



EXAMINING THE CRUDE DETAILS

Government Audits of Oil & Gas Project Costs
to Maximize Revenue Collection

The petroleum sector offers governments huge potential revenues that could be invested in poverty alleviation and inequality reduction, but those revenues must first be collected. Taxes are levied on profits, but companies may seek to reduce their taxes by deducting ineligible or exaggerated costs, often paid to related parties. Governments' essential tool to combat petroleum cost overstatement is the right to audit costs, but there is limited data on whether governments use this right effectively. Cost auditing practices in Ghana, Kenya, and Peru suggest that governments face significant challenges. Oxfam proposes recommendations to address these challenges and ensure that governments collect the taxes owed for the exploitation of their finite, non-renewable petroleum resources.

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Cover photo: Caption: An oil pump along the coast of Peru outside Lobitos (Rafael Storch).

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Three country case studies accompany this report:

Ghana

Kenya

Peru

SUMMARY

Raising revenues through taxes and other means is a critical government function. Governments need revenue to finance expenditures such as infrastructure investments and social services, including healthcare and education. Progressive taxation and progressive public spending are at the heart of fighting inequality and ending poverty.¹ In many developing countries, however, despite concerted effort, revenue collection remains too low. The African Development Bank says African countries will need to increase the average ratio of taxes to gross domestic product (GDP) to 25 percent,² up from 19.2 percent today,³ if they are to finance the continent's infrastructure and human development needs.

The extractive industries—oil, gas, and mining—present an enormous opportunity to mobilize greater domestic revenues that could be used to close the gap between rich and poor. The petroleum sector in particular often generates enormous profits, and governments, as custodians of the resource, are entitled to the lion's share. Even where oil and gas companies already contribute considerably to government revenues, it is possible that they should be contributing more. In practice, however, it is far from simple for developing-country governments to adequately administer their petroleum fiscal regimes and collect all that is due. Tax authorities may lack the necessary legal and regulatory tools, expertise, or information; furthermore, conflicting incentives or political pressures may complicate their mandate to maximize revenue collection.

Inflated company expenditures are a major threat to government revenues from oil and gas. The more costs that companies report, the less profits there are to tax, which means less revenue for government. Developing countries stand to lose the most from cost overstatement given their outsized reliance on corporate income tax.⁴ Companies may also seek to deliberately evade or avoid paying taxes. Avoidance is the use of legal (as opposed to illegal) methods to minimize the amount of income tax owed by a multinational corporation (MNC). An oil company's recent tax scandal in Australia confirms that where companies obtain goods, services, and debt from other related companies held by the same MNC, there is a risk they will inflate the cost to reduce their own profits and shift profits offshore.⁵

Oxfam and its allies have pushed to improve the fiscal governance of extractive industries, including through greater transparency and oversight.⁶ As shown by Oxfam's past work assessing risks to revenues,⁷ one critical area in need of strengthening is the effectiveness of government fiscal audits.

Petroleum-producing countries must ensure they capture an appropriate share of the value of their oil and gas if they are to meet domestic revenue mobilisation (DRM) targets—otherwise millions could be lost. In two separate examples, auditors found that oil and gas companies had overstated their costs by \$127 million in the Republic of Congo and by

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\$81 million in Uganda. Substantial revenue was lost as a result—\$63.5 million in Congo and \$24 million in Uganda (see “Introduction”).

- **Laws determining the treatment and eligibility of petroleum costs are inadequate, and changes may be difficult to apply.** An audit is only as effective as the law it seeks to enforce. Legal loopholes and costs that are prone to abuse may limit auditors’ ability to protect government revenues.
- **Institutional fragmentation hinders effective revenue administration.** Cost audit rights are often dispersed across multiple government agencies, sometimes with conflicting mandates. Inadequate coordination inevitably leads to duplication of effort and uncertainty for investors with respect to the final determination of gross income.
- **Auditors lack sector-specific knowledge and expertise.** The lack of regular risk assessment relating to the petroleum sector reflects tax authorities’ limited appreciation of the special characteristics of the industry. Despite this gap, neither Ghana nor Kenya has made use of the option reserved for them in many petroleum agreements to outsource – partly at the contractor’s expense – inspection of the company’s accounts to external auditors.
- **It is difficult to obtain data to benchmark petroleum costs.** Reporting requirements are unclear or incomplete, preventing governments from accessing certain information from companies. Still, efforts are underway globally to expand the pool of publicly available data specifically for petroleum costs.
- **Audits are too late.** There is a tendency to prioritize auditing only once oil is flowing, long after development of the oil field has started. By that time, the government’s audit rights may have expired and companies’ legal obligation to keep records may have run out.
- **Transparency and public accountability are absent with respect to cost auditing.** The information available publicly does not provide a sufficient basis by which to judge how governments are using their cost-auditing rights. Unless a case goes to court, citizens have no idea whether a government is auditing costs or what the results might be. Supreme audit institutions (SAIs), national legislatures, independent commissions, and Extractive Industries Transparency Initiative (EITI) multistakeholder groups could all potentially review cost-auditing practices, but these actors have not commonly done so.

RECOMMENDATIONS

Based on analysis of these recurring challenges, this report makes a series of recommendations that would help Ghana, Kenya, and Peru and other petroleum-producing countries facing similar challenges to better limit the risk of cost overstatement through effective audit practices.

1. **LAWS:** Review and strengthen legal controls on petroleum costs. Carefully design laws that determine the treatment or eligibility of costs so that auditors have the necessary legal tools to protect government revenues.
2. **COORDINATION:** Clearly define which government agencies are responsible for cost auditing, and strengthen interagency coordination on petroleum revenue administration. Coordination mechanisms should facilitate the exchange of information and expertise across government, including from national oil companies.
3. **CAPACITY:** Develop the technical expertise and sector-specific knowledge to detect and mitigate cost overstatement in the petroleum sector. An informed, risk-based approach to auditing is especially important for resource-constrained countries, to ensure that limited human and financial resources are judiciously invested.
4. **INFORMATION:** Take steps to increase the information available to verify and appraise petroleum costs. Innovative ways to exchange anonymized cost information between petroleum producers should be explored as a means of increasing benchmark data.
5. **TIMEFRAME:** Ensure that audit time limits and record-keeping requirements are long enough and that costs are audited as soon as possible after they occur. Governments should audit as soon as possible when petroleum company activity begins rather than waiting for revenues to start flowing, by which time audit rights may have expired.
6. **ACCOUNTABILITY:** Publicly disclose audit activities and their results, and strengthen the capacity of oversight actors to monitor the government's use of cost audit rights. A transparent and accountable audit process is a precondition for effective cost auditing; without this, it is impossible to determine whether governments are fulfilling their responsibility to protect petroleum revenues.

1 INTRODUCTION

BACKGROUND

Three years after the 2015 launch of the Addis Tax Initiative (ATI),⁸ improving domestic revenue mobilization (DRM) in developing countries remains a priority for governments, civil society, and development partners. For Oxfam, it is not only the rate of DRM, but also the means by which domestic revenues are raised, that matters; progressive taxation of those most able to pay, in this case oil and gas companies, is an important tool for governments to address inequality.⁹ Provided that government spending is well governed and transparent, extractive industry revenues can contribute to sustained economic development, poverty reduction, and gender justice¹⁰ and reduce reliance on foreign aid and debt financing.

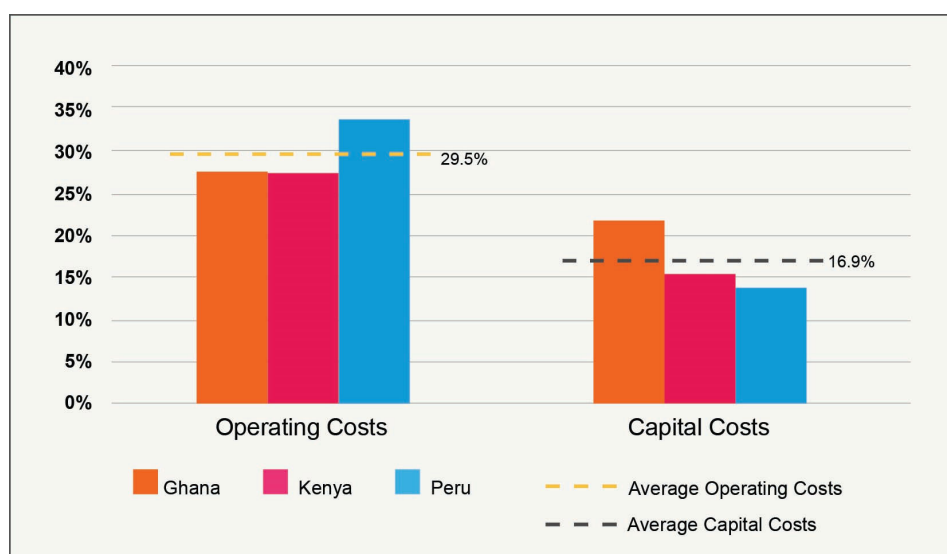
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Petroleum fiscal regimes are often complicated and distinct from those applicable to other sectors. Governments must keep track of the volume of oil produced, the price at which it was sold, and the costs incurred.¹¹ While attention to all of these elements is necessary to maximize revenue collection from the sector, costs should be given special attention. Petroleum production is a physical process that can be monitored, and petroleum sales can be benchmarked against index prices (e.g., those published by Platts or Argus). Petroleum costs, however, are manifold, varied, and often difficult to verify, especially when they involve related parties. Set out below are three important reasons why governments should prioritize reviewing costs.

Extractive industry revenues can contribute to sustained economic development, poverty reduction, and gender justice and reduce reliance on foreign aid and debt financing.

Oil and gas projects are extremely capital intensive. The costs deducted by oil and gas companies tend to be large, both in absolute terms and relative to gross revenues. According to industry analysts Wood Mackenzie, the capital costs and operating costs of all oil and gas projects combined in the case study countries amounted to an estimated \$39.3 billion, or 43–49 percent of gross petroleum revenues, between 2008 and 2017 (see **Figure 1**). This means that for every \$1 of revenue a company makes, at least \$0.40 is spent on costs. Consequently, even a slight overstatement of costs will have a major impact on government revenues.

Figure 1. Oil and gas project costs as percentage of project revenues in Ghana, Kenya, and Peru (cumulative for 2008-2017)¹²



Features of the oil and gas sector, combined with the international tax system, offer opportunities for companies to avoid taxes. In developing countries—which typically lack the capacity to tackle complex avoidance techniques—oil and gas projects are carried out primarily by foreign-owned MNCs. These corporations create subsidiaries that sell most of their oil production to related parties. The subsidiary may also receive financing and administrative and procurement services from a parent or affiliate company. Whereas a transaction between two unrelated companies should reflect the best option for both, transactions between related parties are more likely to be made in the interest of the group. It can be in the interest of the group to overstate charges to reduce taxable income and shift profits offshore, usually to a lower-tax jurisdiction, thereby reducing the MNC’s global tax bill.

Significant revenue is at stake. In 2004, the government of the Republic of Congo contracted independent, external audit firms to audit the costs of its oil permits. Overall, 13 audit reports for 2004 and 2005 were subsequently published, covering 9 permits held by the oil and gas companies ENI and Total. The audits found that the companies had overstated their costs by \$127 million;¹³ for the 13 reports combined, \$15 of every \$100 in declared recoverable costs that auditors sought to verify were ineligible or excessive.¹⁴ Assuming a 50 percent split in profit oil, the Congolese government lost out on \$63.5 million.¹⁵ Of the 13 reports, 9 pertained to 2005, for which the revenue loss was \$55.3 million. That amount of additional revenue would have been enough to lift one-fifth of Congo’s 1.6 million poor people out of poverty.¹⁶ In 2016, the Auditor General of Uganda disallowed \$80.5 million worth of petroleum costs for all petroleum agreements (PAs) for the period 2004 to 2011.¹⁷ The costs were disallowed on the basis that they did not comply with the terms of the PAs or were related to license areas where discoveries were yet to happen. The disallowed costs would increase government revenue by \$24 million.¹⁸

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In closing, cost audits are a key tool to limit revenue leakage. Developing-country governments are, in many cases, at a disadvantage during oil contract negotiations.¹⁹ Asymmetry of power and capacity can not only create fertile ground for corruption, but also lead to agreements that facilitate revenue leakage, including by cost overstatement. Cost audits are an important safeguard against these risks, ensuring that government revenues are fully collected according to the contractual terms and fiscal policy. The efforts of the New Petroleum Producers Discussion Group, a collaborative network of 30 petroleum-producing countries, to build a platform for sharing anonymized cost data demonstrate the recognition of the risks that are the basis of this report and show the demand for improvement.²⁰ As petroleum producers work to increase their technical capacity and access to information, cost audits have an important role to play in diagnosing and resolving potential risks to revenues.

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MOTIVATION FOR STUDY

For resource-rich developing countries, the decision to allow exploitation of non-renewable natural resources is often predicated on mobilizing significant revenues from the companies granted a license to operate. In these countries, the extractive industries account for most of their exports, a big part of their economy, and, most important, significant government revenues. International Monetary Fund (IMF) data show that in 2010, some 47 petroleum producers reported oil and gas revenues equal to 12 percent of GDP and 35 percent of total government revenue.²¹

Despite their importance, for far too long extractive industries have operated under a cloak of opacity, with little transparency around the deals underlying oil, gas, and mining projects or company payments to government. Over the past two decades Oxfam, its partners, and other civil society allies have pushed for greater transparency of these aspects. Some progress has been made. Many countries now choose to publish extractive contracts and fiscal terms, permitting comparisons of oil fiscal regimes.²² Fifty-one countries now implement the Extractive Industries Transparency Initiative (EITI), which requires public, reconciled reporting of payments made to governments by extractive companies operating in each implementing country.²³ Legislation requiring extractive companies to publish project-specific reporting of their payments to governments on a country-by-country basis was enacted in the United States in 2010, though the strong administrative rule to implement it was repealed before it could be put into practice, a move Oxfam condemned.²⁴ Nonetheless, since 2010 similar disclosure requirements for extractive industry payments to governments have been adopted in Canada and the European Union and its member states, including the United Kingdom, creating further opportunities for verifying payments.²⁵

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Transparency has yet to penetrate, however, in revenue administration—the process of making sure the government collects all that is due.²⁶

Payments to government depend on income or profits, which are calculated as total sales revenue minus costs. If costs are overstated, then the income available to tax, or the profit oil available to share, is reduced. Surprisingly little has been written about extractive industry revenue administration compared with the abundance of work on fiscal policy for oil, gas, and mining. A noteworthy exception is the IMF's 2014 publication *Administering Fiscal Regimes for Extractive Industries: A Handbook*,²⁷ written by Jack Calder, which served as a reference in the course of this research. The present report breaks new ground by investigating whether governments make effective use of their audit rights concerning petroleum projects, and if not, what might be the reasons.

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ABOUT THE REPORT

Examining the Crude Details focuses on the narrow but important issue of government cost auditing in the petroleum sector. In particular, the study was guided by two central questions:

1. Are governments making effective use of their audit rights concerning petroleum projects?
2. If not, what challenges impede the effective use of such rights, and how might they be overcome?

The answers to these questions are particularly critical for government policy-makers and technical assistance providers focused on improving DRM in petroleum-producing countries. They are also relevant to civil society advocates who seek to ensure that these countries are maximizing the economic and social benefits from their natural resources. Individuals and structures that could play an oversight role over the use of audit rights, either formally or informally—e.g., journalists, legislators, supreme audit institutions (SAIs), and special commissions for good governance—will also likely appreciate the report's findings and recommendations. Oil and gas companies interested in responsible tax practices and other reform-oriented stakeholders are likely to find the study of interest as well.

The analysis draws heavily from the experiences of the three case study countries—Ghana, Kenya, and Peru—but also from existing literature and other countries where relevant. Following a description of the methodology, the report offers an overview of how cost auditing works in the petroleum sector. It then addresses whether the case study countries are using their cost audit rights. Finally, it describes six recurring challenges to effective cost auditing uncovered in the research:

1. Legal controls on costs
2. Cost audit responsibility and cooperation
3. Audit capacity
4. Accessing taxpayer information and benchmark data
5. Audit timing
6. Transparency and accountability of audit results

Where the experience of the case study countries illustrates the challenge, it has been highlighted, but since not every country's experience is relevant for each issue, some challenges note the experience of only one or two of the case study countries. Recommendations for improving cost auditing follow the analysis of each challenge.

Complementing this larger analysis are three shorter briefings that elaborate on the current cost-auditing practices of the case study countries. These briefings include country-specific recommendations, which will be of particular interest to stakeholders in Ghana, Kenya, and Peru.

METHODOLOGY

Oxfam reviewed core documents relevant to cost auditing generally and interviewed more than 40 key stakeholders in three petroleum-producing countries: Ghana, Kenya, and Peru. Oxfam prioritized these countries because they represent a cross-section geographically, they are at different stages of development of the oil and gas sector, and they have different petroleum fiscal regimes. They are also countries where Oxfam is regularly engaged in conversations about the extractive industries.

Although Ghana, Kenya, and Peru offer a diverse set of data points from which to draw lessons, their experiences may not be entirely representative—a potential limitation of this research. Notably, none of the three countries ranks among the world's largest petroleum producers, and their oil and gas reserves are not among the world's most significant.

There is also a lack of publicly available data on petroleum cost audits and limited transparency around audit results. Therefore, it was not possible to determine the effectiveness of cost audits from a quantitative perspective. Instead the research focused on the extent to which governments audit costs and the challenges to implementation.

There is also a lack of publicly available data on petroleum cost audits and limited transparency around audit results.

The first part of the research was a review of tax and financial audit guidance. The goal was to determine best practices for petroleum cost auditing as a basis for evaluating the performance of the case study countries. Because there is no universal standard for petroleum cost auditing, it was necessary to review general audit guidance, as well as literature on extractive industry taxation (see **Annex A**). The result was a set of high-level principles that are set out in **Box 1**. One aim of this study was to test whether these principles are adequate or whether other conditions are necessary for effective petroleum cost auditing.

Box 1. High-level principles for effective petroleum cost auditing

- Establish a clearly defined list of expenditures eligible for cost recovery and/or tax deduction.²⁸
- Ensure adequate legal powers to audit petroleum costs.²⁹
- Formulate clear strategic, operational case audit plans based on risk assessment.³⁰
- Regularly audit petroleum costs for production-sharing and income tax purposes.³¹
- Audit the national oil company in the same way as other private oil and gas companies.³²
- Set up effective interagency coordination on petroleum revenue collection.³³
- Make certain that government officials possess a detailed understanding of petroleum taxation and accounting.³⁴
- Ensure that the government agencies responsible for petroleum cost audits are transparent about cost-auditing activities and accountable to elected officials and citizens.³⁵

Having determined a rough set of principles, the research shifted to a review of the legal frameworks for petroleum cost auditing in the case study countries. The purpose was to understand the scope of audit rights, any potential legal conflicts, and the allocation of audit responsibilities between government agencies. This informed the crafting of the interview questions for the research.

A range of stakeholders were interviewed during the research—government agencies, oil and gas companies, civil society actors, and tax practitioners. This approach allowed for triangulation to determine the veracity of the responses and to draw out any conflicting views. The interview structure also allowed for open-ended discussion of priority issues for the stakeholders in question. Not all institutions agreed to participate. The national oil companies (NOCs) in both Ghana and Kenya, as well as the tax authority in Peru, declined to be interviewed. Hence any analysis of these institutions is based on external sources.

Stakeholders in the case study countries as well as external experts provided feedback on the report. If any information has been misstated or overlooked, Oxfam welcomes feedback to supplement the content included in the report.

2 COST AUDITING IN THE PETROLEUM SECTOR

To identify and correct cost overstatement, governments must conduct regular and rigorous audits. “**Audit**” is the process of verifying the accounts and records of taxpayers to determine the amount of revenue due to the government. For the purposes of this report, the term “**fiscal audit**” is used as a general term for government audits, including tax audits and cost-recovery audits (both defined below). The terms “**cost audit**,” “**cost auditing**,” or “auditing of costs” refer to those components of fiscal audits that involve a review of costs by government.

In the petroleum sector, the type of audit will depend on the fiscal regime. **Table 1** describes the most common petroleum fiscal regimes and the types of revenue that flow to government under each. It also specifies the risk of cost overstatement and the corresponding type of audit to control costs.

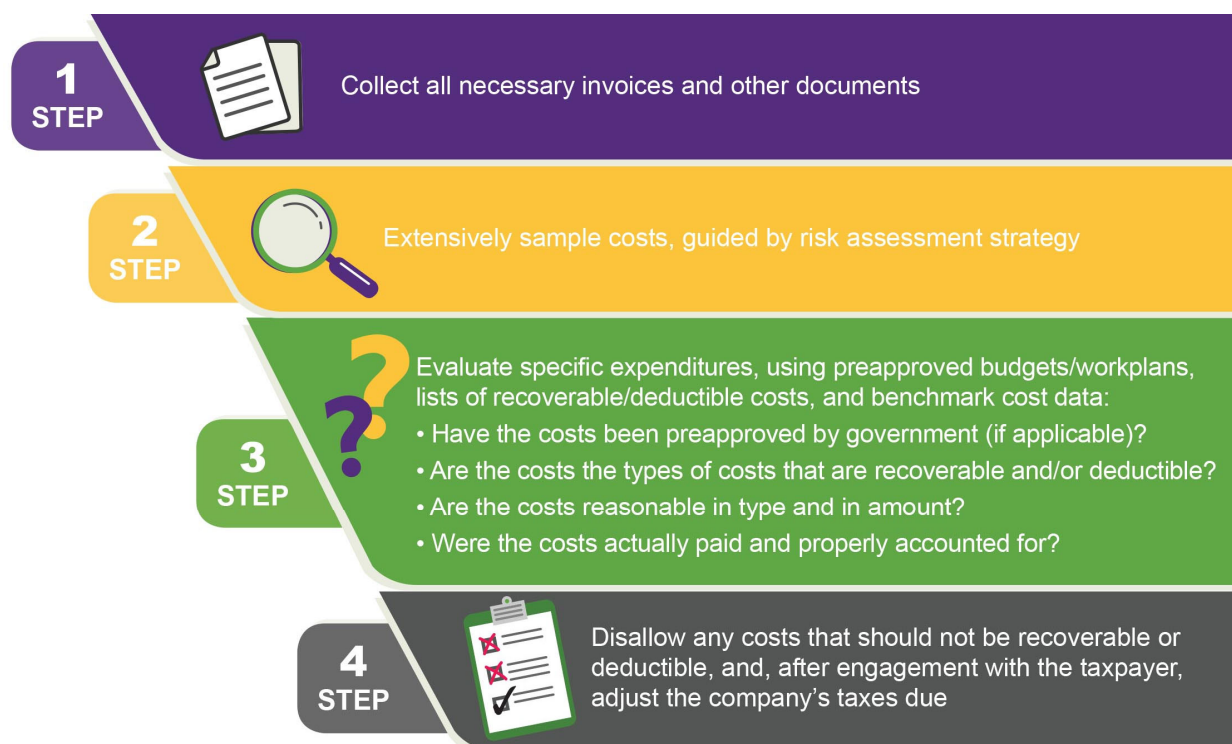
Table 1. Types of audit

FISCAL REGIME	REVENUE STREAMS	RISK OF COST OVERSTATEMENT	TYPE OF AUDIT
Tax and royalty regime (also known as a concessionary regime)	<ul style="list-style-type: none"> The company is taxed on its profits (corporate income tax); The company may pay a royalty in the form of a share of either the volume or the value of production; The company may be subjected to an additional tax on profits when they are greater than normal due to higher petroleum prices are high, often called a resource rent tax. 	Allowable costs re-duce profits and con-sequently affect CIT collection and any revenues from a re-source rent tax. When royalties are “progres-sive” (that is, in line with overall profitability of the project), costs will im-pact royalties as well.	A tax audit is intended to con-trol the risk of serious tax loss by different interpretation, or tax manipulation, by tax-payers. The tax-payer’s annual self-assessment return is the basis for the audit and will include the costs they are seeking to deduct from profits prior to being taxed. Tax audits are generally led by the tax authority and consist of annual desk-based audits and field-based audits every three to four years.
	<ul style="list-style-type: none"> The company takes a share of total oil production to cover its exploration and development costs (“cost oil”); this is called “cost recovery.” Normally, cost recovery is capped at between 30 and 60% of gross revenue. Excess cost oil may be rolled over to future years. The oil that remains is “profit oil,” which is split between the company and the government according to a formula in the production sharing contract (PSC). 	Cost recovery must be monitored to en-sure that cost oil is not overstated, thereby re-duc-ing government’s share of production. The PSC specifies which costs are eligible for cost recovery. Usually, these include unrecovered costs carried from previous years, operating expenditures, capital expenditures, and abandon-ment costs, and they <i>exclude</i> financing costs.	A cost recovery audit deter-mines whether the expenditures were treated correctly according to the provisions of the PSC. Cost recovery audits may be led by one of several agencies, notably the in-dustry regulator, the ministry of petroleum, or the tax department, and, in some cases, the national oil company (NOC). Note that tax audits may still take place in relation to indirect taxes (e.g., payroll taxes, import duties).
Hybrid system (combination of fiscal regimes)	<ul style="list-style-type: none"> Countries that operate a PSC regime may also impose a corporate income tax, a resource rent tax, and royalties. 	The same risks apply to gov-ernment’s share of production, as well as profit-based taxes and royalties.	A combination of tax and cost-recovery auditing will be required, and a mix of government actors may be involved.

WHAT DOES A COST AUDIT INCLUDE?

There is no universal standard for petroleum cost auditing. There is, however, general guidance, such as the International Standards on Auditing (ISA). Government auditors can be expected to follow protocols laid out in internal audit manuals (see a fictitious example below in **Figure 2**). The audit itself may cover a range of topics, including production volumes, sales, costs, and transfer-pricing issues.

Figure 2. Steps in Cost Auditing



OTHER AUDITS

It is not only governments that are interested in controlling costs; oil and gas companies have their own cost verification mechanisms. When multiple oil companies invest in one project, they usually do so in the form of a joint venture (JV). One of them is appointed operator; it carries out day-to-day operations and allocates costs to the non-operator JV partners according to their share of the investment. To protect their share of profit oil, the non-operator JV partners may call for an audit of the operator; this is called a joint-venture audit or JV audit.

THE FUTURE OF PETROLEUM COST AUDITING?

For roughly two-thirds of petroleum producers, the core component of their fiscal regime is the production-sharing contract (PSC),³⁶ of which the defining feature has been cost recovery. In 2017, however, the government of Indonesia—the grandfather of PSCs—abandoned the cost-recovery approach. In its place the government will apply a “gross-split” method, apportioning production based on a percentage, leaving all costs to be borne by the company.³⁷ This policy is virtually unknown in upstream oil and gas (Peru used it briefly in the 1970s). The government made this change for three reasons.

First, under cost recovery, all expenses had to be pre-approved by SKK Migas (the industry regulator), which led to significant delays for companies, allegedly making Indonesia a less competitive destination for investment. Second, contractors were incentivized to inflate costs to increase their share of production. In 2016, a report by the Supreme Audit Agency (BPK) revealed that several companies had inflated their operating claims by \$300 million.³⁸ Third, administering cost recovery can be challenging. According to Deputy Energy Minister Arcandra Tahar, “there have been endless debates between SKK Migas and companies as to how much the production costs should be.”³⁹

In 2016, a report by Indonesia's Supreme Audit Agency (BPK) revealed that several petroleum companies had inflated their operating claims by \$300 million.

Under a gross-split approach, contractors are forced to shoulder the costs themselves, which the government expects will encourage them to operate more efficiently and protect the government budget. The government will still audit costs for tax purposes, but there will be no more cost-recovery audits for new investments. The test will be whether government can get the split right so as to maintain a reasonable rate of return for investors. Provided it can, the gross-profit split approach may well be the future of PSCs and the end of cost-recovery audits.




3 USE OF PETROLEUM COST-AUDITING RIGHTS

To comprehensively address the question of whether governments are effectively using their petroleum cost-auditing rights, it is important to ask one preliminary question: are governments currently auditing? None of the three case study countries discloses information with which citizens can comprehensively judge the use of its auditing rights with respect to oil and gas projects. However, anecdotal evidence suggests mixed results.

The Ghana Revenue Authority (GRA) has conducted annual desk-based tax audits of all its petroleum agreements (PAs) since exploration started. It has also either completed or is currently undertaking field-based tax audits of the three PAs (out of 17) that have begun production.⁴⁰ In Kenya, cost-recovery audits have been slow to start, although the Kenya Revenue Authority (KRA) has completed annual desk-based tax audits of all PSCs, as well as two field-based audits per year, since 2014. In 2018, the Ministry of Petroleum and Mining began an initial cost-recovery audit for the two PSCs that have begun producing “early oil.”⁴¹ In Peru, the tax authority, Superintendencia Nacional de Aduanas y de Administración Tributaria (SUNAT), is auditing Camisea, the large gas project, but it skipped years 2011 to 2014, and there is no information on its auditing of the 51 petroleum licenses.⁴² **Table 2** provides a snapshot of the petroleum sector and use of cost-auditing rights in the case study countries.

None of the three case study countries discloses information with which citizens can comprehensively judge the use of its auditing rights with respect to oil and gas projects.

Table 2. Case study country audit snapshot

		 Ghana	 Kenya	 Peru
PETROLEUM SECTOR CONTEXT	Fiscal regime	Tax and royalty regime; an additional oil entitlement (AOE) based on the project's rate of return.	Production-sharing regime	Tax and royalty regime
	Contract type	Petroleum agreements (PAs)	Production-sharing contracts (PSCs)	Petroleum license contracts
	Year of first oil production	2010 - Jubilee oil field (Tullow Oil)	2018 (Blocks 10BB and 13T; (Tullow Oil)	1884
	Number of PAs, PSCs or licenses	Production: 3 PAs Exploration/pre-development: 14 PAs ⁴⁰	Production: 2 PSCs (early oil) Exploration/ pre-development: 8 PSCs ⁴¹	Production: 25 licenses Exploration: 26 licenses. ⁴²
UTILIZATION OF COST AUDIT RIGHTS	Number of petroleum fiscal audits	<i>Field-based tax audit:</i> 2 PAs (Jubilee – 2011–2014; 2015–2017; and TEN – 2016–2017) 1 pre-production tax audit (Sankofa) <i>Desk-based tax audit:</i> All 17 PAs annually	<i>Cost recovery audit:</i> 2 PSCs (Blocks 10BB and 13T; Tullow Oil) – started in 2018 <i>Field-based tax audit:</i> 2 PSCs a year (2014–2018) <i>Desk-based tax audit:</i> All active PSCs annually (2014–2018)	<i>Tax audit:</i> Undisclosed <i>Monitoring of costs for petroleum royalty assessment:</i> Annually for all contracts with the “R factor” royalty structure (about 75% of contracts)
	Audit results from the start of production	<i>Tax audit:</i> Approximately US \$78 million has been assessed for 2015–2017.	<i>Tax audit:</i> US \$50 million expected for 2012–2015 (assessment yet to be issued) <i>Cost recovery audit:</i> \$0	<i>Tax audit:</i> Undisclosed Royalties increased by \$1.2 million when a \$8–10 million ship was excluded from costs for royalty calculation

Of the case study countries, Ghana and Kenya are using their right to audit petroleum costs, although in some cases they have waited too long and the right to audit has expired. The situation in Peru is unclear owing to lack of information. While there are some quantitative data on audit outcomes for all three countries, it is not possible to say whether audits have been effective at protecting government revenues. Answering this question would require a multicountry dataset of audit results, disaggregated by sector, that does not exist in the public domain. Furthermore, cost-audit adjustments are a moving target. Although effective cost auditing may initially yield large tax or production share adjustments, these adjustments are likely to decrease over time as companies change their behavior to avoid further adjustments and associated penalties. This deterrent effect is not directly measurable.

Despite these constraints, there is substantial qualitative evidence to suggest that countries could use their petroleum cost-auditing rights more effectively. The experience of the case study countries shows that audits may be slow to start or infrequent. Auditors may lack experience and expertise, as well as access to information. Rules relating to petroleum costs—with regard to ring-fencing, for example—may be deficient, making it difficult for audits to achieve their purpose. Critically, there is little transparency or accountability of audit results to ensure that the findings are acted upon and that any additional revenue is collected. These challenges, explored in the next section, determine whether countries merely *use* their right to audit or *use it effectively*.

4 CHALLENGES TO EFFECTIVE PETROLEUM COST AUDITING



LEGAL CONTROLS ON COSTS

All governments have the legal right to carry out a fiscal audit of petroleum costs, as shown for Ghana, Kenya, and Peru in **Table 3**.

Table 3. Petroleum cost-auditing rights in the case study countries

COUNTRY	TAX AUDIT	COST RECOVERY AUDIT
 Ghana	<ul style="list-style-type: none"> • GRA can undertake a tax audit of companies (Revenue Administration Act, 2016). • Ghana National Petroleum Company (GNPC) can undertake an operational and financial audit within two years from the submission of any report or financial statement (Model Petroleum Agreement, 2000). 	<p>Not applicable; Ghana operates a tax and royalty regime.</p>
 Kenya	<ul style="list-style-type: none"> • KRA can undertake a tax audit of companies, up to seven years after the assessment year (Income Tax Act (Cap. 470) Ninth Schedule, 1974). 	<ul style="list-style-type: none"> • Ministry of Petroleum and Mining (and possibly UPRA in the future) can undertake a cost recovery audit within two calendar years. Alternatively, the Ministry can appoint an independent auditor to audit the company's financial information annually, at the company's cost.
 Peru	<ul style="list-style-type: none"> • The (SUNAT) can audit taxpayers 4 to 10 years after the assessment year depending on the circumstances. 	<p>Not applicable; Peru operates a tax and royalty regime.</p> <p>Other: PeruPetro, the agency responsible for promoting, negotiating, underwriting, and monitoring petroleum contracts, can review costs in the context of the profitability ("R factor") calculation to assess royalty payments (License Contract Model for Hydrocarbon Exploration and Exploitation).</p>

Audit rights are set out in legislation and/or project-specific agreements. However, the right to audit costs is necessary, but not sufficient, to control costs. If the law has gaps or loopholes, or if there is a stability clause that prevents fiscal terms in the petroleum contract from being updated, companies may be able to claim costs that the auditor has no legal basis to correct. Laws affecting the treatment or eligibility of costs must be carefully designed and drafted to ensure that auditors have the legal tools to effectively protect government revenues.

The right to audit costs is necessary, but not sufficient, to control costs.

If the law has gaps or loopholes, or if there is a stability clause that prevents fiscal terms in the petroleum contract from being updated, companies may be able to claim costs that the auditor has no legal basis to correct.

Measures to control timing and amount of costs

No matter how well tax laws or petroleum contracts are drafted, there will always be gray areas that taxpayers may misinterpret and potentially misuse. The risk is higher if there is a tax benefit at stake. Two such areas are ring-fencing and transfer pricing. Oil and gas companies operating in Ghana have used both practices to manipulate the timing and amount of costs.

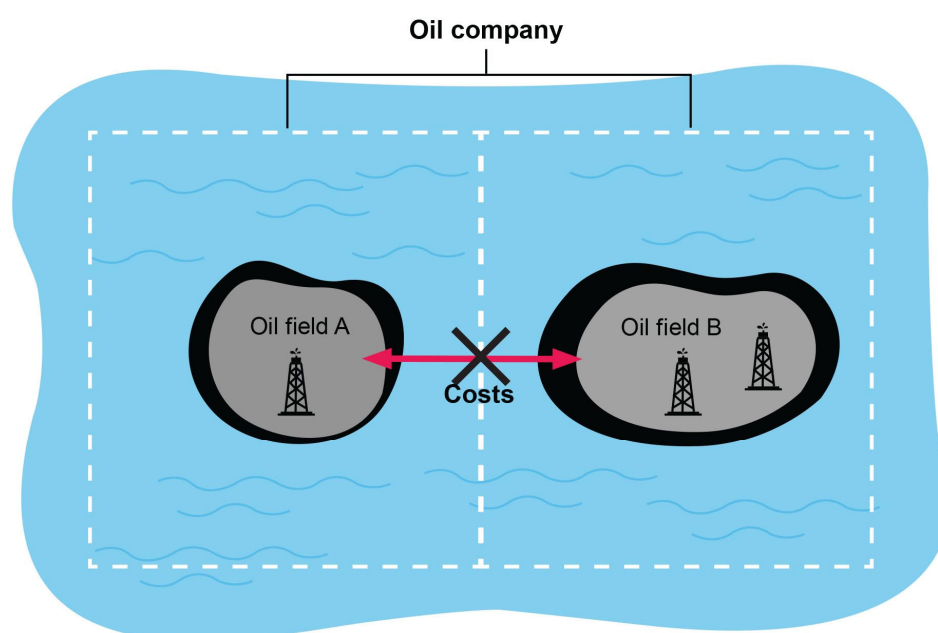
Ring-fencing

In most sectors, corporate income tax is generally levied at the subsidiary company or branch level, not at the project level. In oil and gas, however, companies may have multiple projects within a single country, creating additional opportunities for corporate tax planning—and potential tax avoidance risks—within that country. Specifically, a company may use costs incurred in one project (e.g., during exploration) to offset profits earned in another. While it is not unusual to allow companies to consolidate costs across projects, this practice may significantly delay when a company starts paying taxes. For developing countries, any delay in payment of tax may have major consequences for government expenditure.

In most sectors, corporate income tax is generally levied at the subsidiary company or branch level, not the project level.

Ring-fencing is one way of limiting income consolidation for tax purposes. According to the IMF, ring-fencing is defined as a “limitation on consolidation of income and deductions for tax purposes across different activities, or different projects, undertaken by the same taxpayer.”⁴³ Previously in Ghana PAs were ring-fenced, meaning that companies could not transfer costs *between* PAs. However, Tullow Oil was transferring costs between fields *within* the same PA. The law was unclear on whether this was allowed, and substantial tax revenue was deferred as a result.

Figure 3. Ringfencing prevents cost consolidation across projects



Box 2. Deficient ring-fencing costs Ghana \$50 million in deferred tax

Tullow Oil is the operator of Deepwater Tano (DWT), which contains the Tweneboa Enyenra Ntomme (TEN) Oil Field and a portion of the Jubilee Oil Field. The Jubilee Field began pumping oil in 2010 and started paying corporate income tax in 2014. The TEN Field achieved first oil only in 2016. Between 2012 and 2013, Tullow offset exploration and development costs from the TEN Field against its share of profits generated from the portion of the Jubilee Field in DWT. Deductions for TEN were made again in 2014.⁴⁴ The result was to defer \$50 million in taxes.⁴⁵

The GRA argued that ring-fencing prevented Tullow from transferring costs between fields. It was, however, the PAs—not the fields—that were ring-fenced according to the Petroleum Income Tax Law (1987).⁴⁶ Therefore, Tullow could consolidate costs, provided they were from fields governed under the same PA. The GRA has since revised the law to ring-fence by field rather than by PA.

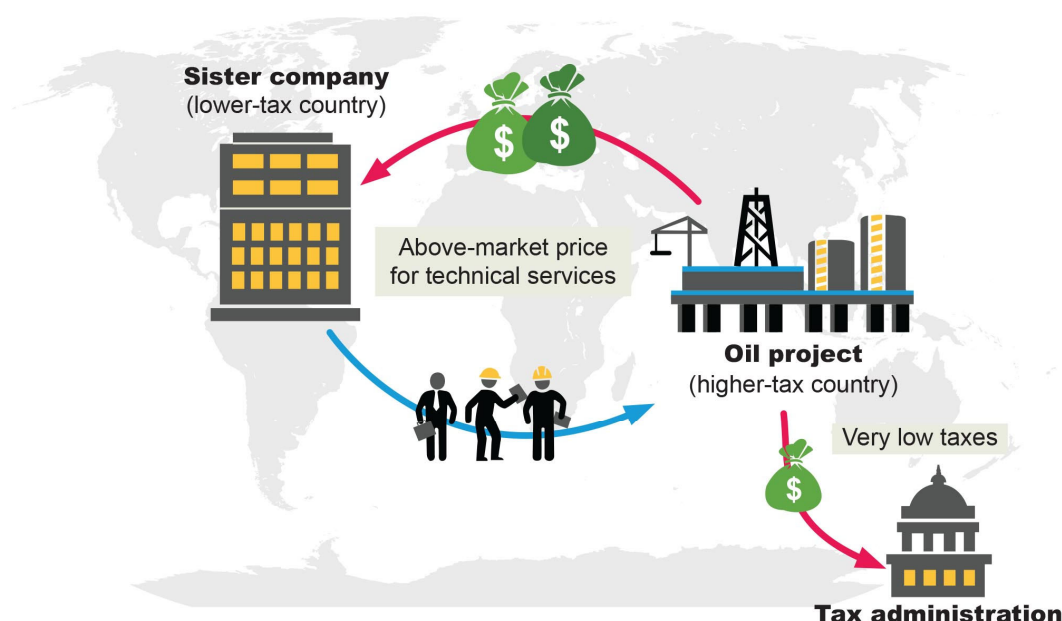
GRA could have averted the ring-fencing problem by amending the law or issuing guidance on its interpretation. According to a tax official, “different interpretations of the law emerged from the Petroleum Income Tax Law (PITL) due to the fact there were no regulations or practice notes. The GRA and companies were arguing in the dark.”⁴⁷ Thus, although the GRA can and did audit Tullow’s costs, it could not stop government revenues from being deferred.

Transfer pricing

Leaks such as the Panama Papers have shown it is possible for MNCs to avoid taxes by transferring profits to tax havens. One of the primary means is the manipulation of transfer pricing. Transfer pricing is the process by which an MNC determines the value of a transaction between two companies that are part of the same corporate group. It

may become abusive if taxpayers manipulate the value to make higher profits in lower-tax-rate countries and lower profits in higher-tax-rate ones.

Figure 4. Manipulation of transfer pricing can harm tax collection



There are numerous transfer-pricing risks along the oil and gas value chain. One of these risks relates to costs. It is common for oil and gas companies to purchase goods and services, such as equipment and machinery, from related parties. There is a risk that companies may overstate these costs as a means of shifting profit out of the producing country to an affiliate, usually located in a low-tax-rate country. In Ghana, a company involved in the downstream sector was reported to have allegedly inflated the cost of the gas processing plant infrastructure it purchased from its affiliate in Dubai (see **Box 3**)."

It is common for oil and gas companies to purchase goods and services, such as equipment and machinery, from related parties.

Box 3. Cost of gas-processing infrastructure inflated by \$140 million

In 2013, Ghana's Civil Society Platform on Oil and Gas raised concerns with Ghana's Public Interest Accountability Committee (PIAC) that China's Sinopec International Petroleum Services Corporation (SIPSC) overpriced the construction of the Western Corridor Gas Infrastructure Project (WCGIP) at Atuabo. It was alleged that SIPSC had inflated the cost of the gas processing unit, overpriced the pipelines it installed, and potentially manipulated the transfer price when purchasing from its affiliate, SAF Petroleum Investments, registered in Dubai, totaling possible cost inflation of approximately \$140 million.⁴⁸ The total project cost was approximately \$1 billion. Media reports confirm that GRA was investigating the claim and had already issued a preliminary tax adjustment of 15 million Ghanaian cedis (\$3.2 million) by mid-2017.⁴⁹

There is a risk that companies may overstate these costs as a means of shifting profit out of the producing country to an affiliate, usually located in a low-tax country.

Thus far, the solution in Ghana's case was to apply the "arm's-length principle" which gives government the right to adjust the value of a related-party transaction so that it accords with similar transactions

carried out between independent parties. While the current international tax landscape demands detailed transfer-pricing rules, in many cases developing countries are unable to effectively implement them, particularly owing to problems accessing appropriate data on comparable transactions.⁵⁰ Hence, simplification measures that reduce reliance on the arm's-length principle—such as capping charges for administrative services⁵¹—may be preferable for developing countries.

Limits on changes to eligible costs

At times governments also may need to adjust which costs are eligible for cost recovery or deduction. In particular, certain costs present a greater risk to government revenue, and their eligibility may merit review. The payment of interest on a loan from a related party is one such cost: oil and gas projects require significant capital outlays over their life, including the costs of drilling the well and constructing infrastructure to pump and refine the oil. Often a related party will provide a loan to the project. A case involving Chevron Australia (see **Box 4**) highlights the risk that companies may use such loan arrangements as a means of shifting profits offshore.

Box 4. Chevron Australia paid interest at above-market interest rate to its Delaware affiliate

In 2017 the Federal Court of Australia upheld a A\$340 million tax adjustment levied on Chevron Australia by the Australian Tax Office (ATO). The case centered on the interest rate that a Chevron affiliate in the U.S. state of Delaware set for a loan to Chevron's Australian arm. The court found that the loan was not a genuine arm's-length transaction and could be used by Chevron Australia to artificially reduce its profits and tax payments in Australia, shifting the profits to lower-tax Delaware.⁵² Taxes were adjusted for 2004 to 2008, and the additional revenue came to US\$68 million per year.⁵³

In part because of such risks, the Ministry of Petroleum and Mining in Kenya has excluded interest expense from cost recovery in the Model PSC (2017) attached to the proposed Petroleum Bill (2017).⁵⁴ However, it is possible this change will not apply to existing PSCs if they are stabilized in line with the current model PSC (2008), under which interest expense would be recoverable. "Stabilization" is a legal guarantee that certain terms of the agreement and/or the legal and fiscal terms applicable under law at the time the agreement is signed will not change for the duration of the investment.⁵⁵ Tullow Oil says it has an economic stabilization clause in its PSCs for Kenya; this cannot be verified because the contract is not public, despite support for contract disclosure from Kenya's president and Tullow.⁵⁶ Whether Tullow can recover interest expense going forward will "depend on the legal interpretation of the final bill to be enacted," said one official.⁵⁷ Government's share of production is at risk of being eroded if the changes to eligible costs do not apply as a result of stabilization.

Government's share of production is at risk of being eroded if the changes to eligible costs do not apply as a result of stabilization.

Recommendations

1. Review and strengthen legal controls on petroleum costs.

Carefully design laws that determine the treatment or eligibility of costs so that auditors have the necessary legal tools to protect government revenues.

- a) *Government* should provide a clear definition of ring-fencing in the law. How tight to draw the ring-fence is ultimately a policy choice, but for developing countries, the importance of early revenues may warrant a particularly demanding approach to ring-fencing.
- b) *Government* should publish taxpayer guidance on aspects of the petroleum fiscal regime that are likely to be misinterpreted, such as ring-fencing. It is necessary to have a good grasp of the issues from the beginning to avoid making mistakes that may be used against the government in future.
- c) *Government* should put in place detailed transfer-pricing rules so that auditors have a legal basis to adjust costs between related parties. Bearing in mind the challenges of implementing the arm's-length principle, government should also explore the feasibility of adopting alternative tax policy rules that are clear, objectively verifiable, and easier to administer.
- d) *Government* should carefully consider which costs are eligible for cost recovery and/or tax deduction, bearing in mind potential risks to revenue and administrative capacity.
- e) *Government* should ensure that fiscal stabilization clauses, if it chooses to offer them, are appropriately limited in time and scope and expressly exclude any changes to general business law, as well as include measures to prevent abuse.
- f) *Civil society and international development partners* should discourage government from granting fiscal stabilization clauses that are not appropriately limited in time and scope.
- g) *Companies* should request guidance from the tax authority on aspects of the law that are unclear, rather than taking an uncertain tax position that may harm government revenue.



COST AUDIT RESPONSIBILITY AND COOPERATION

Fragmentation of revenue administration is one of the biggest barriers to effective cost auditing. Responsibilities are often widely dispersed, with several agencies verifying some aspect of compliance with tax laws and petroleum contracts. Duplication of effort is costly for government. It also raises the cost of compliance for companies.⁵⁸ One oil company in Nigeria reported having undergone 19 cost audits by four different government agencies.⁵⁹ Unclear audit roles and responsibilities may also weaken accountability, which has the potential to undermine government integrity.

Audit mandates

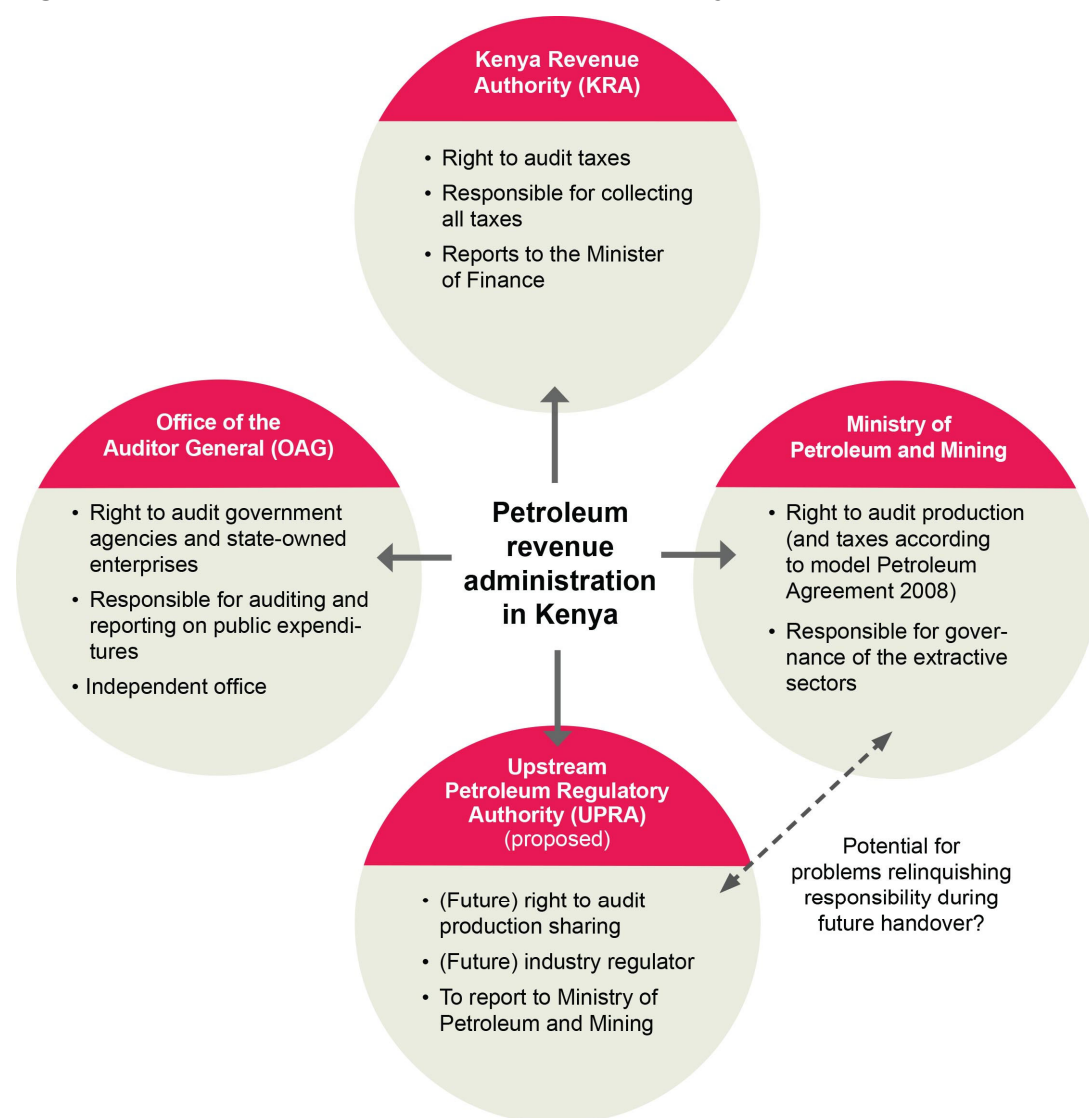
There is no one-size-fits-all approach to the organization of petroleum revenue administration. The primary basis for allocating cost-auditing responsibilities should be the skills and expertise required (i.e., legal, accounting, auditing, and financial reporting expertise, as well as sector-specific knowledge). Other factors include the potential for conflict of interest and the integrity of fiscal administration generally. The IMF suggests that responsibility for administering resource revenues should be given to the ministry of finance, in practice the tax authority, because of its principal revenue collection mandate and relevant expertise.⁶⁰ The IMF adds that the revenue authority should seek input from petroleum sector experts where specialized knowledge is required. Where the petroleum ministry or industry regulator is also responsible for aspects of petroleum revenue administration, there should be clear delineation of audit roles.

In Kenya, the petroleum sector is brand new, and the dust has yet to settle on which agency is ultimately responsible for cost auditing. The KRA, the Ministry of Petroleum and Mining, and the Office of the Auditor General (OAG) are competing for the role. The Ministry of Petroleum and Mining is responsible for cost-recovery auditing, although this function will likely be transferred to the proposed Upstream Petroleum Regulatory Authority (UPRA) once it is set up.⁶¹ Although the KRA has played a relatively minor role so far, Section 39 of the proposed Model PSC (2017) will likely change that: it will require companies to pay corporate income tax directly (rather than out of the government's share of profit oil), at which point tax audits by KRA will become vital. Finally, the OAG claims that it is the only body mandated by the Kenyan Constitution to audit and report on public expenditures and that cost recovery falls within its scope.

There is no one-size-fits-all approach to the organization of petroleum revenue administration.

The primary basis for allocating cost-auditing responsibilities should be the skills and expertise required.

Figure 5. Petroleum revenue administration in Kenya



These overlapping audit mandates create duplication. Companies are concerned the KRA is investigating the level of exploration and development costs. In their view, the KRA lacks the expertise and benchmark data and should limit its role to checking the validity of costs, leaving the Ministry of Petroleum and Mining to determine whether costs are appropriate.⁶² The exception is related-party costs, which require knowledge of transfer pricing. In Peru, a state agency responsible for managing hydrocarbons contracts, PeruPetro, assesses and collects petroleum royalties; PeruPetro is distinct from Peru's national oil company, known as PetroPeru, which currently engages only in downstream activities. The "R factor" royalty used in roughly 75 percent of Peru's petroleum contracts is based on the value of production, but applies a royalty rate that increases in steps with the profitability of the project (total accumulated revenues minus accumulated costs), PeruPetro must verify costs to determine the rate. To prevent duplication, PeruPetro leaves related-party costs to SUNAT to verify. It waits until after SUNAT has reviewed the company's tax return and resolved any transfer-pricing issues before it assesses the final royalty due for the year.⁶³

The Kenyan OAG's efforts to engage in cost-recovery audits are not unjustified. Cost recovery can be characterized as a public expenditure that is paid out of the production that would otherwise go to government as profit oil. The OAG's approach is also not unprecedented—Uganda's Auditor General audits cost recovery.⁶⁴ The more salient question is whether the OAG has the technical expertise to perform a tax administration function and whether it would duplicate efforts elsewhere. Calder suggests it would be inappropriate for supreme audit institutions to be drawn into taxpayer audits, citing the Nigerian Auditor General's meeting with resource companies to monitor tax payments as an example of bad practice.⁶⁵ The OAG has a vital oversight role to play in overseeing the revenue administration function by the Ministries of Finance and of Petroleum and Mining, but developing specialized cost-recovery auditing expertise would seem an unnecessary.

Consider: Does the agency have the technical expertise to perform a tax administration? Would it duplicate other agencies' efforts?

Input from NOCs

Many governments have opted for state participation in petroleum joint ventures (JVs). The national oil company (NOC), the most common vehicle for state participation, is usually a partner to the JV. It manages the government's equity shares and sells any in-kind revenues received. Like all JV partners, the NOC has the right to audit costs charged by the operator. In Ghana, for example, the GNPC actively participates in JV audits.⁶⁶ As a result, NOCs are likely to develop industry expertise and insights into commercial operations that make them a valuable resource for cost audits. At least one industry expert in Peru has suggested that not having an active NOC in the upstream sector in Peru⁶⁷ "may limit government's ability to audit costs."⁶⁸

In contrast to the asymmetry of information that exists between companies and government, most JV partners know the costs of various goods and services because they have been, or are, operators on other fields. They bring this information and experience to bear on JV audits as well as annual budget processes. In principle, NOCs could share this information with other government agencies provided there is a legal basis to do so. Unfortunately, this rarely happens in practice. In Ghana, there is no systematic process by which the GNPC shares information with the GRA or the Petroleum Commission. The GRA has also never asked the GNPC for the JV audit reports.⁶⁹ This lack of exchange is probably the result of the formation of the Petroleum Commission in 2011, and specifically Article 24(2) of the Petroleum Commission Act which led to GNPC's relinquishing of the right to advise on the regulation and management of the sector and the coordination of related policy.⁷⁰ While the Act does not preclude the GNPC from sharing information, it may create a rift between the agencies that is unhelpful, given GNPC's institutional memory and sector expertise.

Governance considerations will determine whether NOCs should have a bigger role in cost audits. Most developed countries have separated commercial, regulatory, and policy functions, leaving NOCs to become purely commercial actors—in some cases privatized. This approach is motivated largely by concerns about potential conflicts of interest given

the NOC's commercial objectives. It is also to prevent the concentration of too much power in the hands of the NOC. Decision-makers should also address concerns about corruption and transparency when considering what role the NOC should play in relation to cost audits⁷¹ (see the section "Transparency and Accountability of Audit Results").

Conversely, some academics have found that resource-constrained countries have a stronger history of technical and economic success when resources are concentrated in the NOC rather than separated across distinct agencies.⁷² Both perspectives are relevant when deciding what role the NOC should play in relation to cost audits. At a minimum, the NOC should contribute information and industry expertise to petroleum cost audits.

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Interagency coordination

Overcoming fragmentation in petroleum revenue administration demands interagency coordination. Without it, information and expertise remain in silos, preventing the agencies responsible for cost auditing from identifying and evaluating risks to the tax base. None of the case study countries has a system for automatically sharing information between NOCs, industry regulators, and tax authorities. Instead, requests for information are ad hoc, usually occurring after an audit has begun. This pattern prevents effective risk assessment, which is key to prioritizing limited audit resources. Even where some agencies are willing to collaborate, others may be reluctant to give ground.

There is no doubt that in Ghana the GRA has responsibility for tax audits. However, the Petroleum Commission has industry knowledge and expertise and is ready to assist the GRA in its audit task.⁷³ Experts in Ghana's oil sector note that, to formalize this cooperation, the commission has proposed creating an office for joint audits, as well as seconding staff to the GRA.⁷⁴ Neither option has been taken up by the GRA as yet. The lack of systematic cooperation between the Petroleum Commission, the GRA, and the GNPC may have delayed payment of the additional oil entitlement (AOE).⁷⁵ The GRA disputes this claim.⁷⁶

Box 5. Additional oil entitlement suffers from lack of coordination

A component of Ghana's oil fiscal regime is an additional oil entitlement (AOE) from projects when they are particularly profitable. The AOE is levied on the company's net cash flow (NCF) once a specified after-tax inflation-adjusted rate of return (ROR) has been achieved. The GNPC, the GRA, and the Petroleum Commission use different data to calculate the ROR (though the GRA notes that it relies on data collected by the GNPC).⁷⁷ The commission excludes interest expense because it is not an eligible shared cost under the Model PA (2000), whereas the GRA includes it because it is tax deductible. Consequently, the GRA has arrived at a lower ROR, thereby delaying the point in time when the AOE kicks in. Using different methods to calculate the ROR has produced contradictory results, which may in part explain why companies have yet to start paying the AOE.

Recognizing some of these coordination challenges, the government of Ghana has set up a Multi-Agency Petroleum Revenue Committee (MAPERC) chaired by the deputy finance minister. Members include the GRA, the Petroleum Commission, the GNPC, the Ministry of Finance, the Ministry of Energy, and the Bank of Ghana. The aim is to coordinate and share information. The committee meets quarterly and has subcommittees dedicated to specific issues, including clarifying the formula for the AOE. There are plans to develop an online portal for information sharing, to be hosted by the GRA. Companies will also be invited to contribute to the portal.⁷⁸

According to the Africa Centre for Energy Policy (ACEP), MAPERC has been useful in strengthening oil revenue administration. For example, the GRA is now better equipped to collect payments for land use (i.e., surface rents) where previously it lacked information on the size of contract areas and the appropriate rate to apply. However, ACEP is concerned that the group is not mandated by an act of Parliament, which means it is susceptible to political interference. Furthermore, it only has funding from DFID-supported Ghana Oil and Gas Inclusive Growth (GOGIG) through 2019, raising questions about sustainability.⁷⁹ Ghana previously had a Minerals Revenue Taskforce to address similar coordination challenges in the mining sector; the group dissolved in 2014 once funding from the Australian government ended.⁸⁰

Improved interagency coordination can also help with benchmarking and verifying costs. In Kenya, the Ministry of Petroleum and Mining, supported by the World Bank, is leading an interagency taskforce to establish a Commercial Database and Upstream Integrated Economic Planning System. The database will be managed by UPRA once it is formed.⁸¹ It will also be available to KRA and the National Oil Company of Kenya (NOCK). The database should track trends in cost and revenue levels, thereby improving compliance monitoring of PSCs. As a useful source of data for both tax and cost-recovery audits, it could be the basis for joint audits, or even a single audit with terms of reference broad enough to meet the needs of all agencies with a stake.

Recommendations

2. Clearly define which government agency or agencies are responsible for cost auditing, and strengthen interagency coordination on petroleum revenue administration. Coordination mechanisms should facilitate the exchange of information and expertise across government, including from national oil companies.

- a) *Government* should allocate responsibility for cost auditing to a single agency—preferably the tax authority, given its revenue collection mandate and audit expertise. When this is not possible, formalize the cooperation and information exchange between the agencies involved in petroleum revenue administration, ideally in a memorandum of understanding (MoU). Any ambiguity, overlap, and duplication of functions should be eliminated.

- b) *Government* should encourage strong oversight by supreme audit institutions rather than direct cost auditing. SAls have an important oversight role to play with respect to cost audits. However, they should not be drawn into tax administration functions where this would duplicate existing efforts by other government agencies that have a specific mandate to audit petroleum costs, as well as dedicated expertise.
- c) *Government* should ensure that there is a clear legal requirement for NOCs participating in JV audits to share the results, and any other relevant information, with the government agencies responsible for cost auditing.
- d) *Government* should create an interagency committee by law (to insulate it from shifting political priorities and ensure its permanence, including a guaranteed budget allocation). The committee should meet regularly to discuss petroleum revenue administration issues; exchange information, skills, and knowledge; and participate in joint audits.
- e) *Civil society* should monitor interagency coordination on cost auditing, ensuring that it remains a government priority and has sufficient resources.
- f) *International development partners* should provide technical and financial support to interagency committees, including developing platforms to improve information exchange between government agencies. To ensure these initiatives are not short-lived, there must be strong institutional support and a plan to achieve financial sustainability.
- g) *Companies* should engage cooperatively with tax authorities, petroleum regulators, and NOCs (where applicable), clarifying their roles as necessary. Where there is uncertainty about which agency has the right to conduct a final audit, companies should request guidance in advance.



AUDIT CAPACITY

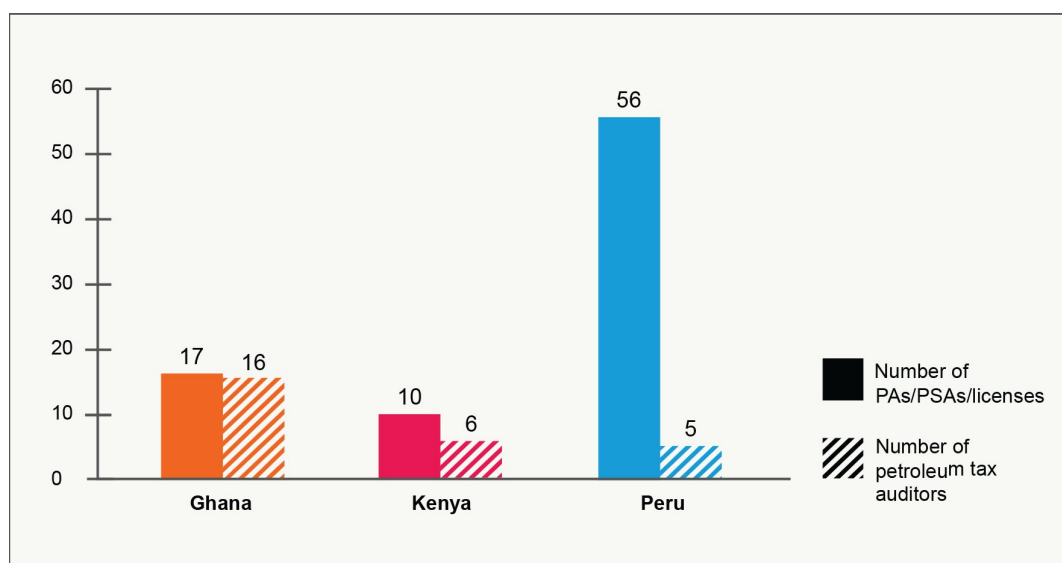
Petroleum cost auditing is a technical function requiring specialized knowledge and expertise. Multinational oil and gas companies have the resources to employ ample financial advisers, accountants, and lawyers, most developing-country tax authorities suffer from weak capacity owing to a shortage of skilled staff. In many cases, they have yet to develop sector-specific knowledge to detect and mitigate cost overstatement; moreover, the industry is constantly changing. The capacity imbalance between oil companies and governments makes it profoundly difficult for revenue administrators to control costs.

Number of petroleum tax auditors

Countries that rely heavily on oil and gas revenues should have a commensurate number of specialized audit staff. The precise allocation will depend on the size of the sector, the number of taxpayers, and the complexity of the fiscal regime. In Norway, the Oil Taxation Office has 48 employees to monitor 70 oil and gas exploration and production companies.⁸² For large taxpayers generally (not limited to oil and gas), the benchmark for emerging market economies is usually 5 taxpayers to 1 large taxpayer office (LTO) staff. In Organisation for Economic Co-operation and Development (OECD) countries the ratio is 20 to 1, partly owing to greater automation of routine procedures.⁸³ In comparison, SUNAT's ratio seems low, with roughly 11 oil and gas taxpayers per petroleum tax auditor. The GRA, on the other hand, has a ratio of almost 1 to 1. KRA is on a par with the ratio for emerging market economies.

The capacity imbalance between oil companies and governments makes it profoundly difficult for revenue administrators to control costs.

Figure 6. Upstream tax auditors and PAs/PSAs/licenses (2018)⁸⁴



Tax auditors are not the only staff allocated to monitor costs in the case study countries. However, even the regulatory agencies are short of specialized audit staff. PeruPetro only has “1/10th of the human resources it requires” to monitor costs.⁸⁵ Both the Petroleum Commission in Ghana and the Ministry of Energy in Kenya are in the process of hiring relevant staff. In Kenya, the Ministry of Petroleum and Mining, for example, recruited its first member of staff with a finance and modeling background only in 2018. The new hire is responsible for setting up a cost-recovery audit team, which may eventually move to UPRA.⁸⁶ While there is no simple guide to the number of staff required to audit petroleum costs, the case study countries are generally on the lower end of the scale.

Independent, external audits

While governments are scaling up their audit capacity, a good interim measure may be to reserve the right to request an independent, external audit paid for by the company. In fact, some petroleum-producing countries, such as Angola and Timor-Leste, routinely outsource audits to third parties, often to large global accounting firms like PriceWaterhouseCoopers or Ernst & Young.⁸⁷ Both Ghana and Kenya include such a provision in their Model PSCs or PAs. According to Article 30(2) of Kenya’s Model PSC (2008), the independent, external auditor must be approved by the government, and the cost of the audit shall be borne by the company but is recoverable. The latter implies the costs will be shared by the company and the government according to their shares of profit oil. Ghana has a similar provision. This possibility of an external audit paid for by the company does not negate the government’s right to also conduct its own audit. Neither country, however, has exercised the right to request an independent, external audit under these provisions.⁸⁸

Kenya has, however, opted to co-source external audit expertise. In co-sourcing, the government contracts with external experts to assist with the audit as opposed to outsourcing the audit to a private firm. The Ministry of Petroleum and Mining recently recruited a group of external consultants to carry out the first cost-recovery audit of Tullow Oil in relation to Blocks 10BB and 13T. The ministry chose this approach because it wants to build capacity in house rather than outsource to an independent, external auditor.⁸⁹ The terms of reference explicitly require the consultants to build government auditing capacity and develop auditing processes while undertaking the audit. To cover the cost of the consultants, the World Bank is providing a loan to the ministry, of about half a million dollars, that is expected to be repaid by the government.⁹⁰ Therefore, while co-sourcing may build capacity, it is potentially more costly than an independent, external audit partly paid for by the company.

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Industry expertise

The risk of cost overstatement is not unique to the oil and gas sector. Whenever taxes are levied on profits (revenues minus costs), companies

from any industry will have an incentive to overstate their costs in order to pay less tax. To check whether costs are accurate, however, the government agencies responsible for audit must have some knowledge of the oil and gas industry. They need to know the types of costs, when the costs will be incurred, and the appropriate level of cost, depending on the specific features of the oil and gas project (e.g., deep versus shallow water). Governments that do not invest adequate resources in developing petroleum auditing expertise may fail to detect risks to revenue.

Sector-specific knowledge is also necessary for governments to distinguish between abusive and standard industry practices. In the case of Peru, SUNAT's lack of industry knowledge has at times led to incorrect findings. One example occurred in relation to gas reinjection—that is, the reinjection of natural gas into an underground reservoir to increase the pressure and thus induce the flow of crude oil. SUNAT claimed the reinjected gas should be reflected in the inventory and included as production income.⁹¹ Because the reinjected gas was not sold, however, oil taxation theory says it should not have been included as production income.⁹² For one year alone, the reinjected gas for a single project was valued at approximately \$50 million, which would have been a significant tax adjustment. SUNAT was convinced by the taxpayer's argument and dropped the issue.⁹³

The government agencies responsible for audit must have some knowledge of the oil and gas industry.

They need to know the types of costs, when the costs will be incurred, and the appropriate level of cost, depending on the specific features of the oil and gas project (e.g., deep versus shallow water).

Risk assessment to inform audit strategies

The lack of industry expertise is a problem for risk assessment, an essential component of effective cost auditing. Risk assessment is the process of identifying, evaluating, ranking, and quantifying fiscal compliance risks.⁹⁴ It depends on sector-specific knowledge, as well as information from companies, government agencies, and other jurisdictions. Given their limited resources, developing-country governments must take a selective and risk-based approach to auditing. Otherwise, they risk wasting time and effort investigating minor issues while failing to spot genuine concerns.

Neither Ghana nor Kenya has a risk assessment process for petroleum sector revenues. Unfortunately, this is not unusual among resource-rich developing countries. Many government agencies, especially tax authorities, are still acquiring the sector-specific expertise and skills to detect and mitigate revenue risks in the petroleum sector. They may have difficulties accessing information (discussed in the next section). As a result, tax inspectors may audit with a vague idea of looking at everything, an approach that reduces the efficiency and effectiveness of the audit and makes it difficult for companies to cooperate.

Despite not having a risk assessment framework, the petroleum tax unit of the GRA has identified a number of red flags that may arise during a review of company tax returns, according to a former GRA employee. These red flags include costs separately incurred by non-operator JV partners (e.g., finance expense, insurance, marketing, and transportation) (see **Box 6**); JV partners' reporting a higher portion of

shared costs than their equity allocation; intangible assets, which can be hard to value (e.g., patents and trademarks); and technical staff charged to inappropriate phases of the project.⁹⁵ These risks are drawn from audit experience. It is vital that risks identified during audits feed back into a risk matrix to ensure it is up-to-date with industry practices. This approach may be strengthened by development of a natural resource database.

Box 6. Shared costs versus partner-level costs

In an unincorporated JV, one of the partners is chosen as the operator. The operator carries out day-to-day operations and allocates costs to its non-operator JV partners—“shared costs.” Non-operator partners have an incentive to closely scrutinize the shared costs to avoid being overcharged by the operator. This internal policing mechanism may provide some level of assurance with respect to shared costs, which is why some countries insist on JVs. For example, in Lebanon the Exploration and Production Agreement (EPA) (2015) stipulates that an EPA must be signed by at least three rights holders, one of whom is the operator.⁹⁶

Partner-level costs are those that each JV partner incurs separately. For example, in most JVs, each partner is expected to access finance independently, which means the payment of interest on loans is not cost recoverable. The risk of cost overstatement is higher because these costs are not policed by the JV and are likely to be incurred with related parties, which raises the possibility of abusive transfer pricing. Consequently, governments should prioritize tax audits of separate partner-level costs in addition to reviewing the operator’s cost records centrally.

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It depends on sector-specific knowledge, as well as information from companies, government agencies, and other jurisdictions.

Technical assistance for capacity building

Various development partners provide technical assistance (TA) and capacity building to the case study countries in the area of petroleum revenues—in particular, the IMF, the World Bank, the Norwegian Agency for Development Cooperation (NORAD), and the Australian Government. Such TA may cover areas of fiscal policy, revenue management, and revenue administration in the oil, gas and mining sectors. The first two have historically been a more significant focus of TA: policy because it logically comes first, and management because of its macroeconomic implications. However, more attention to revenue administration, and in particular to fiscal audits, is sorely needed. Without effective revenue administration, the benefits of an optimal fiscal policy will be elusive.

In Kenya, the focus of TA has been on understanding the oil and gas business, although the KRA, for example, says it now needs training on specific aspects of petroleum taxation.⁹⁷ Moving forward, the emphasis is on risk assessment. The World Bank is supporting a consultant to work with the KRA to develop a risk matrix specifically for the petroleum sector. It is also funding the development of a database to which oil companies will be able to upload real-time data to enable trend analysis.⁹⁸

The Petroleum Commission in Ghana participates in the New Petroleum Producers Discussion Group, a collaborative network of more than 30

In the context of technical assistance more attention to revenue administration, and in particular to fiscal audits, is sorely needed.

Without effective revenue administration, the benefits of an optimal policy will be elusive.

countries. The group is supported by Chatham House and the Commonwealth Secretariat. Rather than training, the aim of the group is to facilitate information and experience sharing between producers.⁹⁹ In the same vein, the head of the large taxpayer office at the KRA has said that the mining, oil, and gas unit should prioritize technical assistance from institutions that have practical experience in the sector.

Both the KRA and GRA prefer hands-on technical assistance. The KRA expects three consultants from the World Bank and NORAD to provide on-the-job training to the mining, oil, and gas unit and the international tax unit. It also plans to develop an in-house petroleum taxation curriculum for staff, who would then not always have to go abroad for training.¹⁰⁰ The GRA is also looking for consultants to work alongside the Petroleum Unit (PU), which is the primary unit within the GRA that is concerned with petroleum taxation.¹⁰¹ The deputy commissioner general specifically referenced the Ugandan Auditor General's reliance on Ernst & Young to build its cost-auditing capacity as a potential model to replicate.

The IMF also emphasizes interagency coordination as a way for tax authorities to improve their knowledge of the industry, as TA cannot overcome a lack of coordination or train staff entirely in a different field. One IMF staff member said, "It doesn't matter if the IMF or Norway helps with the tax audits; new situations will arise, and the KRA needs to walk over to the Ministry of Petroleum and Mining to have a discussion."¹⁰² While revenue administrators must be aware of the industry, there is no need for them to become petroleum engineers or chemists, when this expertise exists elsewhere within government.

Another way for TA providers to leverage their influence is by publishing the results of their advisory work. There are many commonalities between countries, and an advisory report for one country usually contains much that is useful in other countries as well. In principle, the IMF supports wide dissemination of TA reports, but it does not publish reports unless recipient countries agree to their publication.¹⁰³ Unfortunately, as is evident from the IMF website, this rarely happens. Publication should be non-negotiable in the case of IMF TA reports funded by donors, such as those produced by the IMF's Trust Fund on Managing Natural Resource Wealth.

IMF supports wide dissemination of technical assistance (TA) reports, but it does not publish reports unless recipient countries agree to their publication; unfortunately, this rarely happens.

Recommendations

3. Develop the technical expertise and sector-specific knowledge to detect and mitigate cost overstatement in the petroleum sector. An informed, risk-based approach to auditing is especially important for resource-constrained countries, to ensure that limited human and financial resources are judiciously invested.

- a) *Government* should allocate an adequate number of staff to petroleum cost auditing based on the size of the industry, the

number of taxpayers, and the complexity of the fiscal instruments to be administered.

- b) *Government* should develop specialized knowledge of the petroleum industry, and of the particular fiscal rules that usually apply to it, within the agencies responsible for cost auditing.
- c) *Government* should consider soliciting independent, external auditors to conduct cost audits, particularly where its expertise is limited and/or human resources are stretched. The arrangement should include a capacity-building requirement.
- d) *Government* should define clear protocols for risk assessment that reflect the special characteristics of the industry. Risk assessment should be included as a key performance indicator for auditors.
- e) *Civil society* should advocate for a clear risk assessment strategy from government agencies involved in cost auditing.
- f) *International development partners* should support government requests for cost-auditing capacity development and/or auditing outsourcing or co-sourcing. The latter could include technical support to help agencies outsource or co-source audits (including guidance, e.g., on audit strategy, terms of reference for the audit, tendering, conflicts of interest, and follow-up reports).
- g) *International development partners* should make reports of technical assistance provided to governments publicly available so that stakeholders, including other technical assistance providers, can better understand the support that has been provided.
- h) *Companies* should explore ways to help government agencies involved in cost auditing to better understand their business. To achieve this, companies may consider joint workshops, external trainings, or temporary secondments.



ACCESSING TAXPAYER INFORMATION AND BENCHMARK DATA

Companies know much more about their business than government does. To overcome this information asymmetry, governments require data from local taxpayers as well as from other jurisdictions. Information collection may be frustrated, however, by incomplete or unclear reporting requirements as well as a lack of enforcement. While international mechanisms for information sharing are beginning to emerge, developing countries are slow to benefit owing to the small size of local firms. Assuming governments can access these sources of information, they require benchmark data to compare and verify costs. Typically, the local industry is too small to provide a big enough pool of benchmark data, or foreign data are costly to access and difficult to adapt to the country context.

Information collection may be frustrated by incomplete or unclear reporting requirements as well as a lack of enforcement.

Information disclosure requirements

Sometimes disclosure requirements are incomplete, in which case governments may lack the legal basis to request certain information from companies. In Ghana, the Petroleum Commission was not entitled to receive subcontracting agreements from oil and gas companies, and it was thus unable to verify the subcontracting expenses subsequently claimed by companies. If the subcontractor and company are not related, the risk of cost overstatement is low. However, as the example in **Box 7** shows, unless governments know the terms and conditions of the agreement, companies may claim costs that have already been reimbursed.

Box 7. Accessing subcontracting agreements

It is common for drilling rigs to experience mechanical downtime. Typically, the drilling subcontractor must compensate the company for nonproduction time if it exceeds 1 percent, and if a company has been thus compensated, it should not claim nonproduction time as a cost. Because Ghana's Petroleum Commission could not access drilling service agreements, it was unable to confirm the terms and conditions of compensation. Assuming a rig is down for 10 percent of the year, at \$100,000 to \$200,000 a day, the cost could be as high as \$7 million. However, the commission had no information on the extent to which the companies had been reimbursed for nonproduction time. To overcome this challenge, the commission now requires approval of all subcontracting agreements.¹⁰⁴

In other cases there may be a basis for disclosure, but it is unclear or unenforced. According to PricewaterhouseCoopers (PWC), the Petroleum Commission in Ghana does not have defined formats for reporting. Also, the GRA has yet to request JV audit reports from companies despite having the power to do so. Although Peru has a mature petroleum sector, oil and gas companies there will be able to upload their production reports electronically starting only in 2019.¹⁰⁵

In all three case study countries, taxpayers are required to maintain transfer-pricing documentation. Tax authorities need this documentation to identify related-party transactions and determine whether these transactions are conducted at arm's length, as if they take place between unrelated parties. In Ghana, taxpayers must submit an annual transfer-pricing return form along with their tax return. In Kenya, the KRA has an online tax platform where taxpayers must disclose related-party transactions. Both measures balance the need for regular oversight of related-party transactions with the need to prevent the tax authority from being overwhelmed with unnecessary information.

Peru adopted country-by-country reporting (CbCR) in 2018.¹⁰⁶ CbCR requires large multinationals to break down key elements of their financial statements, including revenue, income, tax paid, and tax accrued, by jurisdiction, thereby providing tax authorities with a view of business activities in the different countries where they operate. Ghana and Kenya may implement CbCR in the future, although there are unlikely to be many local firms that have a consolidated annual income of 750 million euros—the threshold for companies to comply. Instead they will need to request CbCR from other countries under the OECD Convention on Mutual Administrative Assistance in Tax Matters, which both countries have signed. Oxfam has called for CbCR data to be made publicly accessible.¹⁰⁷

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Benchmark data to verify costs

One of the major challenges to effective cost auditing is access to benchmark data to verify costs. To determine whether the daily rate for a drilling consultant is reasonable, for example, it may be helpful to compare rates charged by other similar consultants. PeruPetro has found that competitive, public bid rounds for oil blocks can be a useful way to increase its pool of benchmark data.

Box 8. Public bid rounds provide useful cost benchmarks

Before PeruPetro launches a bid round, it commissions studies from international consultancies on the geology, reserves, risks, production levels, and development and operating costs of the block. It uses this information to prepare the bid process and to review subsequent bids. As part of their bid, companies must share information on their operations elsewhere to give an idea of what it will cost them to develop the field. Once the contractor is selected, the information gathered is used to set the royalty rate and monitor costs.¹⁰⁸ By contrast, although the law in Ghana makes provision for public tender of oil blocks, all have been decided by private negotiation (although an open and competitive bid round is planned for the fourth quarter of 2018). A local lawyer suggested that “[had] public tenders taken place, government would have more cost benchmarking data available.”¹⁰⁹

Commercial databases are a good source for finding cost benchmarks, and they are used frequently by commercial audit companies. The international tax unit at the KRA has a subscription to Orbis.¹¹⁰ According to one tax official in the oil, gas, and mining unit, once the taxpayers know that the KRA has access to credible data, it “sets the tone of the relationship between KRA and taxpayers moving forward.”¹¹¹ There are also initiatives to strengthen the exchange of benchmark information at the international level. Supported by Chatham House and the Commonwealth Secretariat, the New Petroleum Producers Discussion Group is building a platform for governments to upload and share anonymized cost data from oil and gas taxpayers within their respective countries.¹¹² The goal is to increase the availability of reliable industry benchmarks to verify costs.

Commercial databases are a good source for finding cost benchmarks, and they are used frequently by commercial audit companies.

Recommendations

4. Take steps to increase the information available to verify and appraise petroleum costs. Innovative ways to exchange anonymized cost data with other petroleum producers should be explored as a means of increasing benchmark data.

- a) *Government* should introduce and enforce clear, comprehensive, standardized reporting and documentation requirements, including in relation to subcontracting arrangements. It should also establish systems to catalogue the information so it can be used for risk assessment.
- b) *Government* should adopt transfer-pricing documentation rules, including the requirement to maintain a local and master file. It should also introduce an annual transfer-pricing return form to avoid overwhelming the tax authority with unnecessary information.

- c) *Civil society* should urge government to conduct public bid rounds for natural resources. Greater competition for access to natural resources can improve partner selection and potential fiscal terms, as well as the transparency and accountability of the award process. It can also help build a pool of cost data that may be used for benchmarking.
- d) *International development partners* should support government to purchase subscriptions to commercial databases where necessary and to exchange information with other petroleum producers to increase the pool of data to benchmark costs.
- e) *Companies* should comply with all legal reporting and disclosure requirements, as well as relevant requests for information from government agencies involved in cost auditing.



AUDIT TIMING

Oil and gas companies start incurring costs from the time they begin exploration. Provided they are eligible, these costs will become recoverable and/or tax deductible once the field enters production, thus affecting government revenue. Tax authorities, however, often wait to audit costs until revenues start flowing, which may not occur until well into the production phase.¹¹³ By that point, audit time limits and record-keeping requirements may have expired.

Audit time limits may be different for cost-recovery versus tax audits. In a hybrid fiscal regime that comprises production-sharing and profit-based taxes, this can create uncertainty for government and investors about which audit is final. Furthermore, if the audit periods are not aligned, costs that have been audited under the PSC could be reopened for tax auditing, or vice versa.

Tax authorities often wait to audit costs until revenues start flowing, which may not occur until well into the production phase.

By that point, audit time limits and record-keeping requirements may have expired.

Time limits for audit

The expiration periods for audit rights are set out in petroleum contracts and tax laws. They differ from one country to the next and are usually shorter for cost-recovery audits than for tax audits. In Ghana, the GNPC retains the right to audit companies for two years, while the GRA has seven years to complete tax audits.¹¹⁴ In Peru, the limit for tax audits is four years, absent failure to file or fraudulent filings. Although some OECD countries may have shorter periods for tax auditing—the United States for instance generally limits audits to three years¹¹⁵—this short time frame may not be advisable for developing countries given that limited financial and human resources are likely to delay the audit process. It is equally important to keep an eye on record-keeping provisions in the petroleum contracts and tax laws. Companies are

usually required to keep all their records in country for easy access by the auditors; once that period expires, it becomes very costly to access records, and therefore practically impossible to audit them.¹¹⁶

In Kenya, there is some confusion among government agencies about whether the cost-recovery audit is the final audit.¹¹⁷ Tax audits run for five years compared with two years for cost-recovery audits. Consequently, costs that have been audited under the PSC could be reopened for tax auditing, creating uncertainty for taxpayers regarding the final determination of gross income. The proposed Model PSC (2017) extends the cost-recovery audit period to seven years, but the timing remains out of sync with tax audits. Yet because every contract is different, ultimately access to the contract may be a critical first step to ensuring a clear understanding of the audit rights and time limits.

Starting an audit

Kenya provides examples of both good and bad timing in auditing. The Ministry of Petroleum and Mining began its first cost-recovery audit of Tullow Oil in 2018.¹¹⁸ The two-year time limit means that only costs from 2016 and 2017 can be audited, whereas the \$1.8 billion Tullow spent between 2008 and 2016 would not be auditable, even though the company will still be able to recover those costs in subsequent years. This situation has impacts on government revenue. Fortunately, Tullow has agreed to let the ministry review costs from before 2016,¹¹⁹ although legally it can reject any adjustments that are outside the audit period. As Charles Wanguhu, coordinator of the Kenya Civil Society Platform on Oil and Gas, notes, Kenya cannot afford to operate under a “presumption that audits are required only after production begins.”¹²⁰

The KRA, on the other hand, has been auditing petroleum costs even prior to having corporate income tax to collect. It has shown considerable foresight, especially as it transitions to direct payment of corporate income tax under the Petroleum Bill (2017).¹²¹ According to a senior official, “there are things you do that have a long-term impact. If [we] don’t straighten issues out at this stage the country will run into serious headwinds in the future. [We] need to ensure that government’s share is correct.”¹²² The KRA’s timeliness is unusual. It is more common to see developing-country tax authorities start auditing costs when corporate income tax begins to flow.

Pre-approvals of company expenditures

It may not always be feasible for developing-country revenue authorities to audit petroleum costs contemporaneously. They have limited human and financial resources and competing audit priorities, especially during exploration, when the outcome is uncertain. To avoid losing the right to audit, Ghana’s Income Tax Act requires a company to get the GRA’s approval of pre-production costs—exploration and development—before they can be capitalized. Companies have a strong incentive to cooperate by providing the relevant records and information. The GRA recently completed an audit of the pre-production costs from the Sankofa Field.¹²³

Companies are usually required to keep all their records in country for easy access by the auditors; once that period expires, it becomes very costly to access records, and therefore practically impossible to audit them.

Under the current two-year time limit in Kenya, the \$1.8 billion Tullow spent between 2008 and 2016 would not be auditable, even though the company will still be able to recover those costs in subsequent years.

Fortunately, Tullow has agreed to let the ministry review costs from before 2016.

One partial way of overcoming the challenge of audit delays and time limits is by limiting the range of approved costs in advance. Pre-approvals of company expenditures, usually done by the industry regulator, could also help compensate for the limited sector-specific expertise of audit agencies. In Ghana, once a discovery is declared commercial, Section 21 of the Petroleum (Exploration and Production) Act (PEPA) (2016) requires companies to submit their plan of development and operation to the Minister of Energy (in practice the Petroleum Commission) for approval. At this point, the commission reviews the estimated costs in detail, including cheaper alternative ways to develop the resource. This preliminary step largely pre-determines the envelope of what can be expended; in this way, it serves as a proactive way of controlling costs ex ante, although governments should be mindful of delaying operations as the experience in Indonesia demonstrates. **Box 9** shows the contribution reviewing costs in advance can make to cost containment.

Pre-approvals of company expenditures, usually done by the industry regulator, could also help compensate for the limited sector-specific expertise of audit agencies.

Box 9. Ghana's Petroleum Commission slashes costs by \$1 billion

In Ghana, the Petroleum Commission uses software called Qe\$tor to develop alternative engineering designs to test the reasonableness of companies' cost estimates. It used this software to challenge Tullow Oil when it wanted to install a floating production storage and offloading (FPSO) unit at the Mahogany, Teak, and Akasa (MTA) Field, in addition to the one it already had at the Jubilee Field. The FPSO would cost about \$1 billion. The commission found that the second FPSO was unnecessary and that Tullow could simply "tie back" the MTA Field to the existing FPSO. At a corporate income tax rate of 35 percent, this cost saving represented \$300 million in additional tax, almost the same amount Ghana expected to receive in foreign grants in 2017 (0.8 percent of GDP).¹²⁴

While pre-approvals are no substitute for cost auditing, they provide a critical oversight mechanism that may directly control costs as well as supplement the technical expertise required to verify costs. Audits are, by nature, reactive rather than proactive. Hence, a review of planned costs by industry regulators is an important safeguard for government revenues. It should also reduce the workload of auditors, allowing them to focus on the level of costs and relevant tax treatment.

Recommendations

- 5. Ensure that audit time limits and record-keeping requirements are long enough and that costs are audited as soon as possible after they occur.** Governments should audit at their first opportunity rather than waiting for revenues to start flowing, by which time audit rights may have expired.
 - a) *Government* should ensure that the time limit for fiscal auditing is not impracticably short, bearing in mind the limited audit capacity and the likelihood of delays in accessing documentation from companies, especially where foreign related parties are involved. Ideally, the time limit for cost-recovery and tax audits should be

the same to avoid uncertainty with respect to the final determination of gross income.

- b) *Government* should not wait to audit costs only when revenues start to flow, which may not occur until well into the production phase. Where possible, audit costs immediately after they have been incurred. At a minimum, government should retain the right to review exploration costs and ensure adequate record-keeping requirements to facilitate cost audits at a later date.
- c) *Government* should pre-approve petroleum expenditures. Pre-approval is the first line of defense against cost overstatement. Equip the agency doing the pre-approval with the necessary expertise and information (e.g., engineering software) to conduct a rigorous review of companies' development plans, including the reasonableness of their budgets and cost estimates. Agencies in charge of cost audits should refer to the benchmark data gathered as part of the pre-approval process.
- d) *Civil society and international development partners* should keep careful track of the expiration of audit rights for all oil and gas projects, and associated record-keeping provisions. This is predicated on having access to the contracts, which civil society and donors should also push for. The information can then be used to monitor whether government is carrying out fiscal audits in a timely fashion.
- e) *Companies* should respond quickly and cooperatively to government requests for audit information, including about prior years' exploration and development expenditures.



TRANSPARENCY AND ACCOUNTABILITY OF AUDIT RESULTS

Contract disclosure and revenue transparency are important elements in petroleum governance, but not sufficient. While progress has been made in these areas, if unevenly, citizens still have little knowledge of whether their governments enforce the prevailing contracts and tax laws to collect all the money to which they are entitled. While oversight institutions should provide some assurance, they lack the industry knowledge to effectively monitor the agencies responsible for cost audits. The lack of transparency and accountability in the audit process makes it easier for political interference and corruption to arise and for government and NOCs to escape scrutiny. Until these issues are resolved, it is impossible to know whether governments are using their audit rights effectively.

Alignment of incentives

Attracting and retaining investment is an important objective for government, but it should not compromise revenue collection or the integrity of cost audits. The government of Peru, in particular, has been accused of a “neoliberal agenda.”¹²⁵ There has been a revolving door between business and government, as demonstrated by former president Pedro Pablo Kuczynski, who played a key role in securing Hunt Oil’s license for the lucrative Camisea gas project before entering government. In the final hours before resigning as president in 2018, he signed five oil contracts granting Tullow Oil exploration and drilling rights, which have since been annulled by his successor, current president Martín Vizcarra.¹²⁶ It is therefore unsurprising that Peru’s fiscal policy is deemed “investor friendly,” the government having granted tax incentives worth 2 percent of GDP.¹²⁷ More than 7.5 percent of GDP may be lost through corporate tax avoidance,¹²⁸ but rather than tighten the laws, the government suspended the general anti-avoidance rule (GAAR) enacted in 2012 for several years (resolved in September 2018).¹²⁹

It is foreseeable that, against this backdrop, PeruPetro, the agency in charge of promoting investment in the sector, would have a shortage of staff to monitor companies’ costs (see the section “Audit Capacity”). The agency’s primary mandate is not revenue collection, but encouragement of petroleum activity. One prominent expert in Peru’s oil and gas sector says, “The Government [of Peru] does not have any interest in auditing [companies]; they say this is akin to communism. According to the expert, companies are paying what they are paying.”¹³⁰

Peru is not alone. In Kenya, civil society questions whether the political imperative of producing “early oil” (and its associated revenues) as soon as possible has led government to deprioritize cost-recovery audits, and, in doing so, to undermine revenue collection. According to the Kenya Oil and Gas Working Group, “government was making whatever concessions were required to get the companies to early oil.”¹³¹

Opaque NOCs

Recent surveys of NOCs around the world show that 18 out of 35 NOCs are under no legal obligation to report information about their operations, and 28 fail to provide comprehensive reports on their activities and finances.¹³² In Ghana, audit reports of the GNPC have yet to be made public. The GNPC argues that it presents the audit findings to Parliament so there is no need to publish the audits. However, the findings are first presented to the Ministry of Energy and Petroleum, which shares the information with Parliament on behalf of the GNPC, thus leaving room for censorship.

The GNPC has also failed to publish its financial statements and accounts regularly. The last year this information was shared was in 2015, when the IMF required the GNPC to be more transparent as a condition of the bailout.¹³³ The GNPC is set up as a commercial venture according to Section 4 of the GNPC Act (1983). Accordingly, it should be

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subject to the same level of scrutiny as private oil companies. This includes meeting at least the same standards of disclosure, if not exceeding them, in light of GNPC's quasi-public role. Audit reports of NOCs should also be disclosed, as recommended by the IMF.¹³⁴

It is worth noting that while it was possible to meet with the downstream NOC in Peru, PetroPeru, the NOCs in both Ghana (the GNPC) and Kenya (the National Oil Company of Kenya, or NOCK) did not respond to requests for interviews for this study. As a result, their perspective on transparency and scrutiny could not be included in this report.

Oversight actors

Supreme audit institutions

To ensure the quality and integrity of the audit process, auditors too must be audited, for what they do and what they do not do. For government audit activities, that is usually the responsibility of the country's supreme audit institution (SAI). Its task is to conduct periodic performance audits of ongoing audit activities, including fiscal audits of petroleum companies, as well as expenditures of public funds. In many cases, however, SAIs lack detailed knowledge of the petroleum industry, preventing them from being an effective check on government's use of cost-auditing rights.

In Ghana, the first discovery of oil was in 2007, but the Ghana Audit Service, led by Ghana's Auditor General, has yet to develop sector experience. Its contribution is limited to verifying that the transfer of petroleum revenues from the Petroleum Holding Fund to the Consolidated Fund, as required under Article 19 of Ghana's Petroleum Revenue Management Act (PRMA) (2011), is correctly recorded. There is no review of whether the GRA is fulfilling its audit obligations with respect to petroleum costs. It does anticipate playing a bigger role and has begun setting up an extractive industry unit. In the future, it would like to examine companies' payments to government, in which case it would be best to collaborate with the Ghana Extractive Industry Transparency Initiative (GHEITI) to build on its findings and vice versa.¹³⁵

In Kenya the OAG is more advanced in auditing the auditors. According to civil society, "the Auditor General is one of the few outspoken agencies with respect to public funds."¹³⁶ It has investigated why certain oil and gas companies have paid a signing bonus to government and others have not.¹³⁷ It has also shed light on one PSC in breach of the law because the company was not incorporated in Kenya, and it has questioned the government's spending of petroleum training levy revenues.¹³⁸ These are all positive indications that, with additional training, the OAG will provide useful oversight of cost auditing. One challenge will be limiting the OAG to monitoring the cost-auditing functions of the Ministry of Petroleum and Mining and the KRA rather than conducting such audits itself (see the section "Cost Audit Responsibility and Cooperation).

A supreme audit institution's task is to conduct periodic performance audits of ongoing audit activities, including fiscal audits of petroleum companies, as well as expenditures of public funds.

In many cases, however, SAIs lack detailed knowledge of the petroleum industry, preventing them from being an effective check on government's use of cost-auditing rights.

Legislatures

Outside of SAls, the national legislature is a key actor that can potentially provide oversight of cost auditing. Its ability to play this role will depend, however, on the institutional and political constraints of the particular country context. Cost auditing is ultimately a function of agencies operating under the executive, and the legislature's power to provide oversight and hold agencies accountable for cost auditing is directly related to its ability to provide a check on the power of the executive.

Past Oxfam research on institutions and accountability in Ghana has highlighted “the general dynamic of a powerful executive branch and compliant Parliament.”¹³⁹ These conditions may make it difficult for Parliament to play a strong role in ensuring that cost audits are effective in Ghana. The Public Interest Accountability Committee (PIAC) is one potentially promising structure that has had some success in identifying revenue risks resulting from corporate tax avoidance (see **Box 10**). However, any follow-up actions to ensure accountability when such issues are raised will require support from Parliament.

Peru similarly suffers from a strong executive branch that limits the autonomy of institutions that could potentially hold it to account, including in the country's Congress.¹⁴⁰ However, recent political turmoil—including strong discontent with the country's largest political parties and a corruption scandal that led the previous president to resign from office—combined with a growing movement for fiscal justice in the country, and the political interest in joining the OECD, may create an opening for Congress to play a more significant oversight role in the near future.¹⁴¹ Furthermore, Peru's president has been vocal about the need to ensure that large companies pay what they owe in taxes, suggesting that the executive may be more amenable to Congress's focus on combating tax base erosion and profit shifting going forward.¹⁴²

Cost auditing is ultimately a function of agencies operating under the executive, and the legislature's power to provide oversight and hold agencies accountable for cost auditing is directly related to its ability to provide a check on the power of the executive.

Public reporting of audit activities and results

Inadequate oversight of petroleum costs would be untenable if the public were better informed. Had citizens in Kenya known that fiscal audits were not happening in a timely fashion, or that capacity was limited, they could have asked questions of their governments. In all three case study countries, however, unless an audit case goes to court, there is no public reporting of audit activities or results. Indirectly, there may be some reporting through performance audits done by the Auditor General or specially appointed oversight bodies such as PIAC in Ghana (see **Box 10**). However, such reporting is largely anecdotal rather than a systematic account of audit objectives, processes, and results. In Peru, one journalist said, “There is not a policy of openness [at SUNAT]; they are afraid of denouncing companies.”¹⁴³ This statement highlights precisely why fiscal audit transparency is necessary and should be insisted upon by civil society and parliaments.

In all three case study countries, unless an audit case goes to court, there is no public reporting of audit activities or results.

Box 10. Ghana's Public Interest and Accountability Committee (PIAC)

PIAC is an independent statutory body mandated to promote transparency and accountability in the management of petroleum revenues in Ghana. It was established under Section 51 of the Petroleum Revenue Management Act (PRMA) 2011. It does not audit costs but has the power to review the performance of the GRA and other agencies in the context of assessing revenue collection and management. It publishes annual reports on the sector, including the cost of crude production.

The case from the Republic of Congo, plus a leaked independent audit report relating to Glencore's Mopani copper mine in Zambia, demonstrate the value of putting audit issues in the public domain. In the case of Mopani, it was when the preliminary audit findings were disclosed to the public that nongovernmental organizations filed a complaint triggering an investigation.¹⁴⁴ The European Investment Bank also initiated its own investigation, having invested in the company.¹⁴⁵ In the Republic of Congo, at the behest of the IMF, the government undertook independent cost-recovery audits in order to qualify for debt relief. The government was also required to publish the audit reports online. While the experiment in transparency was not repeated, that single episode resulted in the publication of 13 cost-auditing reports. It is not known whether the government followed up on the audit findings. The IMF is once again stressing cost-recovery audits in its program negotiations with the Republic of Congo.¹⁴⁶

Companies may express concerns about protecting taxpayer confidentiality in relation to the disclosure of audit information. However, emerging global norms on financial transparency, increased publication of mining, oil, and gas contracts,¹⁴⁷ the Extractive Industries Transparency Initiative (EITI), and public CbCR suggest that taxpayer confidentiality is not an inviolable right. It can be overridden by public policy concerns such as the need for public accountability for natural resources. The expansion of the global EITI Standard is a good example. Although EITI initially focused on the reconciliation of company payments and government revenues, the Standard has since expanded to include contextual information,¹⁴⁸ and implementing countries have also gone beyond the basic reporting requirements. Public disclosure of information about the use of audit rights could be a next frontier for inclusion in EITI.

At a minimum, governments should publish an annual report on petroleum revenues that includes information on audit activities and results and share this in a public forum in the national legislature (see **Box 11**). Reputable companies will recognize that it is in their interest to be perceived as good corporate citizens that contribute their fair fiscal share to the running of the country.

Although EITI initially focused on the reconciliation of company payments and government revenues, the Standard has since expanded to include contextual information.

Information about cost auditing could be a next frontier for inclusion in EITI.

Box 11. Sample annual report (adapted from *Administering Fiscal Regimes for Extractive Industries*)¹⁴⁹

Audit Activities

- List of auditable contracts and projects indicating audit status per year
- Number of audits commenced
- Number of audits settled
- Number of audits ongoing at the end of the year
- Type of audits
- Field or desk-based audits
- Issue-oriented

Audit Results

- Additional assessments
- Penalties/ interest imposed
- Amount collected from that year's audits
- Objections and appeals

Other

- Explain audit strategy and coverage
- Explain any audit outsourcing/co-sourcing
- Explain and discuss significant findings on settled audits
- Explain audit key performance indicators and provide relevant performance data

For further ideas on information to include, see *IMF Guide to Resource Revenue Transparency* (2016).

At a minimum, governments should publish an annual report on petroleum revenues that includes information on audit activities and results and share this in a public forum in the national legislature.

Recommendations

6. Publicly disclose audit activities and their results, and strengthen the capacity of oversight actors to monitor government's use of cost-auditing rights. A transparent and accountable audit process is a pre-condition for effective cost auditing; without this, it is impossible to determine whether governments are fulfilling their responsibility to protect petroleum revenues.

- a) *Government* should publish an annual report describing their use of cost-auditing rights and its results, complementing disclosure of contracts. This government reporting could be complemented by publication of actual audit reports.
- b) *Government* should, with support from development partners, build up SAls' industry knowledge and expertise so they can effectively monitor the government agencies responsible for petroleum cost auditing.

- c) *Government* should create opportunities for public dialogue around the effectiveness of petroleum cost auditing and revenue administration for the extractive sectors more broadly, including through discussions in the national legislature.
- d) *Civil society* should lobby government to report publicly on audit activities and their results, as well as monitor its use of cost-auditing rights (using oversight mechanisms that are inclusive and promote women's participation and leadership). See **Box 12** for a checklist for monitoring government petroleum cost audits.
- e) *Civil society* should demand greater transparency from and oversight of NOCs. These state-owned companies can play a role in guiding development of the sector, but they must be held to account through existing oversight mechanisms, including the disclosure standards that apply to all oil and gas companies.
- f) *Civil society* should seek to integrate information on cost auditing (for example, actors involved, audits undertaken, adjustments made, and/or practices relating to government reporting of results) into the scope of EITI, either in the international Standard or in country-level implementation.
- g) *International development partners* that lend funds to developing countries should use what leverage they have to persuade governments to conduct regular and rigorous petroleum cost audits, to publish audits, and to account publicly for the process and outcomes.
- h) *International development partners* should request and collect from government quantitative data on the use of cost-auditing rights around the world.
- i) *Companies* should cooperate with government to publish audit activities and results. It is in their interest to show that they are regularly audited by government and that specific concerns raised by the public, such as transfer pricing, are being addressed.
- j) *Companies* should consider reporting publicly on the scrutiny their tax payments have undergone, including any audits and their outcomes. Ideally this would be done at the national level or in the parent company's tax and economic contributions report.
- k) *Companies* should adopt and publish a set of tax principles to guide, among other things, their approach to engaging with revenue administration agencies.

Box 12. Checklist for monitoring government petroleum cost audits

- ✓ Does government have the legal right to audit costs? Is this right adequate, or are there gaps?
- ✓ Is there a clearly defined list of expenditures eligible for cost recovery and/or tax deduction?
- ✓ Is the responsibility for cost auditing clearly assigned to one government agency? Does this agency have the appropriate mandate and expertise to carry out cost audits?
- ✓ If audit rights are dispersed, is there an overarching coordination mechanism? Do these agencies systematically share information and expertise that may be relevant to cost audits?
- ✓ Do the government agencies responsible for cost auditing have enough auditors with the requisite industry knowledge and expertise?
- ✓ Is there regular risk assessment specific to the petroleum sector?
- ✓ Are information and reporting requirements adequate?
- ✓ Can government access information from other jurisdictions, as well as benchmark data?
- ✓ Do audits happen regularly enough according to time limits and record-keeping requirements?
- ✓ Is the NOC contributing information and expertise to government cost audits? Is it subject to the same reporting and financial standards as other private oil and gas companies?
- ✓ Does the government publish information on auditing activities and results?
- ✓ Do audit findings result in adjustments to tax and/or production share due?
- ✓ Are there oversight bodies monitoring the use of cost-auditing rights?

Civil society can demand greater transparency and monitor the use of cost audit rights.

5 CONCLUSION

For many developing countries, the extractive sector is an important source of revenue for funding vital public services and investments that can serve to combat poverty and inequality. At the same time, oil and gas are finite and non-renewable. If governments and communities decide to allow these resources to be exploited,¹⁵⁰ in spite of climate change contributions¹⁵¹ and risks of other adverse consequences, they have only a limited window to derive the maximum revenue from these national assets. One of the challenges for governments is to administer the petroleum fiscal regime, including project-specific fiscal terms agreed with oil and gas companies. This requires regular and rigorous auditing of those companies—and in particular, their costs.

Governments generally have the right to audit costs in the oil and gas sector. However, analysis of audit implementation in the case study countries suggests they do not always make timely use of these rights. Where auditing is infrequent or delayed, government may lose valuable opportunities to ensure that companies pay what is due, and the potential deterrence effect is reduced. Further, depending on the time limits for auditing and recordkeeping, the right to audit, as well as the information needed, may no longer exist.

Even where audits take place regularly, they may not be effective. Loopholes or ambiguities in the law undermine governments' ability to control costs. A siloed way of working that prevents sharing of information and clear delegation of responsibilities between government agencies can lead to duplication of audit efforts, as well as hinder accurate assessment and benchmarking of costs. Governments' underinvestment in human resources, sector-specific expertise, and risk assessment may make it difficult to detect and resolve ineligible or inflated costs.

Nonetheless, these challenges are not insurmountable: governments can tackle them with a mix of legal, policy, and administrative reforms. At times they could rely on external expertise—for instance, demanding an independent audit, paid for by the oil company, where the contracts permit it. Investing in such solutions could significantly increase government revenue. But it does take political will and, particularly, there must be an aligning of incentives. Given this context, a lack of prioritization of resources to address these challenges in the case study countries, while not definitive, does suggest that incentives are not aligned and that political and economic considerations are driving government decisions about when or how to audit costs. Potential negative incentives, including rent-seeking behavior, was not directly observed, but neither can it be ruled out. (A full political economy analysis of this subject is beyond the scope of this study.)

A final challenge further exacerbates concerns around potential government willingness to prioritize effective implementation of cost audits. There is a dearth of transparent, public information about audit processes and their results, impeding citizens' understanding of the actual and potential impact of petroleum cost auditing on government revenue. Without transparency, collective oversight is severely hampered, leaving citizens unable to understand if government is getting the most from the country's natural resources. Public accountability institutions like supreme audit institutions, national legislatures, and independent commissions could also play a key role in bridging the gap and mobilizing citizens in favor of effective auditing. However, they too face hurdles in gaining access to information and developing the relevant sector-specific tax expertise.

This report sets out many recommendations intended to help Ghana, Kenya, and Peru, as well as other petroleum-producing countries facing similar challenges, to improve their use of cost-auditing rights and reduce the risk of cost overstatement by petroleum companies. Key to this effort will be educating a broader public on the imperative and challenges of cost auditing in the petroleum sector in order to ensure that audit rights are exercised and that audit activities and results—and where possible, reports—are publicly disclosed. With that information, citizens can hold government actors accountable for effective cost auditing in the oil and gas sector and ensure that government is able to capture the revenue it is due.







SUMMARY OF RECOMMENDATIONS BY ACTOR

Recognizing that governments, civil society, international development partners, and oil and gas companies can contribute to more effective cost auditing, this report offers additional guidance on actions each of these stakeholders can take to address the challenges highlighted in this report. The following summarizes these suggested actions by actor.







Governments

 <p>LAWS</p>	<ul style="list-style-type: none"> • Provide a clear definition of ring-fencing in the law. • Publish guidance for taxpayers on fiscal elements likely to be misinterpreted. • Adopt and implement strong transfer pricing rules, in addition to exploring alternative tax policy rules that may be easier to administer. • Carefully consider eligibility of costs for cost recovery and/or tax deduction. • Ensure any fiscal stabilization clauses are limited in time and scope.
 <p>COORDINATION</p>	<ul style="list-style-type: none"> • Allocate cost-auditing responsibility to one agency or formalize cooperation between agencies. • Encourage strong oversight by SAIs, but not direct auditing. • Ensure that national oil companies (NOCs) share joint venture (JV) audit results with cost-auditing agencies. • Enact a law to create an interagency committee with a stable budget.
 <p>CAPACITY</p>	<ul style="list-style-type: none"> • Allocate an adequate number of staff to petroleum cost auditing. • Develop specialized knowledge of the petroleum industry. • Consider soliciting independent, external auditors to conduct cost audits.
 <p>INFORMATION</p>	<ul style="list-style-type: none"> • Enforce clear, standard reporting requirements for use in risk assessment. • Adopt transfer pricing documentation rules, including a requirement for local and master files.
 <p>TIMEFRAME</p>	<ul style="list-style-type: none"> • Ensure that the time limit for conducting an audit is not impracticably short • Audit costs even before revenues start to flow. • Preapprove budgeted petroleum expenditures of oil and gas companies.
 <p>ACCOUNTABILITY</p>	<ul style="list-style-type: none"> • Publish audits and an annual report describing use of cost audit rights and results. • Build industry knowledge of SAIs for more effective monitoring. • Publish audits and an annual report describing use of cost audit rights and results.







Civil society

 <p>LAWS</p>	<ul style="list-style-type: none"> • Challenge government stabilization clauses that are ill-defined.
 <p>COORDINATION</p>	<ul style="list-style-type: none"> • Monitor interagency coordination and resourcing for cost auditing.
 <p>CAPACITY</p>	<ul style="list-style-type: none"> • Advocate for a clear risk assessment strategy from cost-auditing agencies.
 <p>INFORMATION</p>	<ul style="list-style-type: none"> • Urge government to conduct public bid rounds for oil, gas, and mining rights.
 <p>TIMEFRAME</p>	<ul style="list-style-type: none"> • Keep careful track of expiration of audit rights and record keeping, pushing for contract disclosure to ensure a clear understanding of audit rights.
 <p>ACCOUNTABILITY</p>	<ul style="list-style-type: none"> • Lobby government to report publicly on audit results. • Monitor cost auditing, promoting women's participation in oversight. • Demand greater transparency from, and oversight of, NOCs. • Integrate information on cost auditing into the scope of the Extractive Industries Transparency Initiative (EITI).

International development partners

 LAWS	<ul style="list-style-type: none">• Discourage government stabilization clauses that are ill defined.
 COORDINATION	<ul style="list-style-type: none">• Provide technical and financial support to interagency committees.
 CAPACITY	<ul style="list-style-type: none">• Support government requests for capacity development and co-sourcing auditing.
 INFORMATION	<ul style="list-style-type: none">• Support access to commercial databases and exchange of information.
 TIMEFRAME	<ul style="list-style-type: none">• Keep careful track of expiration of audit rights and record keeping.
 ACCOUNTABILITY	<ul style="list-style-type: none">• Use leverage to insist on rigorous cost audits, the publication of audits, and public reporting and oversight of the audit process and outcomes.• Collect quantitative data on the use of cost-auditing rights.

Oil and gas companies

 <p>LAWS</p>	<ul style="list-style-type: none"> • Request guidance from tax authorities on ambiguities.
 <p>COORDINATION</p>	<ul style="list-style-type: none"> • Engage cooperatively with government, requesting guidance as necessary.
 <p>CAPACITY</p>	<ul style="list-style-type: none"> • Help government understand the oil and gas business, e.g., via joint workshops.
 <p>INFORMATION</p>	<ul style="list-style-type: none"> • Comply with reporting and disclosure requirements and information requests.
 <p>TIMEFRAME</p>	<ul style="list-style-type: none"> • Respond quickly and cooperatively to requests for audit.
 <p>ACCOUNTABILITY</p>	<ul style="list-style-type: none"> • Consider reporting publicly on the scrutiny tax payments have undergone. • Adopt and publish tax principles to guide companies' engagement with revenue administration agencies.

6 SUGGESTIONS FOR FUTURE RESEARCH

This report lays the groundwork for a more robust understanding of petroleum cost auditing and for increased actions to ensure that cost audits are undertaken and are as effective as possible, in part by relying on a more detailed assessment of petroleum cost auditing in three selected case study countries.

During the course of this study, some interesting topics arose that were beyond the scope of the study but merit further research:

- exact revenue numbers generated from petroleum cost auditing around the world, perhaps as collected by a key technical assistance provider, like the IMF;
- differences in petroleum cost-auditing experiences for larger petroleum producers compared with smaller ones;
- Political economy analysis of petroleum sector cost auditing;
- gendered impacts of petroleum exploration and production and the gender elements of revenue collection and tax administration;
- climate impacts of oil exploitation and potential opportunities for petroleum producers to transition away from fossil fuels; and
- governance of national oil companies (NOCs) and the ideal role of a NOC in petroleum sector governance.

Annex A: List of Key Petroleum Revenue Administration and Cost-Auditing Resources

Box 13. Valuable resources for auditing petroleum companies

- Jack Calder, *Administering Fiscal Regimes for Extractive Industries: A Handbook* (Washington, DC: International Monetary Fund, 2014), <http://eduart0.tripod.com/sitebuildercontent/sitebuilderfiles/AdministeringFiscalRegimesForEI.pdf>.
- Peter D. Cameron and Michael C. Stanley, *Oil, Gas and Mining: A Source Book for Understanding the Extractive Industries* (Washington, DC: World Bank, 2017), <https://openknowledge.worldbank.org/handle/10986/26130>.
- US Internal Revenue Service, *Oil and Gas Handbook* (Washington, DC, 2018), https://www.irs.gov/irm/part4/irm_04-041-001.
- US Department of Treasury, *Draft Petroleum Audit Manual* (Washington, DC, 2011), https://www.governmentattic.org/11docs/TreasuryPetroleumAuditManual_2011.pdf.
- CCAF-FCVI, *Practice Guide to Auditing Oil and Gas Revenues and Financial Assurances for Site Remediation* (Ottawa, 2016), <http://www.wgei.org/wp-content/uploads/2016/12/CCAF-Practice-Guide-to-Auditing-Oil-and-Gas-Revenues-ENGLISH-October-2016.pdf>.
- CREDAF (Centre de Rencontres et d'Études des Dirigeants des Administrations Fiscales), *Guide sur la Fiscalité des Industries Extractives* (Paris, 2017), https://credaf.org/wp-content/uploads/2017/10/2017_Fiscalite_industries_extractives.pdf.

Annex B: List of Acronyms

ACEP	Africa Centre for Energy Policy
AOE	additional oil entitlement (element of Ghana's petroleum fiscal regime)
ATI	Addis Tax Initiative
ATO	Australian Tax Office
Bcf	billion cubic feet
BEPS	base erosion and profit shifting
Bopd	barrels of oil per day
CbCR	country-by-country reporting
CIT	corporate income tax
DFID	UK Department for International Development
DRM	domestic revenue mobilization
DWT	Deepwater Tano oil field in Ghana (Tullow Oil is operator)
EITI	Extractive Industries Transparency Initiative
ENI	Ente Nazionale Idrocarburi S.p.A. (multinational Italian oil and gas company)
EPA	Exploration and Production Agreement
FPSO	floating production storage and offloading
GAAR	General Anti-Avoidance Rule
GDP	gross domestic product
GHEITI	Ghana Extractive Industry Transparency Initiative
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German development cooperation agency)
GNPC	Ghana National Petroleum Corporation
GOGIG	Ghana Oil and Gas Inclusive Growth
GRA	Ghana Revenue Authority
HMRC	Her Majesty's Revenue and Customs (UK government agency responsible for tax collection)
IMF	International Monetary Fund
INTOSAI	International Organisation of Supreme Audit Institutions
ISA	International Standards on Auditing
ITA	Income Tax Act 2015 in Ghana
JV	joint venture
KEPTAP	Kenya Petroleum Technical Assistance Project
KRA	Kenya Revenue Authority
LTO	Large Taxpayer's Office
MAPERC	Multi-Agency Petroleum Revenue Committee (Ghana)
MMbo	million barrels of oil

MNC	multinational corporation
MoU	memorandum of understanding
NCF	net cash flow
NOC	national oil company
NOCK	National Oil Company of Kenya
NORAD	Norwegian Agency for Development Cooperation
OAG	Office of the Auditor General in Kenya
OECD	Organisation for Economic Co-operation and Development
PAs	petroleum agreements (term for oil companies' contracts with the Ghanaian state)
PC	Petroleum Commission in Ghana
PEPA	Petroleum (Exploration & Production) Act 2016 in Ghana
PetroPeru	Petróleos del Perú S.A. (national oil company in Peru)
PIAC	Public Interest and Accountability Committee in Ghana
PITL	Petroleum Income Tax Law in Ghana
PRMA	Petroleum Revenue Management Act (Ghana)
PSC	production sharing contracts (used in production sharing regimes, as in Kenya)
PU	Petroleum Unit at the Ghana Revenue Authority
PwC	PricewaterhouseCoopers (advisory firm)
ROR	rate of return
SAI	supreme audit institution
SIPSC	Sinopec International Petroleum Services Corporation (Chinese multinational petroleum company)
SUNAT	Superintendencia Nacional de Aduanas y de Administración Tributaria (tax authority that enforces customs and taxation in Peru)
TA	technical assistance
TEN	Tweneboa-Enyenra-Ntomme (oil field in Ghana)
UPRA	Upstream Petroleum Regulatory Authority (proposed regulatory authority in Kenya)
VAT	value-added tax
WGEI	Working Group on the Audit of Extractive Industries

NOTES

- ¹ See generally, Oxfam, The Commitment to Reducing Inequality Index 2018, October 8, 2018, <https://policy-practice.oxfamamerica.org/publications/the-commitment-to-reducing-inequality-index-2018/>
- ² African Development Bank. (2018). African Economic Outlook 2018, https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Economic_Outlook_2018_-_EN.pdf.
- ³ OECD (Organisation for Economic Co-operation and Development), Revenue Statistics in Africa, 2017, <https://www.oecd.org/tax/tax-policy/revenue-statistics-africa-2017-infographic.pdf>. IMF, *Regional Economic Outlook for Sub-Saharan Africa* (Washington, DC, 2017), <https://www.imf.org/~media/Files/Publications/REO/AFR/2017/May/pdf/sreo0517.ashx>. This cites 17.0 percent as the average tax-to-GDP ratio for the region in 2017 and concludes that for most countries an increase of 3–5 percentage points is feasible. IMF, *Regional Economic Outlook: Domestic Revenue Mobilization and Private Investment* (Washington, DC, 2018), <https://www.imf.org/~media/Files/Publications/REO/AFR/2018/May/pdf/sreo0518.ashx?la=en>
- ⁴ UNCTAD, *World Investment Report 2015: Reforming International Investment Governance* (Geneva, 2015), p. 182, https://unctad.org/en/PublicationsLibrary/wir2015_en.pdf
- ⁵ P. Wells, “Chevron Loses Landmark Tax Case on Transfer Pricing,” *Financial Times*, April 20, 2017, <https://www.ft.com/content/9eae50e-264f-11e7-a34a-538b4cb30025>
- ⁶ Oxfam’s work on extractive industries covers a range of thematic issues, including tax and transparency, but also issues of community consent: “Oxfam advocates for just government policies and corporate practices in the oil, gas, and mining industries, and supports the right of communities to participate meaningfully in decisions about the development of natural resources.” Oxfam America, “Resource Rights,” <https://policy-practice.oxfamamerica.org/work/resource-rights/>. Oxfam’s Extractive Industries Global Program is active in 30 countries. Oxfam, “Extractive Industries Global Program” (map), <http://eimap.oxfam.org/>. For more information on Oxfam’s strategy on extractives, see Oxfam’s Oxfam International, *Achieving Natural Resource Justice: Extractive Industries Global Program Strategic Plan 2016 – 2019*, <https://www.oxfamamerica.org/explore/research-publications/achieving-natural-resource-justice/>
- ⁷ See, e.g., Oxfam, *Mapping Risks to Future Government Petroleum Revenues in Kenya* (Oxford, 2016), https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/rr-mapping-risks-petroleum-revenues-kenya-060516-en.pdf
- ⁸ The Addis Tax Initiative is a multistakeholder partnership of development partners and partner countries that aims to increase DRM in order for developing countries to achieve the UN Sustainable Development Goals (SDGs).
- ⁹ Oxfam, *Doubling Down on “DRM”* (Washington, DC, 2018), https://www.oxfamamerica.org/static/media/files/DOUBLING_DOWN_ON_DRM_-_2018_LVC7aXc.pdf. Oxfam is an ATI supporting organization. See N. Coplin, “Oxfam Has Joined the Addis Tax Initiative. Here’s Why,” *The Politics of Poverty* blog, May 29, 2018, <https://politicsofpoverty.oxfamamerica.org/2018/05/oxfam-has-joined-the-addis-tax-initiative-heres-why/>.
- ¹⁰ Gender-responsive budgeting is one means by which to address these and other concerns in the context of public resource allocations, while also contributing to the advancement of gender equality. See, e.g., UN Women National Committee Australia, *Gender Responsive Budgeting*, <https://unwomen.org.au/our-work/focus-areas/what-is-gender-responsive-budgeting/>. A particular focus on using government revenues to address gender-based inequalities may be especially warranted in the case of the extractive industries, given the impact the sector has on women and girls.
- ¹¹ See, e.g., D. Hubert, *Many Ways to Lose a Billion: How Governments Fail to Secure a Fair Share of Natural Resource Wealth* (Publish What You Pay–Canada, 2017), <http://www.publishwhatyoupay.org/wp-content/uploads/2017/07/PWYP-Report-ManyWaysToLoseABillion-WEB.pdf>
- ¹² Wood Mackenzie data, on file with authors. The figure includes all oil and gas projects in each country for the years 2008 to 2017.
- ¹³ Republic of Congo petroleum audit reports for various projects in 2004 and 2005, on file with authors. The 13 reports were downloaded from a public Republic of Congo government website in 2008, but the site no longer exists. The 13 reports cover 9 oil permits: one report for 2004 and 2005 for each of 4 Total permits, one report for 2005 for one Total permit, and 4 reports for 2005 for each of 4 ENI permits. The reports were redacted versions of the originals. The reports covering ENI’s permits were completed by the audit firm GKM-Constatin; the name of the firm responsible for auditing Total’s permits was redacted. Oxfam tallied all recovered costs about which the auditors expressed doubt, and within that category those that the auditors rejected. Rejection implies that the auditors found the costs ineligible, could not attest to their eligibility, found them exaggerated, or were not presented with invoices. Because of the redactions, total costs recovered—the numerator of the ratios cited—had to be reconstituted in some cases from elements quoted in the reports. Auditors were not given the opportunity by the companies to audit the communal costs shared across permits nor the costs transferred from other permits.
- ¹⁴ For Total, auditors inspected 53 percent of its \$1.099 billion in declared recoverable costs, the overstatements were \$17.5 per \$100. For ENI, where 81 percent of \$327 million in declared recoverable costs were inspected, they were \$9.8 per \$100; the weighted average for all 13 audit reports was \$15 in overstatements per \$100

costs inspected.

¹⁵ Total responded that in 2004 and 2005, until the time of writing, its PSAs in the Republic of Congo have been “saturated.” This means that recoverable costs exceed the “cost stop” (the limit on cost recovery). Hence, they argue, even if costs were overstated, it would not have affected government revenues in these particular years. Email correspondence with Total, October 2018. ENI responded stating that “[b]ased on our records we confirm that for the years 2004-2005 the Republic of Congo discussed with Eni potential costs overbooked on oil permits operated by Eni Congo.” ENI also notes that “the standard audit procedure foresees that costs overstated or wrongly booked eventually agreed among the Parties (Operator and Republic of Congo) are deducted from the cost recovery procedure, hence are not negatively impacting the share of Republic’s profit oil.” Email correspondence with ENI, November 2018.

¹⁶ World Bank, *Republic of Congo Poverty Assessment Report* (Washington, DC, 2017), p. 13, <https://openknowledge.worldbank.org/handle/10986/28302>. The World Bank calculates that for 2011 it would take a hypothetical cash transfer program of XAF 172.1 billion (10 percent of the budget, 14 percent of oil revenues) to lift the country’s 1.6 million poor (national definition) above the poverty line. Extra revenue in 2011 of \$55.3 million or XAF 36.1 billion would be enough to fund 21 percent of such a program. In principle, the \$55 million additional revenue would not be a one-time event; with adequate auditing of recovered costs, it could be repeated annually. Thus, it would, on a continuing basis, lift more than 300,000 of the Congo’s poor above the poverty line.

¹⁷ A sum of \$39,094,724 was deemed unrecoverable because of noncompliance with the provisions of the PSCs. A sum of \$41,585,800 was deemed unclaimable because the commercial oil and gas reserves that the costs related to were not discovered in the licensed exploration areas. A sum of \$902,382,526 was cost recoverable. See Republic of Uganda, *Annual Report of the Auditor General on the Financial Statements of the Government of Uganda for the Financial Year Ended 30th June 2016* (Kampala, 2016), p. 17, <http://www.oag.go.ug/wp-content/uploads/2017/01/Annual-Auditor-Generals-Report-on-Government-And-Statutory-Bodies-For-The-FY15-16.pdf>

¹⁸ Republic of Uganda, *Annual Budget Performance Report FY 2011/12* (Kampala, 2012), <http://budget.go.ug/budget/sites/default/files/National%20Budget%20docs/ABPR%20FY%202011-12.pdf>

¹⁹ “By the time the company is prepared to negotiate, it will have spent three to five years—at a minimum—investigating the potential of the resources, the cost of harvesting them, and the market value over several price fluctuation scenarios. The government in a developing country, on the other hand, will often have little awareness of these same issues. The government is, in effect, playing catch up, and often doing so at a severe human resource deficit.” International Institute for Sustainable Development, *IISD Handbook on Mining Contract Negotiations for Developing Countries* (Winnipeg, Canada, 2015), <http://www.iisd.org/sites/default/files/publications/iisd-handbook-mining-contract-negotiationsfor-developing-countries-volume-1.pdf>

²⁰ Interview with New Petroleum Producers Discussion Group, August 2, 2018.

²¹ International Monetary Fund, *Fiscal Regimes for Extractive Industries: Design and Implementation* (Washington, DC, 2012), p. 34 and Appendix 8. <https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Fiscal-Regimes-for-Extractive-Industries-Design-and-Implementation-PP4701>

²² Disclosure of extractive industries’ contracts is also now an emerging global norm, with nearly half of companies surveyed expressing support in some form. Oxfam, *Contract Disclosure Survey 2018* (Oxford: Oxfam, 2018), <https://www.oxfam.org/en/research/contract-disclosure-survey-2018>

²³ The Extractive Industries Transparency Initiative (EITI), <https://eiti.org/who-we-are>.

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²⁶ Oxfam and its partners have also made efforts to use the data generated to assess potential revenue leakages. See Publish What You Pay (PWYP)-Zimbabwe and Oxfam, *Government Revenues from Mining: A Case Study of Caledonia’s Blanket Mine* (2016), http://www.res4dev.com/wp-content/uploads/2017/06/Blanket_Mine_Zimbabwe_Report.pdf. In some of these analyses, a key recommendation was to undertake or improve petroleum cost auditing; in the case of Kenya, the government ultimately decided to implement its first cost audit of the Tullow project. See Oxfam, *Mapping Risks to Future Government Petroleum Revenues in Kenya*.

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- ⁵⁸ J. Calder, *Administering Fiscal Regimes for Extractive Industries*, p. 27.

- ⁵⁹ United Nations Subcommittee on Extractive Industry Taxation, discussions in Madrid, June 2018.
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- ⁶¹ The proposed Petroleum Bill (2017) suggests this institution will be the Upstream Petroleum Regulatory Authority (UPRA), but there are some suggestions that UPRA may in fact be replaced by an authority with a different name, Energy and Petroleum Regulatory Authority (EPRA), including its reference in another proposed bill, The Energy Bill (2017). This bill was published in the Kenya Gazette Supplement No. 194 of 2017 and passed by the National Assembly, with amendments, on June 7, 2018. See, e.g., Zachary Ochuodho, "Oil, Gas Players Want Licences Reduced to One," MediaMax (August 27, 2018), <http://www.mediamaxnetwork.co.ke/462936/oil-gas-players-want-licences-reduced-to-one/>
- ⁶² Interview with Tullow Oil, April 12, 2018.
- ⁶³ Interview with PeruPetro, June 4, 2018.
- ⁶⁴ WGEI (Working Group on the Audit of Extractive Industries), *The Ugandan Experience in the Audit of Petroleum Activities*, 2016, <http://www.wgei.org/sai-experience/the-ugandan-experience-in-the-audit-of-petroleum-activities/>
- ⁶⁵ J. Calder, *Administering Fiscal Regimes for Extractive Industries*, p. 27.
- ⁶⁶ Interview with Tullow Oil, April 12, 2018.
- ⁶⁷ PetroPeru has been less active in the upstream sector since Peru's Constitution was amended in 1993. Article 60 of the Constitution limits all state enterprises to playing a subsidiary role, unless private actors do not want to engage in specific economic activity. As a result, all the oil wells belonging to PetroPeru were sold off, though it remains a major player in downstream oil operations in Peru, and the debate is ongoing as to whether it should be more involved in upstream activities.
- ⁶⁸ Interview with Peru petroleum industry expert, June 5, 2018.
- ⁶⁹ Interview with Ghana Revenue Authority, February 23, 2018.
- ⁷⁰ Ghana Petroleum Commission Act, Section 24(2).
- ⁷¹ It is worth highlighting that both the GNPC and the National Oil Company of Kenya (NOCK) declined to meet with researchers for this study who wanted to explore with them their role in the cost auditing of oil companies in their countries.
- ⁷² P. Heller and V. Marcel, "Institutional Design in Low-Capacity Oil Hotspots" (New York: Revenue Watch Institute, 2012), <https://resourcegovernance.org/sites/default/files/documents/institutional-design-in-low-capacity-oil-hotspots.pdf>
- ⁷³ Interview with Ghana Petroleum Commission, February 22, 2018.
- ⁷⁴ Interview with Ghana Public Interest Accountability Committee (PIAC), February 22, 2018. However, at least one representative of the Petroleum Unit (PU) of the Ghana Revenue Authority (GRA), suggested he was unaware of this offer. Written communication with the Petroleum Unit of the Ghana Revenue Authority, August 30, 2018.
- ⁷⁵ Interview with the Petroleum Commission of Ghana, February 22, 2018.
- ⁷⁶ Email correspondence with Petroleum Unit of the Ghana Revenue Authority, August 30, 2018.
- ⁷⁷ Interview with the Petroleum Unit of the Ghana Revenue Authority, February 23, 2018; Interview with Ghana Petroleum Commission, February 22, 2018; email correspondence with Petroleum Unit at Ghana Revenue Authority, August 30, 2018.
- ⁷⁸ Interview with GOGIG, March 1, 2018.
- ⁷⁹ UK Department for International Development, *Annual Review: Ghana Oil and Gas for Inclusive Growth* (GOG/G) (London, 2016), http://iati.dfid.gov.uk/iati_documents/5730345.odt; interview with Africa Centre for Energy Policy (ACEP), February 22, 2018.
- ⁸⁰ A. Readhead, *Transfer Pricing in the Extractive Sector in Ghana* (New York: Natural Resource Governance Institute, 2016), https://resourcegovernance.org/sites/default/files/documents/nrgi_ghana_transfer-pricing-study.pdf
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- ⁸² Interview with Norwegian Oil Taxation Office, October 5, 2018.
- ⁸³ J. Calder, *Administering Fiscal Regimes for Extractive Industries*, p. 62.
- ⁸⁴ Email correspondence with Petroleum Unit of the Ghana Revenue Authority, February 23, 2018; interview with Kenya Revenue Authority, April 25, 2018; interview with Ernst & Young Peru, October 4, 2018.
- ⁸⁵ Interview with PeruPetro, June 4, 2018.

- ⁸⁶ Interview with Ministry of Petroleum and Mining, Kenya, April 23, 2018.
- ⁸⁷ See Angop (Agencia Angola Press), "PwC Wins Sonangol's Financial Audit Tender," November 3, 2017, http://www.angop.ao/angola/en_us/noticias/economia/2017/10/44/PwC-wins-Sonangol-financial-audit-tender.2f0930aa-6b50-471c-8e9f-cb9f7d7ac329.html; P. D. Cameron and M. C. Stanley, Oil, Gas and Mining: A Source Book for Understanding the Extractive Industries (Washington, DC: World Bank, 2017), <https://openknowledge.worldbank.org/handle/10986/26130>; Timor-Leste Institute for Development Monitoring and Analysis, "Making the Oil Companies Pay What They Owe," January 22, 2018, <https://www.laohamutuk.org/Oil/tax/10BackTaxes.htm>
- ⁸⁸ Oxfam interviews with tax and regulatory agencies in the two countries in February–April 2018.
- ⁸⁹ Ibid.
- ⁹⁰ World Bank, Kenya Petroleum Technical Assistance Project (KEPTAP). Projects and Operations (2016), <http://projects.worldbank.org/procurement/noticeoverview?id=OP00038439&lang=en&print=Y>
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- ⁹² UK, Oil Taxation Manual (London, 2016), <https://www.gov.uk/hmrc-internal-manuals/oil-taxation-manual/ot21525>
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- ⁹⁴ Tax Administration Diagnostic Assessment Tool (TADAT). TADAT is a framework for assessing the health of key components of a country's system of tax administration. It covers tax administration functions, processes, and institutions.
- ⁹⁵ Interview with former Ghana Revenue Authority official, February 21, 2018.
- ⁹⁶ Lebanese Petroleum Administration, The Exploration and Production Agreement, 2017, <https://www.lpa.gov.lb/epa.php>
- ⁹⁷ Interview with Kenya Revenue Authority, April 25, 2018.
- ⁹⁸ Interview with Kenya Ministry of Petroleum and Mining, April 23, 2018.
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- ¹⁰⁰ Interview with Kenya Revenue Authority, April 25, 2018.
- ¹⁰¹ Interview with Petroleum Unit of the Ghana Revenue Authority, February 23, 2018. In this report, where references to the GRA's role relate to petroleum taxation specifically, it is the PU in particular that is primarily concerned.
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- ¹⁰⁸ Interview with PeruPetro, June 4, 2018.
- ¹⁰⁹ Interview with petroleum sector attorney in Ghana, March 1, 2018.
- ¹¹⁰ Orbis is a commercial transfer-pricing database that provides comparable data for a range of related-party transactions.
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- ¹¹⁴ Section 18.6 of Ghana's Model Petroleum Agreement (2000).
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are not recoverable.” Production Sharing Contract between Sonangol and Cie Angola Block 20, Sonangol PeP, BP Exploration Angola, and China Sonangol International Holding in the area of Block 20/11 (2012), p. 5. <https://www.resourcecontracts.org/contract/ocds-591adf-0014595575/view#/pdf>

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¹²⁰ H. David, “Tullow’s Sh150bn Exploration Bill Raises Queries on Costing Methods,” *Business Daily*, April 18, 2016, <https://www.businessdailyafrica.com/news/Tullow-s-Sh150bn-exploration-bill-raises-queries/539546-3164094-5itqe5/index.html>

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¹²⁴ Ghana’s government was expecting to receive \$350 million (Cedi 1.5 billion) in project and program grants from abroad. Ministry of Finance, *The 2018 Budget Statement and Economic Policy of the Government of Ghana* (Accra, 2018), Appendix 2B, www.mofep.gov.gh

¹²⁵ Oxfam America, *The Weak Link: The Role of Local Institutions in Accountable Natural Resource Management: Peru* (Washington, DC, 2016), p. 5, <https://www.oxfam.org/en/research/weak-link>

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¹²⁷ Ministerio de Economía y Finanzas, *Marco Macroeconomic Multianual 2017–19* (Lima, 2016), https://www.mef.gob.pe/contenidos/pol_econ/marco_macro/MMM_2017_2019_Revisado.pdf

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¹³⁰ Interview with expert on Peru’s oil and gas sector, June 1, 2018.

¹³¹ Interview with Kenya Oil and Gas Working Group, May 3, 2018.

¹³² P. Heller, P. Mahdavi, and J. Schreuder, *Reforming National Oil Companies: Nine Recommendations* (New York: National Resource Governance Institute, 2014), https://resourcegovernance.org/sites/default/files/documents/nrgi_9recs_eng_v3.pdf

¹³³ Interview with Ben Boakye, Africa Centre for Energy Policy, September 11, 2018.

¹³⁴ International Monetary Fund, *Guide on Resource Revenue Transparency* (Washington, DC: IMF, 2007) p. 52, <https://www.imf.org/en/Publications/Manuals-Guides/Issues/2016/12/31/Guide-on-Resource-Revenue-Transparency-2007-18349>

¹³⁵ For suggestions on how supreme audit institutions and EITI can bolster each other, refer to Dana Wilkins and Edna Osei-Appiah, “Four Ways Supreme Audit Institutions and EITI Can Bolster Each Other,” EITI blog, February 21, 2018, <https://eiti.org/blog/four-ways-supreme-audit-institutions-eiti-can-bolster-each-other>

¹³⁶ Interview with Kenya Civil Society Platform on Oil and Gas, 23 April 2018.

¹³⁷ According to Section 6(4) of the Model PSC of 2008, these signing bonuses are currently paid to the Ministry of Petroleum and Mining.

¹³⁸ Interview with Kenya Civil Society Platform on Oil and Gas, 23 April 2018.

¹³⁹ Oxfam America, *The Weak Link: The Role of Local Institutions in Accountable Natural Resource Management*:

Ghana (Washington, DC, 2016), p. 6, <https://www.oxfam.org/en/research/weak-link>

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¹⁴¹ A. Oppenheimer, "Odebrecht Scandal Brought Down Peru's President, But Hasn't Hurt Other Leaders," *Miami Herald*, March 21, 2018, <https://www.miamiherald.com/news/local/news-columns-blogs/andres-oppenheimer/article206303319.html>; Sputnik Mundo, "Perú Avanza en Cumplimiento de Requisitos para Ingresar a la OCDE," May 29, 2018, <https://mundo.sputniknews.com/americalatina/201805291079092960-organizacion-cooperacion-desarrollo-economico-lima-america-latina/>

¹⁴² Gestion, ¿Cree que el Gobierno logre cobrar los impuestos a las grandes empresas? June 6, 2018, <https://gestion.pe/opinion/cree-gobierno-logre-cobrar-impuestos-grandes-empresas-235318>

¹⁴³ Interview with Convoca, June 1, 2018.

¹⁴⁴ In 2011, a group of NGOs filed a complaint with the Swiss National Contact Point for the OECD Guidelines on Multinational Enterprises. OECD Watch, *Sherpa et al vs Glencore International AG*, April 12, 2011, https://www.oecdwatch.org/cases/Case_208

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¹⁴⁷ See, e.g., Oxfam, *Contract Disclosure Survey 2018* (Oxford: Oxfam, 2018), <https://www.oxfam.org/en/research/contract-disclosure-survey-2018>

¹⁴⁸ EITI (Extractive Industries Transparency Initiative), *The EITI Standard 2016* (Oslo, 2016), <https://eiti.org/document/standard>

¹⁴⁹ J. Calder, *Administering Fiscal Regimes for Extractive Industries*.

¹⁵⁰ For more information about the Oxfam's work around meaningful participation in natural resource decision-making, see Oxfam America, *Resource Rights*, <https://policy-practice.oxfamamerica.org/work/resource-rights/>.

¹⁵¹ This includes, among other things, the adverse climate change impacts; climate change impacts are also listed separately under Suggestions for Future Research, as analysis of climate contributions of the oil and gas sector is beyond the scope of the current study.



Photo: ExxonMobil's Heritage oil platform in the Pacific Ocean (Glenn Beltz).

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