
Oil and Natural Gas – the Indian Case

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Outline

- Historical background
 - The Federal Context
 - The petroleum industry in its federal context
 - Non fiscal constitutional and legal sharing of powers over the industry
 - Revenue powers and the instruments of revenue collection
 - Revenue sharing and transfers
 - Horizontal balance, regional development and regional voice
 - Concluding observations
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Historical Background and economic importance

Historical overview – the Private sector phase 1889-1955

- The first commercial discovery of oil made in 1889;
- a new company created in 1899, known as the Assam Oil Company (AOC).
- In 1921, UK based Burmah Oil Company (BOC) was appointed as the commercial and technical managers of AOC.
- While AOC and BOC intensified exploration activities in the North-East region, the Indo-Stanvac Petroleum project (a joint venture between Gol and Standard Vacuum Oil Company of USA) was engaged in exploration activities in West Bengal.
- In 1953, the first oil discovery of independent India was made at Nahorkatiya near Digboi and then in Moran in 1956.
- In 1959, Oil India Private Limited was incorporated. AOC/BOC owned two-thirds of the shares and Gol, one-third. In 1961, the Gol and BOC transformed OIL in to join Venture Company (JVC) with equal partnership

Historical overview – the Public sector phase 1955-1990

- The Oil & Natural Gas Directorate (ONGC) set up in 1955 to accelerate oil exploration.
 - The Industrial Policy Resolution of 1956 placed the mineral oil industry in schedule 'A', making its development the sole and exclusive responsibility of the state.
 - In 1959, ONGC was converted in to a statutory body.
 - 1981, OIL became a fully owned GOI entity.
 - offshore exploration in the country started by ONGC in the year 1962 and discovered a giant oil field known as Bombay High in early 1970's.
 - 1994, the ONGC was converted in to a public limited company under the companies Act, 1956
 - ONGC Videsh Limited was formed in 1996 with a view to undertake the overseas exploration and production on behalf of ONGC
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Pre-NELP E & D Rounds

Exploration bidding rounds started in 1979, but the early rounds were not successful. The first four rounds took 12 years to come (1979-1991). After the fourth round, the GoI adopted a system of continuous round the year bidding with exploration blocks being offered every six months; 5th-8th were held in 1993-94

Blocks Offered under Pre-NELP Exploration Rounds

Year	Round	No. of blocks offered			Bids received	Contracts signed		
		Offshore	Onshore	Total		Offshore	Onshore	Total
1980	One	17	15	32	4	1*	0	1
1982	Two	42	8	50	Nil	0	0	0
1986	Three	27	0	27	13	0	0	0
1991	Four	39	33	72	24	2	3	5
1993	Five	29	16	45	15	4	2	6
1993	Six	17	29	46	20	2	3	5
1994	Seven	17	28	45	12	2	3	5
1994	Eight	15	19	34	38	1	3	4
1995	Ninth JV Round	10	18	28	22	1	1	2

SOURCE Petroleum Federation of India (2005)

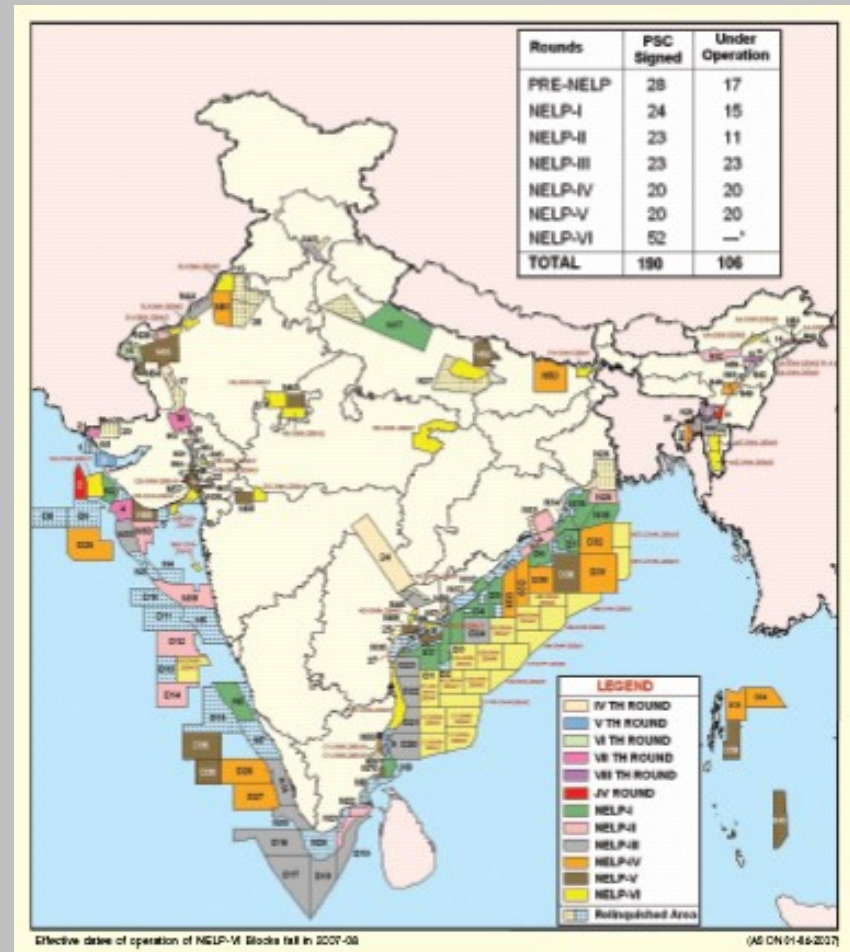
Pre-NELP Development Rounds

Year	Round	Medium sized fields offered		Small sized fields offered		Bids received	Contracts awarded or signed
		Offshore	Onshore	Offshore	Onshore		
Aug 1992	One	6	6	10	21	117	
Oct 1993	Two	2	6	4	29	54	

SOURCE Petrofed (2005)

NELP – 1999 - (VII Rounds to date)

- Fiscal stability provisions in the contract
- Several fiscal concessions such as reduced and differentiated royalty, exemption from cess and customs duty, 7 year tax holiday from commencement of production etc.
- No payment of signature, discovery or production bonus
- Finalization of contract on the basis of Model Production Sharing Contract (MPSC)
- NOCs to compete for acreage
- No mandatory state participation/carried interest by NoCs
- Freedom to sell crude oil and natural gas in domestic market at market related prices
- Biddable cost recovery limit upto 100%
- Sharing on profit petroleum based on pre-tax investment multiple achieved and is biddable



Source: DGH (2007) pp110

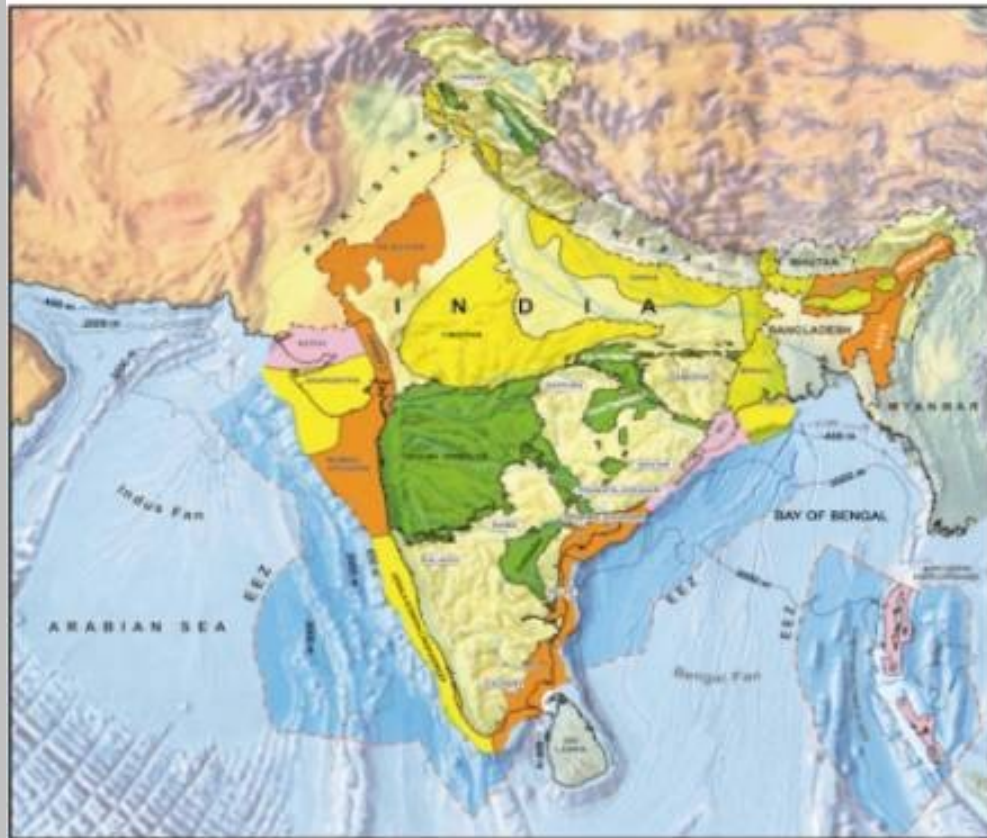
http://www.dghindia.org/site/pdfattachments/e_p_reports_2006_07.pdf

To Sum up: E and P Regimes

- **Nomination phase** - blocks were awarded to the national oil companies, commonly referred to as Nomination blocks (until 1980).
- **Pre-NELP phase** - production sharing contracts were entered into but not in a continuous manner - Pre NELP blocks (1980- 1999). This gave rise to
 - Mining Licences granted under small size discovered field PSCs
 - Mining Licences granted under medium size discovered field PSCs
 - Prospecting licenses granted under pre NELP PSC
- **NELP Phase** is in place and blocks are awarded to different bidders on a level playing field and as per the policy and the Model Production Sharing Contract

Sedimentary Areas

SEDIMENTARY BASIN MAP OF INDIA



LEGEND

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

Different categories

Level of exploration	Area (million sq. km)
Moderately to Well Explored	0.562
Poorly explored	0.582
Exploration initiated	1.054
Unexplored	0.942
Total area	3.140

Endowments and Production (Oil)

Proven Oil Reserves (2005 –06)

Onshore - 596.68 MT

Offshore - 684.08 MT

Total - 1280.76 MT

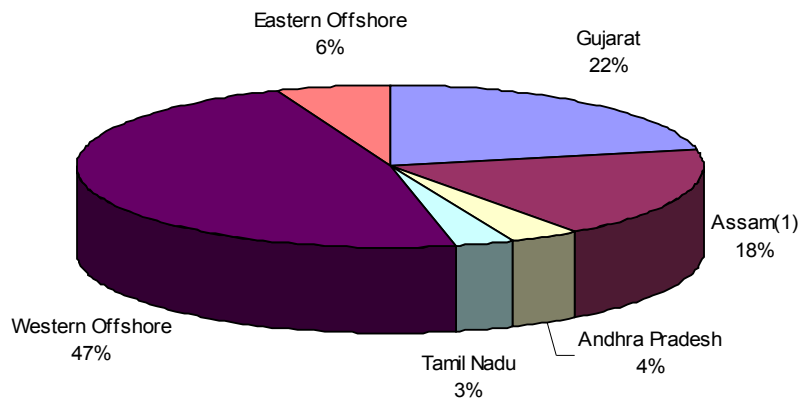
Crude Oil Production (2005 –06)

Onshore - 11.43 MMT

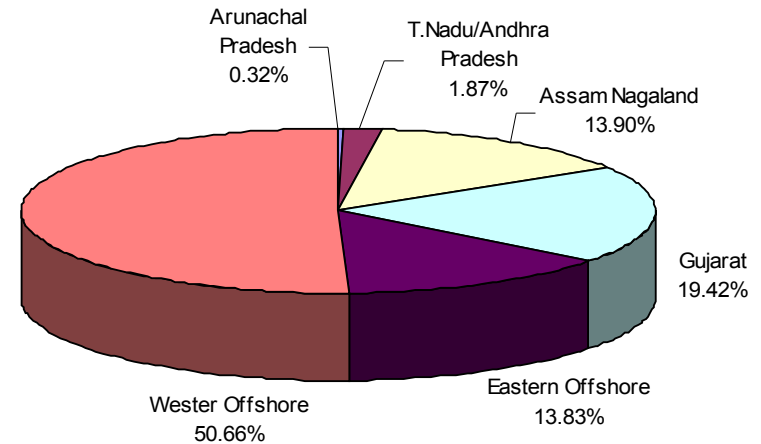
Offshore - 20.76 MMT

Total - 32.19 MMT

Region-wise crude oil reserves in India (2006*)



Region-wise oil Production in India (2005-06*)



Endowments and Production (Gas)

Proven Gas Reserves (2005 –06)

Onshore - 330 BCM

Offshore - 745 BCM

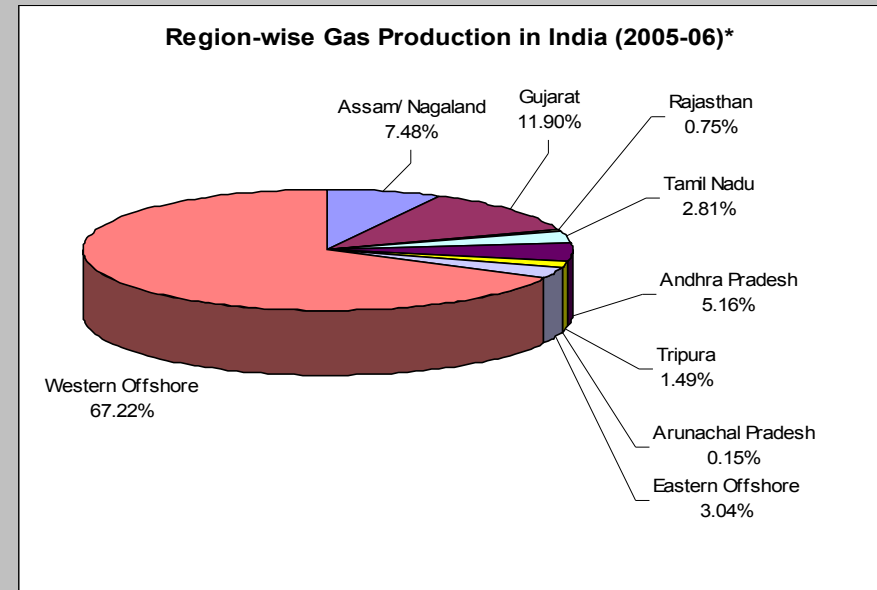
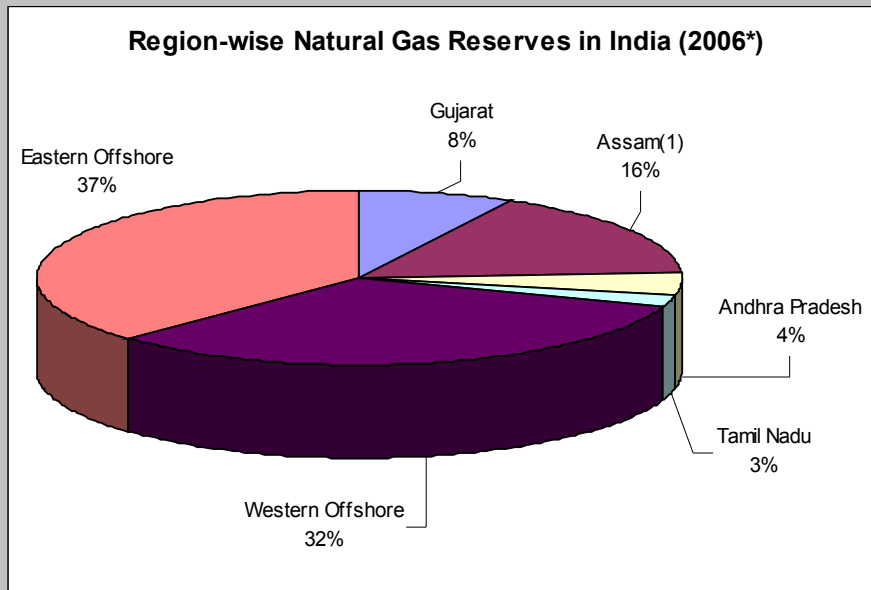
Total - 1075 BCM

Natural Gas Production (2005 –06)

Onshore - 9.6 BCM

Offshore - 22.6 BCM

Total - 32.20 BCM



Hydrocarbon rich States

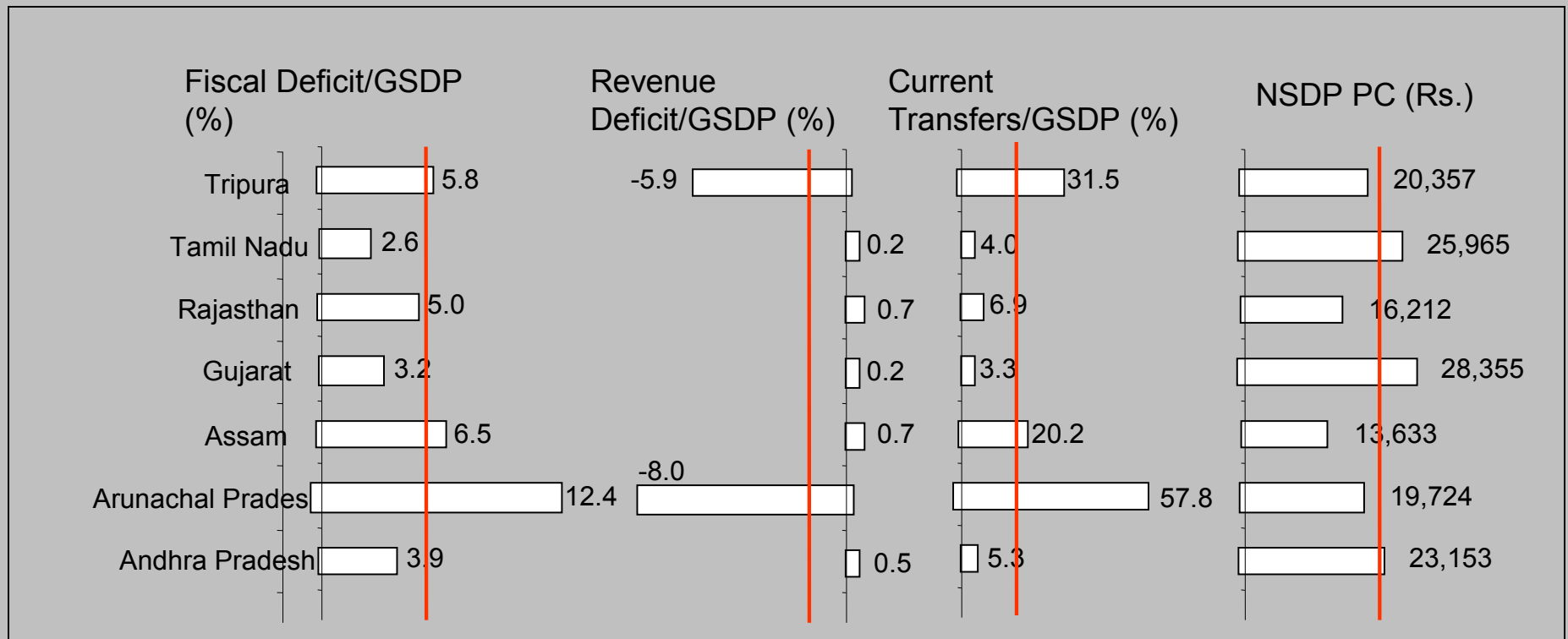
Onshore

Gujarat, Assam, Andhra Pradesh, Tamil Nadu, Rajasthan is emerging on the hydrocarbon map given the new finds.

Offshore

Bombay High (in western offshore) and Krishna Godavari basin (in eastern offshore).

Fiscal Position of Resource Rich States



Red line indicates National Average

2005/06 data, PC income- 04/05

Assam and Rajasthan have the highest ratio of revenue & fiscal deficit to GSDP & lowest per capita NSDP

Gujarat and Tamil Nadu are comparatively less stressed

Arunachal, Tripura and Andhra show a revenue surplus

Federalism in India

- Powers of federated states derived from a written Constitution
- Constitution is federal to the extent that it assigns functions, legislative competence and fiscal powers to the centre and the states, however, there is some level of inherent bias towards centre
- 1992 - 73rd and 74th Constitutional amendment
 - Third and Fourth tier of government recognized and their empowerment mandated in the Constitution
 - District level – Municipal bodies
 - Village Level – Gram Panchayats and Sabhas (Electoral body and Assembly)
- 1996 – PESA
 - Village level devolution of powers and responsibilities in Scheduled Areas also (notified areas with large tribal population)

Instances of skewed federalism

Residuary powers (including taxation) vest with centre

Many of the states legislative powers are subject to central laws on same or similar subjects

In case of a concurrent subject and a conflict between legislation by state and centre, the one passed by the Parliament (centre) shall prevail

Centre can legislate on certain state subjects when council of states pass a resolution to that effect

The petroleum industry in its federal context

Rights Over Resources

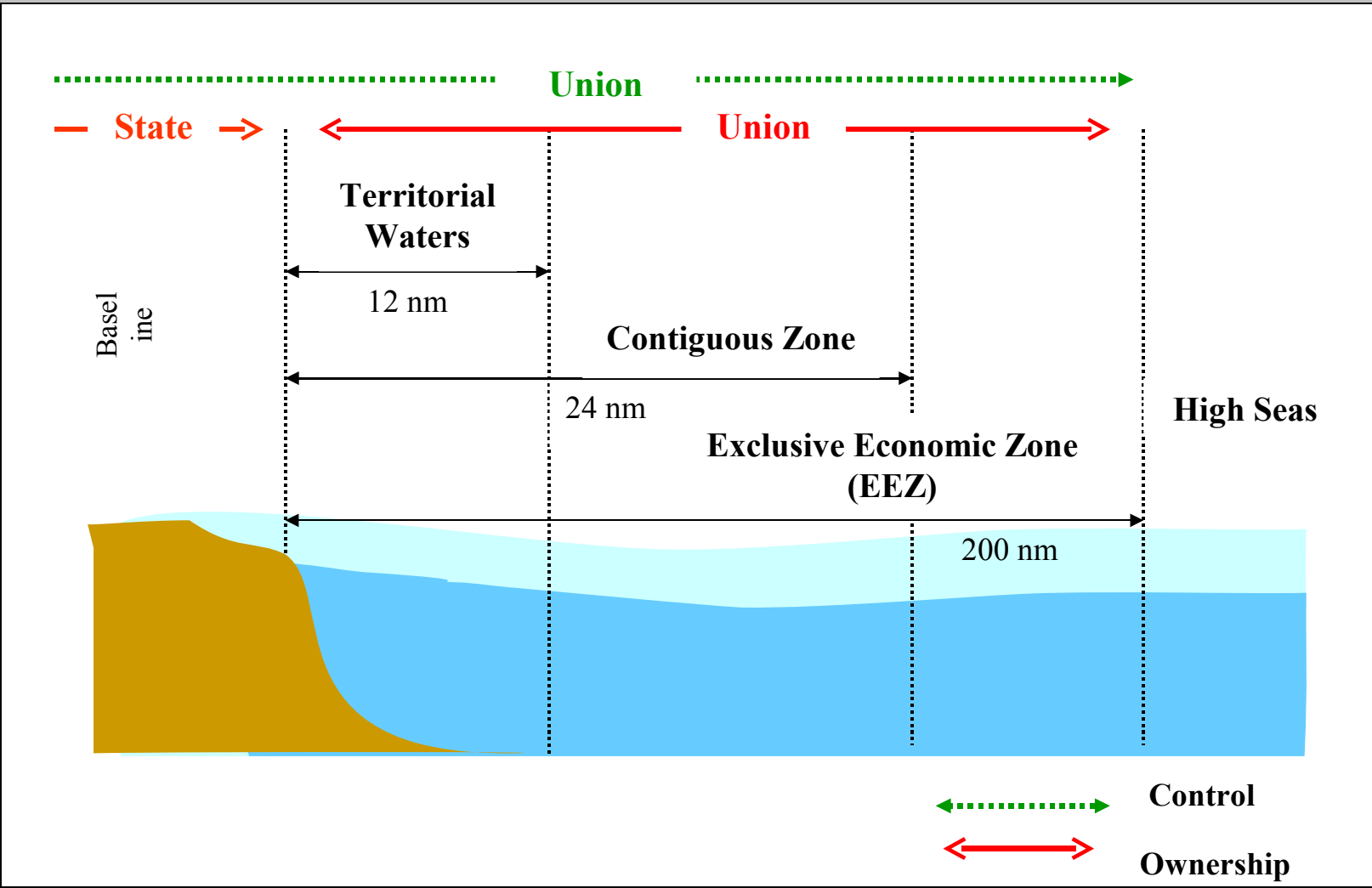
Existing rights

- ❑ Offshore – Owned and controlled by the Union
- ❑ On land – Owned by State but controlled by Union
(in the interest of public, oilfields and development of mineral oil resources regulated by the Union)

Bases for rights

- ❑ Article 294 – Article 297 – ownership of states and union
 - ❑ Article 246 read with Schedule VII – legislative and administrative jurisdiction of the union
 - ❑ Oilfields (Regulation and Development) Act, 1948 – administrative and fiscal powers including collection of royalty, entering into PSC etc.
-

Rights over resources



Sharing of Legislative & Revenue Powers

	State	Centre	Concurrent
Oil fields regulation & development		✓	
Petroleum and petroleum products regulation & development		✓	
Economic and Social Planning			✓
Taxes on mineral rights	✓*		
Fees on respective subjects	✓	✓	✓

* Subject to law made by Parliament for regulation of mineral resources

Revenue powers and the instruments of revenue collection

Revenue Collection Instruments

	<i>Nominated</i>	<i>Pre NELP</i>	<i>NELP</i>
Fees	◆	◆	◆
Dead rent	◆	◆	◆
Royalty	◆	◆	◆
Cess	◆	◆ (NOCs only)	-
Fines/Penalties	-	◆	◆
Profit Petroleum	-	◆	◆
Income tax	◆	◆	After 7 yrs
Customs duty	◆	◆	-

Royalty

Category	Crude oil	Natural gas
Nominated blocks	Royalty rate is applied on cum royalty basis after deducting 10%/7.5% in case of offshore/onshore fields respectively from selling price.	
Pre-NELP exploration acreages under JV/Private	NOCs pay royalty for 100% production though share is about 40% in JV. Royalty rate is applied on cum royalty basis after deducting 10%/7.5% in case of offshore/onshore fields respectively from selling price.	NOCs pay royalty for 100% production though share is about 40% in JV. Royalty rate of 10% is applied after deducting actual post well head costs from selling price
Discovered fields under Pv/JV in preNelp	Royalty rate is fixed in Rs/MT basis as per PSC terms	Royalty rate of 10% is applied after deducting actual post well head costs from selling prices
Exploration acreages under ELP	No significant commercial production	

	<i>Nominated & Pre NELP blocks</i>	<i>NELP blocks</i>
Deepwater	20% on oil and 10% on gas s.t. Rs.850/MT ceiling	5%
Shallow water		10%
Onshore		12.5% oil; 10% gas

Rates

Specific until 1998

~~Ad valorem but with Rs.850/MT ceiling until 2002~~

Oil Industry Development Cess – key revenue handle for Centre

Comprises in 2005/06

- 6-8% of total government receipts from the oil sector
 - 18% of the -government take from a barrel of oil
 - 24% of the central government take from a barrel of oil
 - makes up 12.5% of the value of a barrel of oil
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Profit oil and gas

Illustration

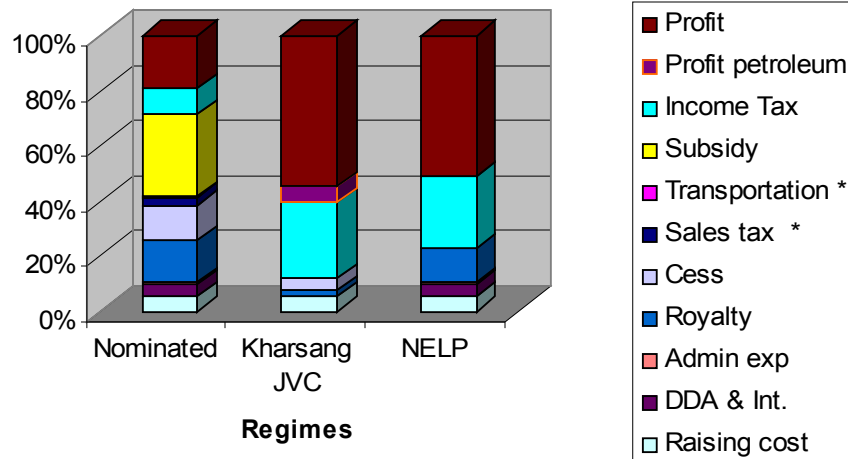
IM at period t	Contractor's share in period t + 1
< 1.5	91%
1.5 – 2.0	81%
2.0 – 2.5	71%
2.5 – 3.0	61%
3.0 – 3.5	51%
> 3.5	40%

- a form of non-tax revenue that the central government can receive out of the profit generated
- shared between the government and the contractor in varying proportions depending on “Investment Multiple” (IM)
- IM is the ratio of net revenue to investment of the operator.

Profit Petroleum sharing

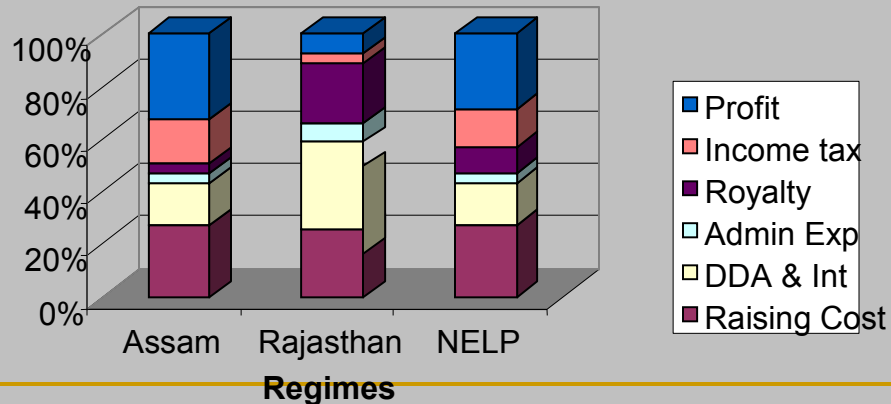
- *“The payment of royalty to the state recognizes adequately the ownership of the state over its land and mineral resources. The contention that the profit petroleum should accrue exclusively to the states of origin is, therefore, not tenable.” (12th Finance Commission, Chap 13, p 246)*
 - *“We have recommended sharing of profit petroleum only in the case of NELP contracts, where the states are likely to lose revenues from royalty due to lower royalty regime. Our intention is not to recommend sharing of non-tax revenues with the states as a general principle.”*
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How are the revenues from crude oil distributed?



How are the gross revenues from a barrel of oil/gas distributed ?

How are the revenues from natural gas distributed?



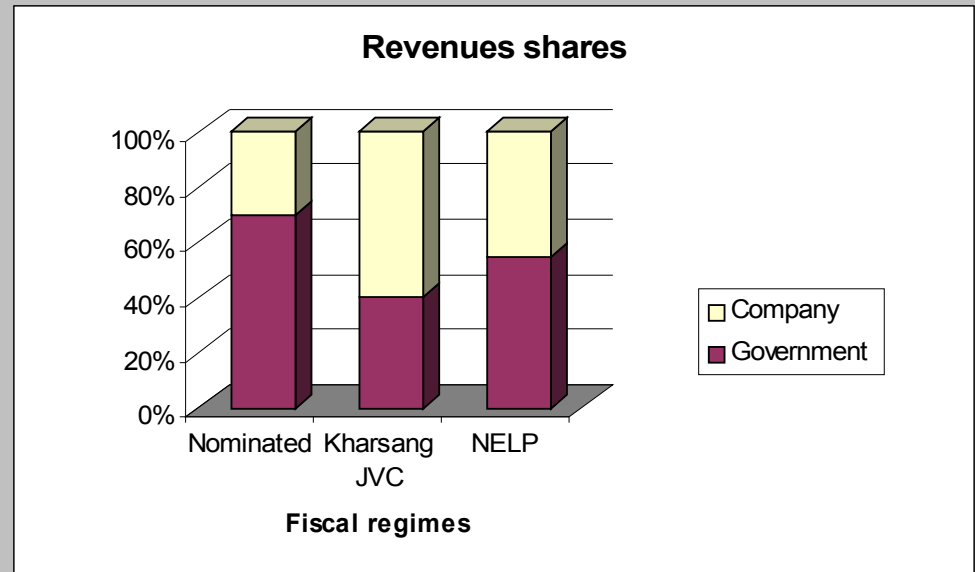
Source Oil
India, 2006/07

Company-Government shares across regimes

Trend of government take in profit share in NELP rounds

	Upto NELP V	NELP VI
Deepwater	37%	42%
Shallow water	41%	60%
Onshore	35%	65%

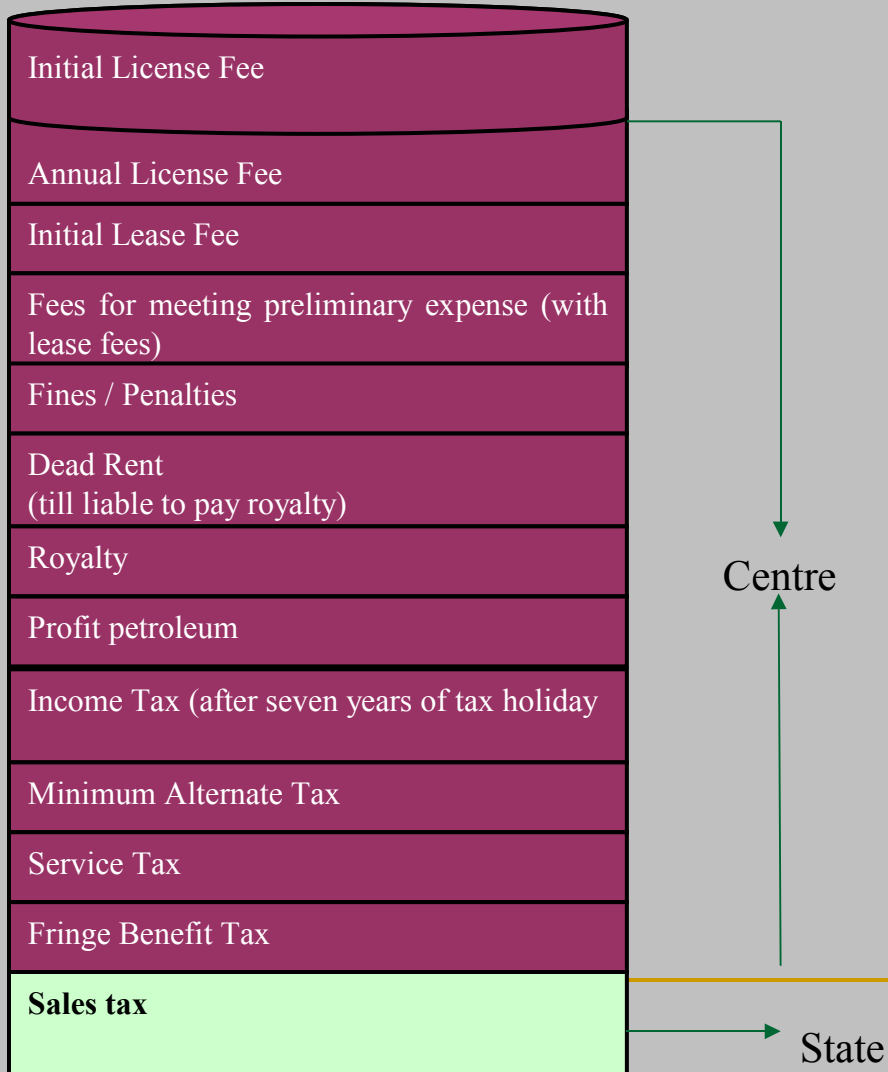
source Infraline, March 29, 2007



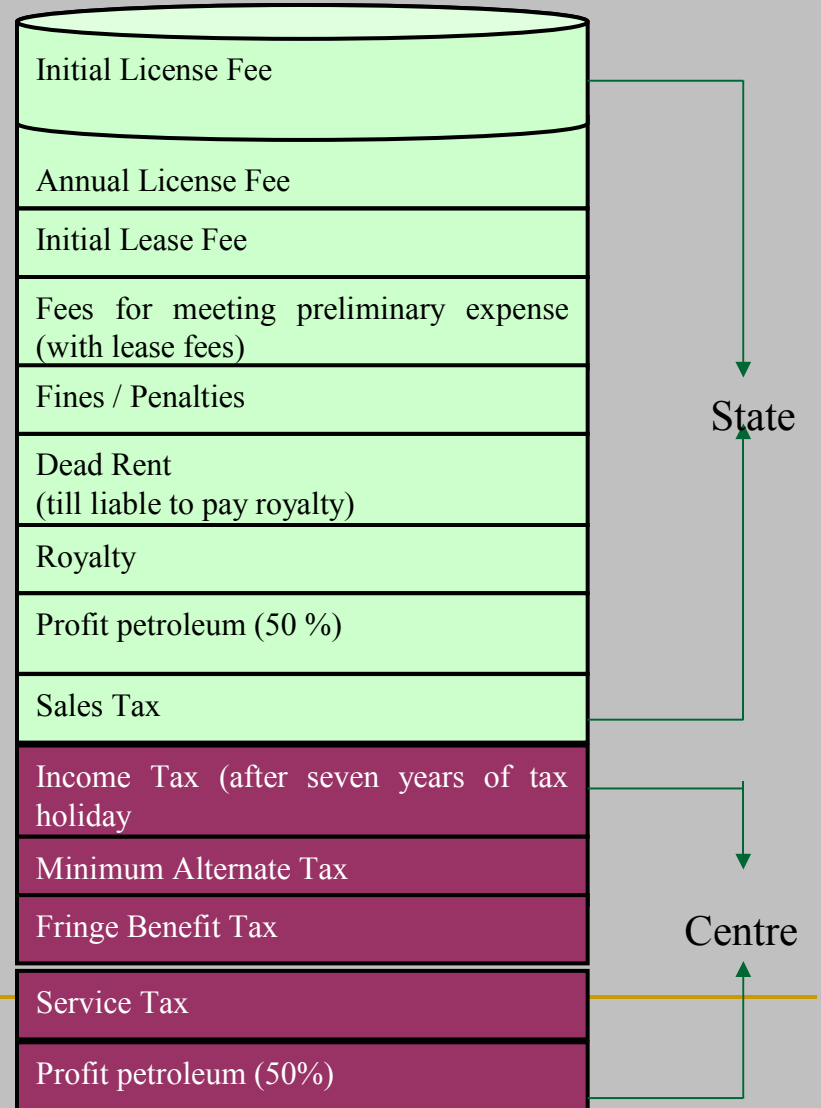
Source: Oil India, 2006/07

Centre State revenue shares (NELP)

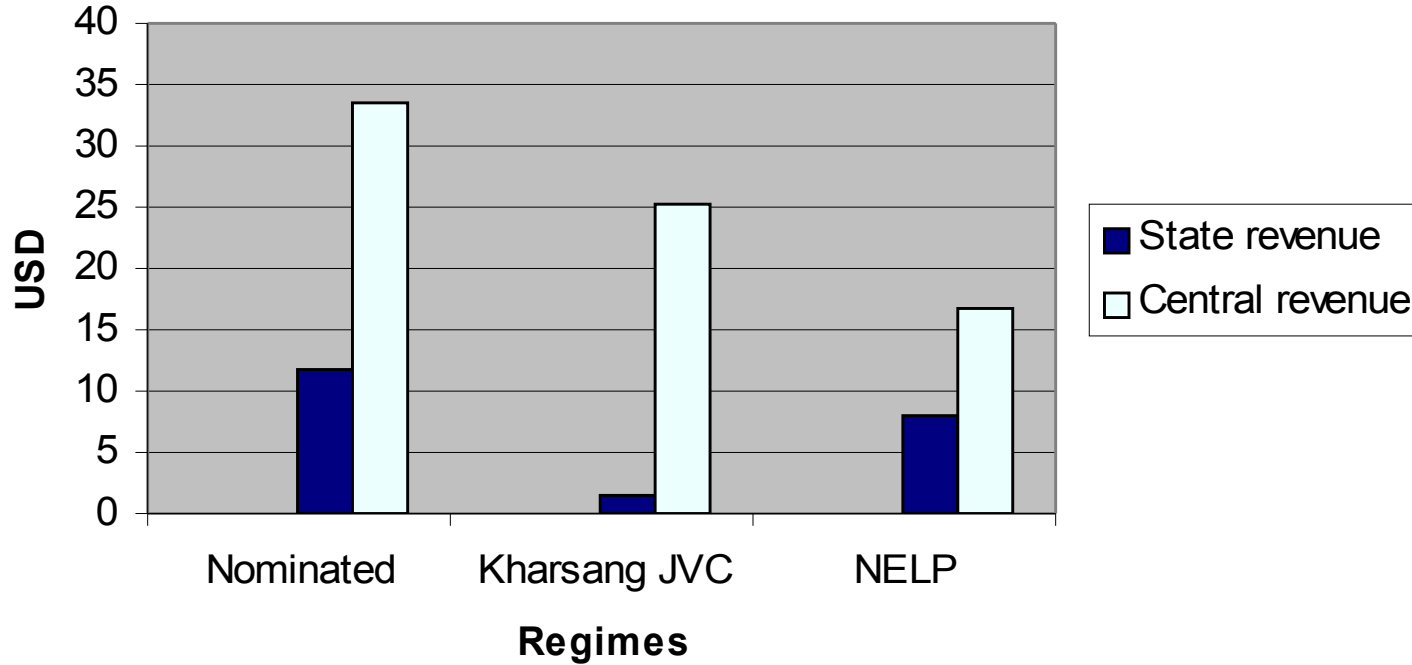
One barrel of Offshore Oil



One barrel of Onshore Oil



Centre state revenue distribution



From a
barrel of
oil

- Nominated area – 26:74
- Pre NELP – 6:94
- NELP (notional) – 33:67

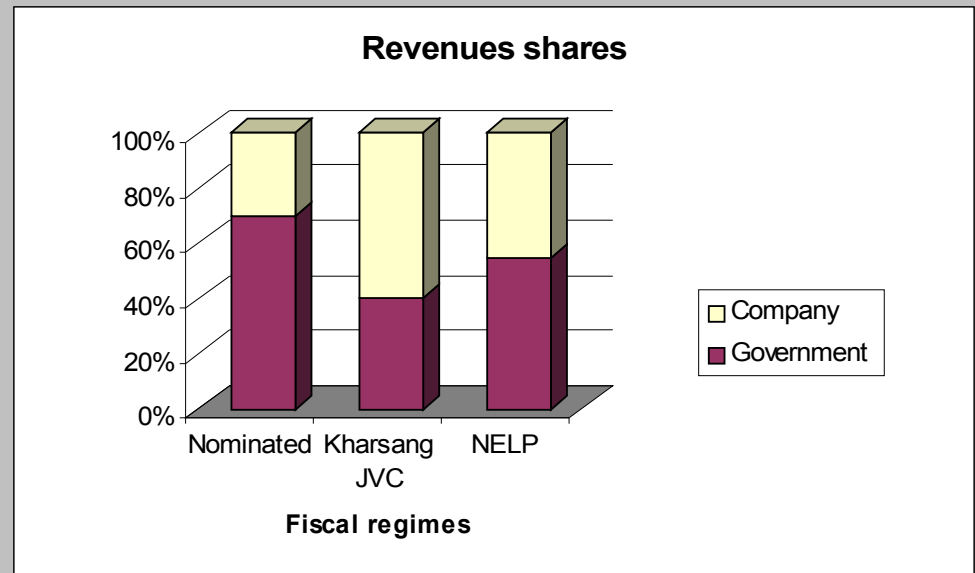
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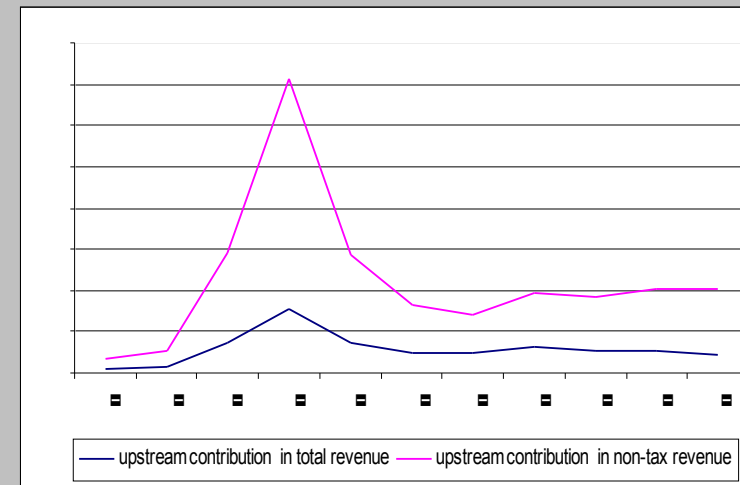
Central revenues from Oil and Gas

1980/81-2000/01

a significant share – rising to 35% of non tax revenues in 1990/91 at its peak; and about 7% of total revenues;

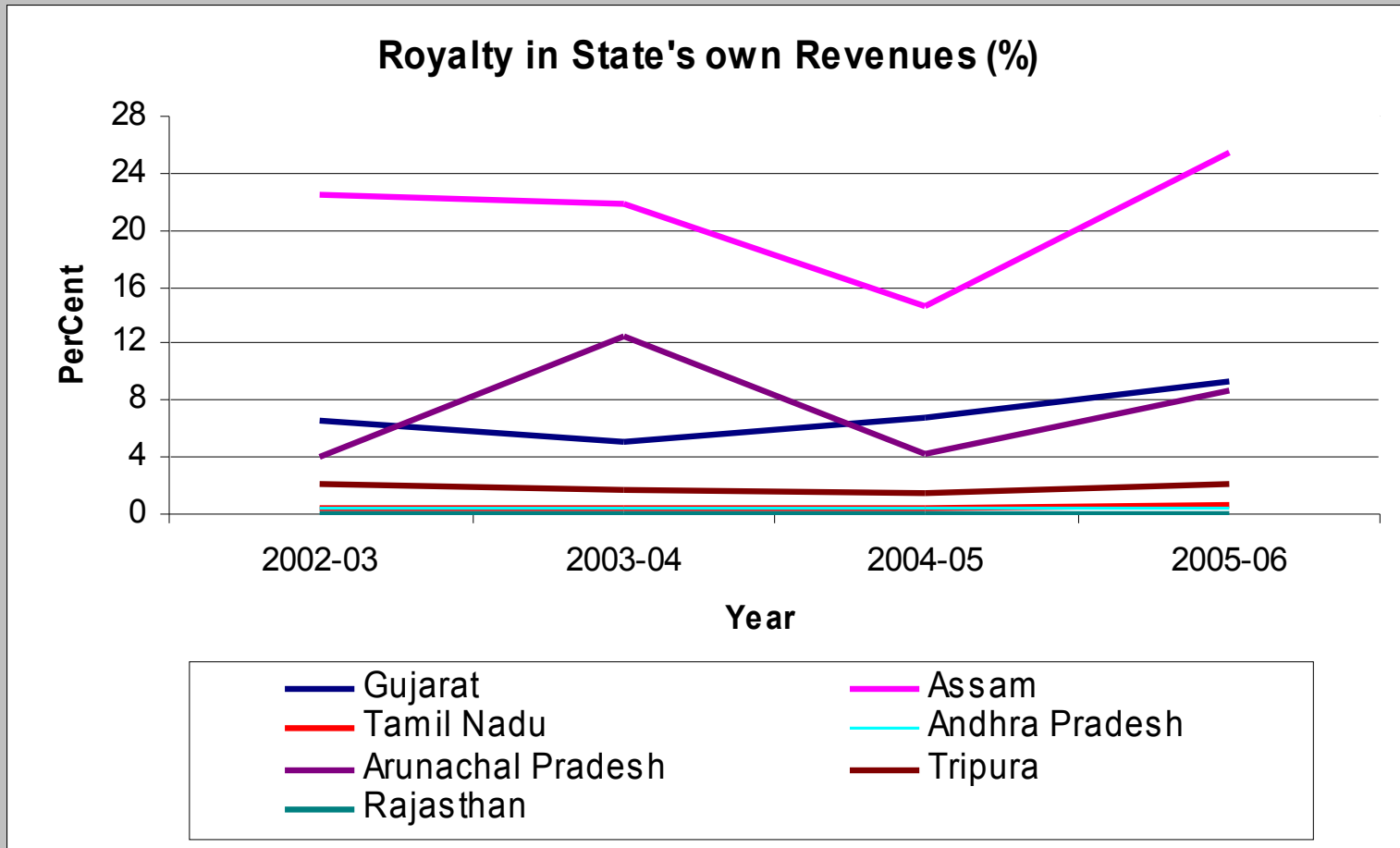
After 1990/91 (post liberalization)

with the increased buoyancy of the economy, share has become less important, averaging about 10% of non tax and 2.5% of tax revenues.



Royalty and cess collections in centre's revenue

State Royalty Revenues from Oil and gas



Concluding observations

...Contentious Issues in the context of Centre-State relations

Central legislation has taken over much of the space available for States to raise revenues from oil wealth.

ownership right in oil and gas by States is a qualified and conditional one given that while the States have a right to the share of revenues from oil and gas extraction in the form of royalties and dead rents to reflect ownership, it

- (c) has no right to decide on the method of fixation of royalty, its rate or its periodic revision
- (d) has no right to decide on the granting of leases without prior clearances from the Central Government and
- (e) is unable to tax oil and gas resources in any way they see fit.
- (f) States are unable to enter into production sharing contracts and receive profit petroleum directly

Horizontal balance, regional development and regional voice

- A far larger share of the revenues for the Centre relative to producing states, but some of it is transferred back through the awards of the FC to States based on defined criteria irrespective of origin.
- The oil cess is not shared with the States and is part of the Consolidated Fund of India
- Oil and Gas States: want to augment revenues from such developments, and compensation for incremental costs; want some local value addition
- Local regions: want recognition of the rights of communities', and addressing of externalities where they arise
- Project affected people: Require both restitution and benefit sharing

Demands from States

- A greater share in onshore oil and gas revenues given the ownership issue (Assam, Gujarat, Rajasthan)
- A greater share in revenues given the high oil prices (Assam, Gujarat)
- An improved compensation for externalities created by oil and gas development (Mehsana, Gujarat)
- Recognition that oil and gas are depletable resources (Assam, Gujarat)
- The development of downstream industry in the oil and gas rich state (Assam, Rajasthan)
- A preferential share in the gas resources that are offshore a particular state (Andhra Pradesh)
- Royalty in shared basins (Assam/Nagaland)

Thank You
