



Ratnas of Bharat Conference

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Chairman & Managing Director, ONGC
Chairman, OVL
Chairman, MRPL

ICICI Securities

Mumbai
8th September 2010

Presentation overview

Economy

Industry scenario – Global

Industry scenario – Indian

ONGC – an introduction

ONGC's pursuits

Growth perspectives



Economy

Global economy out of woods?

- 🔴 Dubai debacle
- 🔴 Greece Turmoil
- 🔴 European Union in shambles
- 🔴 US recovery sluggish

2009:

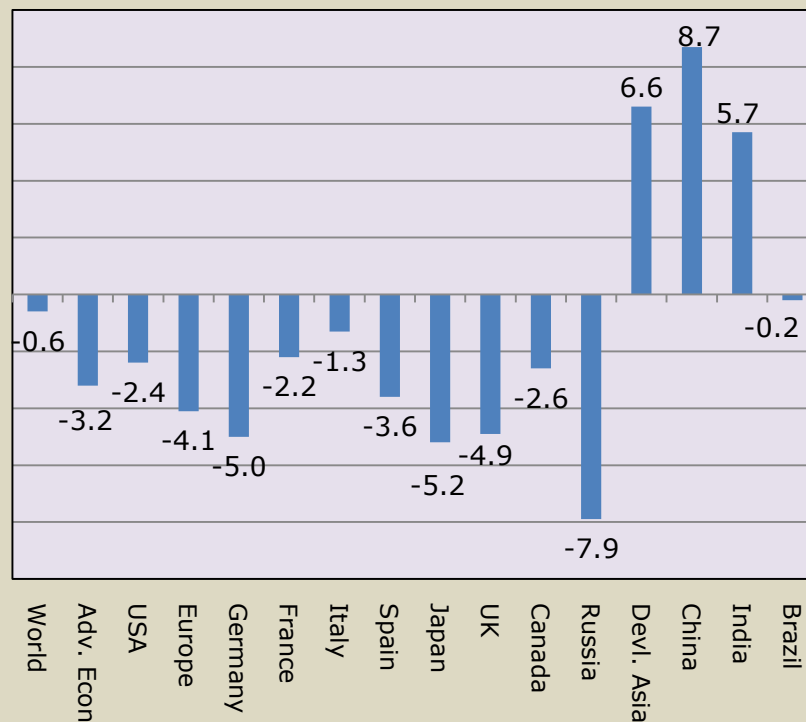
- 🔴 World output contracted by 0.6% in 2009; Advanced economies declined by 3.2%.
- 🔴 Developing Asia registers 6.6% growth; China 8.7%; India 5.7%.

Outlook 2010 (July, 2010):

Economy growth forecast

- 🔴 World: 4.6%
- 🔴 India: 9.5%
- 🔴 China: 10.5%

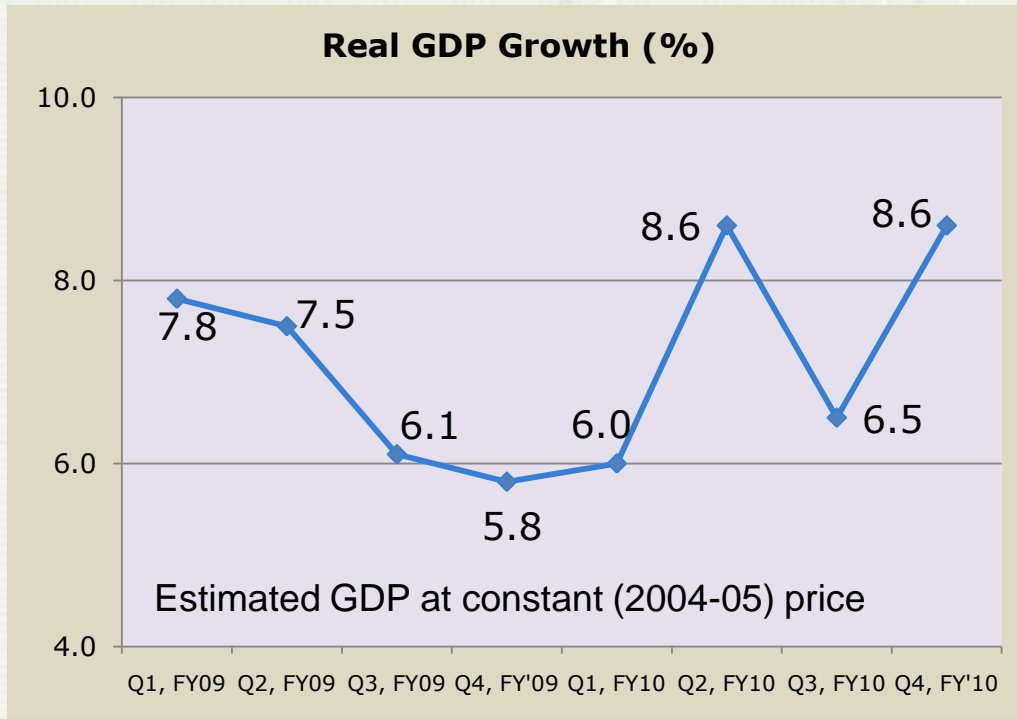
Economy Growth 2009; % YoY



Caution: "Risks have risen sharply", Europe to quickly resolve debt problems

Indian Economy

India GDP grew by 7.4% in FY'10 & expected to grow by 8.5% in FY'11



Picture source: The Economist

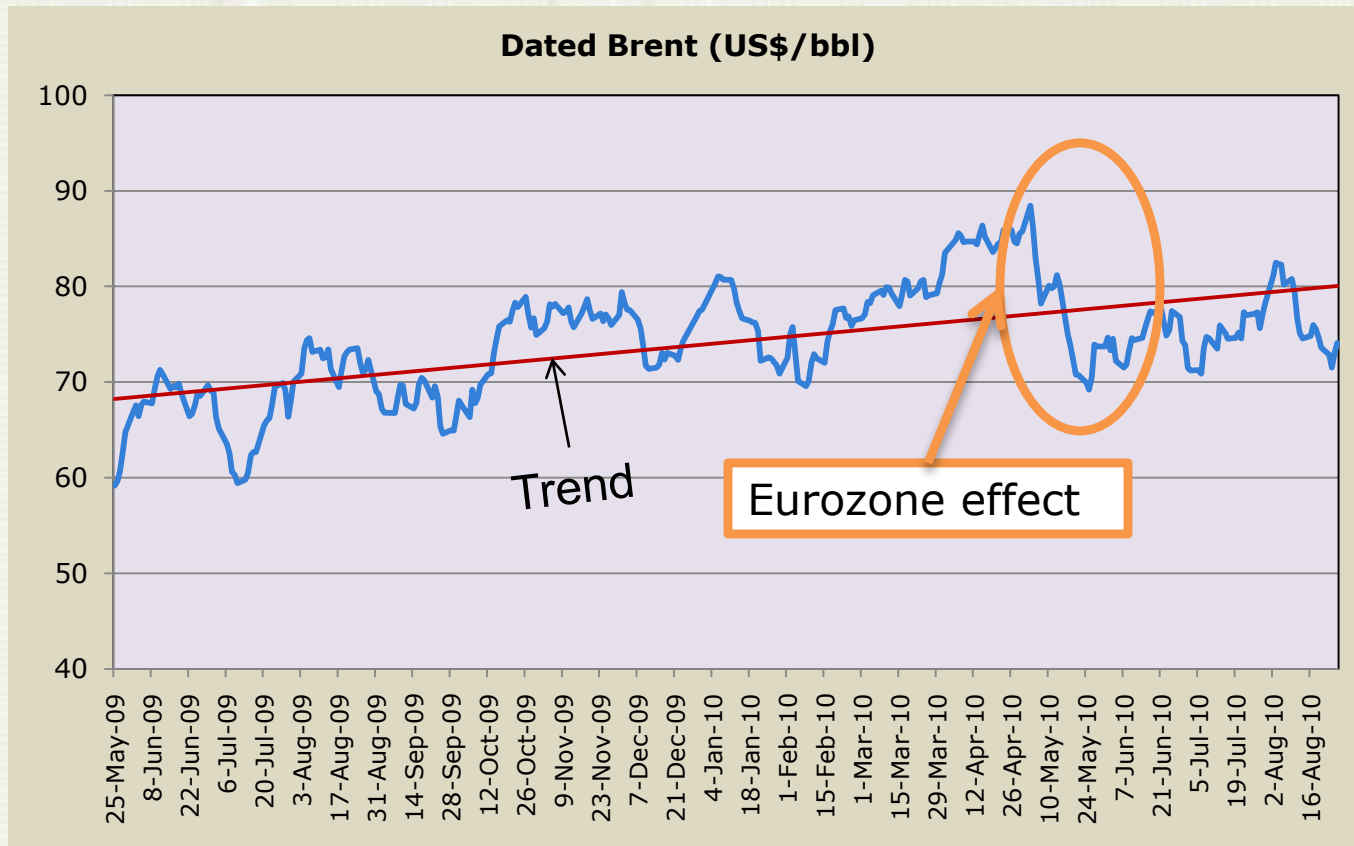
India sustained growth, even in face of weak recovery in advanced economies. To sustain growth Public & Private consumption - key drivers



Industry scenario

Oil prices remain volatile

- Oil prices in **Goldilocks range** (US\$70-80/ bbl) due to negative economic sentiments. Recovering economies may bring in more volatility as **fundamentals** have not changed.



Fundamentals

Fundamentals have not changed

Demand destruction

Supply rationing

Oil field depletion

Declining investment

Changes in Gas business

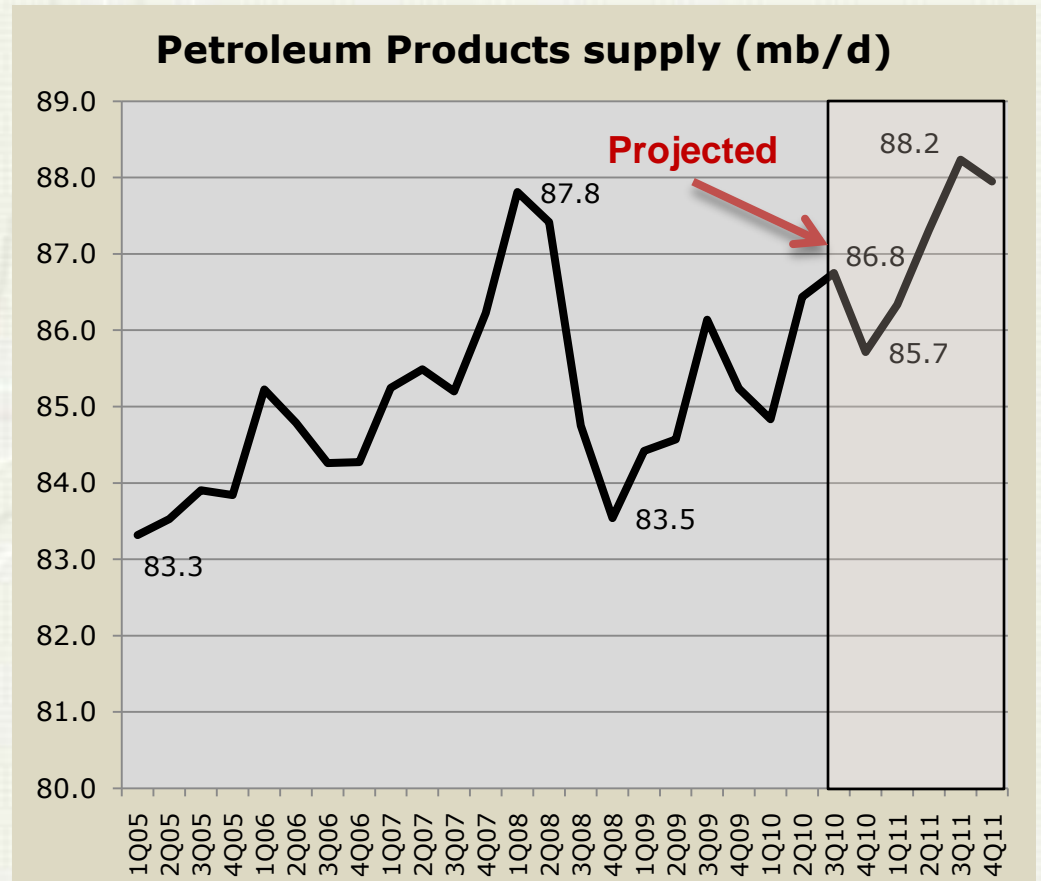
The 'Game changer'

Demand destruction

Demand destruction just temporary

Demand destruction has been sharp during 3Q08 – 4Q08; however, gradually started building up on signs of recovery

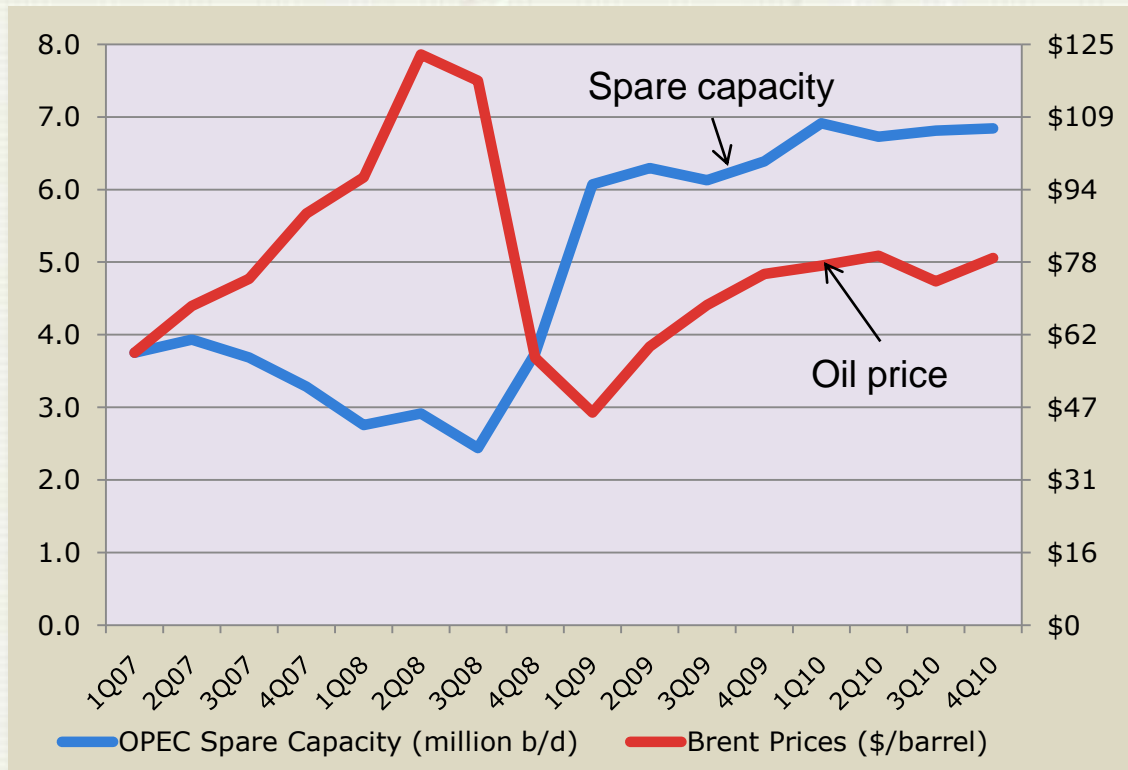
Demand projected to be
84-86 mb/d in 2010 &
86-88 mb/d in 2011



OPEC: Supply Rationing

Presently sufficient OPEC spare capacity

Demand destruction forces OPEC to cut supply by 4.2 mb/d in late 2008 to prevent oil price collapse

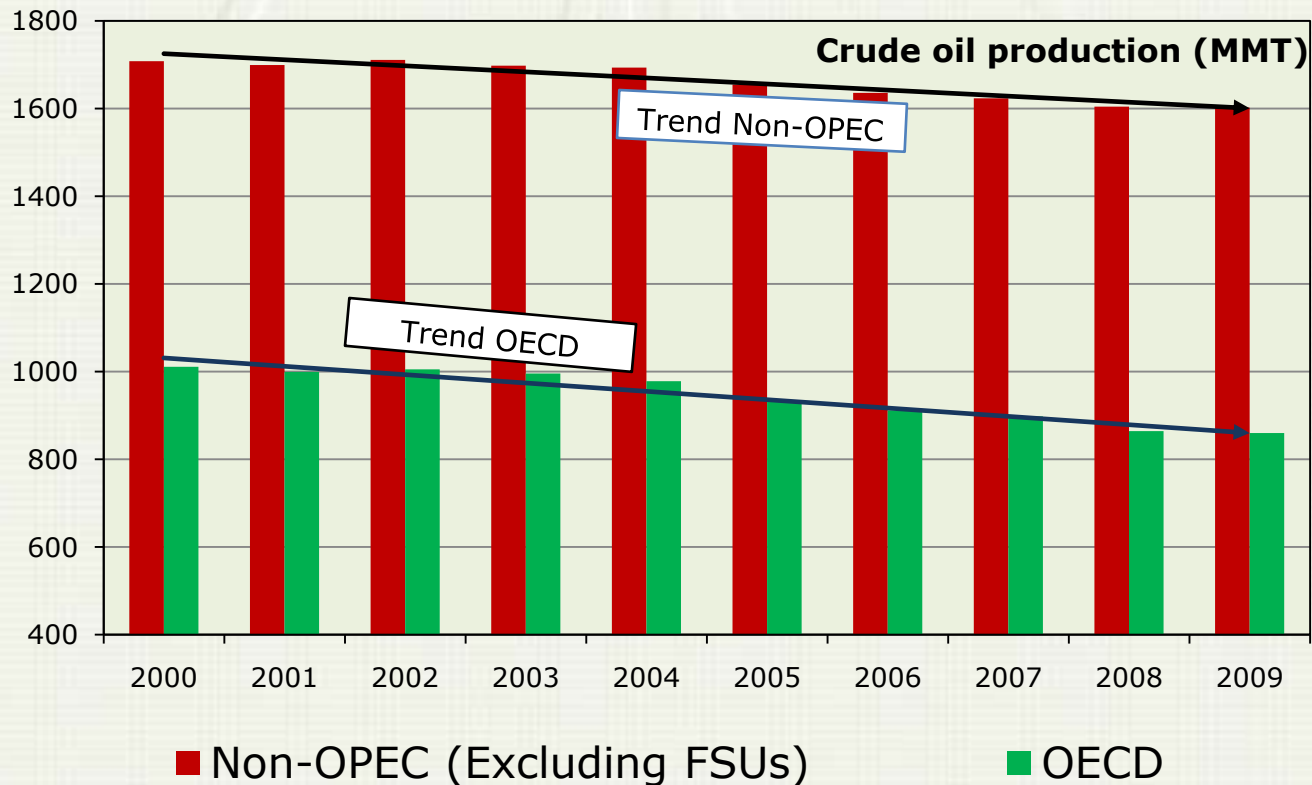


Present spare capacity
6-7 million barrels

Oil Fields depletion

Most of the fields in Non-OPEC Countries declining

**During 2000 to 2008 non-OPEC fields
(excluding FSU countries) declined by 6.5%**



Oil & gas investment

Oil & gas investment declines

Lack of Cash and Access to Capital Drive Capex Down by 18% in 2009

Oil & gas investment (billion US\$)

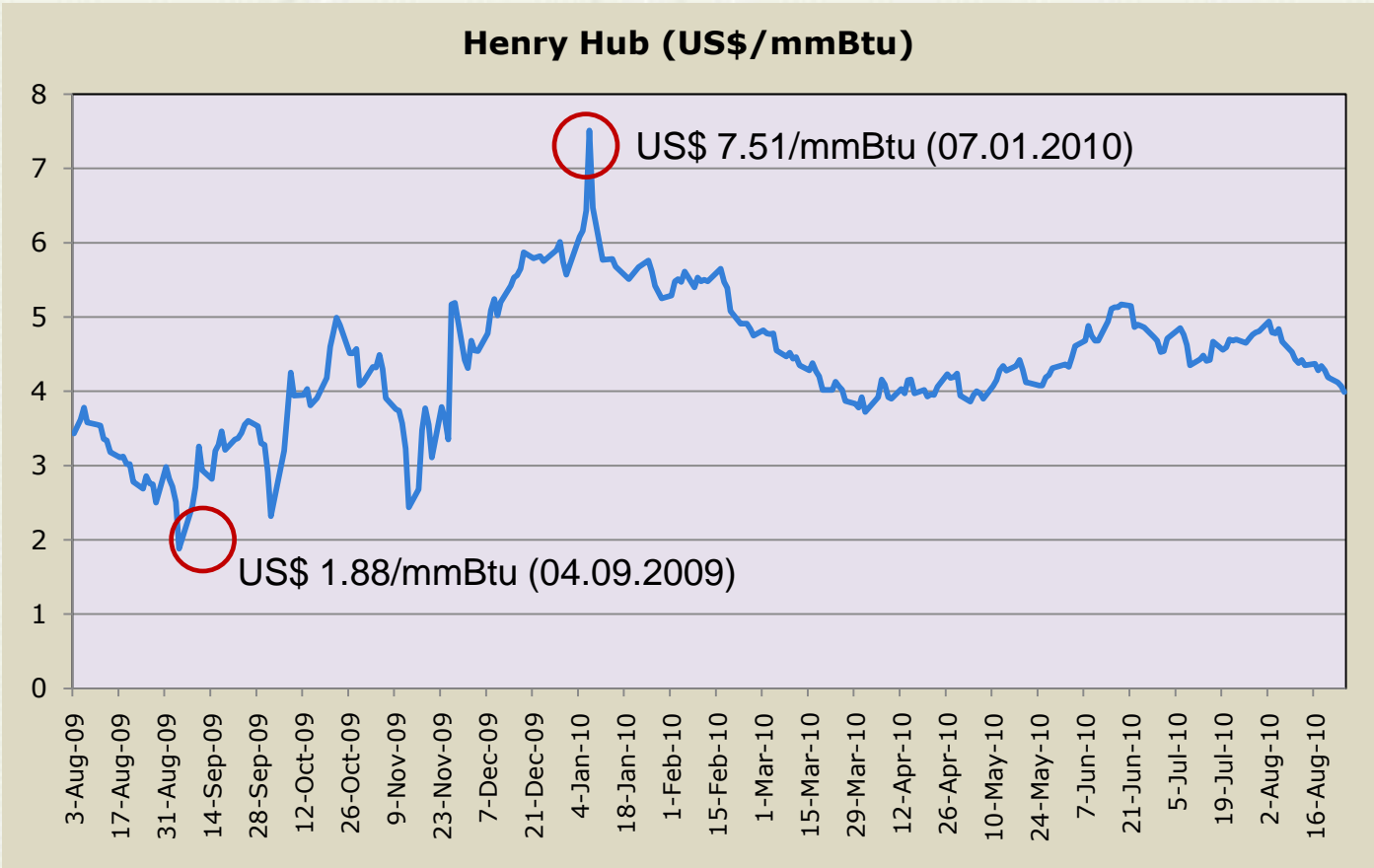


In case low investment trend continues, due to economic turmoil, it will have adverse effect on future supplies

Changing gas market

Gas price also remains volatile

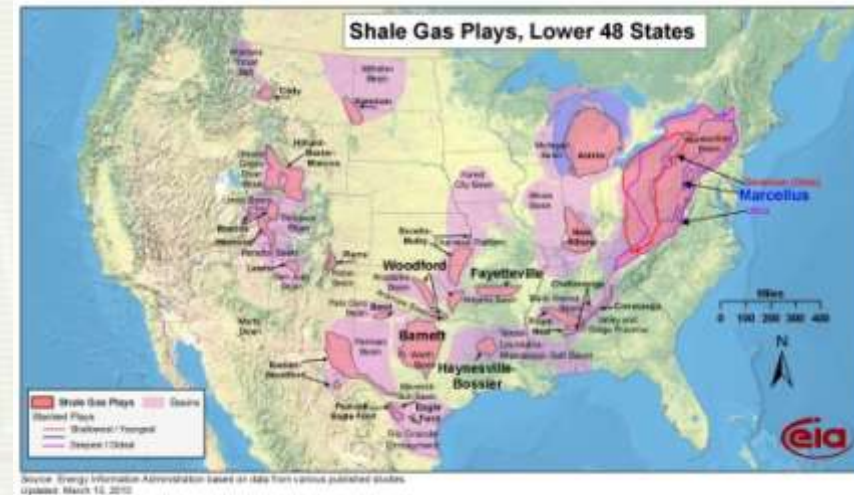
Shale gas revolution in USA & LNG glut in major markets
Brings permanent changes in natural gas business



Shale gas revolution

Shale gas revolution in USA:
a permanent change in global gas business

- Shale gas has more than doubled the size of discovered gas resource in North America
- Shale Gas supply increased to 20% from 1% in 2000 (IHS-CERA); expected to contribute 50% by 2035.



Shale gas renders US LNG imports nearly unnecessary over the next five to 10 years

(Source : Industrial Fuels and Power, April 20,2010)

First Ultra-deepwater production

- Shell operated Perdido subsea fields in Gulf of Mexico, at water depth of 8,000 ft (2,450 m) commences production in March'10 – the first Oil & Gas from Ultra-deep waters

- A big leap for E&P industry.



The 'Game changer'

BP's rig, Deepwater Horizon, blew up on 20th April in deepwater of Gulf of Mexico, 64km off Louisiana coast

- ❖ Failed blowout preventer
- ❖ Explosion & fire caused rig on Macondo well to sink
- ❖ Claimed 11 lives
- ❖ Oil from spill being collected since 16th May'10
- ❖ Around 25,000 bopd of oil collected daily
- ❖ No oil flow since 15th July 2010



Macondo accident to have huge negative impact on industry's offshore activities

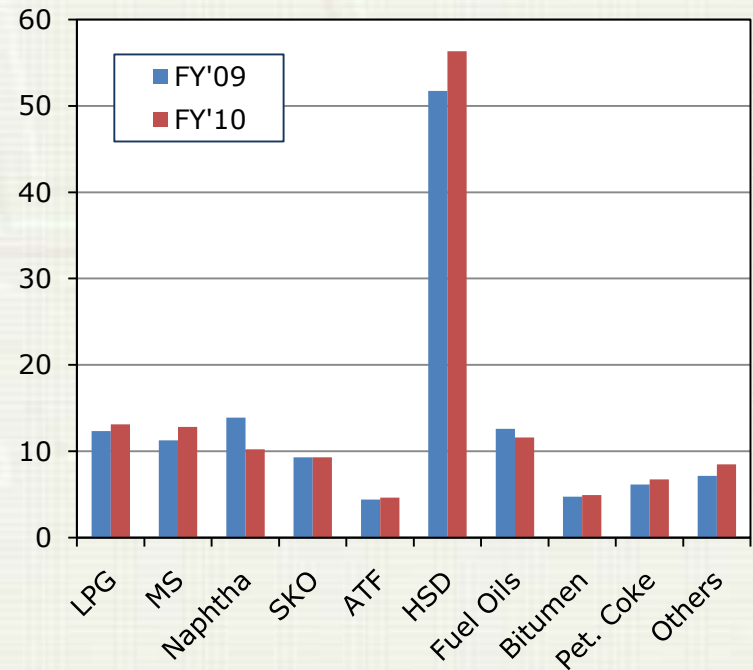
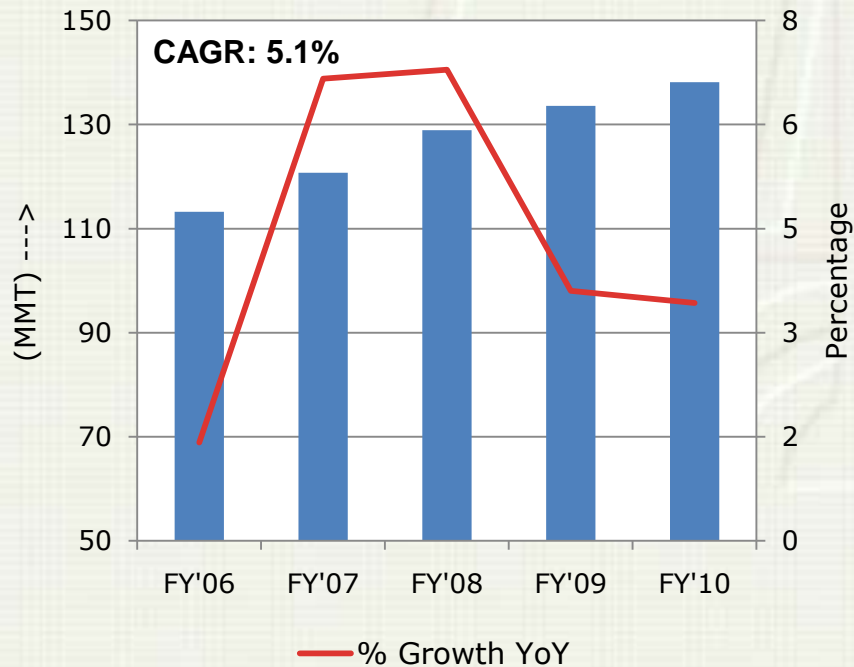


Indian perspective

Increasing consumption

Consumption of petroleum products increased at CAGR of 5.1% (FY'06 to FY'10)

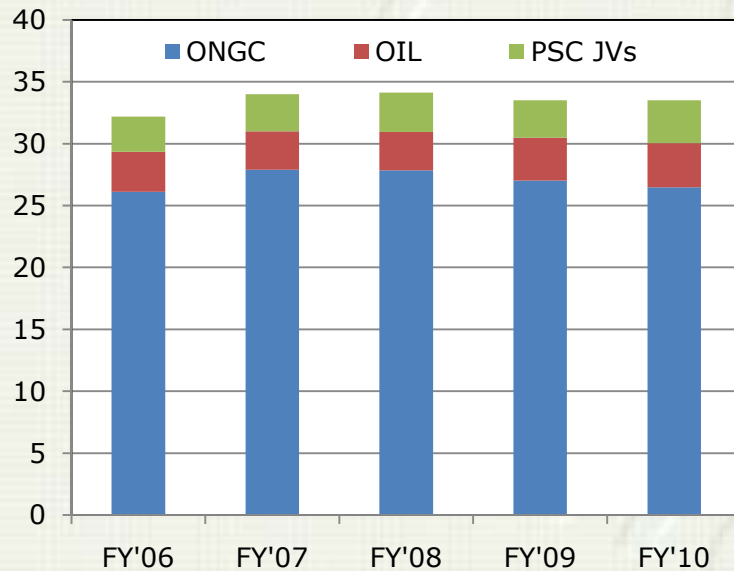
Consumption of all products increased except for Naphtha & Fuel oil, partially substituted by new gas supplies



Oil & Gas production

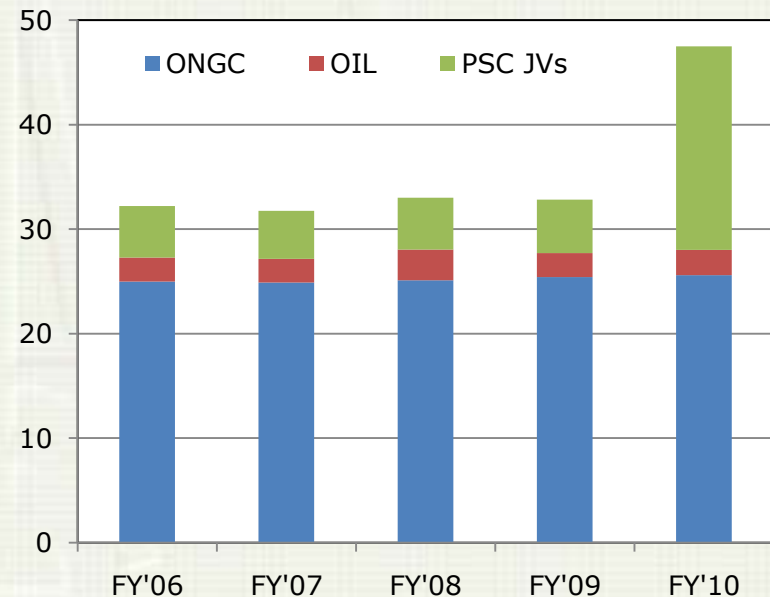
Oil production levels maintained
Gas production upside for East Coast

Crude oil production (MMT)



RJ-ON-90/1 (ONGC's PI: 30%)
on stream ~ 1,05,000 bopd

Natural Gas production (BCM)

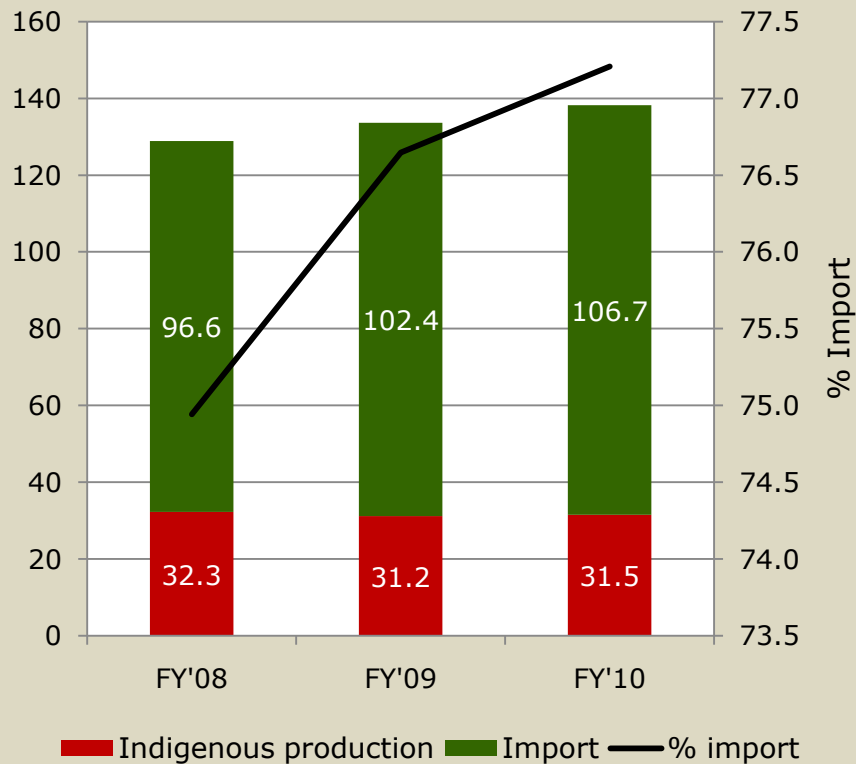


D-6 on stream ~ 60 mmscmd
a big boost for country

Import dependency

FY'10: Import dependency > 77%

Petroleum products consumption



Crude oil import doubled in last 10 years

(74 MMT in FY'01 to 153 MMT in FY'10)

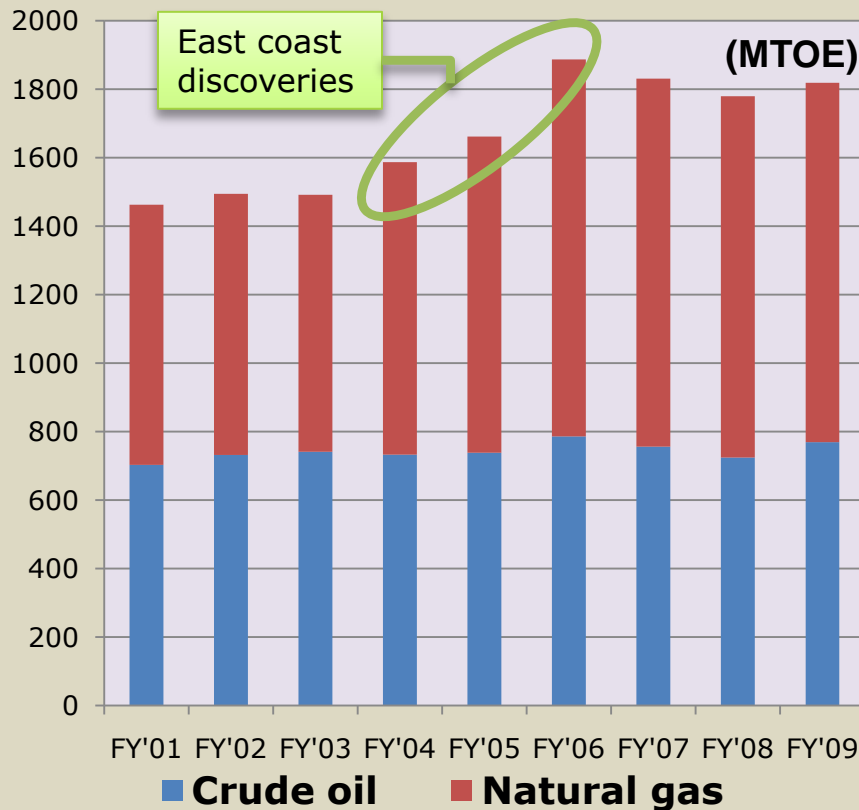
Import value increased by 5.5 times in 10 years

(₹659 billion in FY'01 to ₹3,609 billion in FY'10)

Hydrocarbon reserves

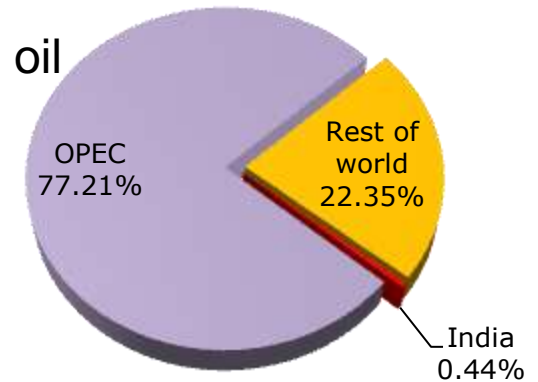
India currently known to have with only 0.44% of world's oil & 0.58% of gas reserves

Balance Recoverable Reserves

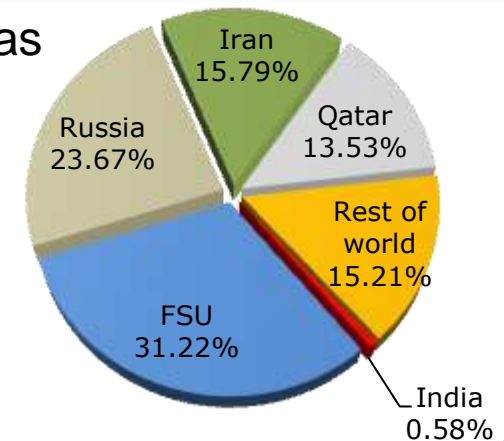


Proved Reserves

Crude oil



Natural gas



Matured fields

- All major producing fields (except Mangala in Rajasthan & D-6, KG Basin) are more than 30 years old
- Most of them have produced through their peaks
 - 80% of total crude oil indigenous production coming from such mature fields
 - Pressure of almost all of these fields are depleting fast
 - Cost-intensive IOR/ EOR processes required to keep them flowing

Under-recoveries

Petroleum product prices revised on 25th June 2010;
under recoveries to stay

(₹ Crore)	Upstream	OMCs	Government	Total
FY'04	3,123	6,151		9,274
FY'05	5,947	14,199		20,146
FY'06	14,000	14,500	11,500	40,000
FY'07	20,507	4,759	24,121	49,387
FY'08	25,708	16,125	35,290	77,123
FY'09	32,943	(943)	71,292	103,292
FY'10	14,430	5,621	26,000	46,051



ONGC – an introduction

ONGC is
an Indian State Enterprise,
and integrated Oil & Gas Corporate

with interests in
E&P, Refining, LNG, Power, Petrochemicals & New
sources of energy.

... a consistent, reliable, time tested energy solution provider for the
country

ONGC: Historical Profile

1955 Oil and Gas Directorate, Gol

1956 Oil & Natural Gas Commission

1959 Autonomous Statutory Body

1994 Public Limited Company

1997 A Navaratna PSU

2010 A Maharatna PSU



50+ Years of Exploration

ONGC discovered 6 out of the 7 producing Basins of India

1967: Rajasthan Basin

1958: Cambay Basin

1974: Mumbai
Offshore

1889: Assam Shelf *

1973: A&AA FB

1980: KG Basin

1985: Cauvery
Basin



* By AR & T Co. - Assam Railways and Trading Company Ltd.

ONGC Group produces ~ **1.19 million barrels per day** of
Oil plus Oil-equivalent Gas,
refine about **12.5 MMTPA** (>250,000 bopd);
extracts about **3.4 MMTPA** of LPG, Naphtha etc from Gas;

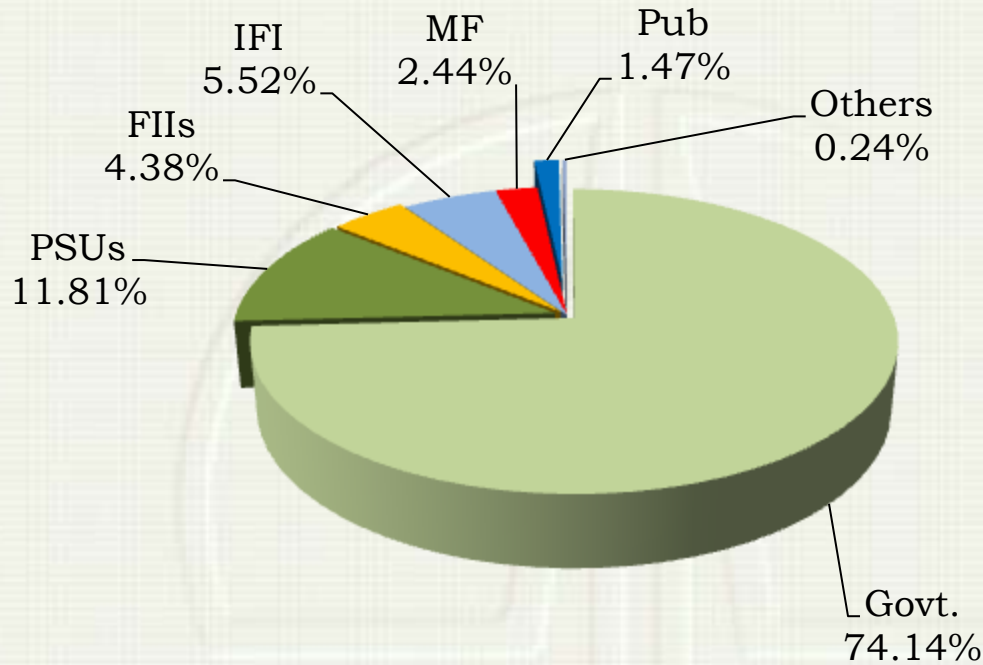
sells **Crude Oil, Gas and Value added products**
(LPG, Naphtha, Ethane-Propane, SKO, HSD etc.)
with a **Turnover of ₹.108,579 Crore** (2009-10).

ONGC
has in-house capability
in all aspects of the Oil & Gas business

API*, Drilling, Workover & Well Testing
& Stimulation, Production, Processing,
Reservoir Management, Applied R&D,
Engineering & Construction,
Transportation, Refining, Training etc.

* API- Acquisition, Processing & Interpretation of Seismic Data

Shareholding pattern*



**No. of shares:
2.139 billion**

**No. of shareholders:
3,67,130
(No. of FIIs : 484)**

**Market cap (03.09.10):
Rs. 2,86,181 Crore
(USD 61.32 billion)**

* As on 03.09.2010

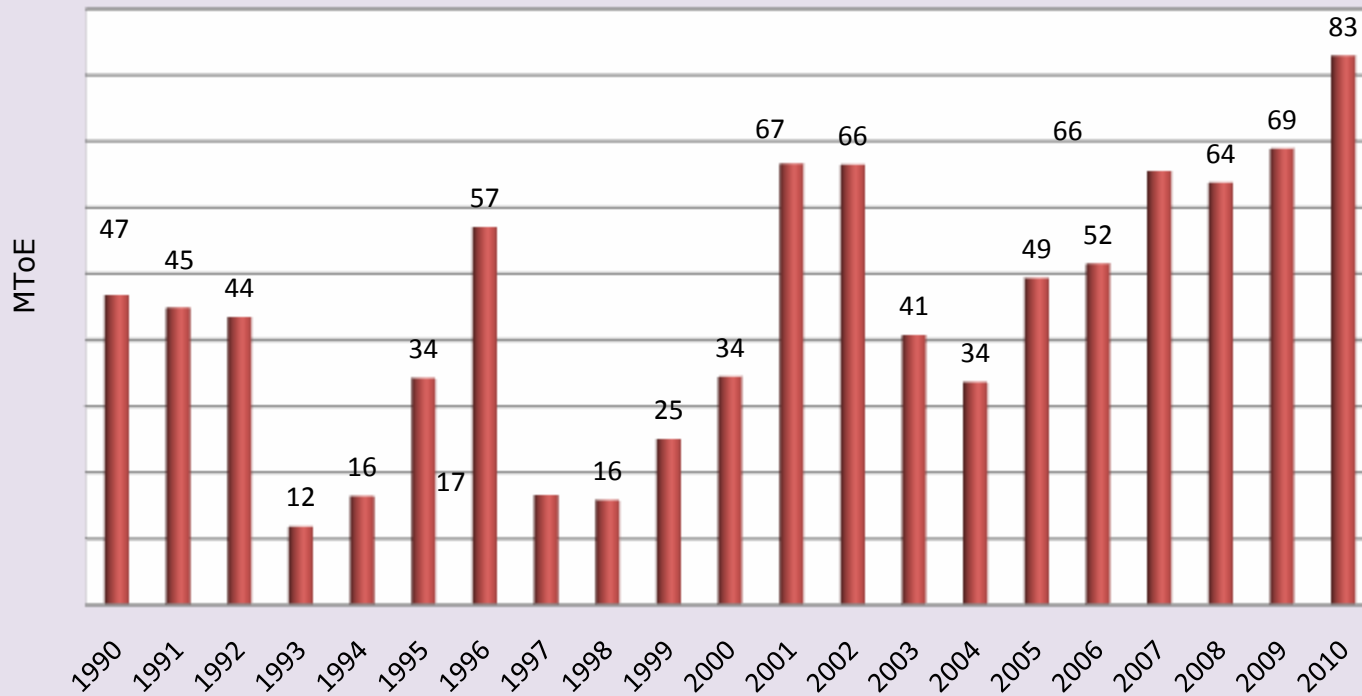


ONGC's pursuits

Reserve accretion (3P): FY'10



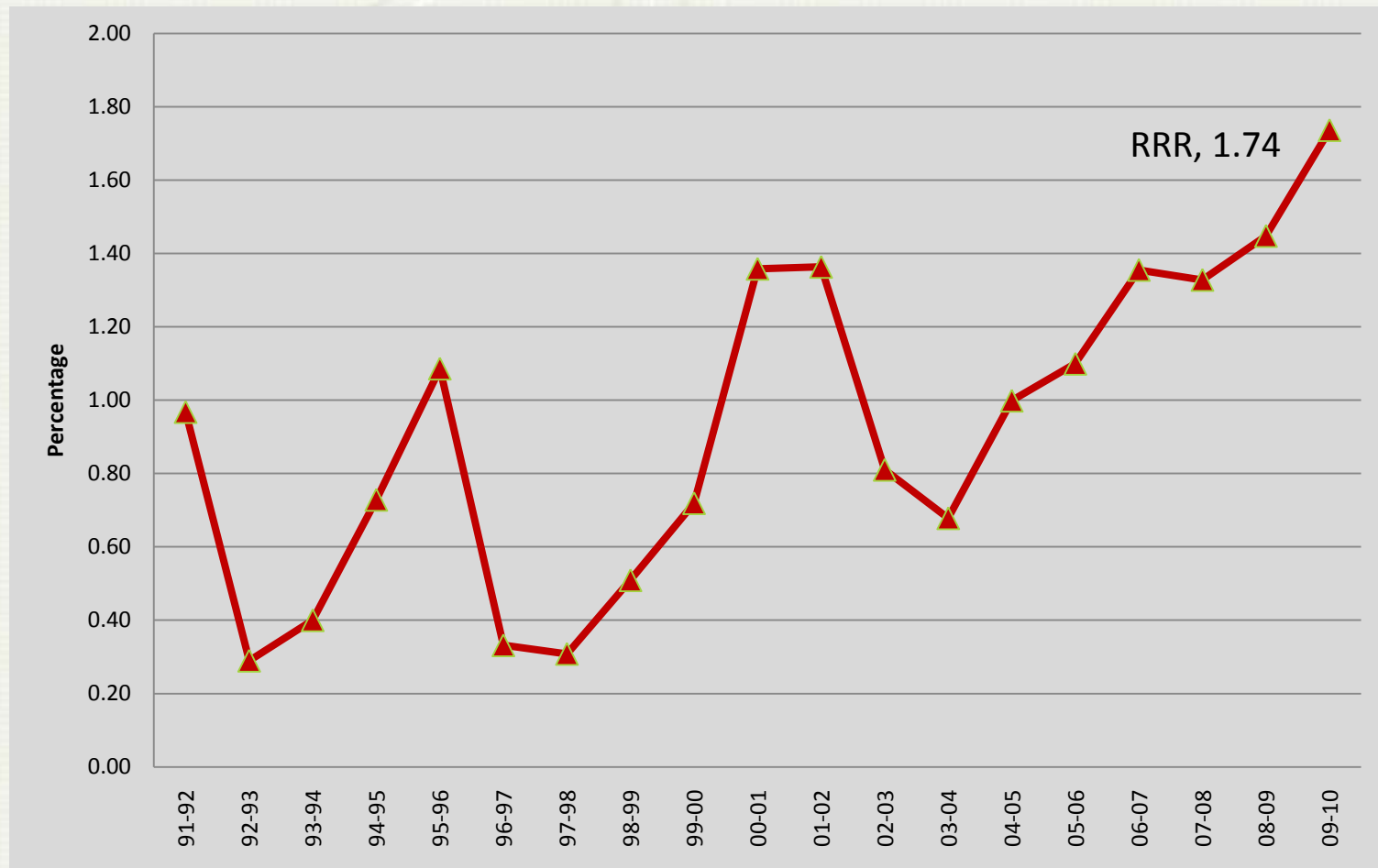
Highest Ultimate Reserves accretion in last 2 decades
FY'10: 82.98 MTOE (ONGC operated fields)



MTOE: Million tonnes of oil equivalent

RRR

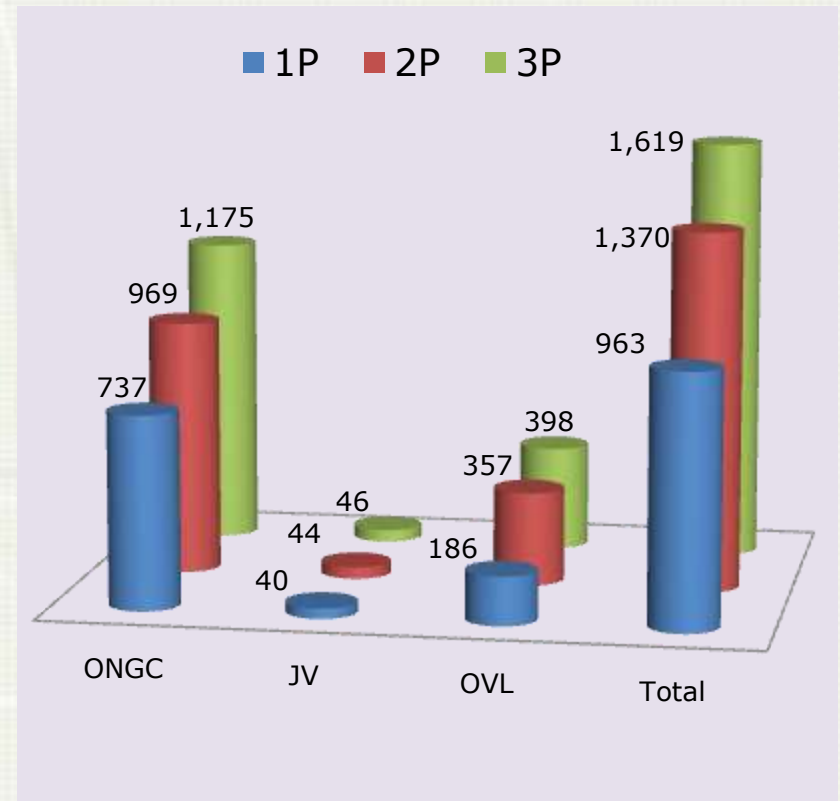
FY'10: (+)ve Reserve Replacement Ratio (RRR)
since last 5 years; highest in last 2 decades



Reserve Position

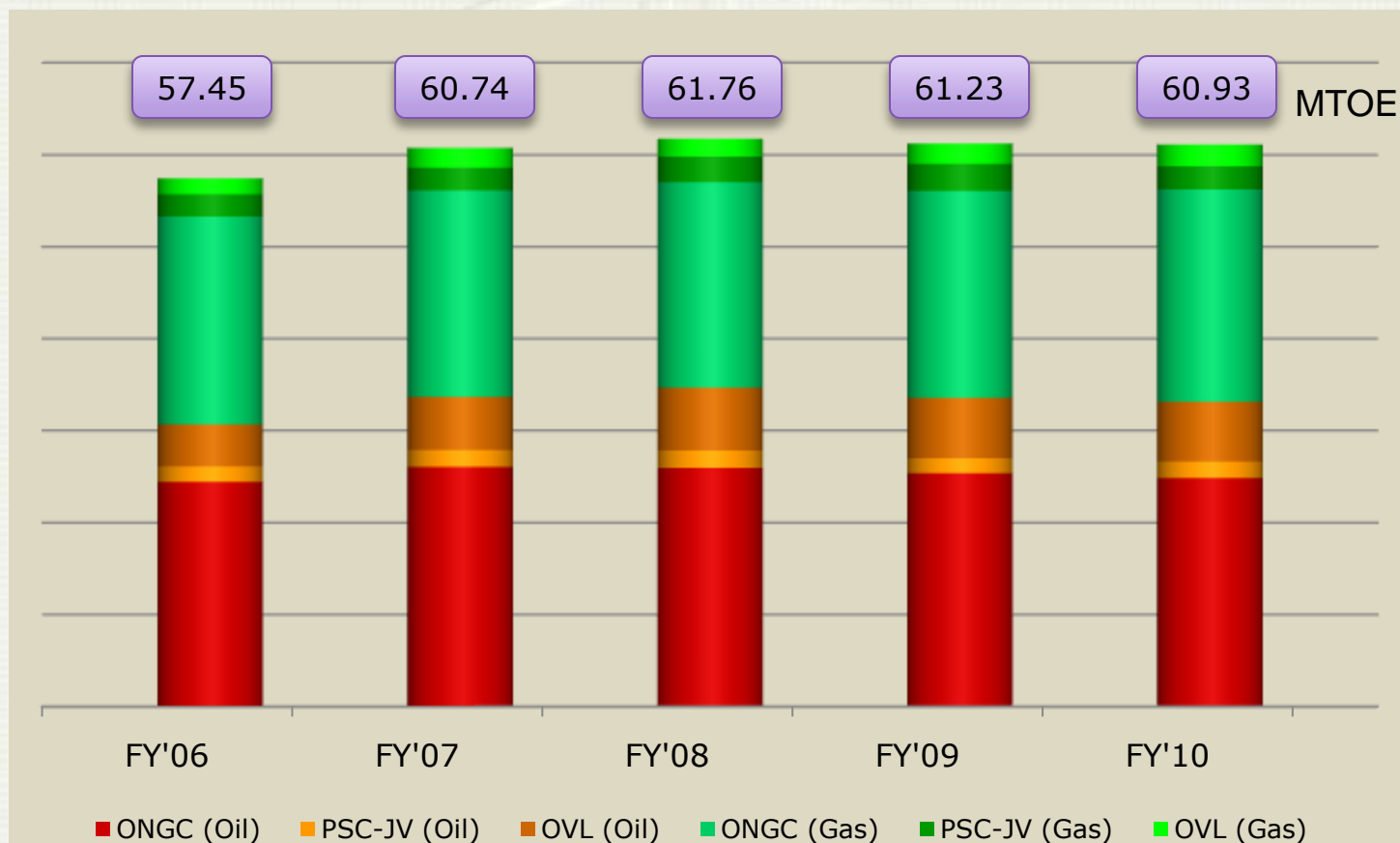
As on 01.04.2010, Total Reserves (3P): 1,619.26 MTOE

	Oil	Gas	Total
ONGC	563.42	611.50	1,174.92
PSC JV	23.64	22.46	46.10
OVL	225.16	173.08	398.24
Total	812.22	807.04	1,619.26



O+OEG production: ONGC Group

Maintained production levels



ONGC registered marginally lower production (0.1%) in FY'10;
Aggregate production lower by 0.5%

IOR/ EOR schemes

Natural decline arrested to great extent by IOR/ EOR campaign & redevelopment projects

Investment more than ₹ 36,500 Crore since FY'01

14 Projects completed
Cumulative investment ₹12,809 Crore

1. MH North Ph-1 (Dec'2006)
2. MH South Ph-1 (May'2007)
3. Neelam (Jul'2005)
4. Heera Ph-1 (Dec'2003)
5. Balol In-situ (Nov'2001)
6. Santhal In-situ (Dec'2001)
7. Santhal - IOR (Nov'2003)
8. Jotana (Oct'2004)
9. North Kadi-1 (Apr'2007)
10. North Kadi-2 (Nov'2006)
11. Sanand EOR (Sep'2002)
12. Gandhar IOR (Jun'2005)
13. Sobhasan (Jun'2008)
14. Heera Ph-2 (Jan'2009)

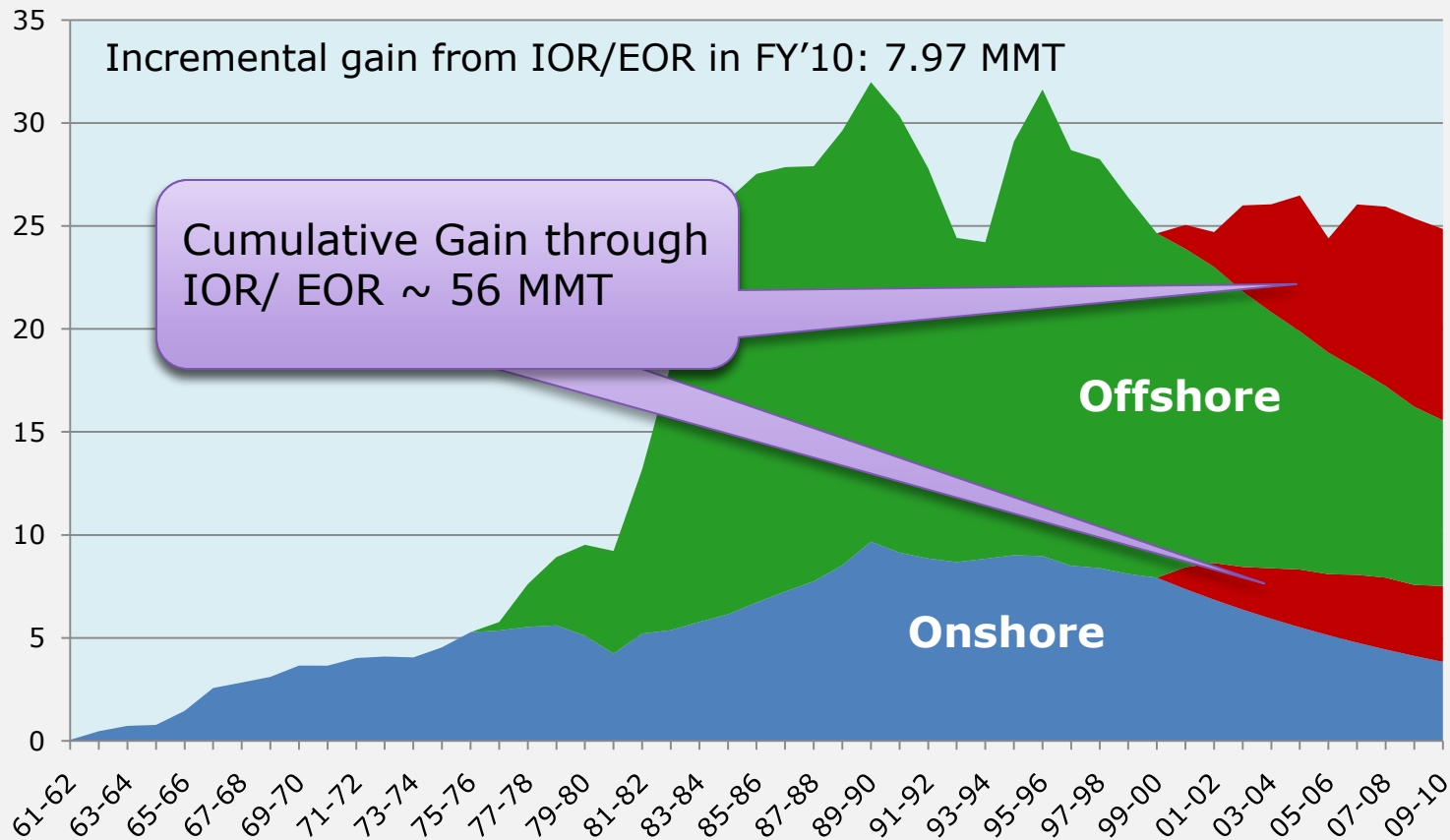
7 under implementation
Envisaged investment ₹ 23,700 Crore

1. Kalol
2. Lakwa-Lakhmani
3. Geleki
4. Rudrasagar
5. MHS redevelopment Ph-2
6. MHN redevelopment Ph-2
7. Heera & South Heera redevelopment

(Actual Expenditure up to 31.03.10
₹ 8,135 Crore)

Arresting Decline

IOR/ EOR Campaign yielding results



- 15 major fields operated by ONGC: Producing 60% of country's total oil for more than 30 years, put on IOR/ EOR. Natural decline of these fields @ about 7% per year arrested
- Recovery Factor of these 15 fields rises from 27.5% in 2000 to 33.5% in 2010

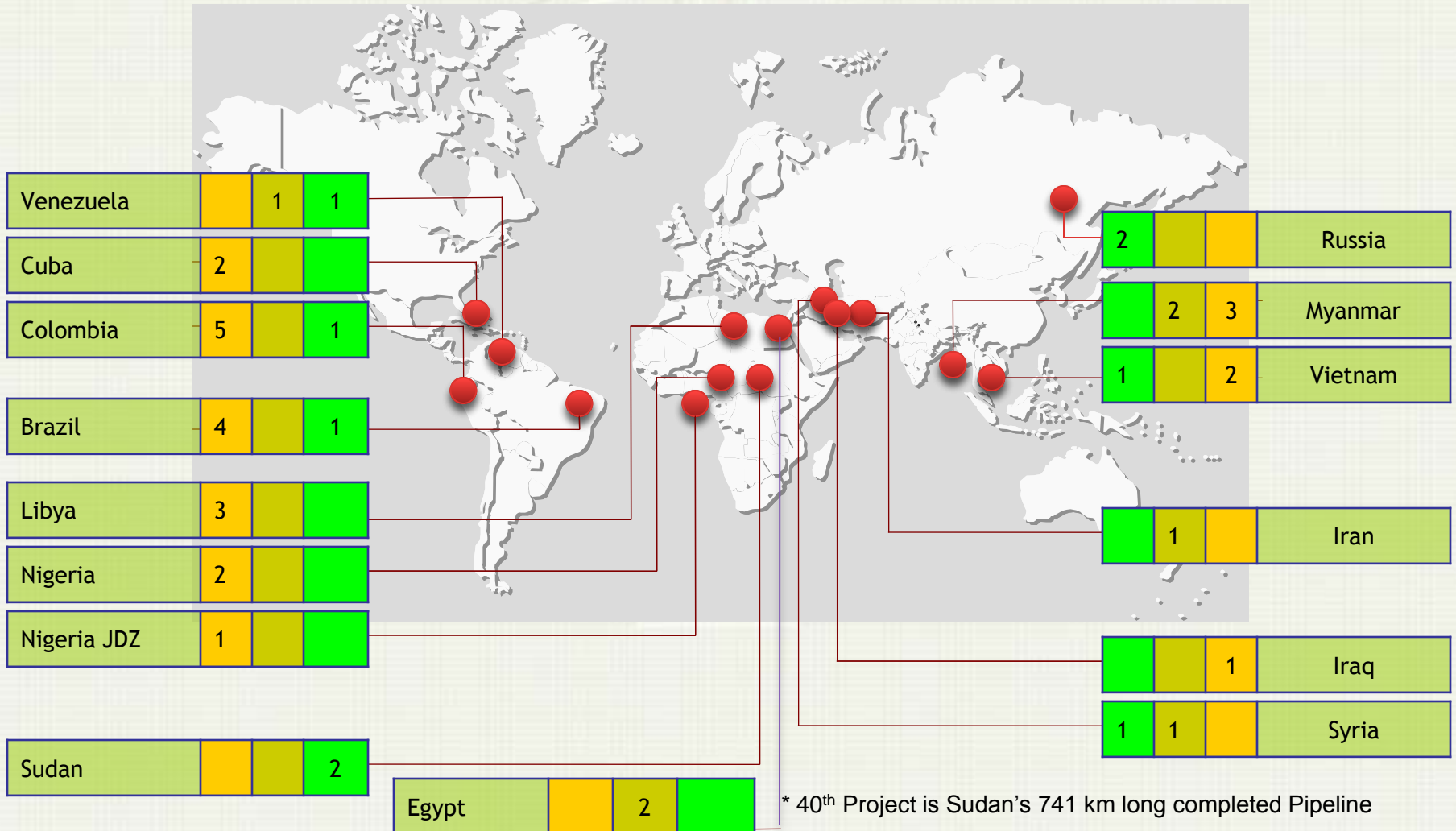
E&P Global Footprint

40* Projects in 15 Countries

23 Exploration

7 Under Development

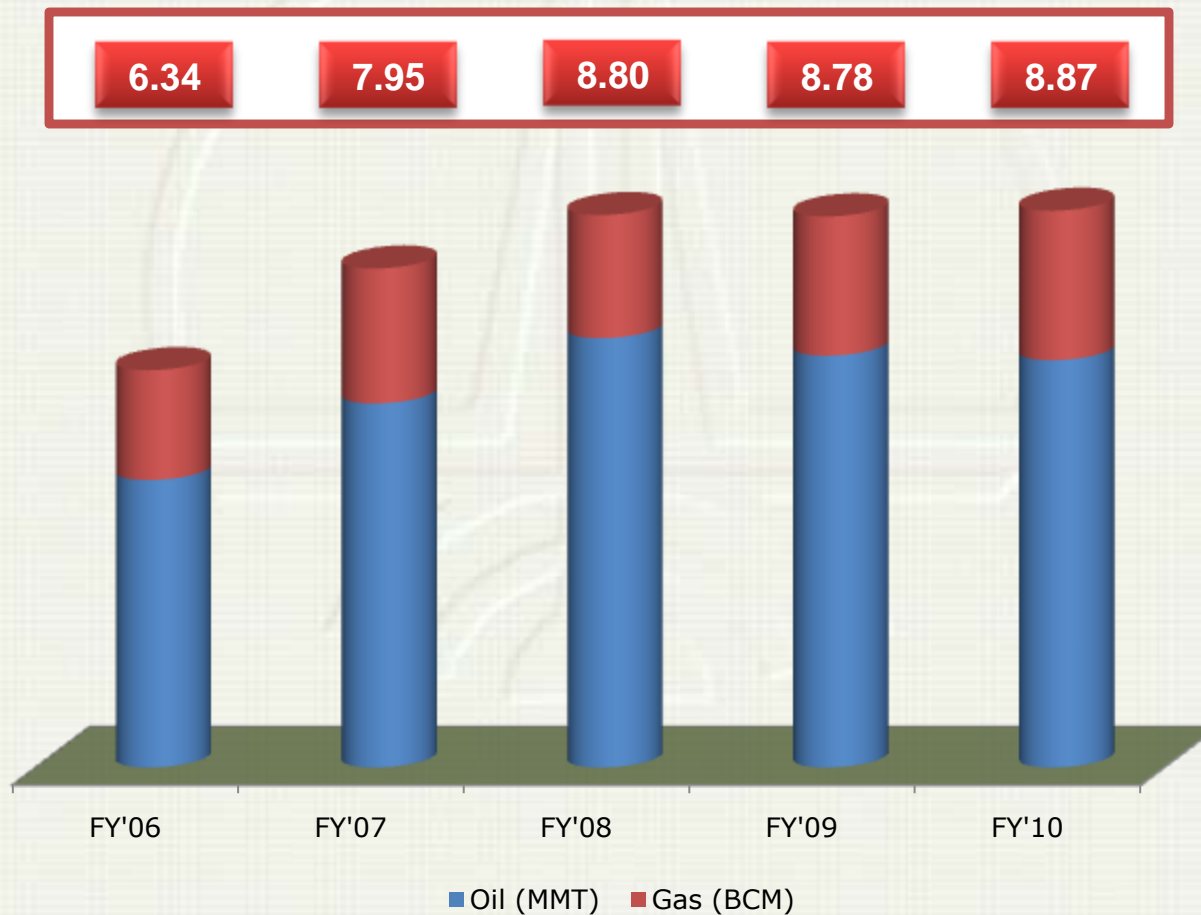
9 Producing



* 40th Project is Sudan's 741 km long completed Pipeline

OVL Production: O+OEG

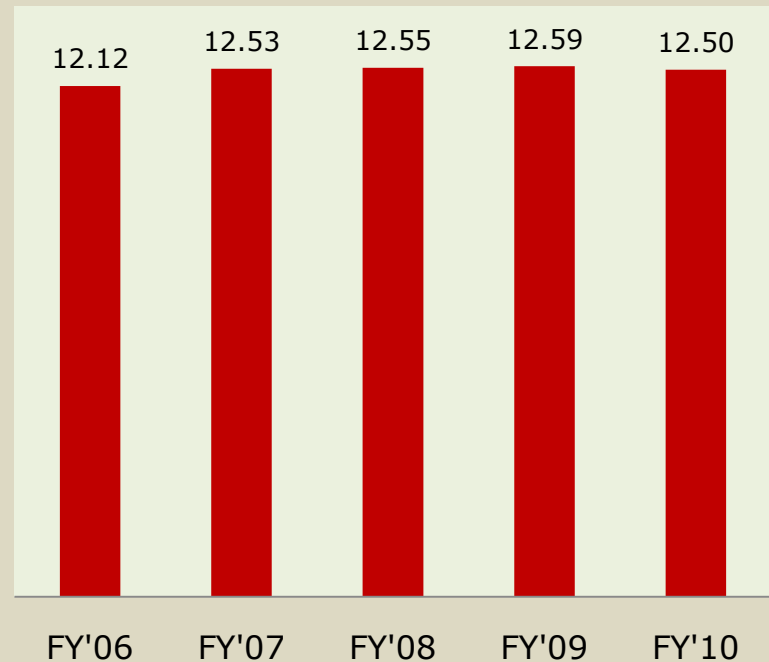
Highest-ever production by OVL in FY'10



Nameplate capacity enhanced to 11.82 MMTPA from 9.69 MMTPA

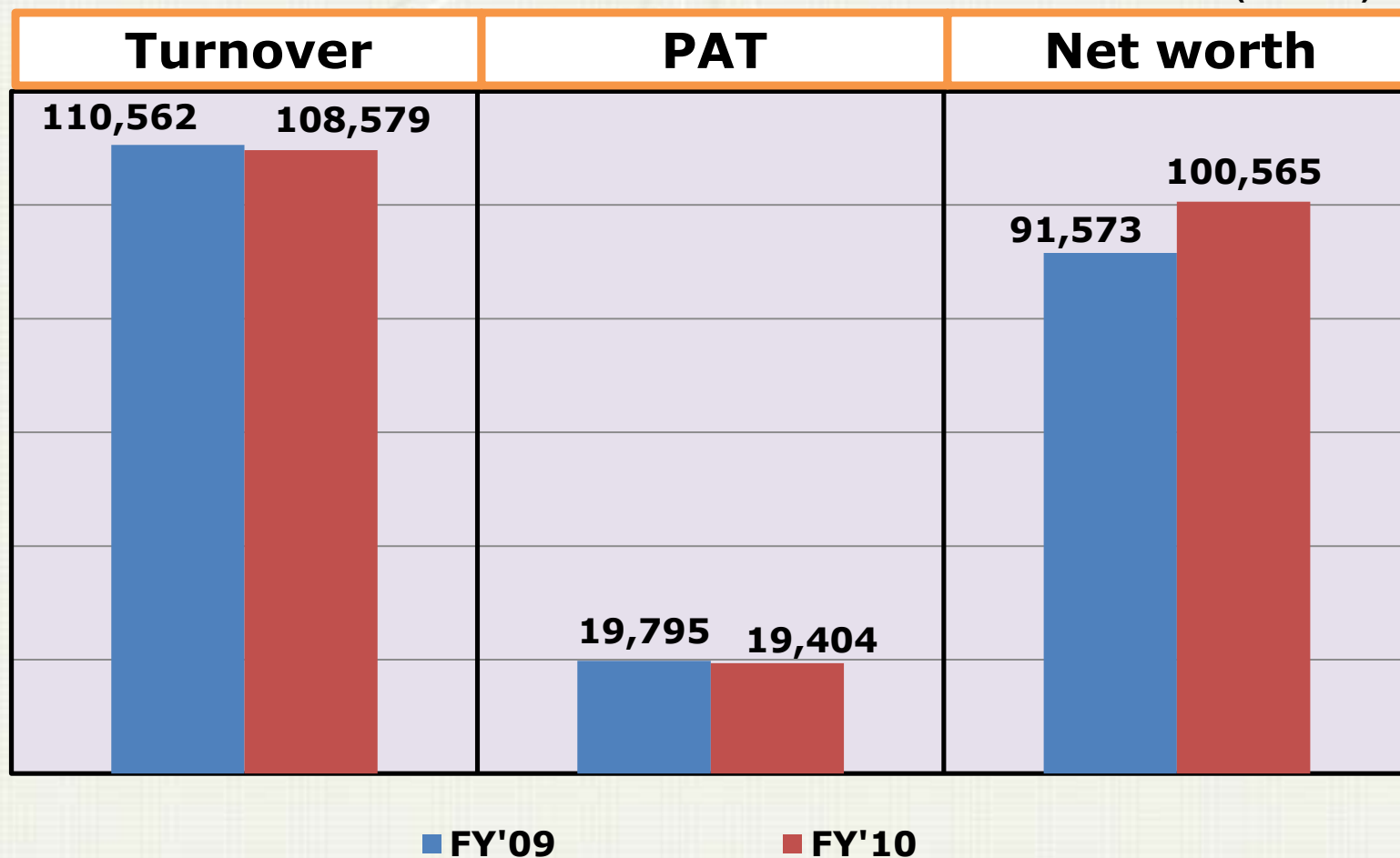
- Capacity being raised to 15 MMTPA
- To be capable of handling low grade, low price crude oils
(API: 24-43; High sulfur: up to 3%; High TAN: up to 1.5%)
- Investment ₹12,160 Crore
- Expected commissioning Dec'2011

Thruput (MMT)



ONGC Group Financials

(₹ Crore)



ONGC: Under-recoveries

(₹ Crore)	Discount on sales	Impact on PAT
FY'04	2,690	1,596
FY'05	4,104	2,553
FY'06	11,956	7,210
FY'07	17,024	10,333
FY'08	22,001	13,241
FY'09	28,225	15,798
FY'10	11,554	6,551
Q1, FY'11	5,516	3,119

ONGC: Q1 Financials

Details	Q1 FY'11	Q1 FY'10	% variation
Sales Revenue (₹ Crore)	13,710	14,922	(8.1)
Net Profit (₹ Crore)	3,661	4,848	(24.5)
Subsidy Discount (₹ Crore)	5,515	429	1,185.5
Gross Realization (US\$/bbl)	80.80	60.58	33.4
Net Realization (US\$/bbl)	48.04	58.25	(17.5)
Gross Realization (₹/bbl)	3,690	2,948	25.2
Net Realization (₹/bbl)	2,194	2,835	(22.6)

APM Gas price hiked* to US\$ 4.2/mmbtu

- 🔴 +ve impact on Revenue > ₹ 5,500 Crore p.a
- 🔴 +ve impact on PAT > ₹ 3,500 Crore p.a.
- 🔴 +ve impact on EPS > ₹ 17

Non-APM gas from nominated blocks at market prices

* With effect from 1st June 2010

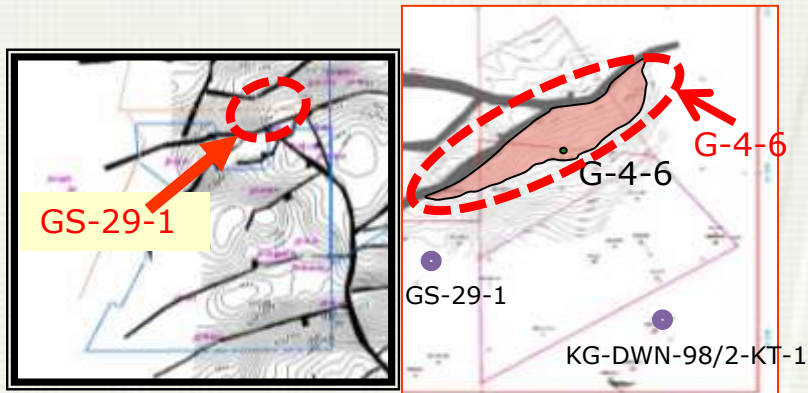


Our Growth Perspective

Major E&P projects

	Major Projects	₹ Crore
1.	B-22 Cluster development	2,323
2.	B-193 Clusters development	3,249
3.	Heera & South Heera redevelopment	2,305
4.	Development of B-46, B-48, B-105 & B-188	1,284
5.	MH South redevelopment Ph-II	6,339
6.	MH North redevelopment Ph-II	7,133
7.	Assam Renewal Project	2,230
8.	Development of Mangala, Aishwariya, Raageshwari & Saraswati (MARS)	1,804
9.	Cluster-7 development	3,241

Development Plan for Oil Discoveries in the East Coast



Projects

1. G-1 & GS-15
2. S-1 & Vashista
3. KG-DWN-98/2
4. Manik (G-4-6, GS-29-1 & G-4-5)

Conceptualised in 3 phases

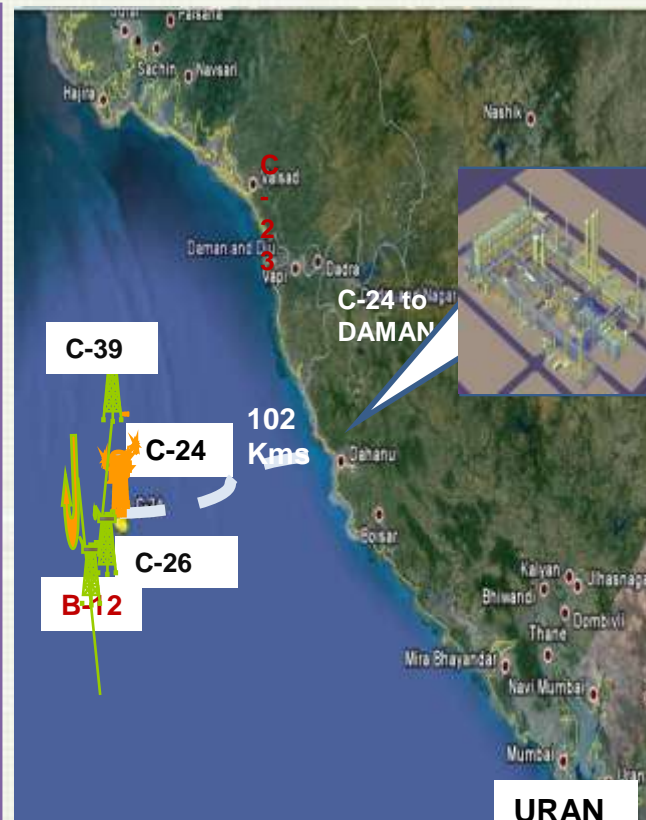
Production: by last Qtr. 2012-13

Volume: 30+ mmscmd in 2016



Daman offshore development

- Fast track Development of prospects around B-12 & C-24 areas
- Fields considered for development:
Daman(Main), Daman (North), C-24 & C-23
- In place Gas: 97.23 BCM
- Recoverable gas Considered : 42 BCM
- Peak Gas Production: 10-15 MMSCMD



Land acquisition under way for new processing plant & facilities

Envisaged growth

Crude oil production

2009-10 (Actual) : 24.86 MMT

2012-13 (Likely) : > 28 MMT

New major additional oil producers

Cluster 7

WO Series

B-193

D-1
Additional

B-22

Natural Gas production

2009-10 (Actual) : 63 mmscmd

2012-13 (Likely) : > 72 mmscmd

2015-16
(envisaged) : > 100 mmscmd

New major additional gas producers

Cluster 7

WO
Series

B series

North
Tapti

B-193

B-22

Tripura

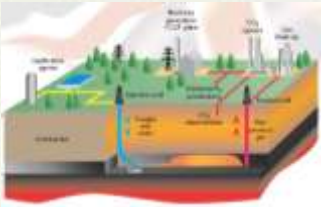
Daman

New sources of energy



Coal Bed Methane (CBM)

- ◆ CBM production commenced from Jan'2010



Underground Coal Gasification (UCG)

- ◆ Vastan, Gujarat the first Pilot project



Shale Gas

- ◆ Pilot project launched in Damodar valley



Gas hydrates

- ◆ Associating with GOI initiative

Value-multiplier projects

All projects on track; likely to be completed in 2012 & 2013



ONGC Petro-additions Ltd.

◆ Scheduled completion 2013



ONGC Mangalore Petrochemicals Ltd.

◆ Scheduled completion 2012



ONGC Tripura Power Company Ltd.

◆ Scheduled completion FY'12

ONGC Energy Centre Trust Holistic Research beyond Hydrocarbons

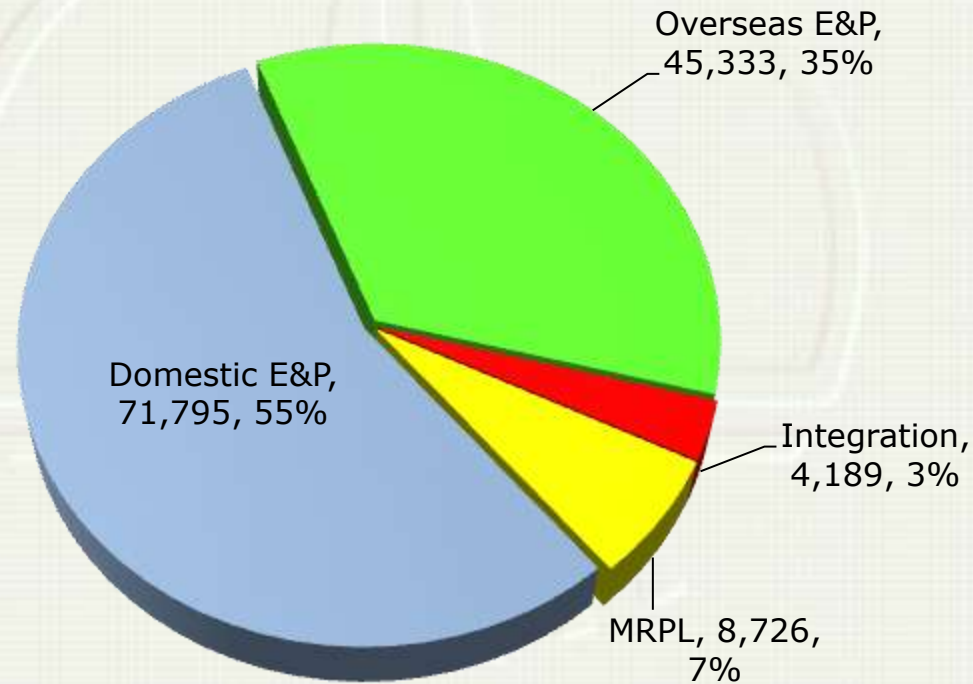


Hon'ble Prime Minister laid the foundation stone of Rajiv Gandhi Urja Bhavan- to house ONGC Energy Centre Trust

- Thermo-chemical reactor for Hydrogen
- **Geo-bio Reactors**
 - **Project for Bio-synthesis of Methanogens in collaboration with reputed Institutes**
- Fuel Cells
 - Collaboration with world leader in Proton Exchange Membrane (PEM) Technology
- **Uranium**
- Solar Power

XI Plan outlay

Outlay for Group: ₹ 1,30,043 Crore



Domestic E&P includes ONGC's investment for PSC JVs

XI Plan outlay

ONGC, XI Plan outlay*: ₹ 75,984 Crore



Capex in first three years of XI Plan
 ₹ 63,070 Crore
 (83% of total outlay)

* ONGC: domestic E&P + Integration projects



Likely upsides

Likely upsides

ONGC

- APM Gas price revision
- Equity in crude price discount
- Production enhancements through New field developments & IOR/ EOR schemes
- Value-multiplier SPVs to come on stream within 2 years

MRPL

- Refinery up-gradation and capacity enhancement
- Integration with Value-multiplier SPVs

OVL

- Production enhancement from new acquisitions
- Equity in Carabobo Mega Project in Venezuela
 - To enhance 2P reserves of OVL by 45 MMT (stand alone); 10% over 2009-10
- The current Balance Reserves at present production levels have life of
 - 20 years on Proven Reserves
 - 40 years on Proven and Probable Reserves
- Oil & Gas Production to commence
 - Carabobo in Venezuela: 2012-13
 - Block A1 & A3 in Myanmar: mid 2013



Thank you