



Riksrevisjonen

Office of the Auditor General of Norway

Risk and Potential Audits in the Various Steps of the Value Chain

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The Petroleum Value Chain

– from an auditor's perspective

Role of government in 7 steps of the value chain:

1. Legal Framework
2. Surveying and Data Management
3. Award of contracts and licenses
4. Monitoring of Operations
5. Collection of Revenue
6. Revenue Management and Allocation
7. Implementation of Sustainable Policies

Value Chain 1
Value Chain 2
Value Chain 3
Value Chain 4
Value Chain 5
Value Chain 6
Value Chain 7
PSAs

RESOURCE
THEME

AUDIT
TYPE

	Value Chain 1	Value Chain 2	Value Chain 3	Value Chain 4	Value Chain 5	Value Chain 6	Value Chain 7	PSAs	Oil & Gas	Minerals	Performance	Financial	Compliance
Argentina								✓	✓		✓		
Brazil		✓	✓	✓	✓				✓	✓	✓		✓
China													
Cyprus													
Ecuador									✓			✓	
Egypt													
Estonia			✓			✓			✓	✓	✓		
Georgia													
Ghana													
India	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Indonesia													
Iraq									✓		✓	✓	
Kenya													
Kyrgyzstan													
Laos													
Lithuania													
Libya													
Mongolia										✓	✓	✓	✓
Netherlands							✓		✓		✓		
Niger				✓	✓				✓	✓		✓	✓
Nigeria													
Norway		✓	✓			✓			✓		✓	✓	✓
Philippines				✓					✓			✓	
Rwanda													
Sierra Leone													
South Africa													
South Sudan			✓						✓			✓	
Swaziland													
Tanzania	✓					✓	✓					✓	✓
Trinidad and Tobago													
Uganda						✓	✓		✓		✓	✓	
United States of America													
Vietnam													
Zambia				✓					✓	✓	✓		✓

AUDIT OF EXTRACTIVE INDUSTRY SECTOR BY COUNTRY (WGEI MEMBERS)

- Value Chain 1 - Legal Framework
- Value Chain 2 - Surveying and Data Management
- Value Chain 3 - Award of contracts and licenses
- Value Chain 4 - Monitoring of Operations
- Value Chain 5 - Collection of Revenue
- Value Chain 6 - Revenue Management and Allocation
- Value Chain 7 - Implementation of Sustainable Policies

www.wgei.org

1. Legal Framework

- The Petroleum Act or Mining act establish overall regulation of petroleum and mining related activities
- The Acts should be supported by regulations and guidelines
 - Health, safety and environment
 - Environmental Management
 - Resource management

1. Legal Framework

Uganda Audit Office (2014):

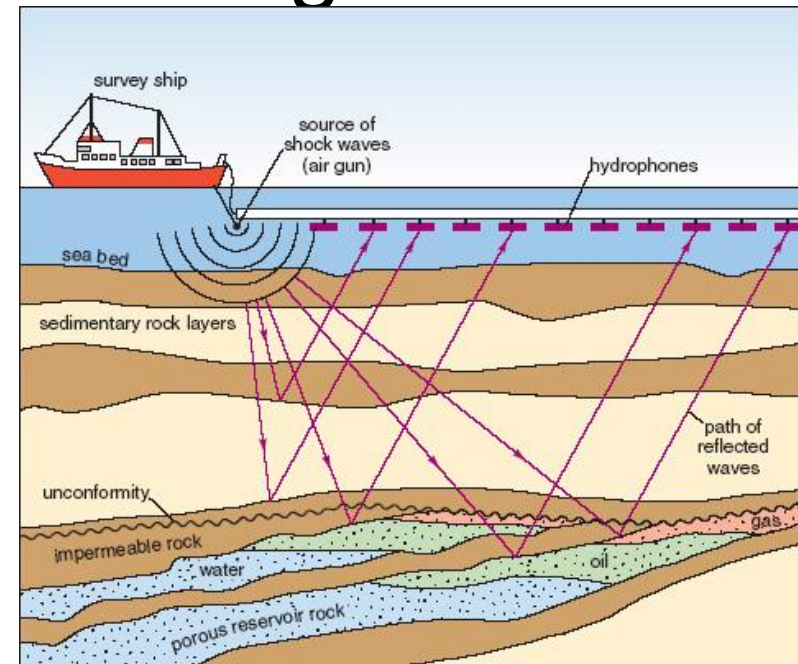
“NEMA has not completed the review of environment legislation in time, and did not consult relevant stakeholders while formulating the Operational Waste Management Guidelines for oil and gas operations. Thus proper and efficient management of waste from the oil and gas activities have been hampered.”

“Audit, however, attributed the delay to complete the review of the legislation to incorporate the oil and gas issues to NEMA’s over reliance on donor funding”



2. Surveying and Data Management

- Government should have both control and insight
- Provisions on EIA and sale of data
- Establishment of databank for seismic tapes, geological samples etc.




Ownership of petroleum data

3. The data and information obtained by a contractor or subcontractor as a result of petroleum operations and the geological, geophysical, technical, financial and economic reports, studies, interpretations and analysis prepared by or on behalf of a contractor or subcontractor in connection with the petroleum operations are the property of the Republic.

Draft Ghana Petroleum Act, Article 3

2. Surveying and Data Management *Risks and potential role of SAI*



The current system of empanelling experts and consultants does not provide for a competitive bidding process to acquire quality services at competitive costs. As the Basins that hire consultants do not send appraisal reports to the Corporate Exploration Center, effectiveness of their services could not be gauged. Further, 50 *per cent* of the consultants hired were ex ONGC employees.

Source: Performance Audit of Hydrocarbon Exploration Efforts (2007-2011) of Oil and Natural Gas Corporation Limited – by SAI India

Tanzania is currently doing an IT audit on management of data from exploration activities

3. Award of Contracts and Licenses

- Competitive procurement process governed by laws and regulations
- Bidding criteria
- Evaluation of bids
- Transparency

R.

3. Award of Contracts and Licenses

Brazilian Audit office has audited every single bidding round. Some of the findings:

- No criteria for selection of blocks for tendering – no link to natural petroleum policy
- Too little transparency and lack of publicity on dialogue between bidders and government
- No deadline for when clarifications to bids can be requested
- No criteria for setting minimum and maximum local content in contracts

SOURCE: Brazilian Audit Office Brochure on Audit of Oil and Gas



Performance audit by OAG Norway in 2010:

- Considerations on environment and fisheries not given priority the licenses – especially when new areas within the licensed block were discovered



4. Monitoring of Operations

- Ensure that HSE regulations are followed
- Monitor production and assess quality and quantity

MEASUREMENT AND PRICING OF PETROLEUM

11.2 GNPC or its authorized agent shall have the right:

- a) To be present at and to observe such measurement of Crude Oil; and
- b) To examine and test whatever appliances are used by Contractor.



Source: Petroleum Agreement with Kosmos Energy Ghana (West Cape Three Points Block)

4. Monitoring of Operations

- Loss of revenue due to incorrect measurement

A real risk!

- USA Audit Office



Neither BLM nor OEMM is meeting statutory obligations or agency targets for conducting inspections of certain leases and metering equipment used to measure oil and gas production, raising uncertainty about the accuracy of oil and gas measurement.

Source: GAO Report September 2008

- India Audit Office



Defective metering of supply from HBJ pipeline resulted in short billed quantity of 1848.173 billion K cal valuing Rs.66.23 crore from April 1999 to March 2003.

= 10,4 mill USD
(from one pipeline!)

Source: Office of the Auditor General India Audit Report 2004

5. Collection of Revenue

- A key audit area
- Capacity of tax collectors
 - May be different tax collectors
- Reconciliation of EI revenue flow

DIFFERENT FISCAL MODELS

Up-front

- Auction of rights
- License fees
- Area fees

Gross taxation

- Royalty
- Production taxes

Field taxation

- Ring fence or PSA

Corporate (net) tax

- Ordinary profit tax + economic rent tax

Participation

- National oil company
- Shareholder in licenses

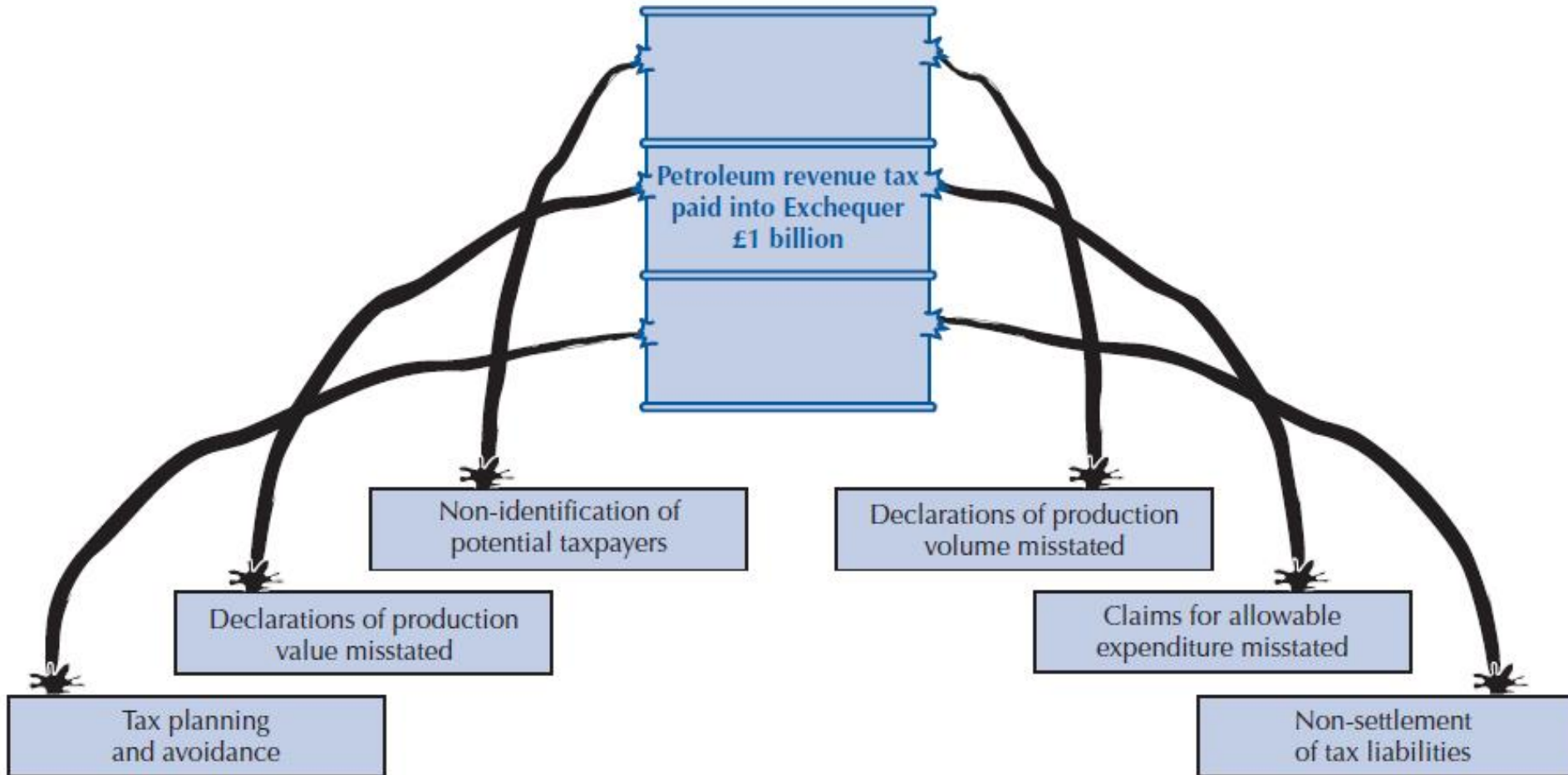
NORWAY

NORWAY

NORWAY



Risks associated with the administration of petroleum revenue tax – NAO UK 2008



Performance Audit of Hydrocarbon Production Sharing Contracts 2011



- Recommendations were made on the way costs and profit sharing should be calculated
 - Very high procurement decisions should be decided by the government

http://www.saiindia.gov.in/english/home/Our_Products/Audit_Report/Government_Wise/union_audit/recent_reports/union_performance/2012_2013/Commercial/Report_11/Report_11.html

UK NAO Report (2008) on Petroleum Revenue Tax

- Inland Revenue (Taxation office) has difficulties in reconciling expenditure claims and their accounts
- Inland Revenue should also consider, as a longer-term option, the costs and benefits of requiring companies to provide returns certified by their external auditors, which is a requirement in Norway and for royalty returns



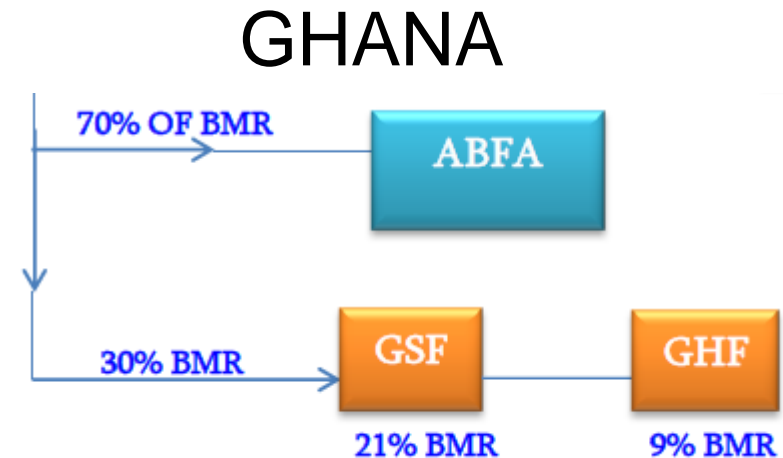
Canada Audit Office



- Findings on capacity of Revenue Authority (2002 report):
 - HR capacity at The International Tax Directorate needs to be improved
 - Tax audits involving transfer pricing take an excessive amount of time, often three years
 - There should be more on-the-job training with skilled tax auditors, international exposure and specific training on transfer pricing

6. Revenue Management and Allocation

- Main auditee is the Ministry of Finance
- Audits are done based on provisions in the Petroleum Revenue Management Act
- Allocation to reserve fund
- Allocation to local communities



6. Revenue Management and Allocation

Netherlands Audit Office audited the use of natural gas revenues (2014)

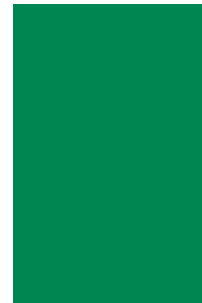
- Total revenues since 1960: 295 billion USD
- Precise use of most of the natural gas revenue cannot be identified
- Spending policies change – based on shifting political regimes
- Audit office pointed to lessons learned in Norway and what Netherlands court have earned by establishing a sovereign wealth fund

Source: Algemene Rekenkamer 7 October 2014

Nigeria Audit Office

- February 2015

Audit report revealed that 1,47 billion USD of petroleum revenue collected by the national oil company (NNPC) was not remitted to the Federal account



The use of petroleum revenue is not sustainable:

46% of proceeds from domestic crude oil revenue was used on

- NNPC operational costs
- Subsidies on petrol and kerosine

7. Implementation of Sustainable Policies

- Environmental concerns
- Local content
- Societal impact

7. Implementation of Sustainable Policies

Risks and possible role of SAI

- Audit of Local content in Uganda:

«Oil companies to a large extent procure from companies that are wholly foreign-owned.

Companies may be set up just to fulfil legal requirements without effecting local value

Addition»

«only one of the three oil companies is procuring food from the host community area»

*Source: Uganda Audit
Office Annual Report 2014*



7. Implementation of Sustainable Policies

Risks and possible role of SAI

- **Audit of Waste Management from Oil Drilling:**

«NEMA should routinely carry out laboratory tests to ensure that it keeps track of the effect of oil exploration activities on the environment»

«NEMA should consider carrying out routine verification of test results from the self-monitoring reports submitted by the licensed entities operating in the Albertine Graben»



Source: Uganda Audit
Office Annual Report 2014

NEMA = NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY



Oil- contaminated water from the wash bay released to the environment-Chibuluma Mine Plc



Spilled oil comingling with water from the Mine wash bay and eventually to the environment -Chibuluma Mining Plc



Oil Contaminated silts in the drainage from wash bay -Chibuluma Mining Plc

Do an overall risk mapping of your petroleum sector!

RISK MAPPING (example)

Actors	Responsibilities	System description (incl. interactions with other entities)	Risks (probability - consequence)	Audit topics (FA, CA or PA)	Prioritization and timing of audits
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