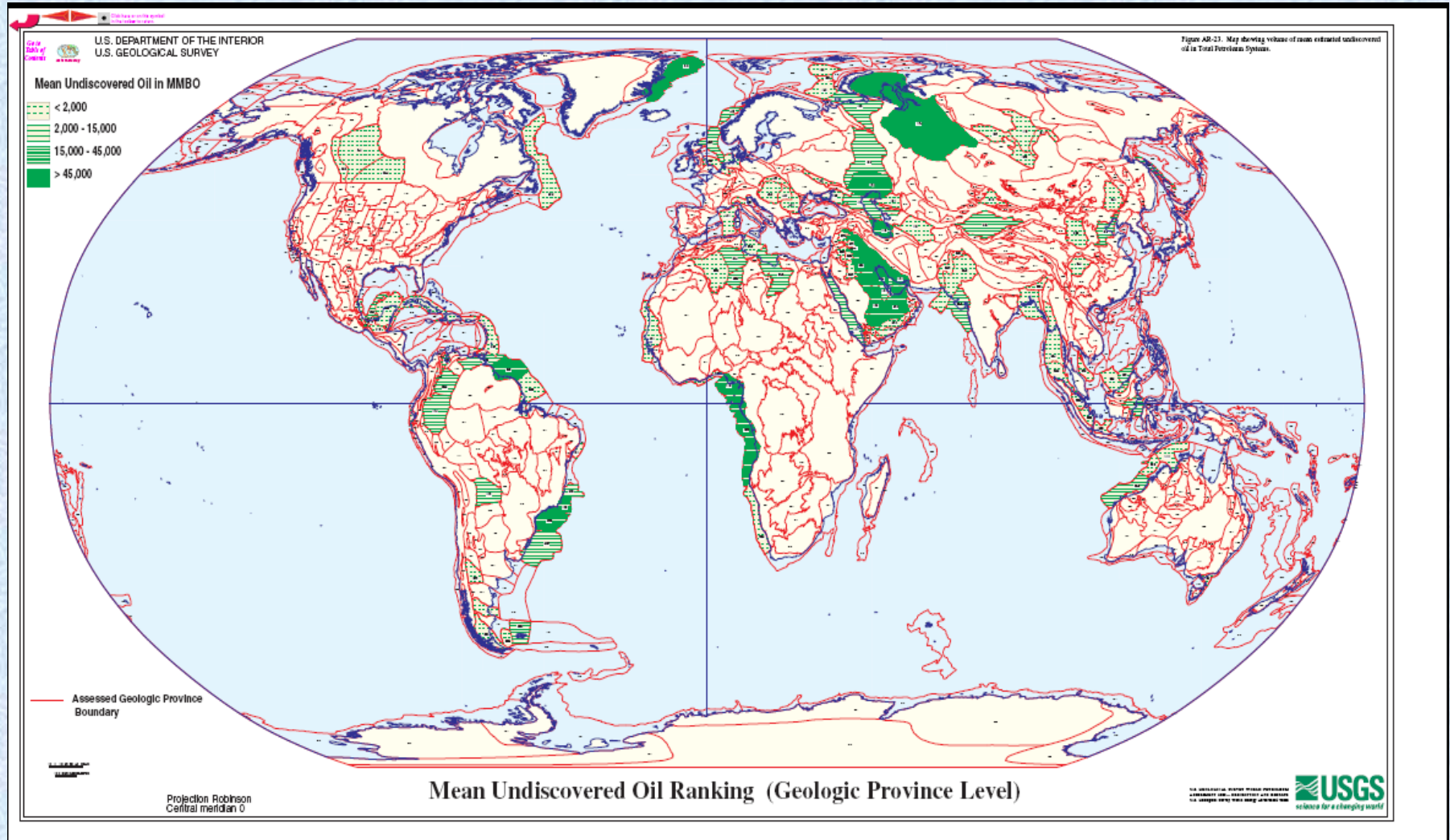
Global E&P Landscape

Worldwide Conventional Proven Reserve Distribution



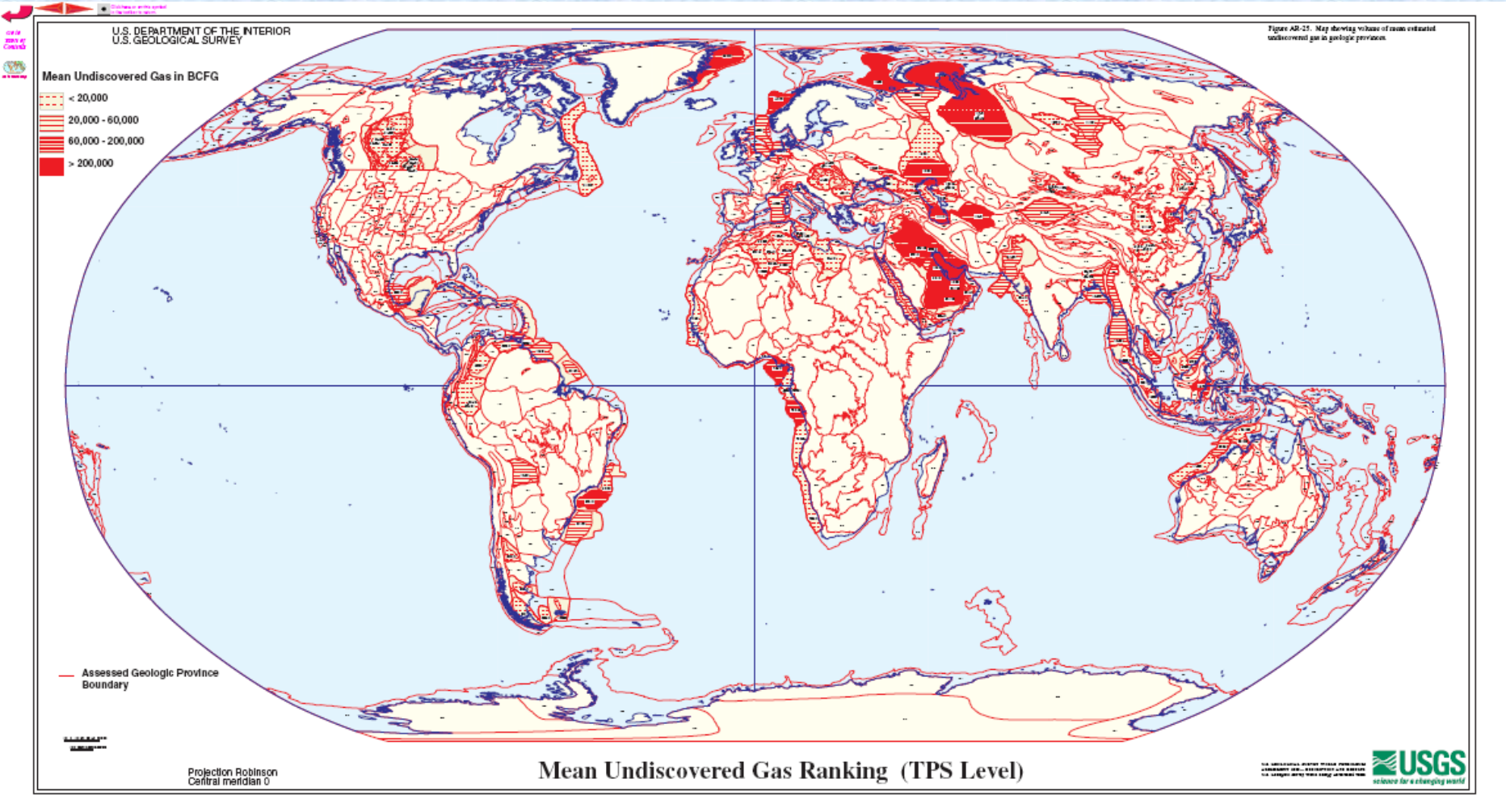
Other than the Middle East, South America & Africa are the only region that has been able to consistently grow conventional reserves over the last 20 years

Undiscovered Oil



■ What are the resources available and where are they?

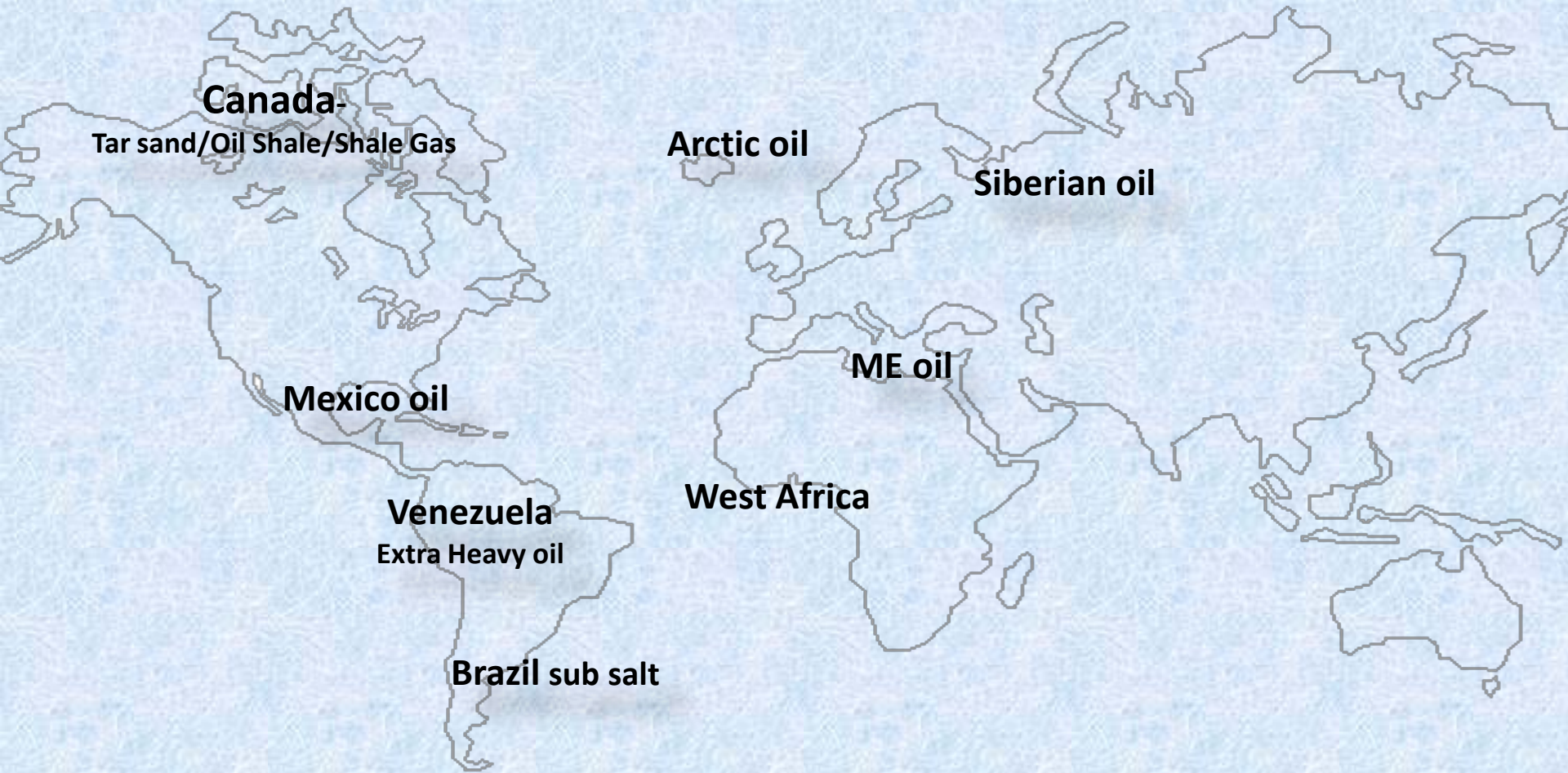
Undiscovered Gas



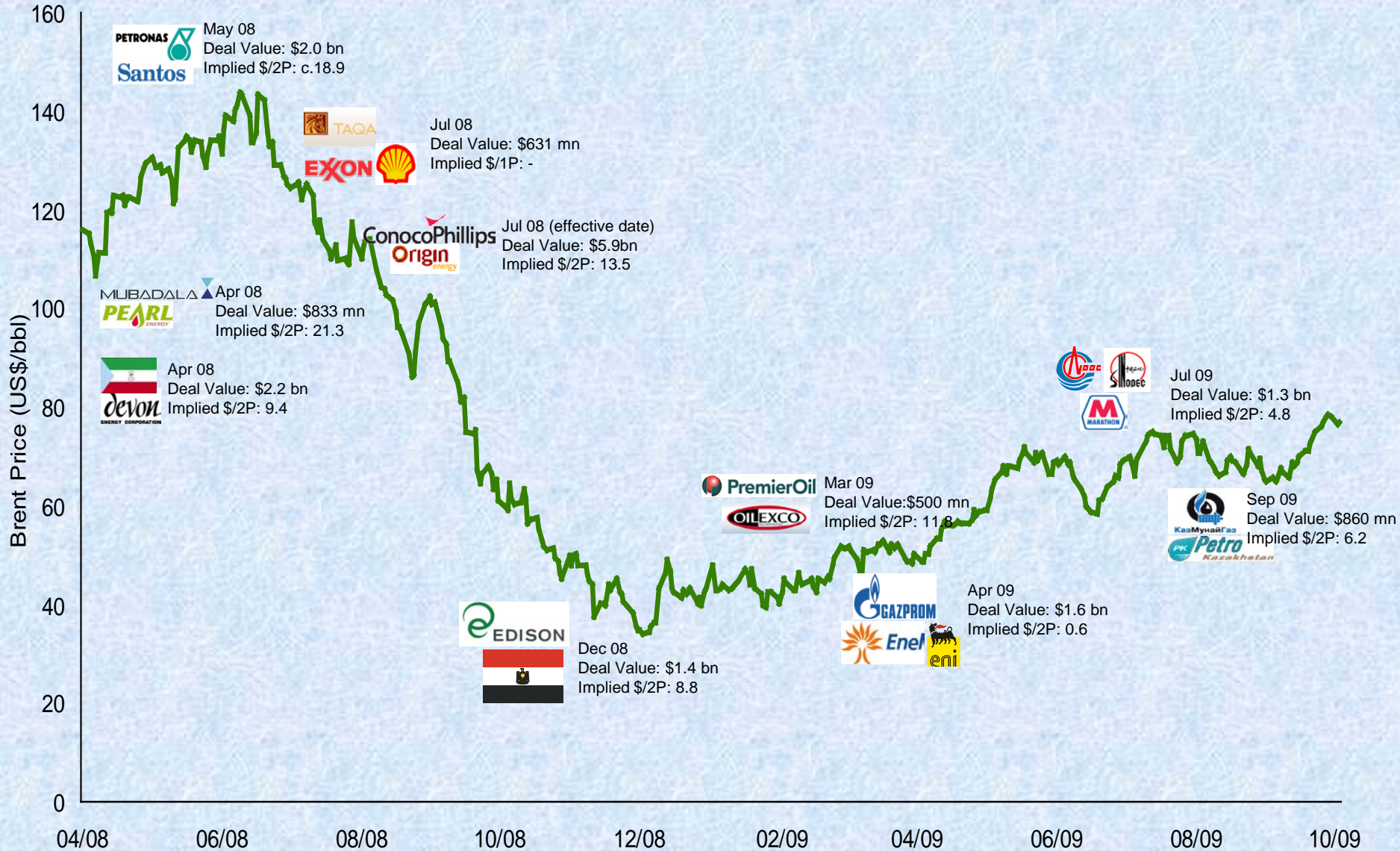
■ What are the resources available and where are they?

- ***Conventional Oil and gas assets –farm-ins, bid rounds, company acquisitions***
- ***Unconventional resources like Extra Heavy Oil, Tar/bitumen sands, shale gas***
- ***Frontier unexplored areas like Arctic, West Siberia, ultra deepwater areas etc.***

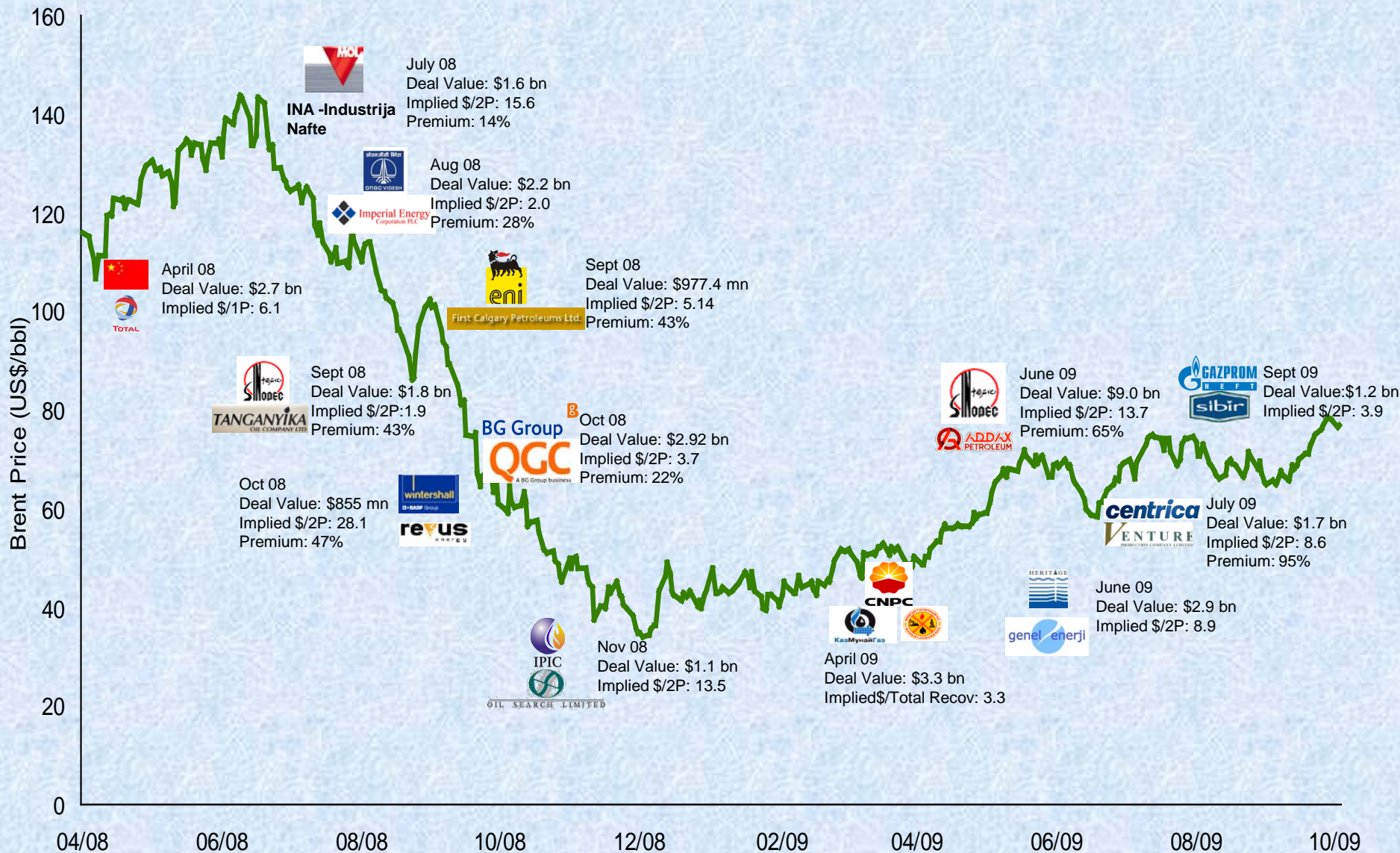
Overseas Opportunities



Asset Deals (>US\$500 mn)



Corporate Deals (>US\$500 mn)



Overseas Opportunities-Challenges

- ***Crude oil Price volatility***
- ***Growing Resource Nationalism***
- ***Aggressive Competition (high cost of acquisition)***
- ***Technology intensive resource***
- ***'Cash is king'- Hard cash to buy good assets***
- ***Unstable fiscal regime***
- ***Political risk***

- ***Hydrocarbon dominance to continue in the energy basket***
- ***Demand –supply gap in India can be met through a two-pronged strategy:***
 - ***Exploration in Indian Basins***
 - ***Aggressive acquisition of assets overseas***
- ***Increasing competition for stake in resources and high cost of acquisition necessitates Indian companies to be aggressive.***
- ***Indian Companies need to join hands to overcome Competition.***



THANK YOU