Institutional and Regulatory Framework

Ole F. Ekern
The Bridge Group
The Role of the Authorities

- Energy Policy
- Petroleum Policy (both oil and gas)
- Petroleum Law
- Institutional Capacity and Management Functions
- Regulatory and Contractual Framework
- Fiscal regime
Energy Policy – Where to start

“America must have an energy policy that plans for the future, but meets the needs of today. I believe we can develop our natural resources and protect our environment.”

— President George W. Bush
Norway’s Total Petroleum Production
Norwegian petroleum policy - main objectives

• Maximise value creation for the nation

• Develop a national oil and gas industry

• Be in the environmental forefront:
  • Long term resource management
  • Coexistence with other industries
Preconditions for a sustainable petroleum sector

- Continuous HSE improvements
- Maintain a competitive Norwegian
  - Continental Shelf
  - Petroleum industry
Norwegian petroleum policy - measures

- Effective regulation and government ownership
- Research and technology development
- Internationalisation
Norwegian State Participation

- petoro: 100%
- GASSCO: 100%
- HYDRO: 43.8%
- STATOIL: 70.9%
R&D - National Strategy for the 21st Century

Five priority areas:

- Improved recovery
- Environmental protection
- Deep water
- Small fields
- The gas value chain.
Internationalisation

- Capitalise on Norwegian competence og technology
- Exploit the potential of emerging markets
- Even out fluctuations in the activity level of the NCS
- Acquisition of new technology and know-how

⇒ Ensure long-term value creation and employment
Institutional capacity

THE KEY FUNCTIONS OF GOVERNMENT:

✓ Legal and regulatory framework
✓ Policy/licensing strategy
✓ Promotion
✓ Negotiation & Licensing
✓ Monitoring of operations
✓ Resource assessment
✓ Data management
State’s Petroleum Administration

- Four Levels of Competence:
  1. LEGISLATIVE LEVEL: (Parliament)
  2. EXECUTIVE POLICY LEVEL: (Cabinet)
  3. POLICY IMPLEMENTATION LEVEL: (Ministry)
  4. REGULATORY/TECHNICAL LEVEL: (Directorate)

The State’s commercial interest is best organised separately.
The Norwegian organisation of petroleum operations

Stortinget (Parliament)

Government

Ministry of Finance

Ministry of Petroleum and Energy

Ministry of Labour and Government Administration

Norwegian Petroleum Directorate
**Institutional capacity**

**INSTITUTIONAL SETTING OF THE KEY FUNCTIONS OF GOVERNMENT**

- Legislation
- Policy
- Regulatory Body
- Promotion
- Supervision
- Monitoring
- Negotiation
- Resource assessment
- Data management
Roles and Responsibilities

Roles and responsibilities

Ministry
- National plans
- Legal basis
- Licensing

Oil companies
- Field development
- Contracting
- Operations
- Marketing

Directorate
- Detail regulations
- Supervision
- Advice
Models for Petroleum Organisation

MODEL – 1:
NATCOM HAS NO REGULATORY FUNCTIONS

- LEGISLATION
- APPROVES LICENCES?
- APPROVES FIELD DEV. PLAN?
- APPROVES ABANDONMENT?
- MANAGES REVENUE

- PROMOTION
- LICENSING
- APPROVAL OF DRILLING
- DEVELOPMENT PLAN APPROVAL
- MONITORING
- AUDITS
- CONSENTS
- TAIL END PLAN APPROVAL
- ABANDONMENT PLAN APPROVAL
- DATA MANAGEMENT

- LICENSEE – 1
  + NATCOM ?

- LICENSEE – 2
  + NATCOM ?

- LICENSEE – 3
  + NATCOM ?
Models for Petroleum Organisation

MODEL – 2:
NATCOM HAS THE REGULATORY FUNCTIONS

- LEGISLATION
- APPROVES LICENCES?
- APPROVES FIELD DEV. PLAN?
- APPROVES ABANDONMENT?

CABINET/ MINISTRY

DELEGATION

NATIONAL COM

- PROMOTION
- LICENSING
- EXPLORATION
- EVALUATION
- DEVE. PLANNING
- PRODUCTION
- TRANSPORTATION
- MARKETING
- SALES
- TAIL END AND ABANDONMENT

COMMERCIAL PARTNERSHIP

LICENSEE - 1

LICENSEE - 2

LICENSEE - 3

- REVENUE COLLECTION
- REVENUE DISPOSAL
Models for Petroleum Organisation

MODEL – 3
NATCOM ASSISTS THE REGULATORY AUTHORITY

- LEGISLATION
- APPROVES LICENCES?
- APPROVES FIELD DEV. PLAN?
- APPROVES ABANDONMENT?
- MANAGES REVENUE

- LICENSING
- APPROVAL OF DRILLING
- DEVELOPMENT PLAN APPROVAL
- MONITORING
- AUDITS
- CONSENTS
- TAIL END PLAN APPROVAL
- ABANDONMENT PLAN APPROVAL

CABINET/MINISTRY

PETROLEUM DIRECTORATE

REGULATORY RELATIONS

LICENSEE – 1 + NATCOM
LICENSEE – 2 + NATCOM
LICENSEE – 3 + NATCOM

NATCOM

- PROSPECT EVALUATION
- PROMOTION
- LICENCE NEGOTIATIONS?
- DATA MANAGEMENT

PERFORMED AS CONSULTANCY ASSIGNMENT BY
Regulatory model Angola

MINPET

Legislation
Policy

Sonangol

Promotion
Supervision
Monitoring
Negotiation

Resource assessment
Data management
### Petroleum Governmental institutions in Nigeria

<table>
<thead>
<tr>
<th>Petroleum Administration</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Ministry of Petroleum Resources (MPR)</strong></td>
<td>Defines policy and legal &amp; regulatory framework</td>
</tr>
<tr>
<td><strong>Department of Petroleum Resources (DPR)</strong></td>
<td>Controls and supervises the activities of all players</td>
</tr>
<tr>
<td><strong>The Nigerian National Petroleum Corporation (NNPC)</strong></td>
<td>Sole responsibility for upstream and downstream developments; also charged with regulating and supervising the oil industry</td>
</tr>
</tbody>
</table>
NOC origins and evolution

1920
Yacimientos Petroliferos Fiscales (YFP), Argentina

1930
Petroleos Mexicanos (Pemex)

1960
OPEC

More than 100
today
Commanding Heights

- Capture upstream economic rent
- *Downstream value added through refining and marketing*
- Gaining control of pricing
- Creating jobs and activity
Importance of NOCs

- Reserves:
  - 90% for NOC
  - 10% for Others

- Production:
  - 73% for NOC
  - 27% for Others
Trends in the oil industry

Oil Majors:

- Oil Majors’ oil reserves have been more or less constant (remaining production to last 9-12 years) for the last 10 years
- Reserve replacement through acquisitions has been steadily increasing, but future potential is limited
- Hold less than 10 % of world’s reserves
- Intensive use of technology to improve recovery of existing fields
- Limited access to key OPEC and CIS countries
Trends in the oil industry

**Emerging majors:**
- Developing as a result of global liberalisation and privatisation
- Opportunities for swap arrangements with traditional majors

**National oil companies:**
- Produce more than 70 % of world oil
- Have almost 90 % of world reserves
- Open for investments and technology transfer
- Privatisation schemes will move NOC to become emerging majors
A new oil and gas order

<table>
<thead>
<tr>
<th>Majors</th>
<th>Emerging Majors</th>
<th>Independents</th>
<th>National oil companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exxon Mobil</td>
<td>11,2</td>
<td>Anadarko 0,9</td>
<td>Saudi Aram 259,2</td>
</tr>
<tr>
<td>Shell</td>
<td>9,8</td>
<td>Marathon 0,9</td>
<td>INOC 112,5</td>
</tr>
<tr>
<td>BP</td>
<td>9,1</td>
<td>AOC 0,8</td>
<td>KPC 96,5</td>
</tr>
<tr>
<td>Chevr.Texaco</td>
<td>8,2</td>
<td>Perez Co. 0,7</td>
<td>NIOC 87,9</td>
</tr>
<tr>
<td>TFE</td>
<td>6,9</td>
<td>Enterprise 0,7</td>
<td>PDV 76,8</td>
</tr>
<tr>
<td>Agip</td>
<td>3,9</td>
<td>Amerada H. 0,7</td>
<td>Adnoc 50,7</td>
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<tr>
<td>Phillips</td>
<td>2,6</td>
<td>Nexen 0,7</td>
<td>PeMex 28,4</td>
</tr>
<tr>
<td>Repsol YPF</td>
<td>2,1</td>
<td>Veba AG 0,6</td>
<td>Libya NOC 23,6</td>
</tr>
<tr>
<td>Statoil</td>
<td>2,1</td>
<td>Broken Hill 0,6</td>
<td>NNPC 13,5</td>
</tr>
<tr>
<td>Conoco</td>
<td>1,5</td>
<td>Wintershall 0,6</td>
<td>Sonatrach 8,8</td>
</tr>
<tr>
<td>Norsk Hydro</td>
<td>1,2</td>
<td>Kerr-McGee 0,6</td>
<td>Pertamina 7,8</td>
</tr>
<tr>
<td>Occidental</td>
<td>1,0</td>
<td>Unocal 0,5</td>
<td>Sinopec 5,9</td>
</tr>
<tr>
<td>Bashneft</td>
<td>1,3</td>
<td>Cepsa 0,5</td>
<td>Petroecuador 4,6</td>
</tr>
<tr>
<td>Slavneft</td>
<td>1,2</td>
<td>Petro-Can. 0,5</td>
<td>ONGC 4,0</td>
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<tr>
<td></td>
<td></td>
<td>Talisman 0,5</td>
<td>PDO 3,3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gulf Canada 0,4</td>
<td>Qatatr Petr. 2,9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Apache Corp 0,4</td>
<td>Petoro 2,7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pan Can. 0,4</td>
<td>Ecopetrol 2,3</td>
</tr>
<tr>
<td>Ranking criteria =</td>
<td>Reserves in Billion bbl.</td>
<td>Renaissance 0,4</td>
<td>CNOOC 1,7</td>
</tr>
<tr>
<td>Source: Energy Intelligence Group</td>
<td></td>
<td>Devon Energy 0,4</td>
<td>EGPC 1,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Burlington 0,3</td>
<td>Syrian Petr. 1,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sonangol 1,0</td>
<td></td>
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</tbody>
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## NOC commercial efficiency

<table>
<thead>
<tr>
<th></th>
<th>Mobil</th>
<th>SOCAR</th>
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<tbody>
<tr>
<td>Employees</td>
<td>65,000</td>
<td>65,000</td>
</tr>
<tr>
<td>Countries</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Production, bbl/day</td>
<td>1,600,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Refineries</td>
<td>33</td>
<td>2</td>
</tr>
</tbody>
</table>
NOC Commercial Efficiency

Production Cost

US$/bbl

Pertamina
Industry average
Some reasons for inefficiency

- Lack of competition
- Non-commercial objectives
- Governance
Non-commercial objectives

- Job creation
- Local capacity
- Social infrastructure
- Regional development
- Income redistribution
Governance

- Non-transparency
- Unclear organizational structures
- Political boards lacking professionalism
- No incentives to act commercially
- Inadequate capitalization
Competing for budgets

Budgetary requirements in Nigeria, 1999

Billion Naira

NNPC
Health
Education
Transport
Argentina before oil sector reform

- Poor NOC performance vs. Benchmarks
- Declining production and reserves add.
- Wide range of non-core obligations
- Frequent political interference
- Urgent competing claims on budget
- "Poacher/Gamekeeper"
Argentina reform steps for NOC

- Non-core activities sold
- YPF shares distributed to Governments (Federal/Provincial) and employees
- 50% of Government shares to be sold on international market within 3 years
- Enhanced licensing terms
- NOC/public ”buy-in”
Remedies to commercial inefficiencies

- Benchmarking
- Limited competition
- Unrestricted competition
- Joint Ventures
- Partial privatisation
- Divestiture of non-core assets
- Full privatisation
Russian oil sector reform

- Controlling interest in state companies mortgaged on non-competitive basis to private investor groups
- Government option to reacquire debt lapsed and ownership passed to private sector
  
  Non-transparent process deeply resented by public
How to handle non-commercial obligations

- Transfer of obligations to Government
- Transitional safety net is needed for those most negatively affected
- New responsible institutions must be adequately funded, staffed and managed
Key to good governance

- Transparency is critical to good governance and a necessity to raise commercial finance
- Steps to take:
  - Competent and objective Board of Directors
  - Profit oriented internal structuring
  - Business units with adequate funding
  - Strong financial oversight and planning functions
  - Retain cash flow to meet obligations and needs
Cash is King – strategies for reduced demand

• Privatization – brings in cash and shift future responsibility to private sector
• NOC carried interest – reflected in license agreement or PSC
• Financing responsibility to private sector reduce total financial cost
The Norwegian NOC

- Founded: 1972
- Reserves: 4.3 bill. Bbl (17% int.)
- Production: 1.17 mill bbl o.e/d (8% int.)
- Employees: 19,000
- State ownership: 70.9%
Statoil conditions

Old regime

• Preferred position for operatorship and license shares
• Min. 50% in all licenses; higher in licenses of high potential
• Carried in the exploration phase
• 100% State owned

New regime

• Unrestricted competition
• No minimum interest
• No financial benefits
• State direct interest moved to separate company (PETORO)
• Partly privatised (29.1%)
Norwegian Trinity Model

Government:
Policy, Licensing, Taxation

NOC: Commercial Operations

Technical Directorate:
Data and Technical Regulations
Options for Oil Sector Reform Strategy

- Confine Government’s Role to Policy and Regulation and build capacity
- Privatize NOC
- Provide incentives to enhance private sector participation and competition
- Deregulate downstream markets
Legal framework

- The Nation’s Constitution
- Tax Law
- Petroleum Legislation
- Production Sharing Contract
- Joint Operating Agreement
### Contractual structure

<table>
<thead>
<tr>
<th>Operational</th>
<th>National Legislation</th>
<th>Contract Negotiation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Gvt. Participation</td>
<td>• Work commitment</td>
</tr>
<tr>
<td></td>
<td>• Ownership transfer</td>
<td>• Relinquishment</td>
</tr>
<tr>
<td></td>
<td>• Arbitration</td>
<td>• Commerciality</td>
</tr>
<tr>
<td></td>
<td>• Insurance</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Revenue</th>
<th>• Royalties</th>
<th>• Bonus payments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Taxation</td>
<td>• Cost recovery limits</td>
</tr>
<tr>
<td></td>
<td>• Depreciation rates</td>
<td>• Production sharing</td>
</tr>
<tr>
<td></td>
<td>• Investment credits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Domestic obligation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ringfencing</td>
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</tbody>
</table>
Aspects of contractual framework

- Often a less extensive legal framework combined with different agreements
- Allows tailormade conditions and also renegotiations
- Favourable in an early phase, less so in later phase
- Legal framework more predictable
- Contractual framework can get extensive and difficult to administrate by the Government
Basic Fiscal Systems

*Concessionary Systems:*  
Allow private ownership of mineral resources

*Contractual Systems:*  
Government retains ownership of minerals
Classification of systems

Petrolem Fiscal Arrangements

Concessionary Systems

Contractual Systems

Service Contracts

Production Sharing Contracts

Pure Service Contracts

Risk Service Contracts
Concessionary vs. PSC

- Major symbolic and philosophical differences
- Distinct terminology
  but
- Cost recovery limit is the only true distinction
Conclusions

• A petroleum will always have maximising value creation for the nation as an objective
• Four levels of competence within the state’s petroleum administration
• Models for the state’s petroleum organisation reflect different functions of the National Oil Company
• The NOCs are the world’s dominant petroleum producers and reserve holders
• The NOC are often inefficient in their operations
• The legal and contractual structure should balance predictibility and flexibility
• Differences between concessionary and contractual systems are more philosophical than real