



Incentives and challenges in investing in E&P sector in Africa

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World energy consumption: historical and projections 1990 - 2035

➤ World's energy consumption will increase to 739,000 Trillion BTU by 2035, ie 49% higher than the level in 2007.

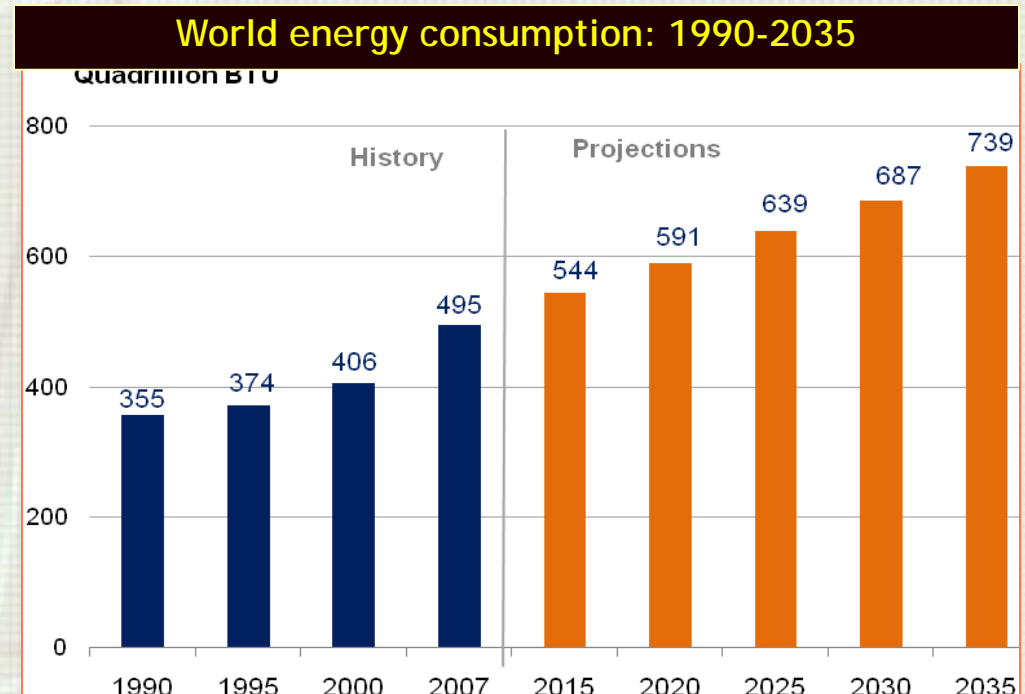
➤ World Energy Outlook predicts higher oil prices to prevail all through the forecast period

➤ Total energy demand is projected to rise every year at an average rate of 1.4 percent per year.

➤ India consumed 3.6% of world energy in 2000 whereas China's share was about 9%.

➤ By the year 2035, India is projected to consume 5% of world's total energy consumption and China's share shall be 25%,

➤ together, the two countries shall make 30% share of world's total energy consumption.

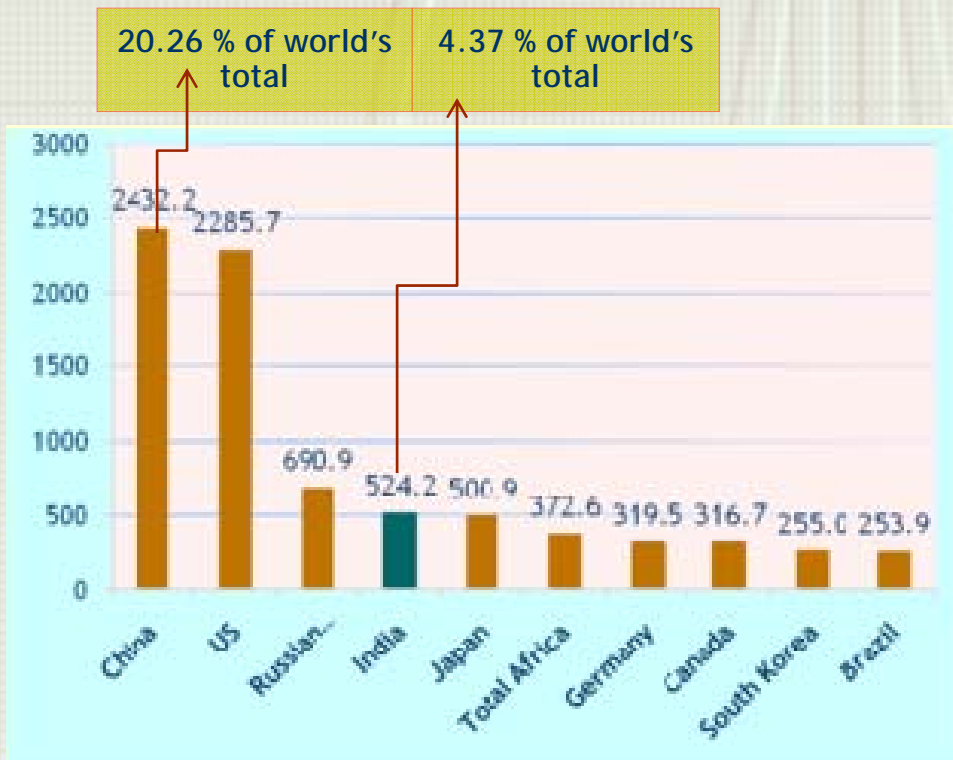


Source: International Energy Outlook 2010 (IEO 2010)

Top energy consumers of the World

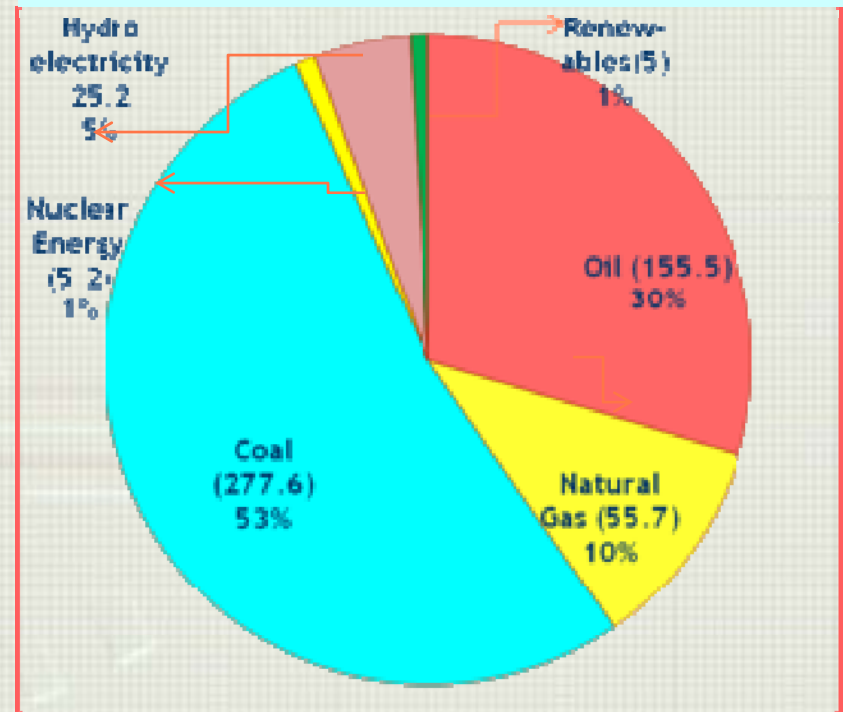
India is World's 4th largest energy consumer

Primary Energy Consumption (MMTOE)



Source: BP Statistical Review 2011

Energy Consumption by Type INDIA (MMTOE)



Source: BP Statistical review of world energy 2011



➤ India produces about 0.93 per cent of World's total crude oil but consumes about 3.83 % of world's oil consumption.



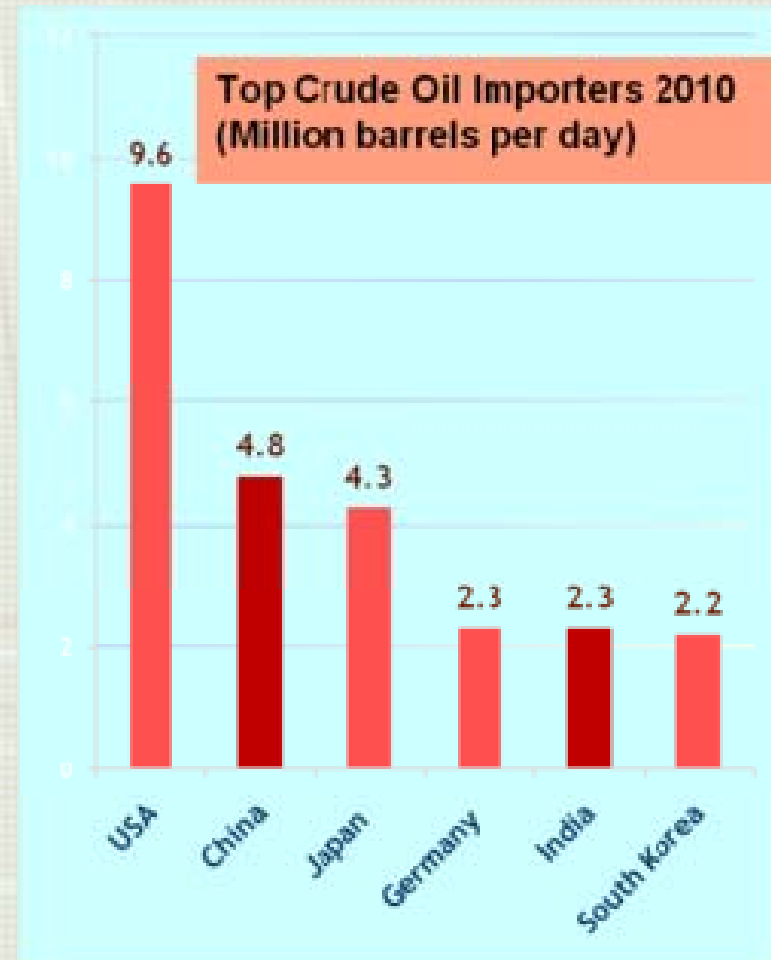
➤ India's gas production in 2009 was about 29% higher than previous year, mainly on account of commencement of gas from the East Coast.



➤ In terms of World's total gas production, India's production share amounted to only 1.3%.



Oil and Gas Production vis-a-vis imports

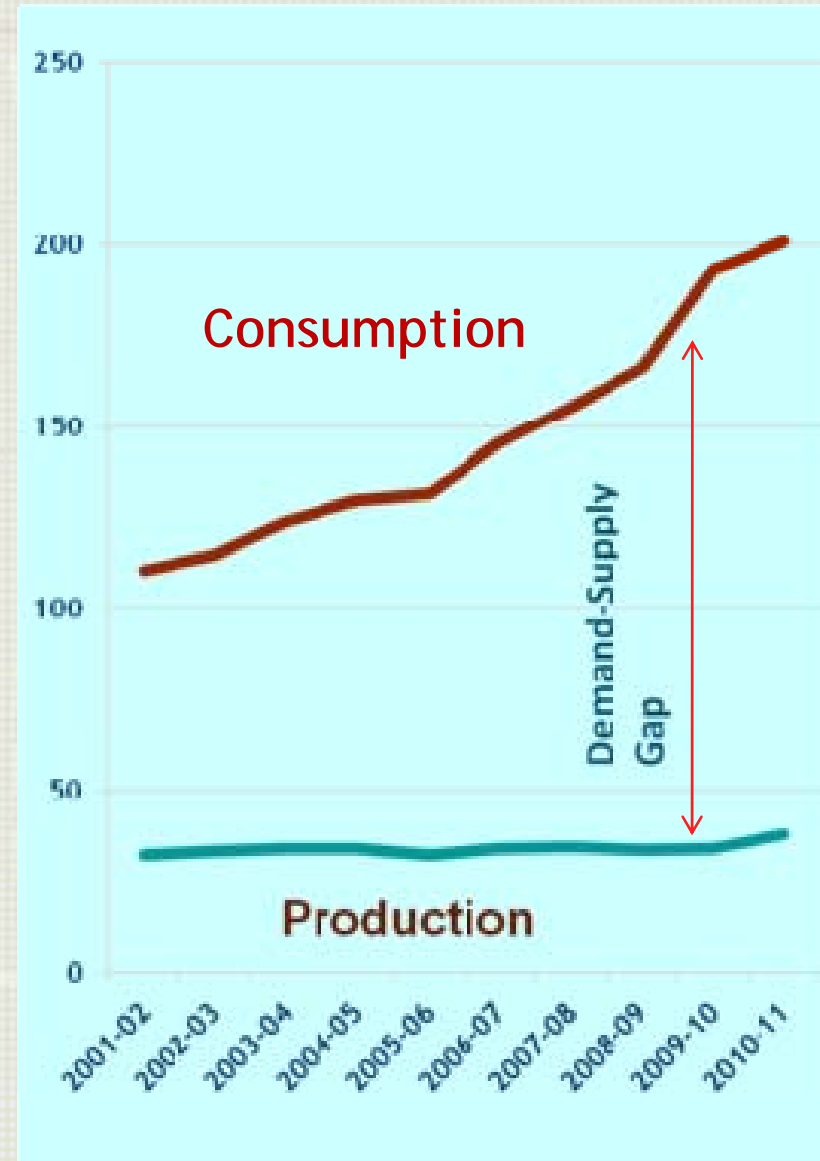


Widening Oil Demand in India

The current domestic production is less than 20% of demand. The deficit today is over 160 MMTPA of crude Oil

Oil consumption projected at 350-486 MMTPA by 2031-32. The range of crude oil import shall be 315-451 MMTPA, rising by 90-93 %

Year	Crude Oil Production MMT	Crude Oil Import MMT	Self Sufficiency (%)
2001-02	32.03	78.7	28.9%
2002-03	33.04	81.99	28.7%
2003-04	33.73	90.43	27.2%
2004-05	33.98	95.86	26.2%
2005-06	32.19	99.41	24.5%
2006-07	33.98	111.5	23.4%
2007-08	34.11	121.672	21.9%
2008-09	33.51	132.78	20.2%
2009-10	33.69	159.26	17.5%
2010-11	37.71	163.13	18.8%



Source: MOPNG



ONGC: India's Flagship E & P Company



1

- Significant role in defining India's hydrocarbon landscape
- As of July 2010 Largest exploration acreage & mining lease in India ⁽¹⁾
- Largest Oil & Gas reserves (proved) in India ⁽¹⁾
- Largest producer & explorer of crude oil and natural gas in India ⁽¹⁾

2

- Expanding presence in higher-margin segments of petroleum value chain
- Integrating into refining, petrochemicals, power, LNG & diversification into non-conventional energy sources such as coal-bed methane, shale gas and gas hydrates

3

- Significant overseas investments
- Presence in 14 countries with 31 projects excluding India
- Access to International Partners / Global NOCs

4

- Over 5 decades of Oil & Gas expertise
- Skilled workforce & management team
- In-house infrastructure and capabilities to utilize large geological data and expertise

5

- Highest net income (consolidated) among all listed companies in India in Fiscal 2011 ⁽²⁾
- #1 E&P company in India & #18 Energy company in the world⁽³⁾; #172 in the Forbes Global 2000 list ⁽⁴⁾

6

- Maximizing recovery of reserves utilizing recovery techniques
- Sustaining production in declining fields
- Leverage R&D to improve expertise



...sudan Pipeline project and recently acquired Kazakhstan block

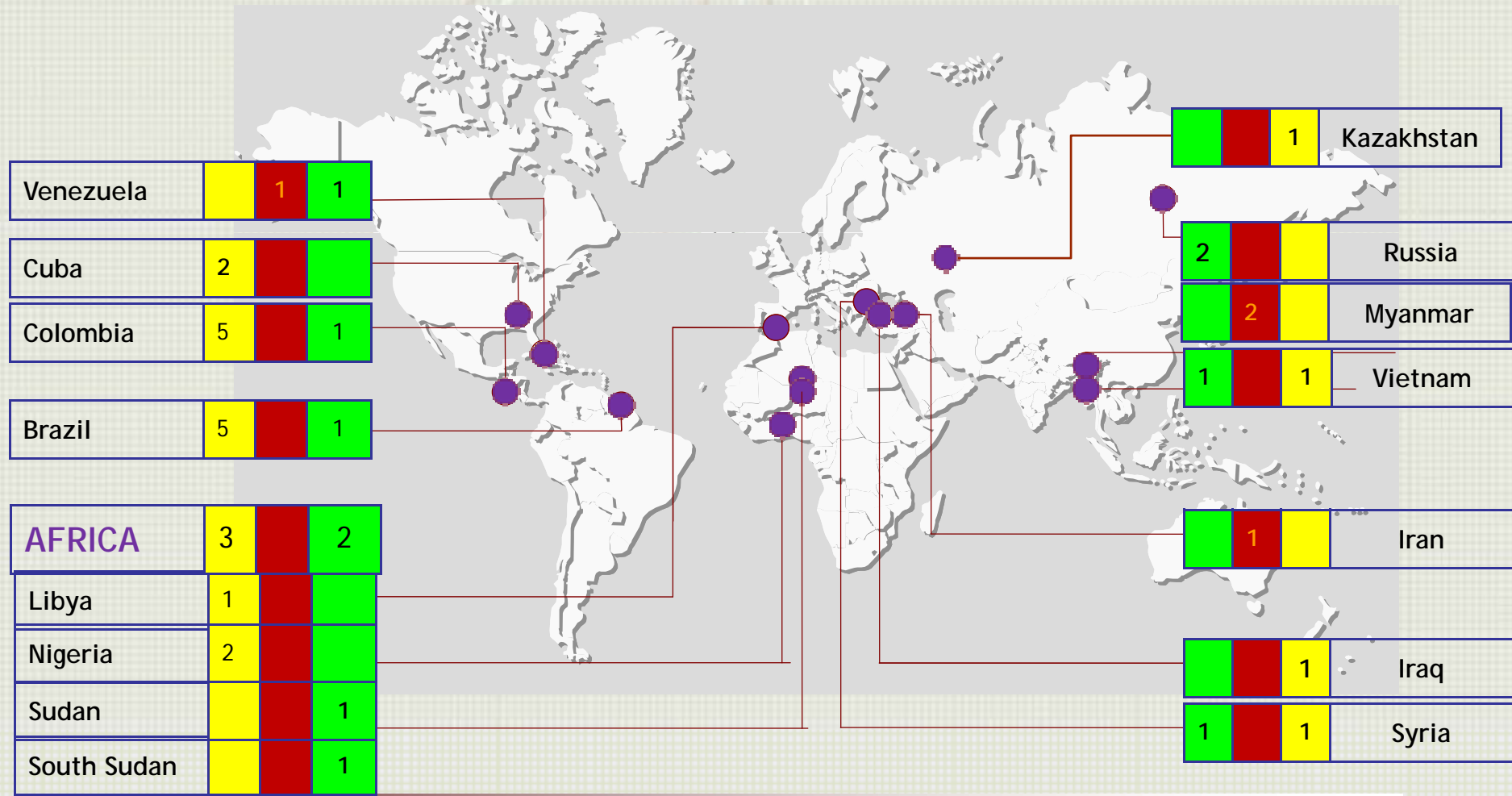
¹ Oil & Natural Gas Commission, Exploration and Production Accounts, India, Report 2008-2010, TOPI As of June 30, 2011. Based on last block for Financial Year ending March 31, 2011 (Source: ONGC)

² Platts Top 200 Global Energy Companies section 2011 (November 2011) which measures financial performance by examining each company's assets, revenues, profits and return on invested capital

⁴ Forbes Global 2000 list of the world's biggest companies for 2011, based on sales, profits, assets and market capitalization.

OVL's International Presence – Africa and elsewhere

33* Projects in 15 Countries	19 Exploration	4 Development	9 Producing
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* Includes Sudan's 741 km Product Pipeline EPC Project

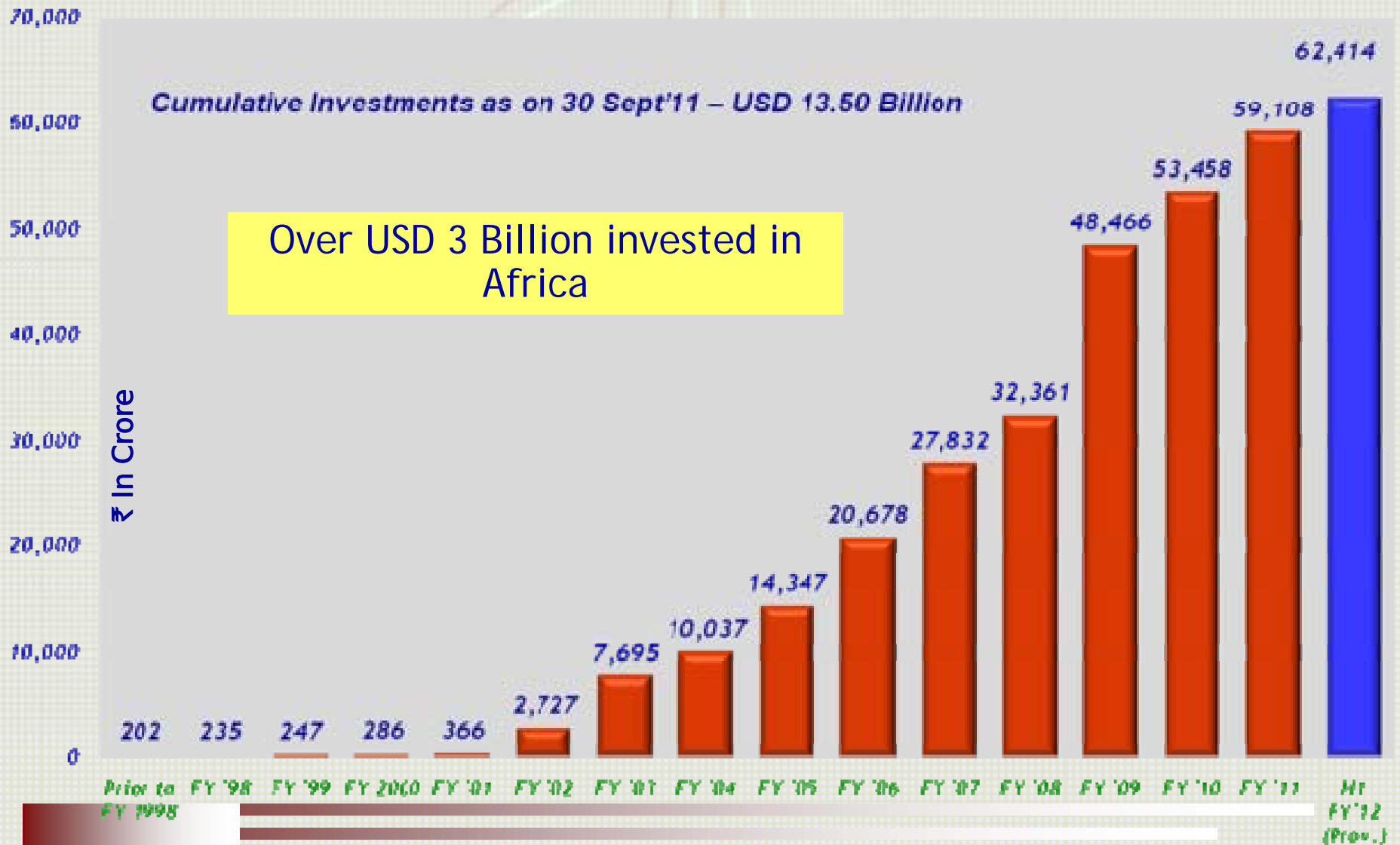


Source : MOPNG

Oil & Gas Production : Domestic vis-à-vis Overseas

Year	FY'06	FY'07	FY'08	FY'09	FY'10	FY'11
Oil production (MMT)	32.19	33.99	34.12	33.51	33.69	37.71
Gas Production (BCM)	32.20	31.75	32.42	32.85	47.51	52.22
Total Domestic (MMTOE)	64.39	65.74	66.54	66.36	81.2	89.93
OVL Oil as % of Dom. Oil	14.22	17.06	20.05	19.58	19.26	17.91
OVL Gas as % of Dom. Gas	5.45	6.77	6.05	6.76	5.01	5.16
OVL as % of Domestic Oil & Gas Production	9.84	12.09	13.22	13.23	10.92	10.51

Cumulative Investments



Strong Relationship & Access to International Partners / NOC



- ❑ India and Africa share complimentary needs and can be important strategic partners
- ❑ Need to leverage by going beyond a buyer-seller relationship
- ❑ Indian companies can bring in their experience and knowledge and seek equity investments in the whole hydrocarbon value chain
- ❑ As a NOC; OVL shares host country's vision and has mutually beneficial interest in developing hydrocarbon sector in African nations
- ❑ ONGC's rich experience can be leveraged as a knowledge partner in furtherance of African hydrocarbon industry

- ❑ Complimentary needs not enough to bolster cooperation, fiscal stability and policy imperatives must support new investments
- ❑ Spiraling costs; increased government takes and inclination towards resource nationalism making tasks at hand more difficult
- ❑ Increasingly challenging to take up high exploration risks in new thrusts areas like deepwater; pre-salt reservoirs; LNG projects; etc.
- ❑ Cutting-edge technology application requires substantial investments; large risk appetite and long gestation periods. Conducive regimes and investor friendly policies are required.

- ❑ Proactive collaboration need of the day
- ❑ Will call for commitment and trust in each other's abilities
- ❑ Forge mutually beneficial alliances in these turbulent times
- ❑ Enablers to increase thrust to exploration and development in frontier and deepwater areas:
 - Transparent and consistency in application of contract provisions
 - Tax holiday for new ventures
 - Provide fiscal incentives
 - Stake in producing properties to leverage new capital in frontiers

- Africa is natural E&P destination for Indian companies
 - for investment and joint ventures,
 - for project management services,
 - cross border pipeline projects, and
 - source of LNG
- India offers investment and market opportunity to Africa
 - in upstream sector,
 - Downstream sector
 - market for hydrocarbons
 - infrastructure development.
 - Training and skill development

ONGC Group: A Rich Heritage



1997: Navratna Status

2003: Acquired MRPL

2010: CBM, Carabobo (Venezuela)

1974: 1st offshore discovery - Bombay High

2006: Incorporation OPAL, OMPL, MSEZ

2010: Maharatna Status

1956: Inception

2009: Acquired Imperial Energy

2011: Shale Gas Discovery (Russia)

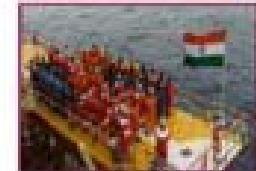


Foundation

Growth



Transformation



Over 5 Decades of *E*xperience

"ONGC Group is evolving into an integrated Oil & Gas Company with a Global Footprint"



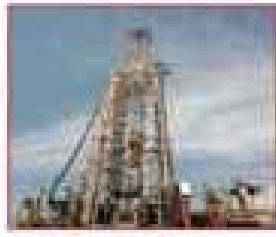
Strong E&P Infrastructure And Capabilities

Integration Across E&P Value Chain

Exploration Facilities



20 Seismic Survey Crews ⁽¹⁾



58 Onshore Workover Rigs

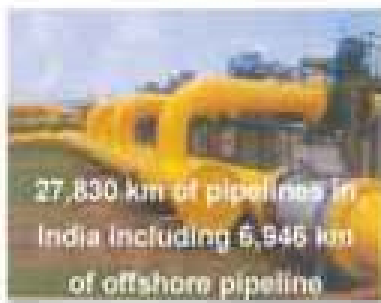


68 Drilling Rigs ⁽²⁾



107 Well Stimulation Units

Production & Transportation Facilities ⁽²⁾



27,830 km of pipelines in India including 5,945 km of offshore pipeline



Offshore Installations



15 Offshore Supply Vessels



Onshore Installations

Processing Infrastructure



*Let's make the coming decade:
Decade of "India - Africa Partnership
Dominance"*

Thank You