



Regulatory Framework and Investment Outlook : Indian Perspective

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India



OUTLINE



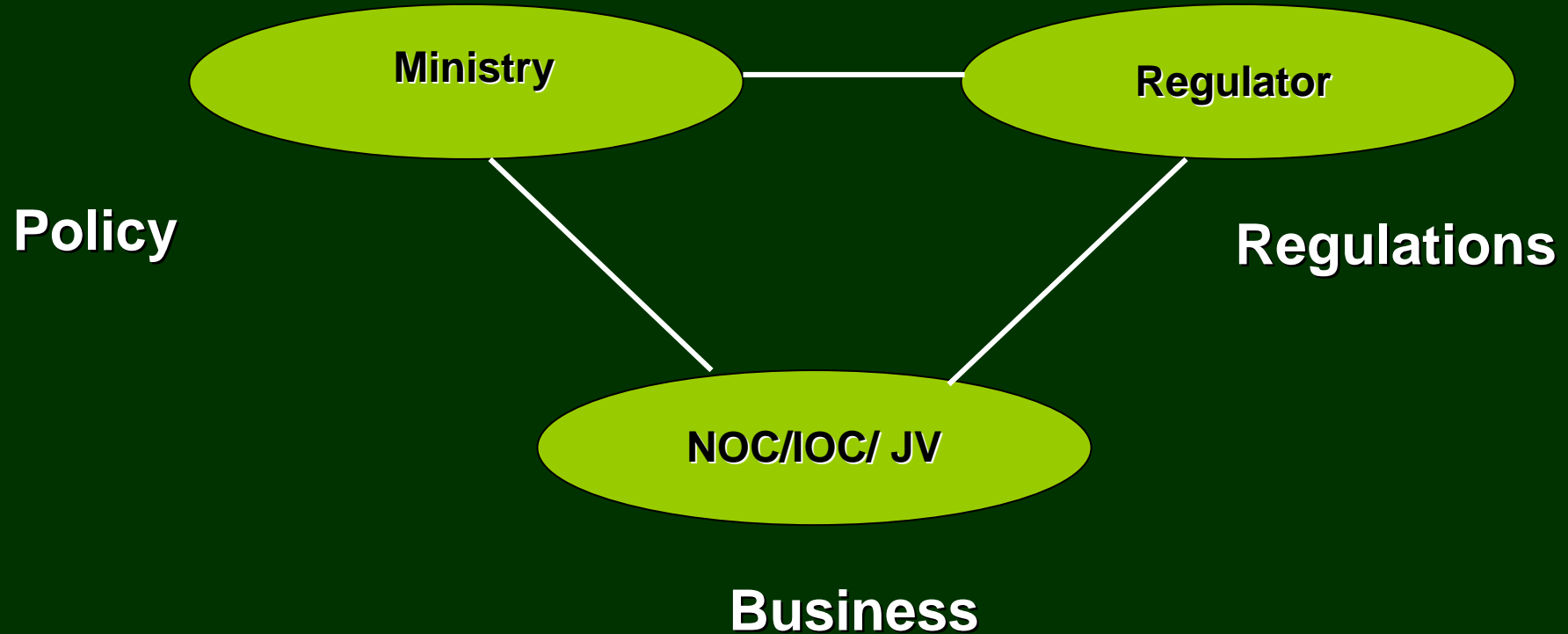
- **Petroleum Regulatory Framework**
- **Indian PSC Regime**
- **NELP Bidding**
- **PFC's Report on India**
- **Revenue Management**
- **Conclusions**



Petroleum Regulatory Framework



More countries adopting the "separation of roles" for Resource Management





Pillars of Oil & Gas Regulatory Regimes

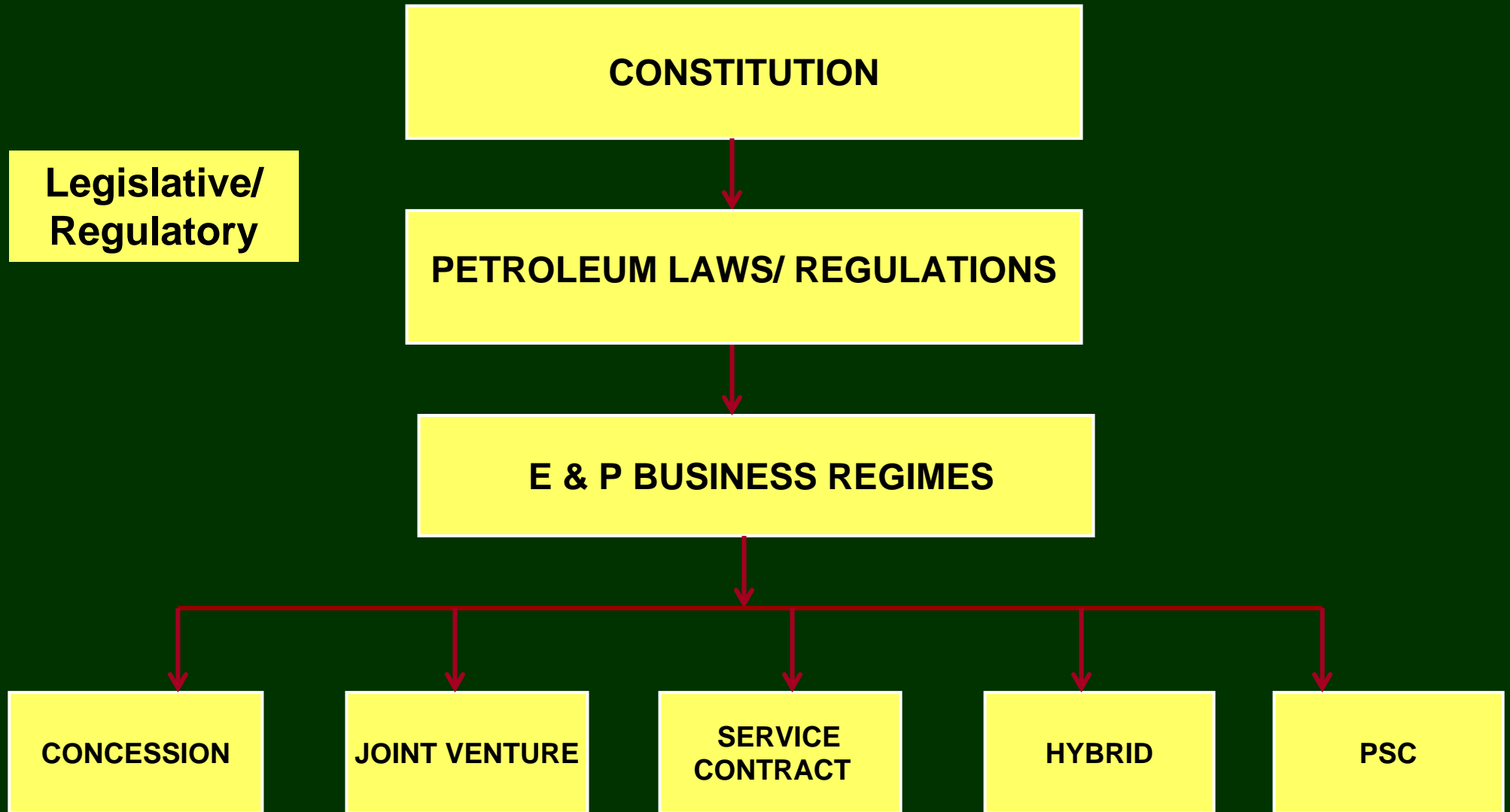
A good oil & gas regulatory regime addresses certain major regulatory issues in a satisfactory way:

- The right to monetize resources**
- Fiscal and contract stability**
- Enforceability of contract**

A regulatory regime that fails on any one of these points puts its “investment favourability” at risk



Petroleum Regime Framework





PSC REGIME

: INDIA



Historical Background



- In India, first PSC was signed in 1993 for a Pre-NELP Block
- 231 Exploration PSCs have been signed so far
- PSC terms continuously improved in successive NELP rounds



Production Sharing Contract Attributes



- ❖ **Contract Term**
- ❖ **Relinquishment**
- ❖ **Management Committee**
- ❖ **Discovery, Development & Production**
- ❖ **Unit Development**
- ❖ **Cost Recovery & Production Sharing**
- ❖ **Taxes, Royalties & Rentals**
- ❖ **Domestic sourcing & supply obligations**
- ❖ **Employment & Training**
- ❖ **Title to assets**



Legal Framework



- **Constitution of India, 1950**
- **The Oilfields (Regulation and Development) Act, 1948**
- **The Petroleum and Natural Gas Rules, 1959 & Amendments**
- **Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976**
- **Income Tax Act, 1961**
- **Customs Act, 1962**
- **Foreign Exchange Management Act, 1999**
- **Environment Protection Act, 1986**
- **Arbitration and Conciliation Act, 1996**



Indian Sedimentary Basins

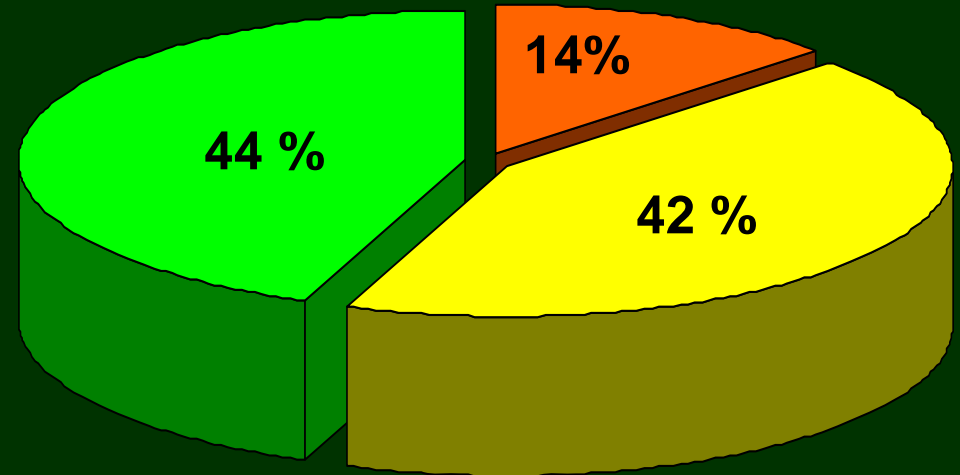


26 sedimentary basins

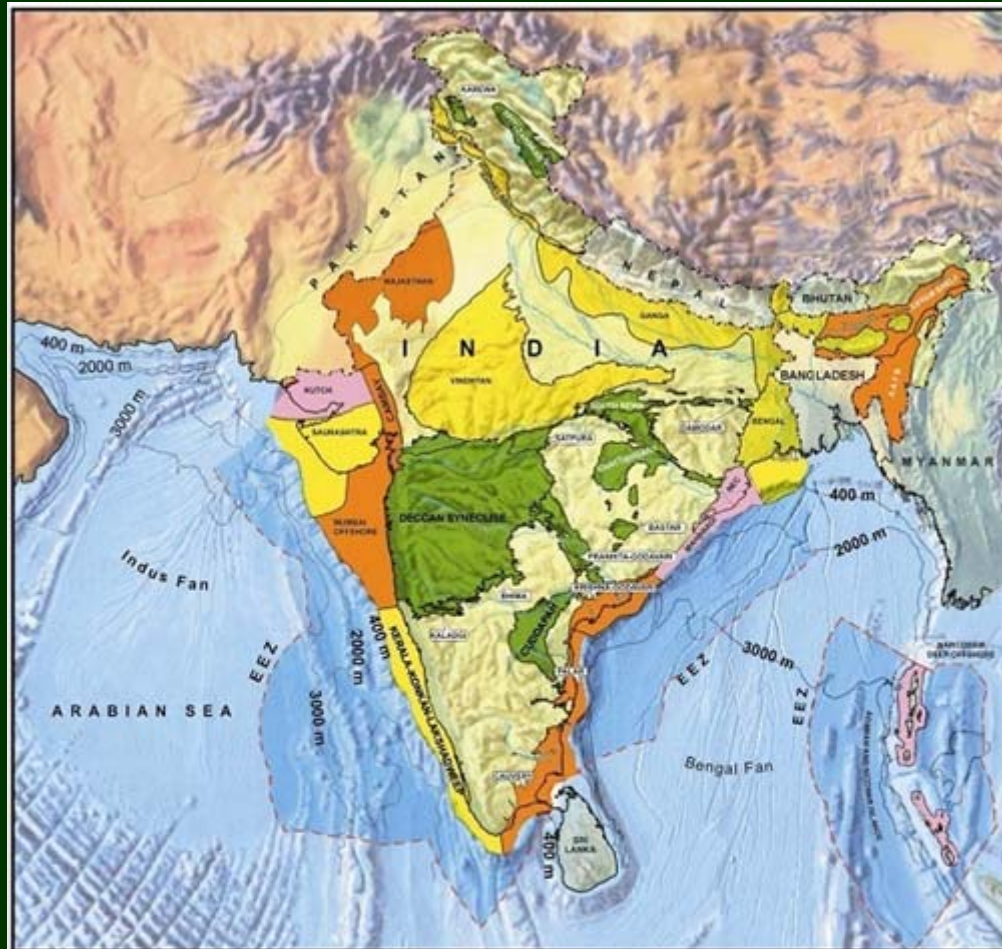
Total area : 3.14 million Sq.km

ONLAND
1.39 Million Sq Km

SHALLOW WATER
0.4 Million Sq Km



DEEP WATER
1.35 Million Sq Km

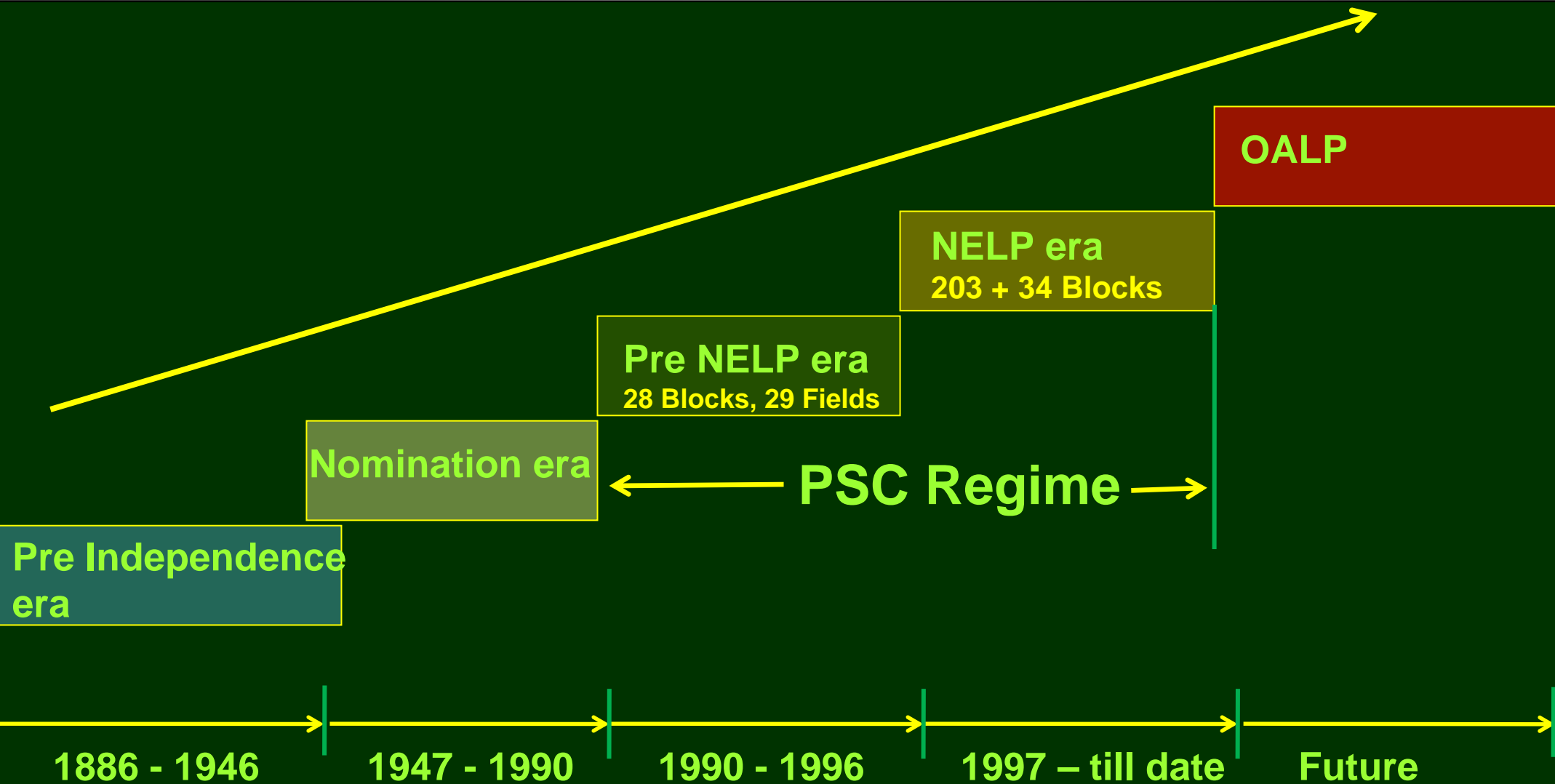


LEGEND

- | | |
|--|--|
| CATEGORY-I BASIN
(Proven commercial productivity) | CATEGORY-IV BASIN
(Potentially Prospective) |
| CATEGORY-II BASIN
(Identified prospectivity) | PRE-CAMBRIAN BASEMENT/
TECTONISED SEDIMENTS |
| CATEGORY-III BASIN
(Prospective Basins) | DEEP WATER AREAS
WITHIN EEZ |



Upstream Industry Development





PSC Regime – Pre NELP



Pre-NELP (1990 – 1996)

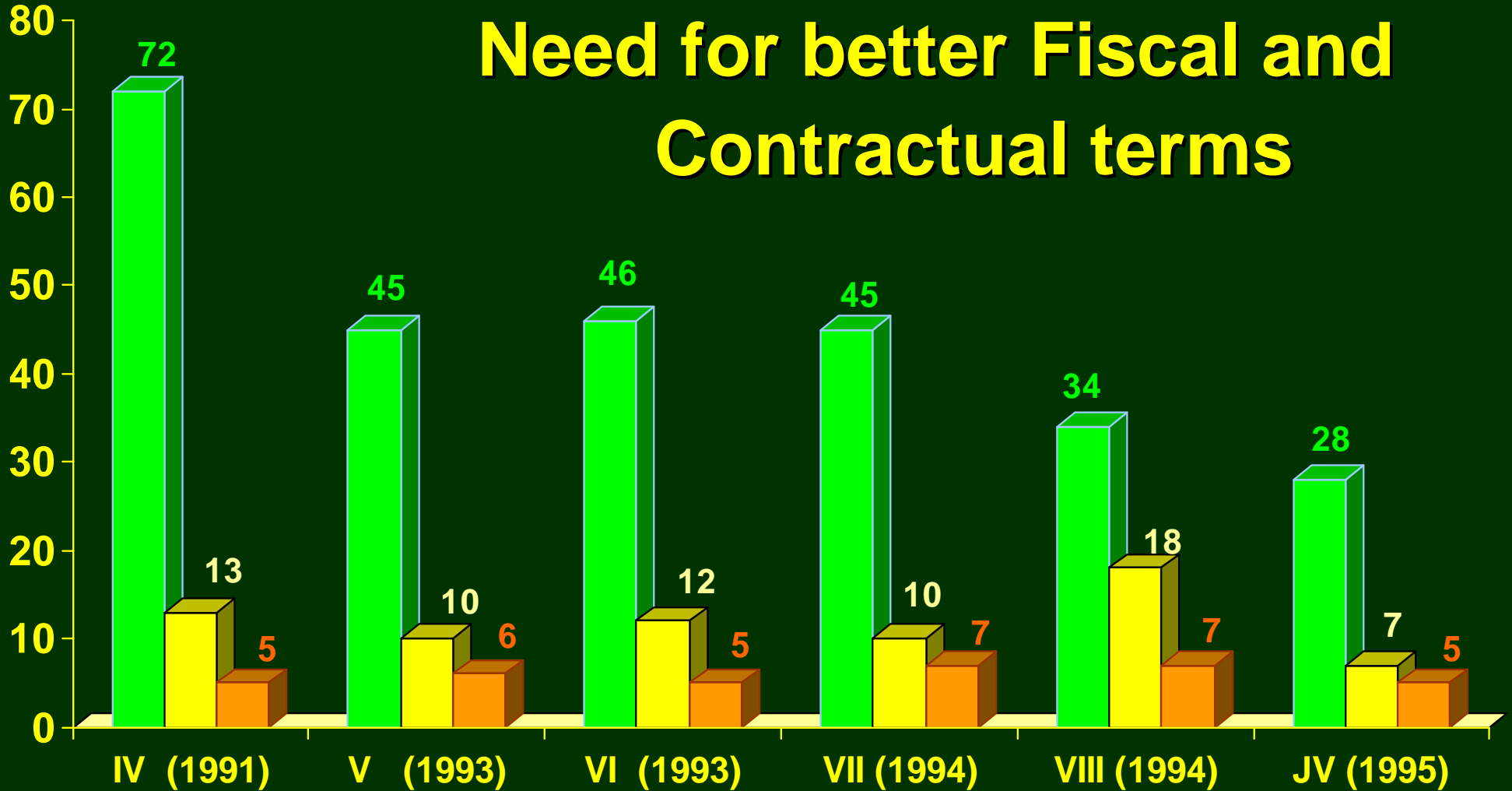
- Liberalized economic policy adopted by Govt. of India
- Petroleum sector de-regulated and de-licensed
- Formation of Directorate General of Hydrocarbons in 1993
- Small size producing fields offered to Pvt. Operators / JVs
- Acreages, both offshore and onshore, offered through competitive bidding
- Poor response - 270 blocks offered - only 35 blocks contracted to Pvt. Companies



BLOCKS AWARDED- PRE NELP



■ No. of Blocks Offered ■ No. of Blocks Bid For ■ Blocks Awarded





PSC Regime - NELP



NELP (1997 - till date)

- **New Exploration Licensing Policy (NELP) announced in 1997**
- **Administrative Price Mechanism (APM) abolished**
- **100% FDI in E&P sector approved**
- **Hydrocarbon Vision 2025 released in March 2000**
- **Seven rounds of international bidding completed**
- **203 blocks awarded till NELP-VII**



NEW EXPLORATION LICENSING POLICY



- **First bidding round in 1999**
- **Award of licenses through international competitive bidding**
- **Fast track approval mechanism**
- **Directorate General of Hydrocarbon (DGH) as single window**
- **No acreages on nomination basis**
- **No State participation or any carried interest**
- **International pricing for Crude oil & market driven prices for Natural gas**



FISCAL HIGHLIGHTS - NELP



- **No Oil Industry Development cess**
- **No signature, discovery or production bonus**
- **No custom duty on imports for Petroleum Operation**
- **Income Tax holiday of 7 years for Mineral Oil**
- **No ring fencing of expenditures and incomes for income tax purposes**
- **Cost recovery biddable- Up to 100%**
- **Sharing of Profit Petroleum with Govt. on biddable pre-tax investment multiple**

Contd..



FISCAL HIGHLIGHTS - NELP



- **Fiscal stability as part of the contract**
- **Low to moderate royalty rates between 5% to 12.5%**
- **Special concessions for deepwater blocks**
- **Full repatriation of profits**
- **Liberal set off of losses and carry forward provisions for income tax purposes**
- **Tax Incentives for Site Restoration Fund Scheme (SRFS)**



LEVEL OF OPERATIONS

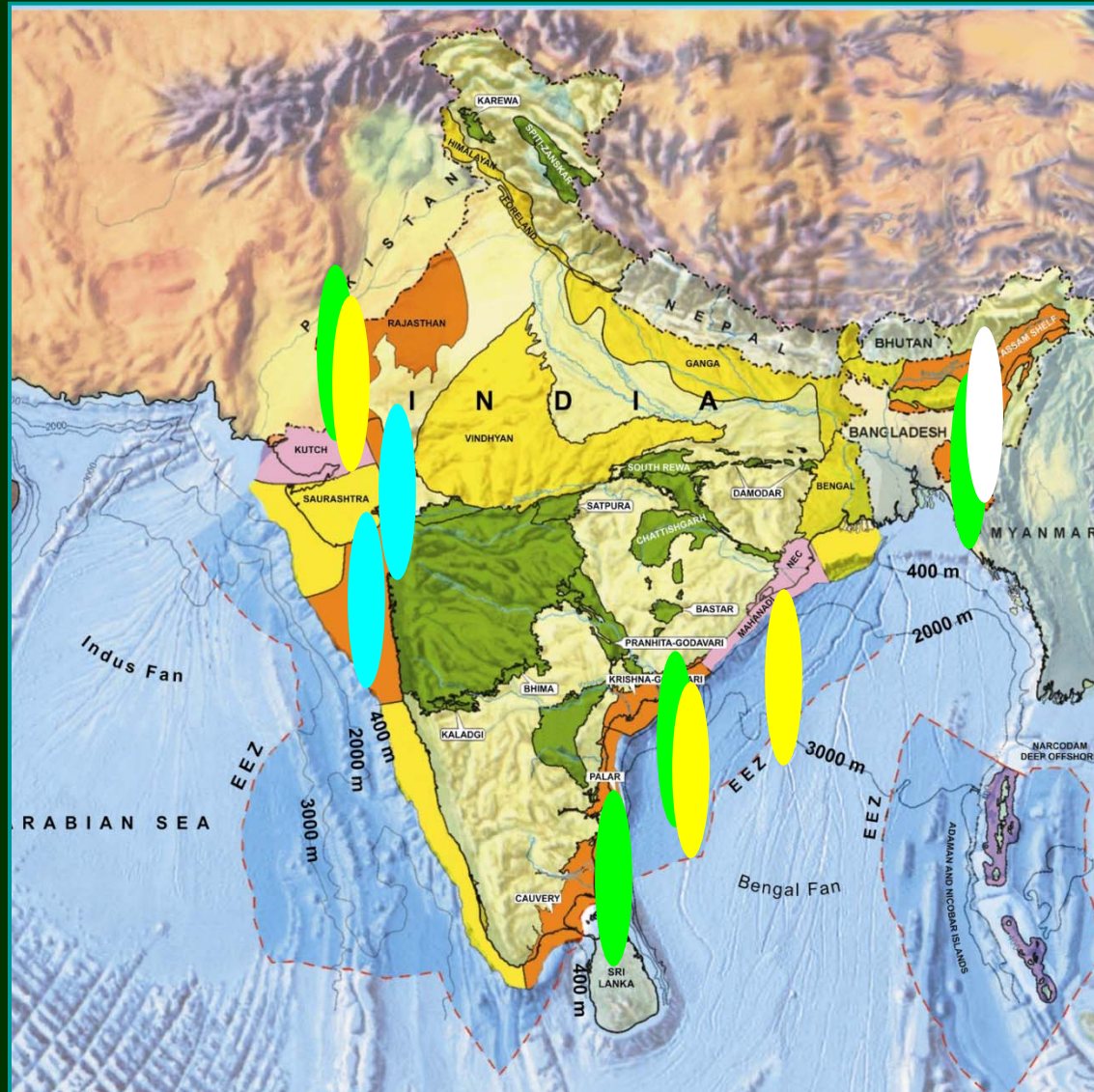


1947

1990

2000

2010



1 Company
1 Producing Basin

2 Companies
3 Producing Basins

12 Companies
7 Producing Basins

71 + 19 Companies
10 Producing Basins

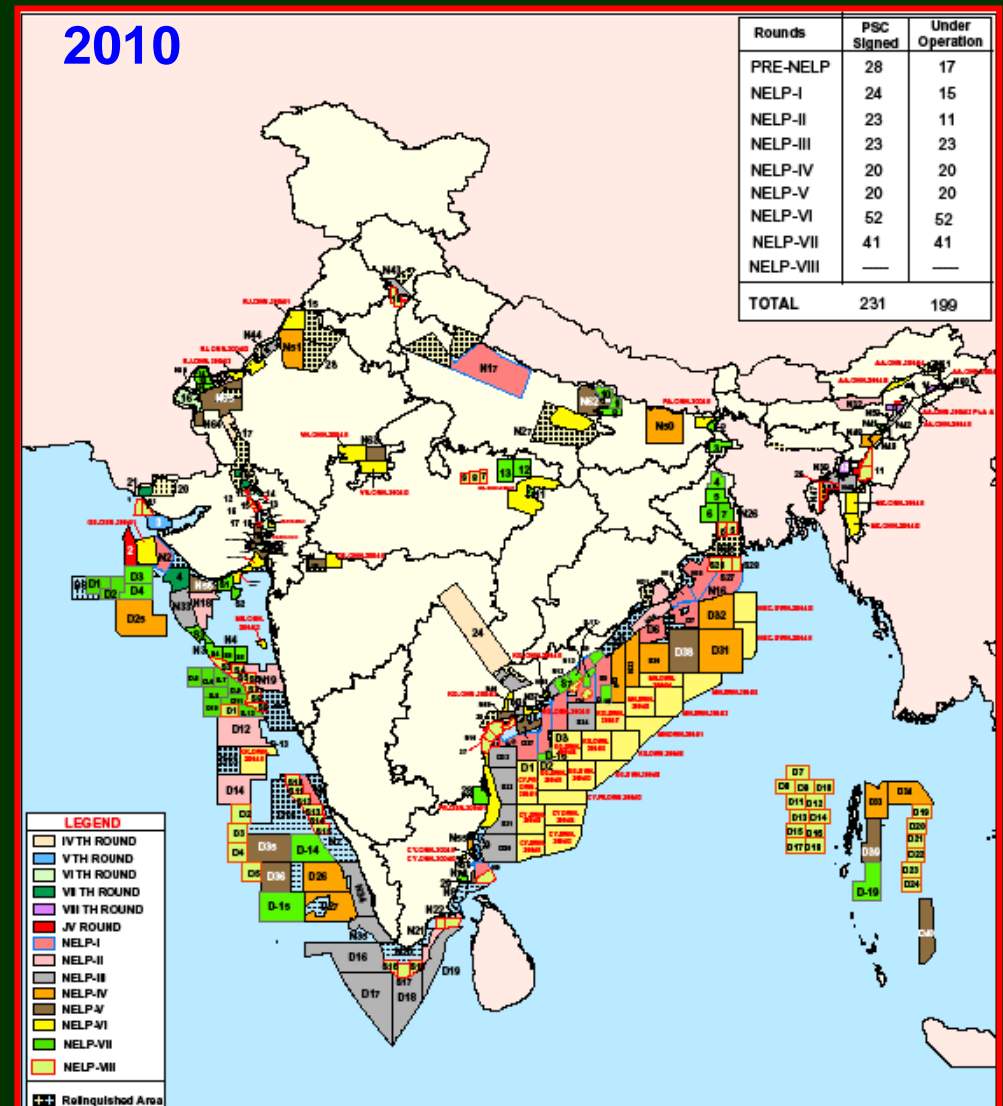


EXPLORATION STATUS



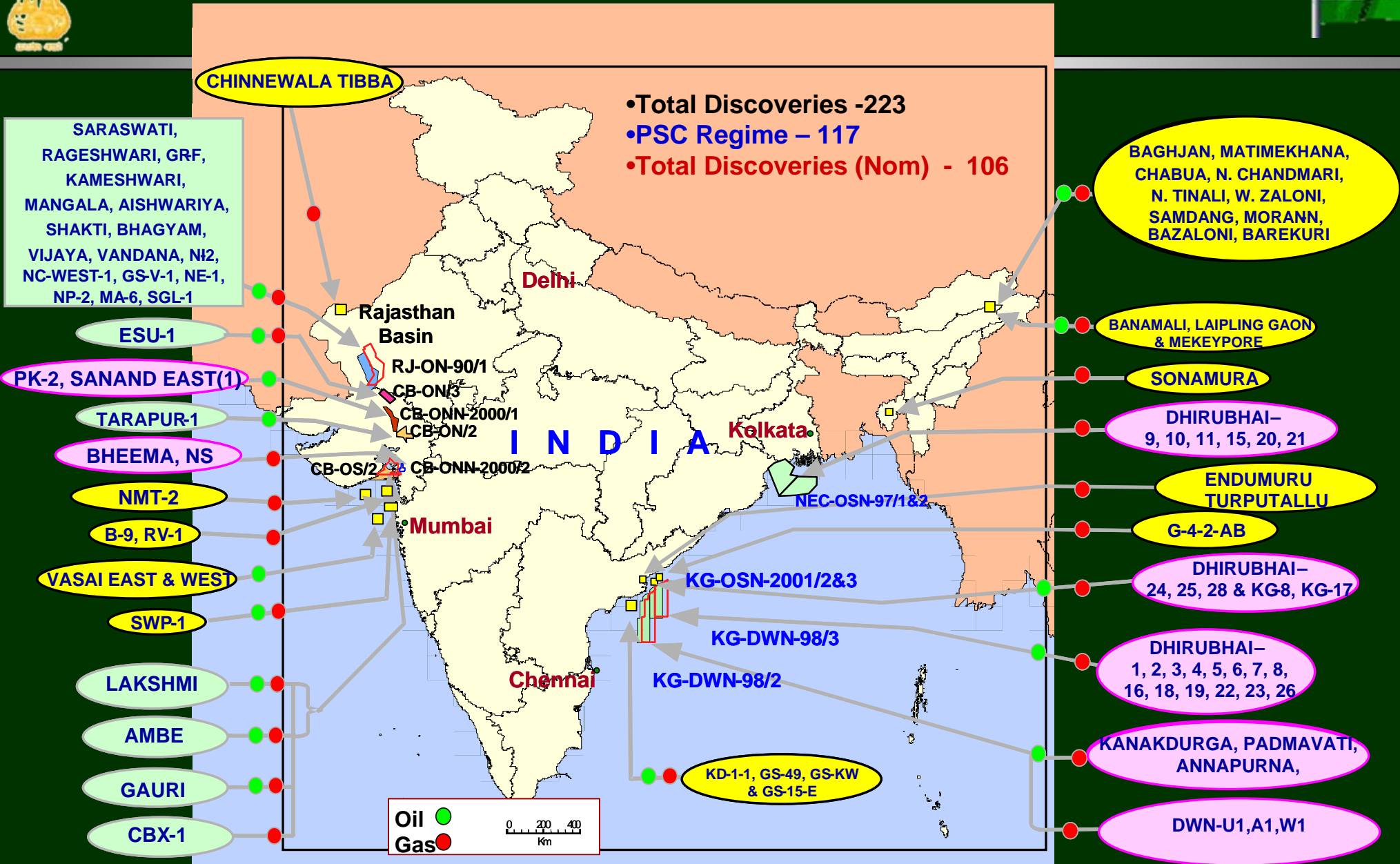
PEL Blocks– 8 / ML blocks–18

PEL Blocks–183 + 34 / ML blocks 30





SPURT OF DISCOVERIES (2000-2010)



As on 01.04.2010



NELP Bidding



NELP BIDDING PROCESS



STEPS:

1. Large Area identification and data loading
2. Carving of blocks / preparation of technical docket
3. Preparation of Bid documents
4. Marketing of blocks / Exclusive Web Site
5. Bidding and award of blocks



Bid Evaluation Criteria



1. Technical Capability

To be evaluated for Deep Water blocks only

For Shallow water and Onland blocks it is a Qualifying criteria.

1. Acreage Holding
2. Operatorship Experience
3. Annual Accretion of proved reserves
4. Annual Production
5. Consortium Criteria
6. Access to Resources

2. Work Program

1. 2D seismic surveys
2. 3D seismic surveys
3. Exploratory wells

3. Fiscal Package

1. Profit share to Government
2. Cost recovery



EVALUATION POINTS



Criteria	Onland Blocks	Onland & shallow water Blocks	Deepwater Blocks
	Type S		
Technical Capability	Not a criterion	Pre-Qualifying	25
Work programme	50	50	25
Fiscal package	50	50	50
Total (Points)	100	100	100

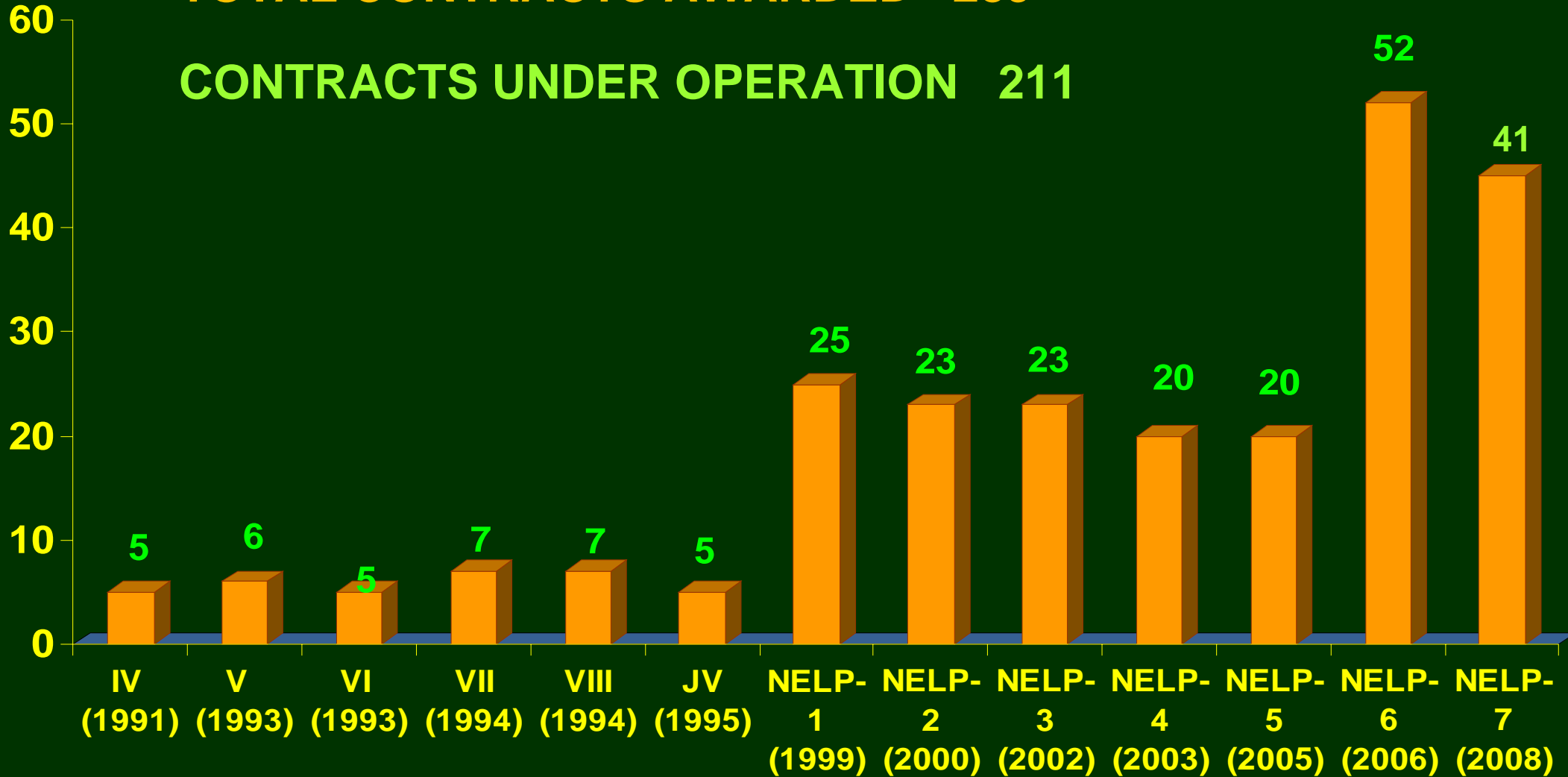


PSC GROWTH



TOTAL CONTRACTS AWARDED 289

CONTRACTS UNDER OPERATION 211

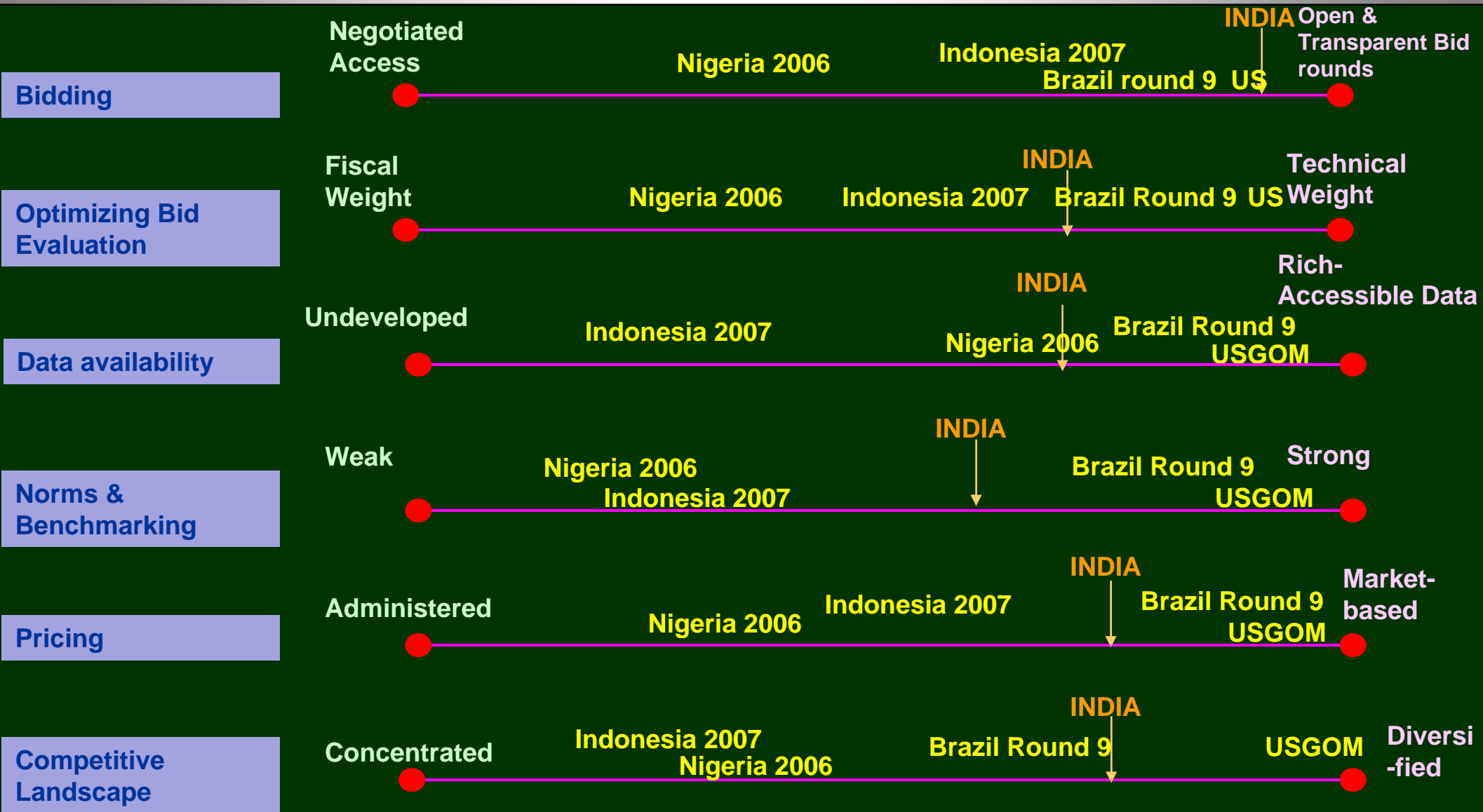




PFC's report on India



OPERATOR FRIENDLY POLICIES



Modified after PFC



DIVERSE PARTNERING OPPORTUNITIES



NATIONAL OIL COMPANIES

ONGC
OIL
HPCL

BPCL IOC
NTPC

Essar Reliance
Videocon Tata
HOEC Adani
Deep Jubilant
Aban Welspun

BG BP Statoil
Eni Cairn Gazprom
Santos Tullu Hardy
NIKO Petrobras
Naftogaz M3energy
Canoro BHP Billiton
Geoglobal

INDIAN PRIVATE SECTOR

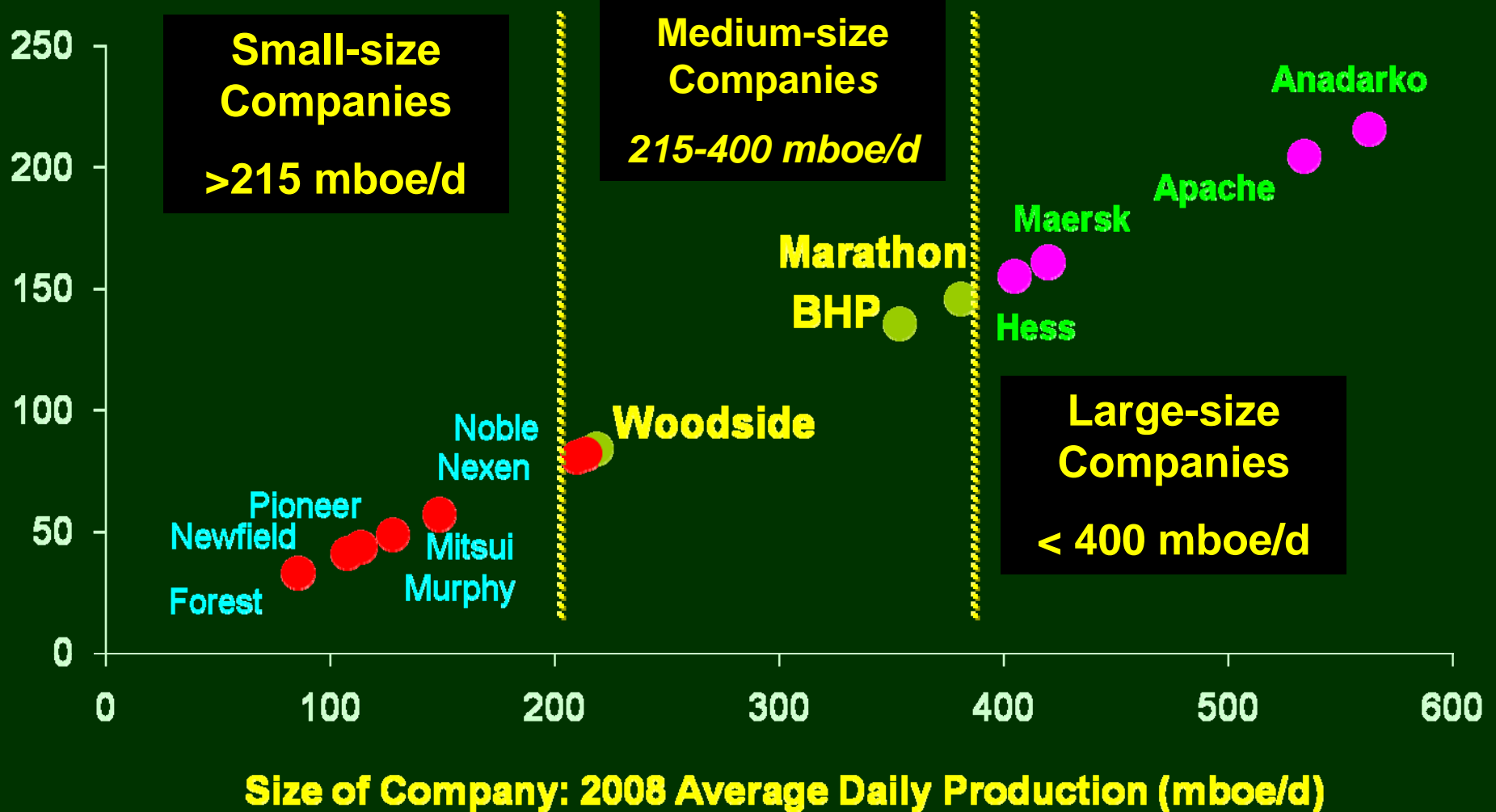
FOREIGN PLAYERS



India is an “Opportunity Space” for Small, Medium and Large-sized companies

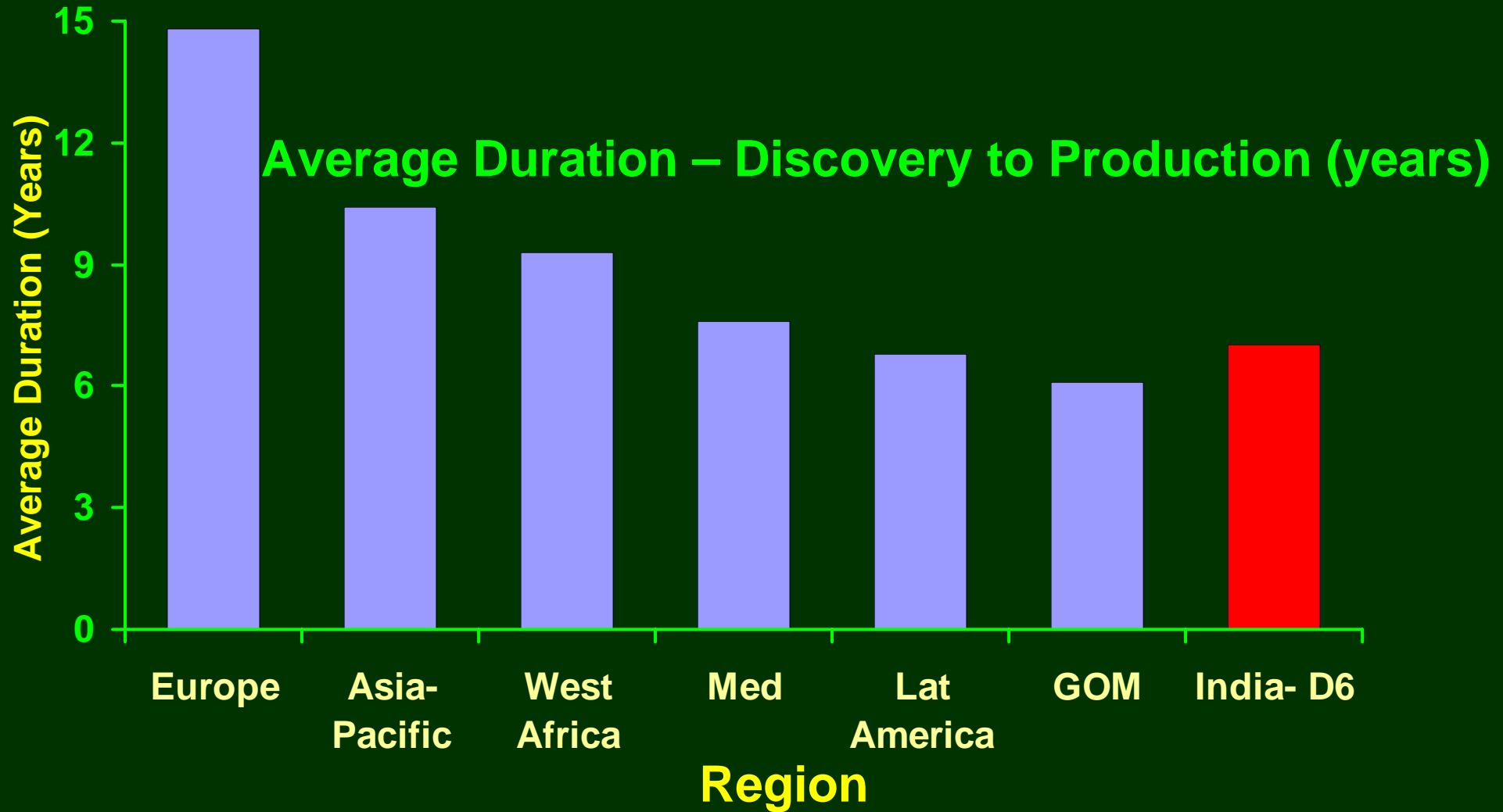


Replacement requirement: Reserve Additions @105% (mboe/year)





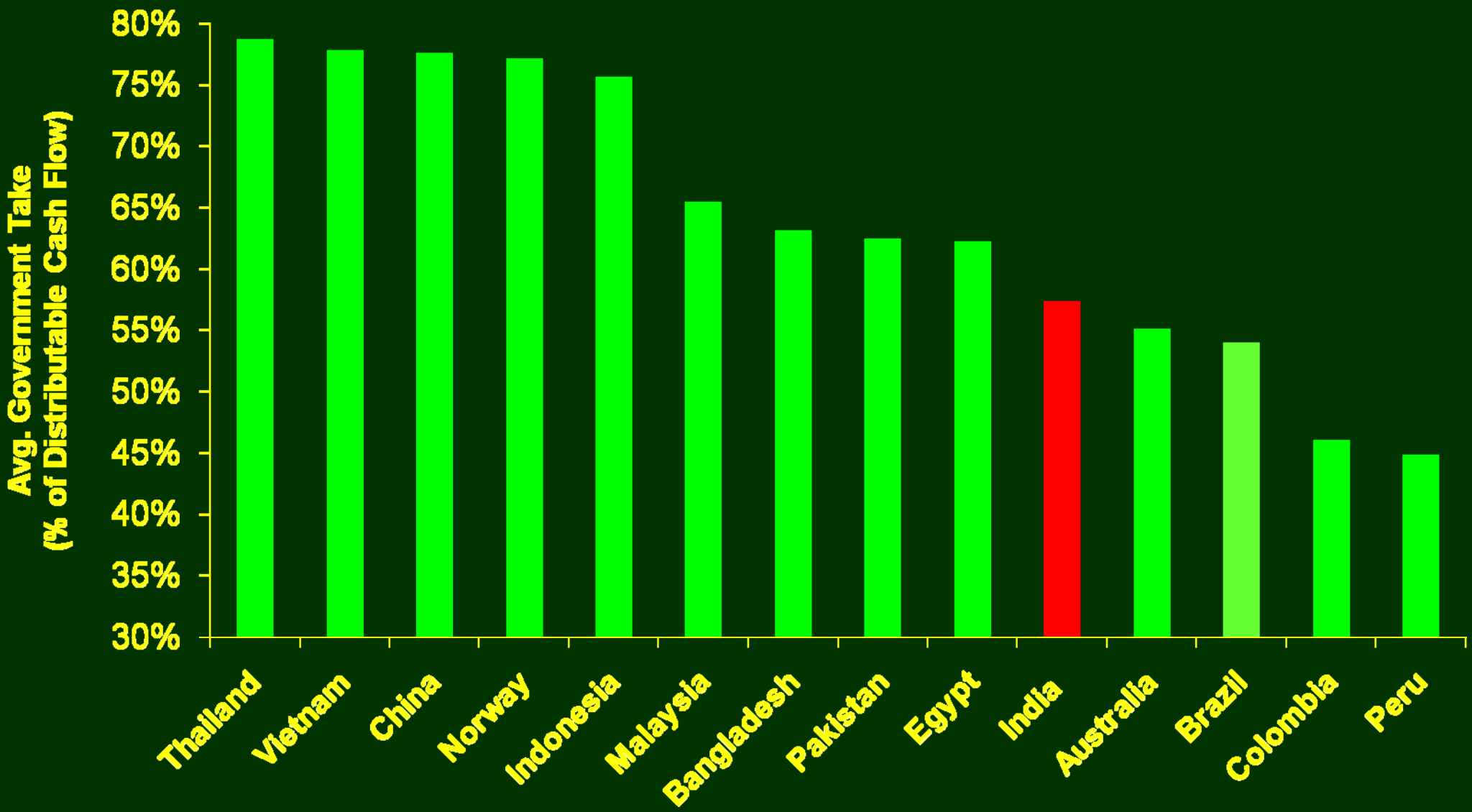
Deepwater: Regional Comparison



Note: Includes producing projects and projects currently under development

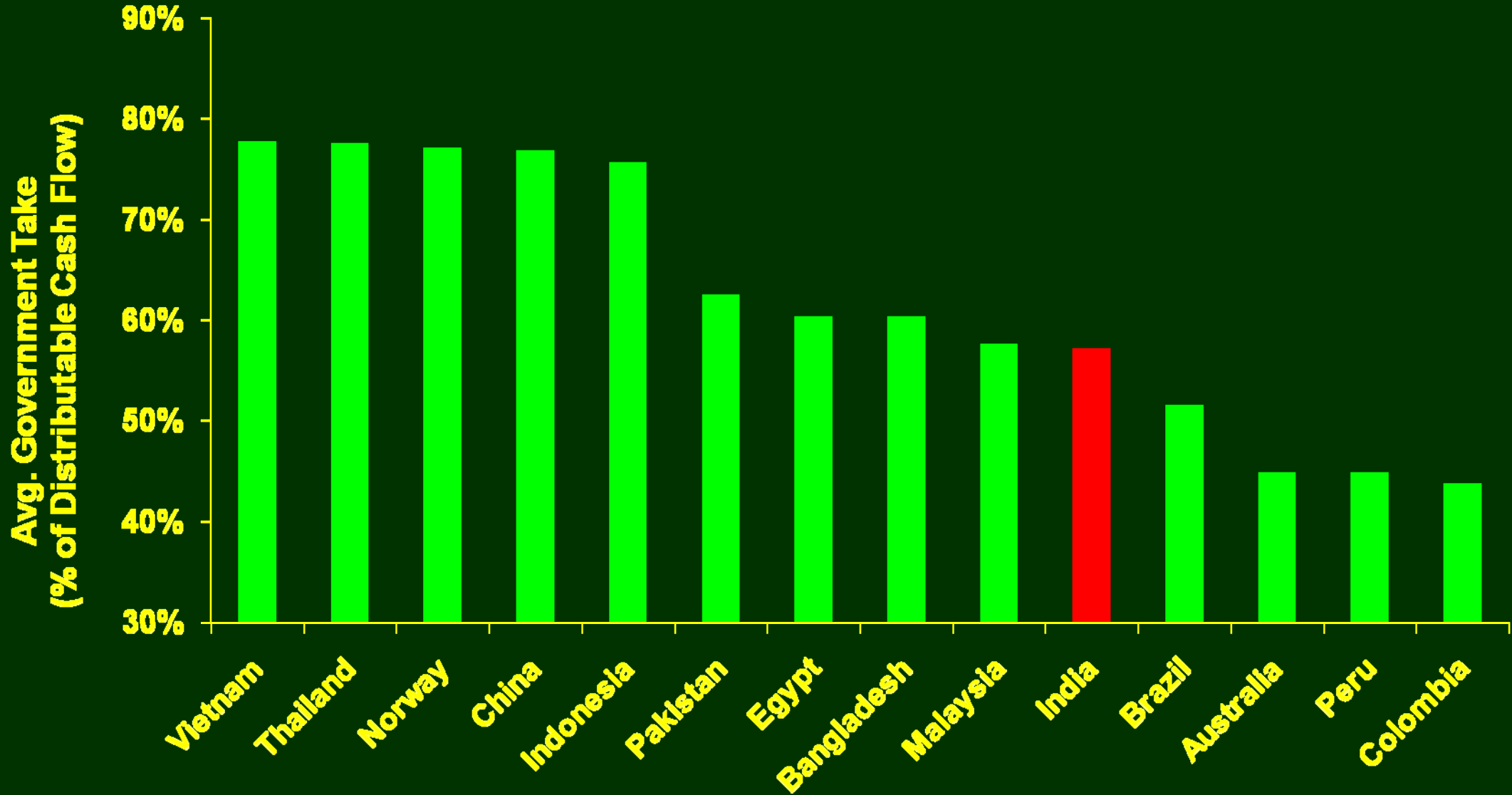


Comparison of Govt's Take (Large Field)



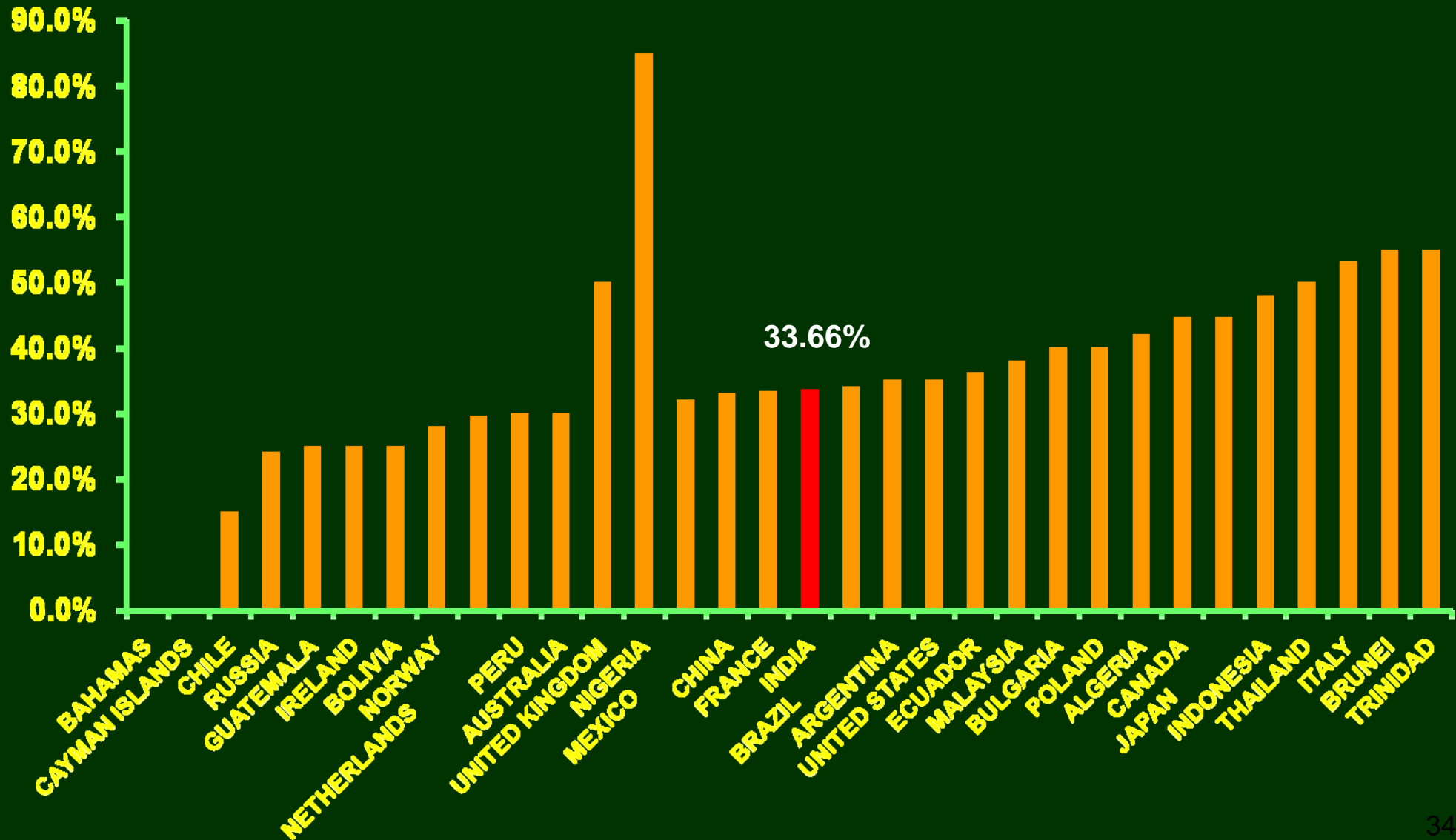


Comparison of Govt's Take (Small Field)



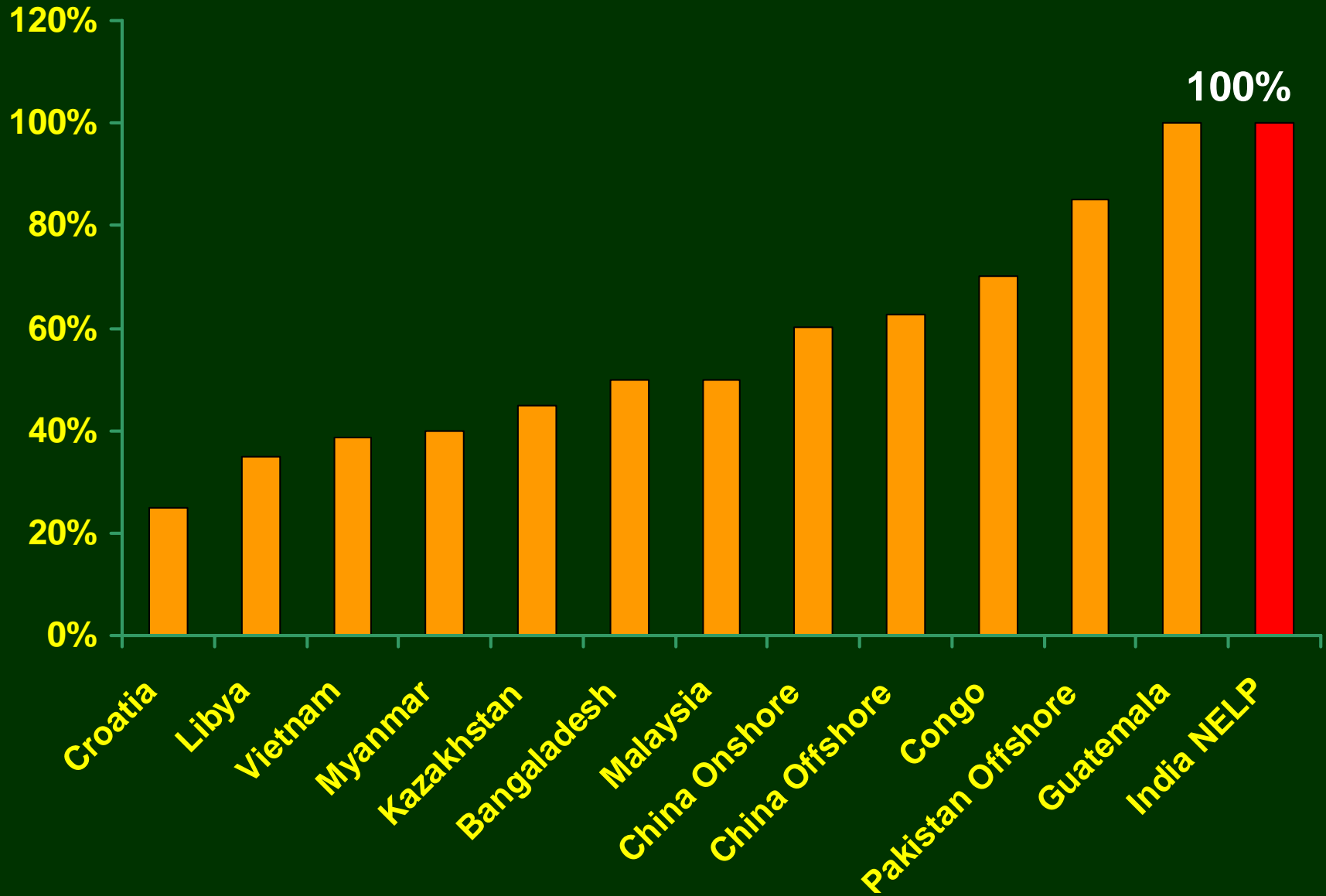


Income Tax Regime in Oil Industry



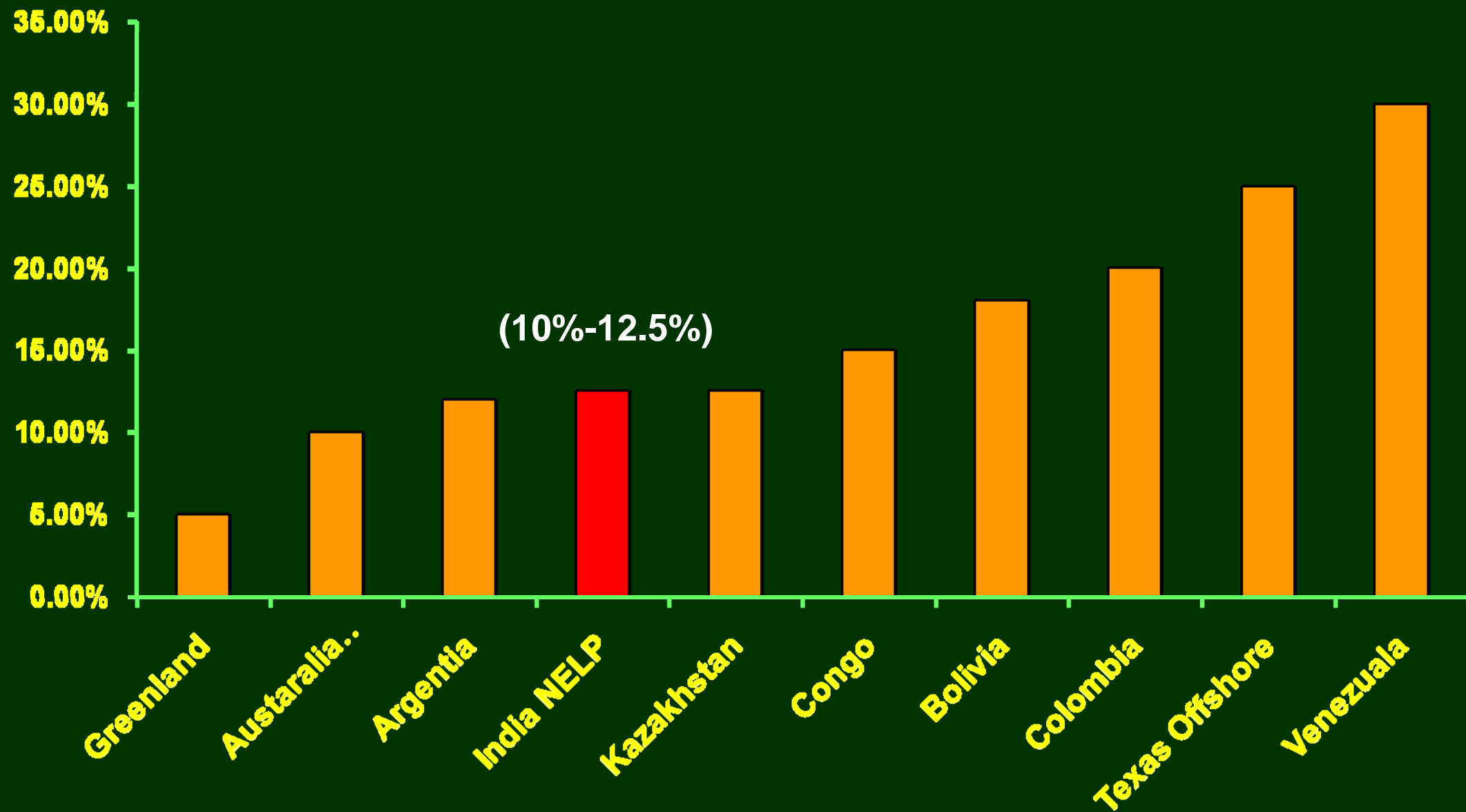


Cost Recovery Limits





Royalties





RISK EVALUATION



PFC ENERGY ANALYSIS

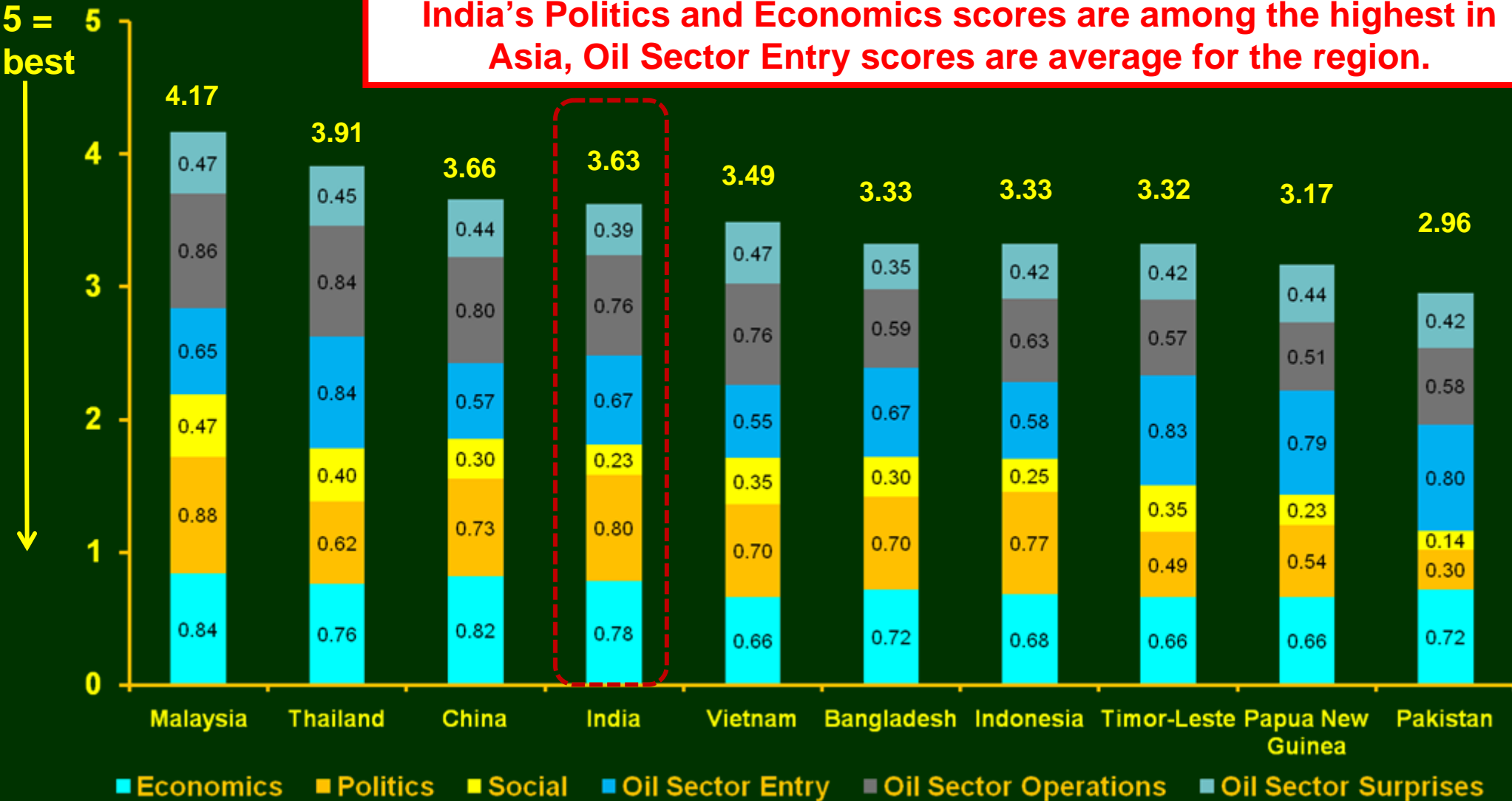
- ❖ **PETROLEUM RISK MANAGER (PRM)**
- ❖ **FOR 59 COUNTRIES**
- ❖ **AGGREGATING 5 RISK CATEGORIES**
- ❖ **27 INDIVIDUAL RISK FACTOR**
- ❖ **1990 – 2014 TIME HORIZONS**
- ❖ **COMPARED ENTRY RISK, EXPLORATION RISK AND DEVELOPMENT RISK**



India and Other Asian Countries



India's Politics and Economics scores are among the highest in Asia, Oil Sector Entry scores are average for the region.

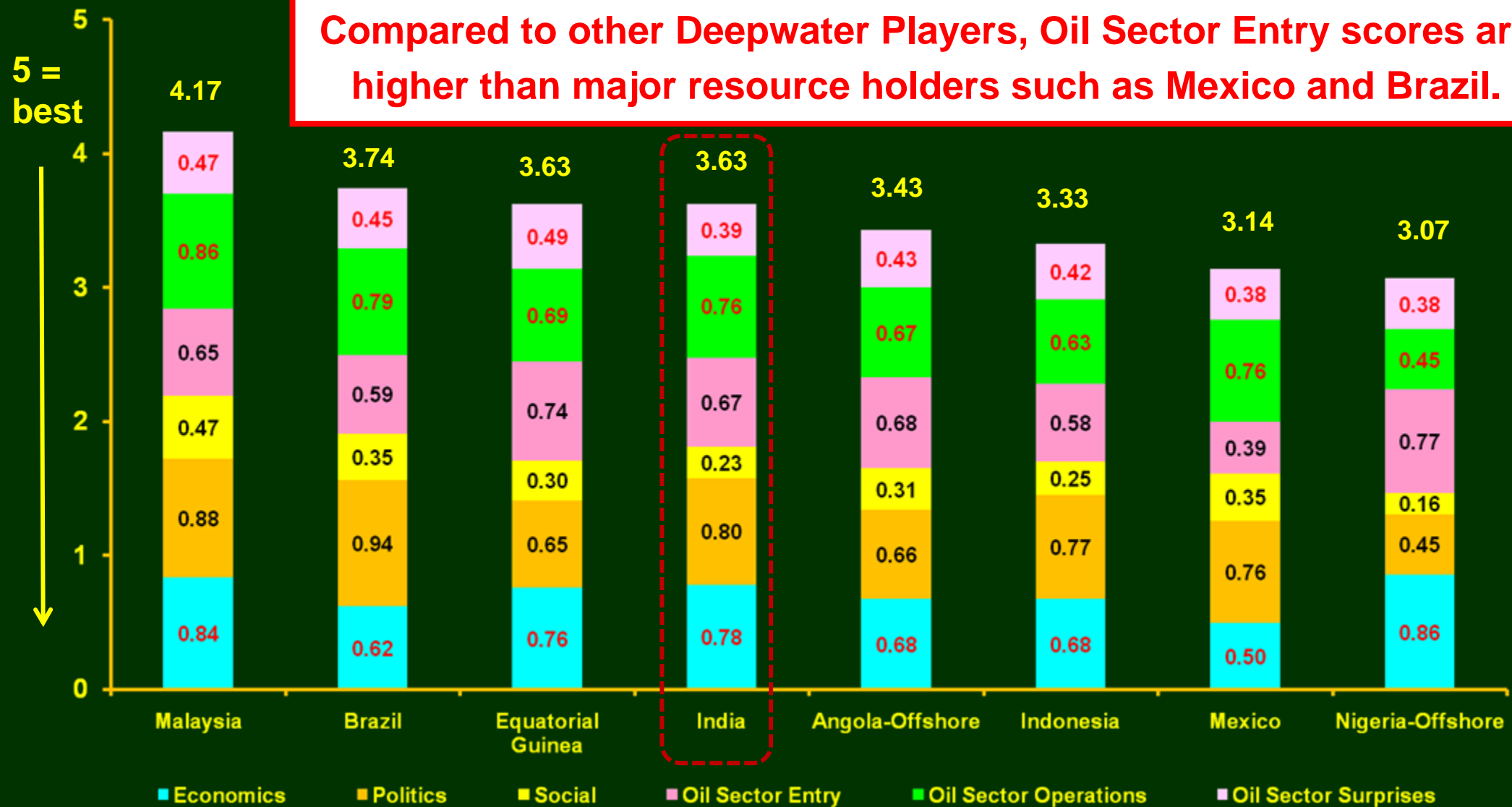




India and Other Deepwater Players



Compared to other Deepwater Players, Oil Sector Entry scores are higher than major resource holders such as Mexico and Brazil.





PROSPECTIVE DESTINATION



Prospectivity

World class Materiality and scale of opportunities (proved by Barmer Basin oil and KG Basin gas)

Market

Enabling Gas market policies and regulatory framework to support high growth gas demand

Infrastructure

Largest refining complex in the world, Launch of east-west gas pipeline, Near-completion of India-wide Golden Quadrilateral highway system

Competition

Level playing field – transparent, fair and competitive bid evaluation system. Optimized Technical and commercial merits weights



REVENUE MANAGEMENT





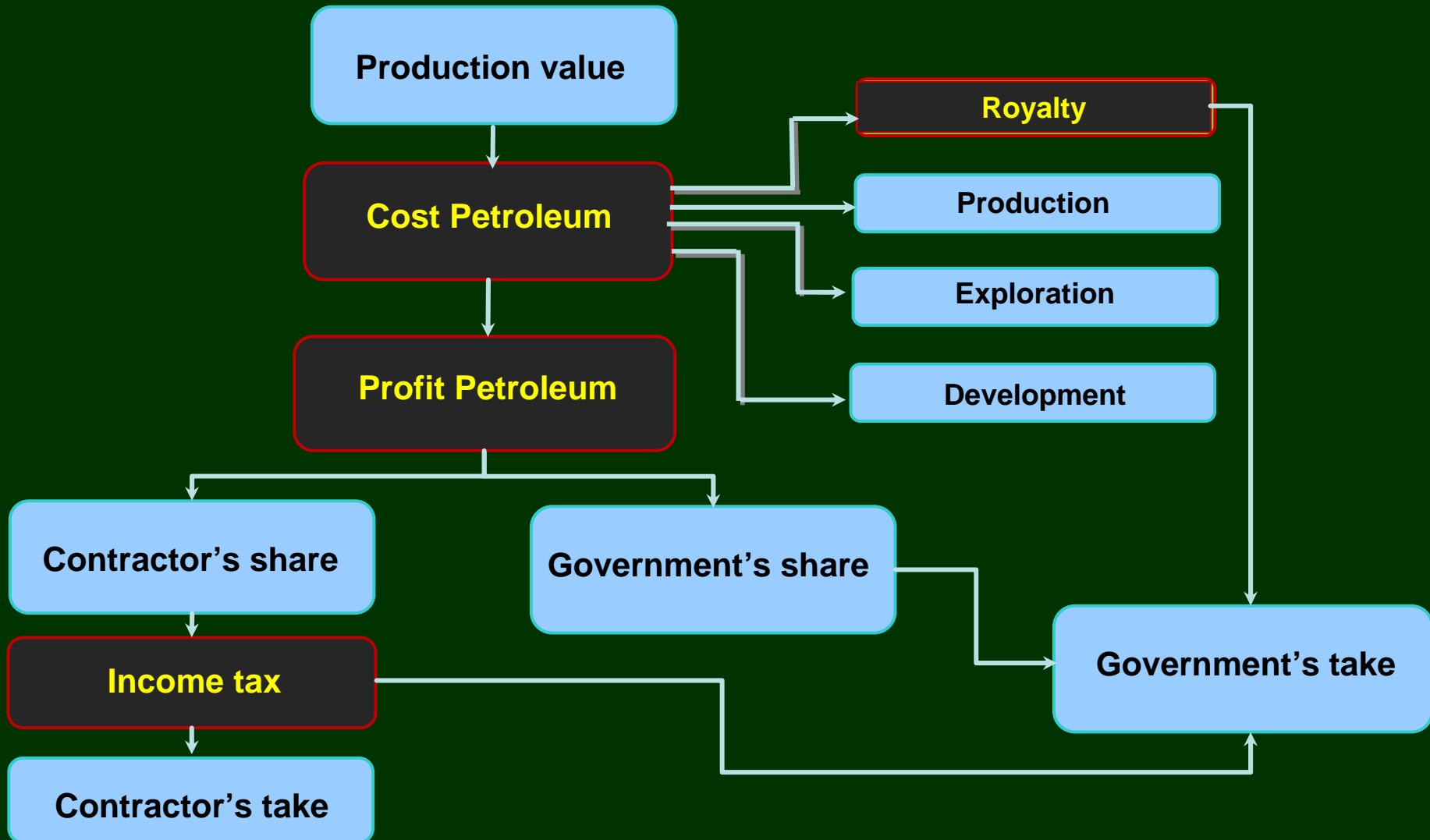
Cost Sharing Mechanism



- **Production Sharing Contracts signed with Government based on Pre Tax Investment Multiple (PTIM) Trenches**
- **Liberal provisions for assignment of Interest and securitization of participating interest for raising project finance allowed**
- **100% of all exploration and drilling expenditure is allowed each year (both capital and revenue)**

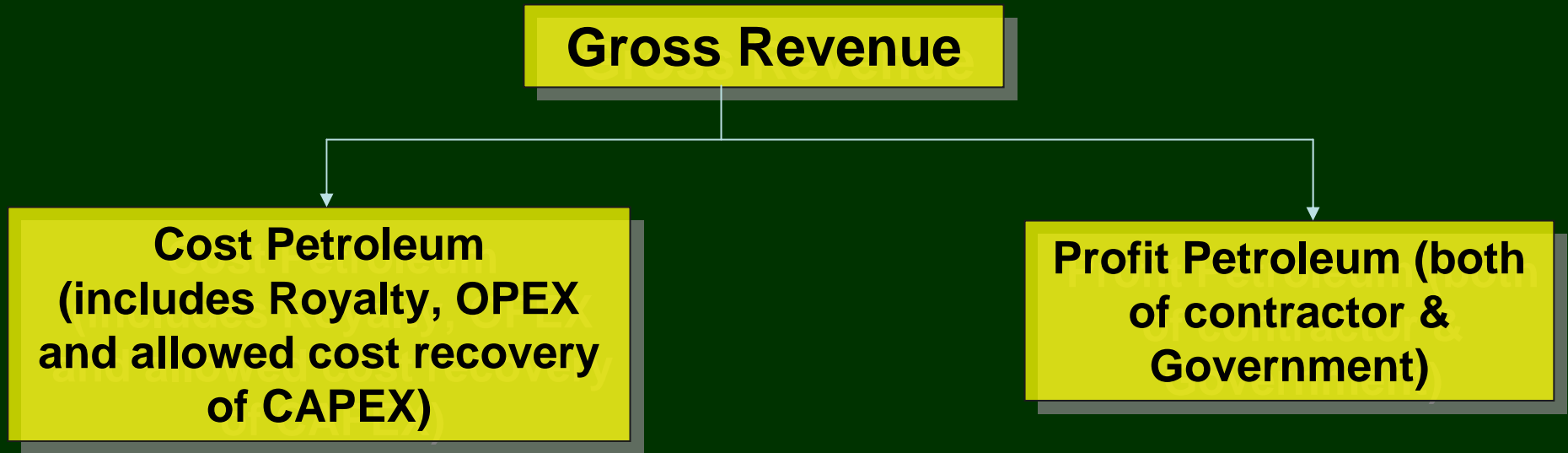


Cash Flows Under PSC Regime





Pre Tax Investment Multiple (PTIM)



Contractor's take = Cost petroleum + Contractor's share of Profit petroleum

Contractor's net cash flow = **Contractor's take** – (Production cost (OPEX) +Royalty)

$$\text{PTIM} = \frac{\text{Contractor's Cumulative net cash flow}}{\text{Cumulative exploration \& development cost}}$$

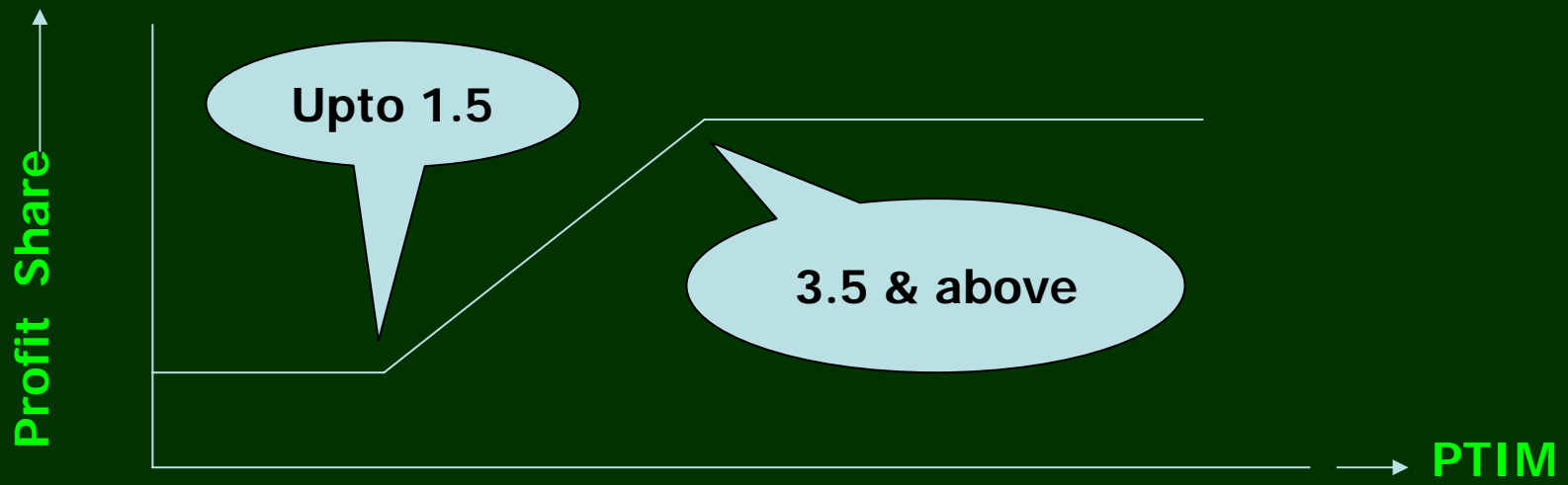


Sharing of Profit Petroleum



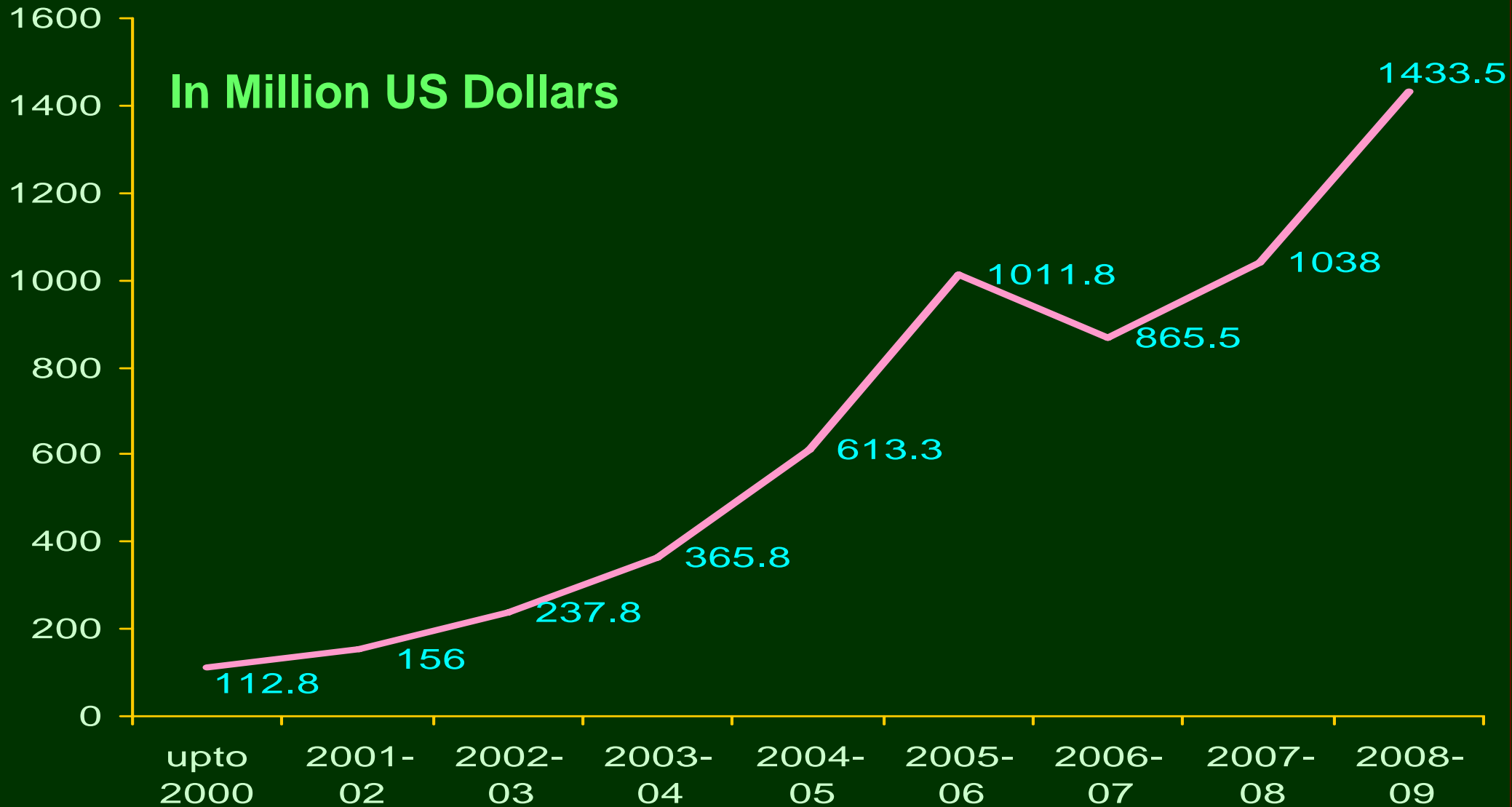
- Profit share bidding (example) :

PTIM Tranches	Profit Share to Government
Upto 1.5	30%
3.5 and above	80%





Profit Petroleum to GOI





Conclusion



- **Large unexplored area with huge investment potential**
- **Needs extensive exploration**
- **Exploration efforts have resulted in discovery of giant oil & gas fields**
- **Progressive & investor friendly PSC with quick approvals**
- **100 % Cost Recovery**
- **Biddable profit share to Government**
- **No signature and production bonus**
- **Award of blocks in a totally transparent manner**



Thank You

धन्यवाद

