



Upstream Oil, Gas and Mining State-Owned Enterprises

Governance Challenges and the Role of International Reporting Standards in Improving Performance

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Acronyms

ADB	Asian Development Bank
ADNOC	Abu Dhabi National Oil Company
AFDB	African Development Bank
BP	British Petroleum
CEO	Chief executive officer
CNOOC	China National Offshore Oil Corporation
DRC	Democratic Republic of the Congo
EITI	Extractive Industries Transparency Initiative
FTE	Fiscal Transparency Evaluation
GDP	Gross domestic product
GIFT	Global Initiative for Fiscal Transparency
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GNPC	Ghana National Petroleum Corporation
GRI	Global Reporting Initiative
IEA	International Energy Agency
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
INTOSAI	International Organisation of Supreme Audit Institutions
ISO	International Organization for Standardization
JOGMEC	Japan Oil, Gas and Metals National Corporation
MOGE	Myanmar Oil and Gas Enterprise
NMC	National mining company
NOC	National oil company
NOCAL	National Oil Company of Liberia
NORAD	Norwegian Agency for Development Cooperation
NRGI	Natural Resource Governance Institute
OECD	Organisation for Economic Co-operation and Development
ONGC	Oil and Natural Gas Corporation (India)
OTML	Ok Tedi Mining Limited
PDVSA	Petróleos de Venezuela
PEFA	Public Expenditure and Financial Accountability
PEMEX	Petróleos Mexicanos
PFM	Public financial management
ROSC	Report on the Observance of Standards and Codes
RGI	Resource Governance Index

SASB	Sustainability Accounting Standards Board
SDR	Special drawing rights
SOE	State-owned enterprise
USD	United States dollar
YPF	Yacimientos Petroliferos Fiscales (Argentina)

Executive Summary

State-owned enterprises (SOEs) can be described as business-oriented majority government-owned institutions that sell goods or services or manage state equity and keep their own balance sheets. More than 146 of these enterprises have been established in the upstream oil, gas or mineral sectors, with almost a third focused primarily on mining. They often play important, sometimes critical roles in exploiting natural resources and managing the extractive sector in their respective countries. While some are commercial or operational companies—selling crude oil or raw minerals, managing state equity or participating directly in extractive operations—others are regulatory or administrative entities or instruments of economic or state development.

Not only do mandates and operations vary significantly from SOE-to-SOE, but so does performance. SOEs can generate significant revenue for the state, enable a government to exercise greater control over the sector, help improve local technologies and skills, or address market failures. For instance, the presence of an SOE in the upstream oil sector is associated with higher government take. Some SOEs such as Abu Dhabi's ADNOC, China's Sinopec, Norway's Equinor, Saudi Arabia's Saudi Aramco and Thailand's PTT have arguably generated significant value for their primary shareholder, the state, and have made substantial economic contributions to their countries.

Yet financial and governance challenges are common among many others. Among OECD countries, oil, gas and mining enterprises had the highest rates of corruption and irregular practices among SOEs over the last three years. These sectors are likely to be characterized by natural monopolies, are particularly secretive and are engaged in high-value procurement projects, which makes them targets for rent seekers.

Each context is unique, however the problems of slow project development, high costs, low revenues, excessive liabilities and inefficient allocation of revenues between SOEs and other public entities have led to many billions of dollars in losses annually. These billions represent a lost opportunity to improve healthcare, education or infrastructure around the world. Mismanagement of SOEs also empowers and sometimes enriches officials and those with connections to the government at the expense of the average citizen.

Inadequate transparency and oversight is one cause of SOE mismanagement and large losses. The 2017 Resource Governance Index scores bear out a tendency towards opacity among SOEs. 58 percent of national oil companies and 72 percent of national mining companies measured in the index do not disclose enough quality, timely information about their activities and finances

to carry out proper external assessments. Furthermore, less than 60 percent of countries implementing the 2016 EITI Standard have achieved meaningful or satisfactory progress against the standard that requires disclosure of information on SOE roles, responsibilities, operations and finances.

International organizations have developed a collection of guidelines and standards to improve the transparency and governance of extractive companies, state-owned enterprises or public sector entities. There are significant commonalities among them, suggesting an international consensus on many elements of what constitutes good governance and what information ought to be disclosed. Among the most relevant documents are:

- General public sector performance guidelines or standards
 - *PEFA Framework* (World Bank 2016)
 - *Tax Administration Diagnostic Assessment Tool (TADAT)*
 - *The High-Level Principles on Fiscal Transparency, Participation and Accountability* (GIFT 2018)
- SOE- or extractive-specific governance or reporting guidelines
 - *Guidelines on Corporate Governance of State-Owned Enterprises* (OECD 2015) and *Accountability and Transparency: A Guide for State Ownership* (OECD 2010)
 - *Corporate Governance of State-Owned Enterprises: A Toolkit* (World Bank 2014)
 - *Guide to Extractive Sector State-Owned Enterprise Disclosures* (Natural Resource Governance Institute 2018)
 - *G4 Sustainability Reporting Guidelines, Oil and Gas Sector Disclosures and Metals and Mining Disclosures* (Global Reporting Initiative 2012 and 2013)
 - *How to Improve the Financial Oversight of Public Corporations* (IMF 2016)
 - *Report on the Good Governance of the National Petroleum Sector* (Chatham House 2007)
 - *10 Anti-Corruption Principles for State-Owned Enterprises* (Transparency International 2017)
- SOE- or extractive-specific governance or reporting standards
 - *The EITI Standard 2016* (EITI 2017)
 - *Fiscal Transparency Code and Handbook* (IMF 2014; 2018) and *Guide on Resource Revenue Transparency* (IMF 2014)
 - *International Financial Reporting Standards* (International Accounting Standards Board)
 - *Oil and Gas Exploration and Production Sustainability Accounting Standard* (Sustainability Accounting Standards Board 2014)

Each of these 14 documents covers a different set of topics relevant to SOE governance (see table below). Some are guidelines while others are standards. Some are SOE- or extractive-specific while others apply to all companies or all sectors. Technical support is available for help in implementing 10 of the 14 documents.

Table. Topics covered by a subset of guidelines and standards

Document	Context / legal framework	Mandate / objectives	Shareholdings	Corporate structure	Partnerships	Board / corporate governance	Commercial activities	Non-commercial activities	Contracts	Risk factors	Finances	Performance	Transfers to/from treasury	Social and env impacts
EITI	X	X	X	X	X	X	X	X	X		X		X	
PEFA							X	X		X	X	X		
GIFT	X	X			X	X	X	X	X		X	X	X	X
OECD	X	X	X	X	X	X				X	X	X	X	
World Bank	X	X	X	X	X	X	X	X		X	X	X	X	
NRGI	X	X	X	X	X	X	X	X	X		X	X	X	X
GRI	X		X	X	X	X	X	X		X	X		X	X
IMF Code	X			X	X		X	X		X	X	X	X	X

The World Bank Toolkit’s *Appendix E*, the NRGI Guidelines and GRI’s G4 Guidelines and sector specific guidance are perhaps the most useful for improving extractive SOE disclosures. Other documents are more relevant for improving SOE governance or performance beyond public reporting. To date, a definitive internationally-accepted extractive SOE disclosure standard has not been developed. The 2016 EITI Standard and NRGI’s Resource Governance Index methodology are the closest available tools.

Despite the existence of these guidelines and standards and their implementing mechanisms, public disclosures and SOE performance remain deficient. International initiatives rarely reflect on-the-ground realities and there is often weak in-country demand for reform. The EITI could play a leading role in improving SOE performance. Options include: advocating for improved extractive SOE disclosures by piggybacking on other global initiatives; establishing a new technical assistance facility; building on and expanding EITI implementation guidelines; helping to establish a new international forum or certification scheme; or endorsing a new standard for SOE transparency, either building on existing initiatives or starting from scratch. The EITI could also partner with other international organizations to leverage their networks and expertise.

The EITI Board and Secretariat could consider these options, with the aim of establishing or building on initiatives that lead to tangible improvements. Ideally, any initiative would work in partnership with SOE owners since they are the ones with the greatest interest in improving SOE performance.

Introduction

In October 2017, the EITI Secretariat presented its Board of Directors with a proposal to create a transparency certification for SOEs. According to the Board paper, “lessons learnt from the four years of implementation of the [2013 EITI Standard] shows that although financial transactions related to state-owned companies have become more transparent, there is still a considerable way to go in bringing openness to how SOEs operate, their ownership arrangements, and address other corruption risks associated with SOEs.”¹

Under the previous version of the standard, Requirement 3.6 compelled SOEs to disclose their fiscal relationship with the rest of the government, their quasi-fiscal activities and corporate structure and holdings. SOE disclosures related to this information was less than satisfactory in 9 of the 10 cases evaluated by the EITI Secretariat. Furthermore, SOEs were deemed less transparent than many publicly listed private companies.²

The Board welcomed the proposal but concluded that more research would be needed to determine whether a certification scheme should be established.³ In response, the EITI Secretariat commissioned this report on the principal governance risks associated with SOEs and to map existing governance and transparency guidelines and standards applicable to extractive SOEs.

The goal of the report is to help the Secretariat and the Board consider whether action is needed to improve SOE governance in the extractive sector; what options are available to improve SOE governance at the international level; and what role, if any, the EITI should play in this effort.

The report is organized as follows. First, we investigate the governance of extractive SOEs. SOEs are defined and their roles and responsibilities outlined. This is followed by a discussion of the benefits and strengths of SOEs, with emphasis on revenue generation, control over the sector, technology and skills development, and addressing market failures. We then discuss some of the root causes of mismanagement within some SOEs, including opacity and lack of accountability. Finally, we provide an in-depth examination of five major governance risks associated with SOEs: slow project development; high costs; low revenues; inefficient allocation of revenues between SOEs and other public entities; and financial liability to taxpayers.

Second, we discuss existing guidelines and standards relevant to SOE governance and transparency. To start we define ‘governance’ and ‘transparency’ in this context. We then provide summaries and analyses for 14 sets of documents.

¹ EITI (2017) *Opportunities for improving engagement with state-owned enterprises*. Board Paper 38-4-C, 25-26 October 2017.

² Ibid.

³ EITI (2017) 38th Board Meeting. Online: <https://eiti.org/document/38th-board-meeting>.

Third, we identify gaps in the standards. We conclude by examining the potential for improving SOE governance and disclosure through international initiatives and discuss the advantages and disadvantages of policy options for EITI and other bodies.

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Governance of oil, gas and mining SOEs

Definition of upstream oil, gas and mining state-owned enterprises

Each government defines state-owned enterprises in its own way. However, it may be useful to provide a definition for the purposes of this report for three reasons: First, a definition allows us to know *who* a given governance or reporting standard should apply to and who it should not apply to. From the point of view of oversight bodies, applying a single standard to entities with vastly different roles may not generate appropriate information for all entities. An entity's roles and responsibilities ought to determine the type of information that is disclosed publicly so that oversight bodies can measure its performance. For example, a regulatory agency ought to disclose its regulatory findings while a commercial oil and gas company ought to disclose, among other information, its corporate structure.

Second, a definition of SOEs allows us to better compare SOE performance. Poorly defining SOEs makes comparing performance more difficult and sometimes meaningless. For example, one SOE may be less profitable than another SOE, but if one is a regulatory agency and one is a productive unit, then comparing profitability would not tell us much about the performance of either entity.⁴

Third, clarifying a definition will make this report more valuable. If readers are not on the same page about the topic we are discussing, then we could get sidetracked easily by discussing whether or not a standard is applicable to a given entity.

There are two types of definitions in the literature, legalistic and task-based. The EITI uses a legalistic definition: "For the purpose of EITI reporting, a SOE is a wholly or majority government-owned company that is engaged in extractive activities on behalf of the government."⁵ Similarly, the OECD defines SOEs as enterprises where the state has significant control through full, majority, or significant ownership, either by the state being the beneficial owner of the majority of voting shares or otherwise exercising an equivalent degree of control.

At the national level, many countries use such legalistic approaches. For example, in Myanmar, state-owned economic enterprises are designated as such by the cabinet, regardless of their mandate or activities. In some other countries, SOEs are public entities that are subject to the Companies Law or are officially corporatized.

The challenge with such definitions is that they are dependent on a state's definition of "enterprise". Should a state declare a regulatory agency or tax collector an enterprise, as is the case in Myanmar, then it would be held to the same international governance or reporting standards as an oil or mineral producer. Since the OECD recommends establishing independent

⁴ Comparing the profitability of two commercial entities may also be meaningless if one engages in only, say, upstream activities while the other is a vertically integrated company. However, comparing regulatory agency profitability to commercial entity profitability is *always* meaningless.

⁵ EITI (2014) *Guidance on state-owned enterprises*. Online: <https://eiti.org/guide/SOE#when-to-consider-soes>

boards for SOEs, this would imply that some tax collecting agencies should have independent boards, which may not improve governance or be aligned with international good practice.

Tasked-based definitions, on the other hand, focus on the mandates, objectives, and activities of entities rather than legal standing. Often, they define SOEs as commercial or operational entities with a profit-focus, rather than policy committees, regulatory agencies, tax collectors or public service delivery mechanisms.

The International Public Sector Accounting Standards Board (IPSASB) defines a Government Business Enterprise as an entity with several characteristics, including the power to contract in its own name; the financial and operational authority to carry on a business; selling goods and services at profit or full cost recovery; not reliant on government funding to be a going concern; and is controlled by a public sector entity.

Similarly, the IMF's Government Financial Statistics manual defines public corporations as those that are responsible and accountable for their decisions by law, keep their own accounts, and are capable of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities.⁶

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership trade agreement, signed by 11 countries, defines an SOE as: (1) a supplier of goods or services for profit, where the enterprise can determine prices on its own; (2) majority owned or controlled by a government; and (3) annual revenue derived from commercial activities greater than 200 million SDRs (approximately USD 280 million). This definition excludes regulatory bodies or public service enterprises tasked with producing goods at cost, even if carrying out commercial activities.⁷

The European Union uses a mixed definition: Public enterprises are entities owned or controlled by public authorities *and* are engaged in economic activity, regardless of legal status or the way they are financed.⁸

At the national level, South Korea uses both a legalistic and task-based approach. SOEs are public entities established by law, receive more than half their revenue from government assistance and the government is majority owner or has control over the company. They also employ 50 or more people and generate at least 50 percent of their total revenues from sales of goods and services.⁹

While task-based definitions better serve the purposes of standard setting bodies, in practice they are more difficult to apply than legalistic definitions. Many SOEs do not disclose their

⁶ IPSASB (2014) *The Applicability of IPSASs to Government Business Enterprises and Other Public Sector Entities*. Online: <https://www.ifac.org/system/files/publications/files/IPSASB-GBE-Consultation-Paper.pdf>

⁷ Minwoo Kim (2017) "Regulating the Visible Hands: Development of Rules on State-Owned Enterprises in Trade Agreements" *Harvard International Law Journal*. Vol. 58, No. 1. Online: http://www.harvardilj.org/wp-content/uploads/HLI105_crop.pdf

⁸ World Bank (2014) *Corporate Governance of State-Owned Enterprises: A Toolkit*. Washington DC: World Bank.

⁹ World Bank (2014) *Corporate Governance of State-Owned Enterprises: A Toolkit*. Washington DC: World Bank.

activities, making it difficult to distinguish true SOEs from entities designated as SOEs but which have no commercial or operational undertakings. Furthermore, some national oil companies in small or emerging oil producers have been established as commercial and operational entities, though they do not operate presently, such as Senegal’s Petrosen. A task-based definition would omit such an SOE, though it may behave as an SOE in the future.

Based on this survey of SOE definitions, the EITI may wish to consider clarifying the definition of upstream SOEs as entities that: (1) *are majority owned or controlled by a government*; (2) *are tasked with: producing crude oil, natural gas or minerals for sale; selling crude oil, natural gas or raw minerals; or managing state equity in upstream extractive activities*; and (3) *keep their own balance sheet*. This list does not exclude entities that have regulatory, developmental or quasi-fiscal roles in addition to those listed in the definition. The Annex provides a partial list of SOEs with upstream oil, gas or mining responsibilities that fit this definition.

This report recognizes that many state-owned oil, gas and mining companies have been given multiple, and sometimes conflicting, mandates, an issue we will discuss below. However, for the purposes of this report, we will maintain the EITI definition.

Roles and responsibilities of SOEs

National oil companies (NOCs) and national mining companies (NMCs) play important, sometimes critical, roles in exploiting natural resources and managing the extractive sector in their respective countries. They can be tasked with any or all of the following mandates:

- **Commercial:** The company may sell the government’s share of crude oil or raw minerals and/or manage the state’s equity participation stake.
- **Operational:** The company may participate directly in petroleum or mining sector operations, for example by drilling, managing a mine or supplying extractive projects.¹⁰
- **Regulatory:** The company may allocate oil, gas or mining contracts and licenses on behalf of the government; monitor compliance; or enforce legislated and contractual terms.
- **Administrative:** The company may collect taxes, royalties and fees on behalf of the state and administer records such as the cadastre and licenses.
- **Development:** The company may be mandated to train nationals in petroleum or mining sector skills, build infrastructure, contribute to economic development in producing areas, or engage in policymaking such as legislative drafting.

While some national oil companies have been allocated several of these mandates simultaneously—such as Algeria’s Sonatrach, Angola’s Sonangol, the National Iranian Oil

¹⁰ An “operational” SOE may not necessarily be the field or mine “operator”, meaning the lead partner on a particular project. An SOE may participate directly without being an operator, yet still be “operational”.

Company and Myanmar's MOGE—others have split their regulatory and operational roles in order to avoid a conflict of interest. Some, such as Norway's Equinor, India's ONGC and Argentina's Yacimientos Petroliferos Fiscales (YPF), are purely commercial or operational entities.

SOEs also often collect and manage petroleum revenues on behalf of the state. Angola, Chile, Mongolia and Saudi Arabia are just some countries that are dependent on their NOCs or NMCs to finance their fiscal expenditures.

Those SOEs that have been assigned regulatory responsibilities allow them to exert considerable influence on economic composition and growth. They also have disproportionate influence on national political economies. SOE managers are often the ones to dispense exploration, production and supplier contracts or licenses. Frequently these contracts call for the exchange of huge sums of money, providing managers with considerable political and economic powers. As such, SOEs help determine who has access to resources and who does not in a given country, strengthening and legitimizing economic elites and networks.

SOEs are equally important outside their borders since they control much of the world's energy and mineral supplies. In 2017, 15 of the world's 25 biggest upstream oil and gas companies by gross revenue were state-owned, including the top 2, both Chinese.¹¹ And several of the world's largest mineral producers by market capitalization are state-owned, including Brazil's Vale, China's Shenhua Energy, Coal India and Saudi Arabia's Ma'aden.¹² In fact, several SOEs' upstream arms operate largely outside their borders, such as Vale and Japan's JOGMEC.

Strengths and benefits of SOEs

Regulating and administering the natural resource sector will always be a government responsibility. Whether these roles will be carried out by a ministry, regulatory agency or SOE is an administrative rather than economic policy matter. Commercial and operational roles, on the other hand, could be played by the public sector, private sector or a mixture of the two. But which generates the greatest net benefit for a country: relying on the private sector to produce the nation's resources while regulating and taxing companies appropriately, or involving an SOE?

There are several rationales for establishing an upstream oil, gas or mining SOE. First, the presence of an SOE may, in certain contexts, generate more revenue for the government than would be the case without an SOE. In fact, there is a positive correlation between presence of an

¹¹ Fortune (2018) *Global 500*. Online : <http://fortune.com/global500/list/filtered?sector=Energy>. The list includes Sinopec, CNPC, Gazprom, Petrobras, China National Offshore Oil, ENI, PEMEX, Rosneft, Indian Oil, Equinor, PTT, Petronas, ONGC, Pertamina and Shaanxi Yanchang Petroleum.

¹² Erik Els (2017) "Top 50 biggest mining companies" *Mining.com*. Online: <http://www.mining.com/top-50-biggest-mining-companies/>

SOE and 'government take' in oil and gas projects. The average effective tax rate is among the lowest in countries without an oil or gas SOE, including Australia, Canada, Israel, Mongolia, New Zealand, South Africa, the United Kingdom and the United States. It is among the highest in countries with an SOE, including Angola, Indonesia, Iran, Libya, Malaysia, the United Arab Emirates and Venezuela.¹³ While this evidence alone does not demonstrate that SOEs generate more fiscal revenue or negotiate better contracts, it does suggest that, on average, they can indeed facilitate better deals. SOEs in many countries are islands of expertise and experience in extractive activities and have been given a mandate to negotiate contracts. Iraq's South Oil Company and the Libyan National Oil Corporation are among those that have negotiated beneficial contracts on behalf of their governments.

Second, planning extractive developments through an SOE can enable a government to exercise greater control over the sector.¹⁴ For example, NOCs in Algeria, Malaysia and Saudi Arabia have each decelerated oil production at certain times to maximize revenue, save some resource production for future generations or mitigate 'resource curse' effects.¹⁵

Third, an SOE can speed technological improvements and develop expertise not just in the extractive sector but also in skills that are transferable to other sectors. While private companies may be more efficient operators in the initial stages of extractive sector development, SOEs can be used to build domestic knowledge and experience. Angola, Brazil and Malaysia have each used their NOCs to become incubators of sector expertise and have contributed to small and medium sized business development through local procurement.¹⁶ After years of participating directly in extractive activities, SOEs like China's Sinopec, Norway's Equinor, PTT Thailand and Saudi Aramco now demonstrate a degree of technical capacity on par with some of the world's top private operators.¹⁷

¹³ Daniel Johnston (2004) "Higher Prices Lower Government Take?" *Petroleum Accounting and Financial Management Journal*. Vol. 23, No. 3. Online: http://www.danieljohnston.com/pdf/higher_prices_lower_government_take.pdf; IMF (2014) *Israel: Technical Assistance Report – Reviewing the Fiscal Regime for Mining*. IMF Country Report No. 14/125. Online: <https://www.imf.org/external/pubs/ft/scr/2014/cr14125.pdf>

¹⁴ Patrick Heller (2017) *Doubling Down: National oil companies as instruments of risk and reward*. WIDER Working Paper 2017/81.

¹⁵ Thahirah Syed Jalal and Pat Bodger (2009) "National Energy Policies and Electricity Sector in Malaysia" *Proceedings of ICEE 2009 International Conference on Energy and Environment*. Online: https://ir.canterbury.ac.nz/bitstream/handle/10092/4162/12621660_C81.pdf?sequence=1; Paul Stevens (2008) *The Coming Oil Supply Crunch*. Chatham House. Online: https://www.commddev.org/userfiles/files/2191_file_0808oilcrunch.pdf.

¹⁶ Patrick Heller (2017) *Doubling Down: National oil companies as instruments of risk and reward*. WIDER Working Paper 2017/81.

¹⁷ Stacy L. Eller et al. (2007) *Empirical Evidence on the Operational Efficiency of National Oil Companies*. Rice University. Online: http://large.stanford.edu/publications/coal/references/baker/studies/noc/docs/NOC_Empirical.pdf

Fourth, SOEs can help address market failures. For instance, private companies are sometimes hesitant to invest in a country due to political risk or uncertainty about the commercial viability of a project. In these circumstances, SOEs such as Madagascar's Kraoma and Papua New Guinea's Ok Tedi Mining have stepped in to fill gaps left by the private sector.

Fifth, some scholars have highlighted more amorphous national security and honour rationales for establishing an SOE. NOCs in particular have been viewed as "easier to tame" than foreign companies. Perhaps more importantly, they can become conduits of national pride and a tool for marshaling popular support.¹⁸

As we have seen, SOEs can generate revenue for the state, enable a government to exercise greater control over the sector, help improve local technologies and skills, and address market failures. However, just as SOEs can improve the lives of their countries citizens, they can also become a drain on public resources and sources of patronage and corruption. The next section discusses some of these risks and their underlying causes.

SOE challenges: Some root causes

Many SOEs face challenges, from weak financial performance to inefficient project development to misallocation of resources, as described in detail below. The global experience suggests several underlying causes of mismanagement when it occurs. The first is a lack of appropriate rules—whether legislated or regulated—governing SOE activities. These rules can cover anything from SOE mandate to financing to transparency and disclosure, procurement, oversight, conflict of interest, management incentives, or purchase and sale of assets. While in some cases existing rules were not followed, in most the right rules simply did not exist. For example, neither China nor Myanmar nor Vietnam's state-owned enterprise legislation requires publication of audited financial data by their SOEs. Clearly, there is much room for improving legal and regulatory frameworks.

Second, in many cases there is a lack of robust surveillance, risk management and enforcement. Both the Chinese Guangxi Nonferrous Metals Group and New Zealand Solid Energy cases mentioned in the next section are good examples of this. In both cases, adequate oversight could have prevented mismanagement and bankruptcy.

Third, and perhaps most relevant to this report, many monitoring and enforcement institutions are not able to assess risks or act on malfeasance since they do not have access to timely, accurate and relevant information. When oversight bodies do receive the required information, they often act. For instance, parliament restricted GNPC's spending on quasi-fiscal projects once it had adequate access to the facts. Similarly, the Indonesian government acted on a PwC audit

¹⁸ David G. Victor et al. (2012) "Introduction and overview" in *Oil and Governance: State-owned Enterprises and the World Energy Supply* (eds. David G. Victor, David R. Hults and Mark Thurber). Cambridge University Press.

of Pertamina's contracts that showed bloated costs, albeit after President Suharto had given up power. (See below for both case studies.)

Transparency is a serious problem among many SOEs. Few SOEs scored satisfactorily on transparency indicators in the 2017 Resource Governance Index (see Figure 2 for NMC transparency scores and Figure 3 for NOC transparency scores). Mining SOEs are less transparent on average than oil and gas enterprises.¹⁹

Among the EITI candidate countries assessed against the 2016 Standard and that have SOEs, 17 out of 29 have achieved meaningful or satisfactory progress against standard 2.6 that requires disclosure of information on SOE roles, responsibilities, operations and finances. Only 3 out of 17 countries whose SOEs engage in quasi-fiscal spending provided meaningful or satisfactory information on these expenditures.²⁰

While public disclosures cannot address the lack of appropriate rules governing SOEs, they can support oversight bodies in their tasks. Parliamentarians, supreme audit institutions, independent external auditors, the media and civil society can all benefit from the information provided in public reports. They can also help boards and senior management better understand their own organizations so as to improve performance. Furthermore, as several studies have shown, public disclosure by itself reduces incidences of mismanagement and corruption since staff are less likely to break the rules when they are aware they are being watched.²¹

Of course, in some countries the highest authorities in government have been complicit in mismanagement or corruption. In these cases, it is unlikely they would have allowed disclosures under any initiative. Alternatively, disclosures might not have made a difference. Some interviewees therefore suggested that a culture of impunity or lack of public sector integrity is an underlying cause of SOE mismanagement.

There is no doubt that such corporate culture exists at some SOEs, particularly in the extractive sector. An OECD survey of 347 high-level SOE officials and board members found that the oil, gas and mining enterprises had the highest rates of corruption and irregular practices among SOEs over the last three years. 50 percent of respondents from mining SOEs stated that corruption and related irregular practices had occurred in their company over the last three years; 60 percent of respondents from oil and gas SOEs said the same. These sectors are likely to have natural monopolies, are particularly secretive and are engaged in high-value public procurement

¹⁹ NRG (2017) *Resource Governance Index*. Online: <http://resourcegovernanceindex.org/>.

²⁰ EITI (2018) *EITI Global Validation Results on SOE Requirements*.

²¹ John Gaventa and Rosemary McGee (2013) "The Impact of Transparency and Accountability Initiatives" *Development Policy Review*. 31 (S1). Online: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/dpr.12017>.

projects, even among non-state-owned companies.²² Yet the case study evidence also seems to suggest that in the majority of cases such a culture develops as a teleological adaptation to other underlying causes: A lack of appropriate rules governing SOE behaviour, unsuitable board and management incentives or inadequate oversight and transparency.

Figure 2. Mining SOE transparency scores (Source: 2017 Resource Governance Index)

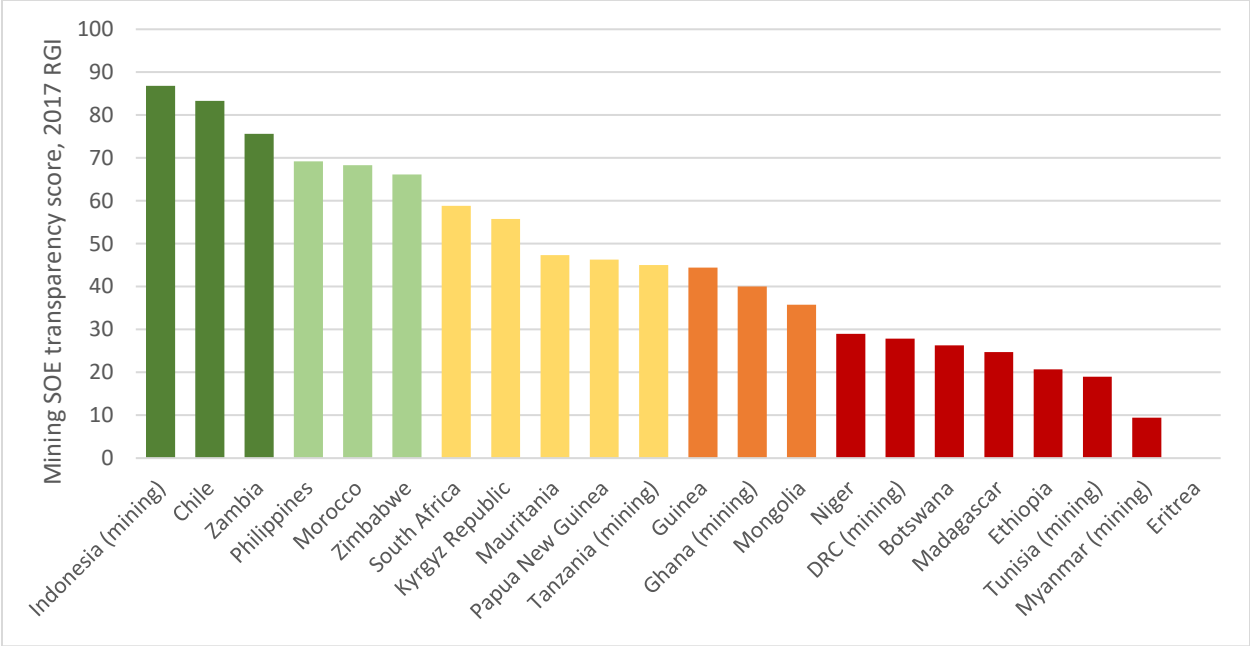
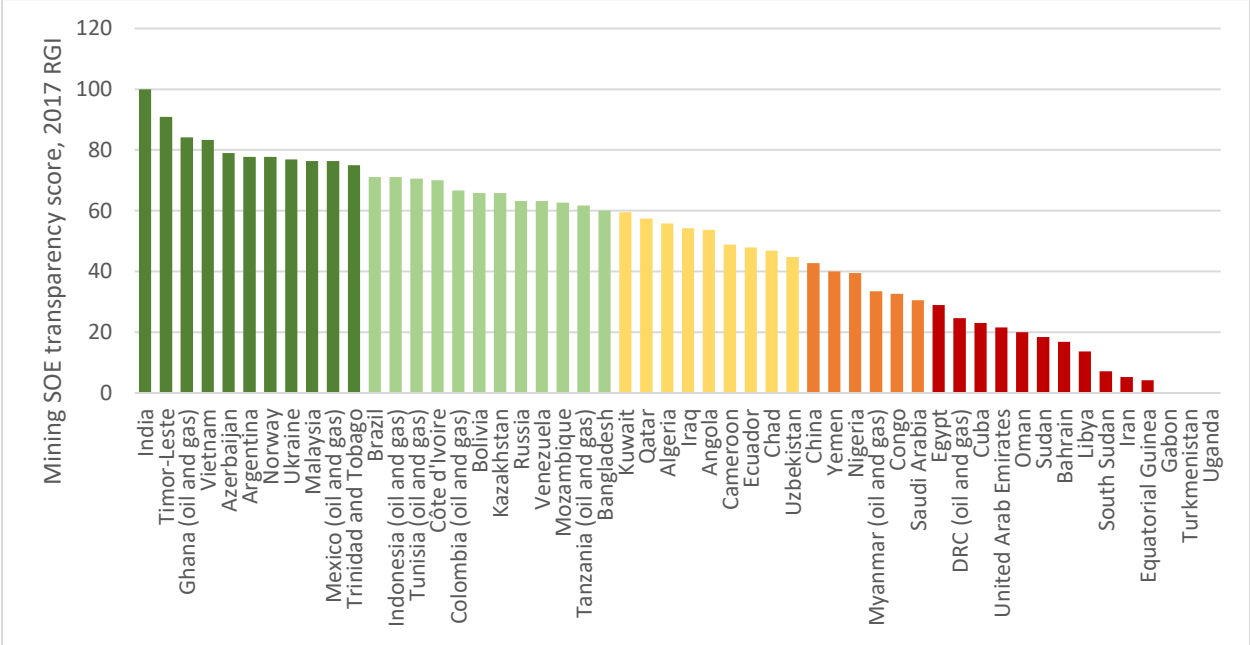


Figure 3. Oil and gas SOE transparency scores (Source: 2017 Resource Governance Index)



²² OECD (2017) Preventing Corruption and Promoting Integrity in State-Owned Enterprises: Highlights.

Governance challenges associated with SOEs

At their best, extractive SOEs are generators of public revenue, stewards of a nation's non-renewable natural resources, islands of sector expertise and professionalism, and efficient administrators and industry developers. According to some observers, Abu Dhabi's ADNOC, Norway's Equinor, Saudi Arabia's Saudi Aramco and Thailand's PTT are examples of SOEs adding value.²³

However, SOEs can also operate inefficiently, draining value from a country's finite resources. Several studies have shown that extractive SOEs generate weaker financial returns than equivalent private sector entities.²⁴ Among the world's 50 largest oil companies, India's ONGC, Mexico's PEMEX and Russia's Gazprom operate less efficiently than international oil companies like Chevron, Exxon Mobil and BP as measured by revenue per barrel and net revenues to assets ratios.²⁵

They are also particularly vulnerable to corruption and patronage for several reasons. NOCs and NMCs are often some of the largest public sector entities in a country and therefore attractive targets for corrupt officials and opportunistic businesspeople. SOEs are also often governed by politicians, government officials or politically-appointed persons, and therefore accessible to public officials. Finally, SOEs whose shares are not listed on a stock exchange with robust listing requirements are often less transparent than publicly-traded private sector entities or government ministries since they are often not subject to securities nor budgetary disclosures.

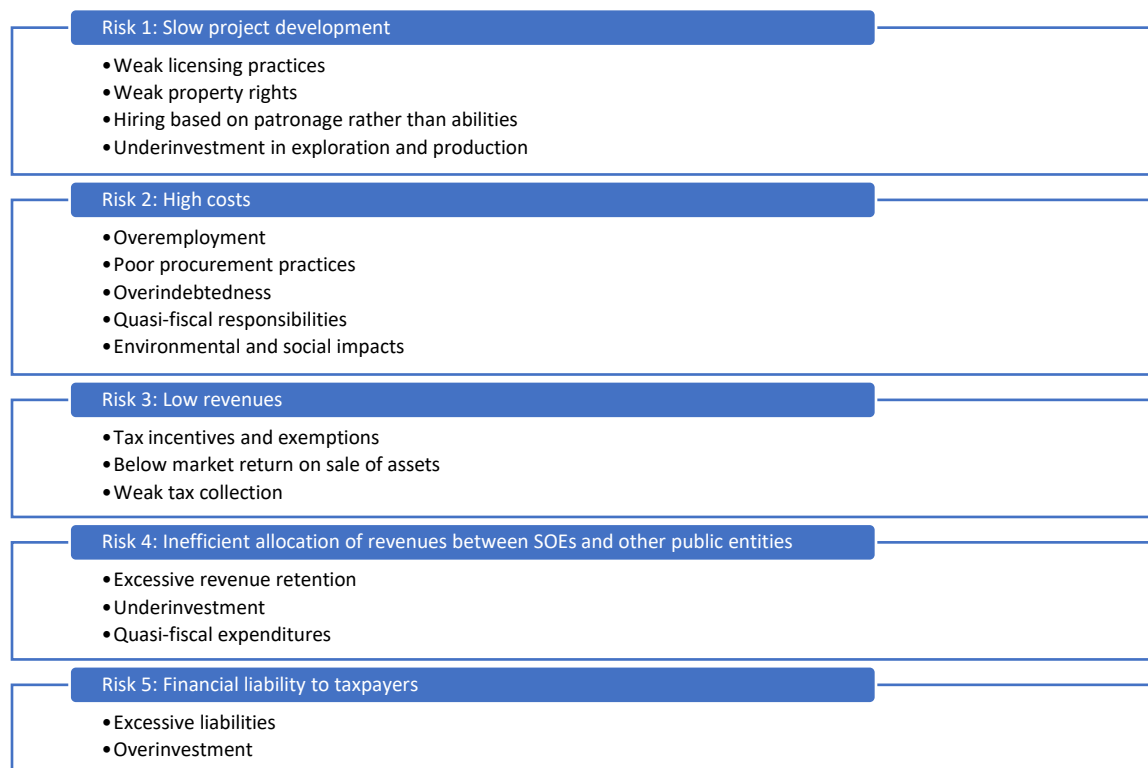
Governments face five types of risks in their attempts to maximize value from their SOEs as described in Figure 4. Each of these types is described in detail below. Corruption, patronage and corporate governance challenges are cross-cutting themes. They are listed among underlying causes of lost value rather than as risks themselves. Other underlying causes include inappropriate or inadequate rules governing SOE activities, inadequate oversight and inadequate transparency.

²³ David G. Victor et al. (eds.) (2012) *Oil and Governance: State-owned Enterprises and the World Energy Supply*. New York: Cambridge University Press; Patrick Heller (2017) *Doubling Down: National oil companies as instruments of risk and reward*. WIDER Working Paper 2017/81.

²⁴ Anthony Boardman and Aidan Vining (1989) "Ownership and Performance in Competitive Environments: A Comparison of the Performance of Private, Mixed and State-Owned Enterprises" *Journal of Law & Economics*, 32(1): 1–33; William Megginson and Jeffrey Netter (2001) "From State to Market: A Survey of Empirical Studies on Privatization" *Journal of Finance*, 49(2): 403–52.; Mary Shirley and Patrick Walsh (2000) *Public vs. Private Ownership: The Current State of the Debate*. Washington DC: World Bank.

²⁵ Nadeja Makarova Victor (2007) *On Measuring the Performance of National Oil Companies (NOCs)*, Stanford University Program on Energy and Sustainable Development, Working Paper #64. Online: http://iis-db.stanford.edu/pubs/21984/WP64%2C%20Nadja_Victor%2C%20NOC_Statistics_20070926.pdf.

Figure 4: Five major risks posed by SOEs and their direct causes



Slow project development

Governments have reasons to either speed up or slow down exploration and exploitation of natural resources. They may wish to increase production when prices are high to maximize value. They may wish to speed production in order to generate revenues today that are necessary for immediate public service or infrastructure spending, regardless of prices. Or they may wish to extend production over a longer period than the private sector would choose alone. In some cases, this would be so that future generations benefit as much as present generations. In others', as in Algeria in 2006, slowing production is a means of addressing the 'resource curse'.²⁶

Each of these is a government choice dictated by domestic priorities and politics. Operational SOEs can be useful in achieving any of these objectives since they can speed up or slow down production based on national or commercial imperatives. However, when an SOE is poorly managed or inefficient, projects can be unintentionally blocked or delayed, or suboptimal projects can be prioritized, costing the government significant time and money.

²⁶ Paul Stevens (2008) *The Coming Oil Supply Crunch*. Chatham House. Online: https://www.commddev.org/userfiles/files/2191_file_0808oilcrunch.pdf.

Slow project development can be caused by problems associated with licensing, property rights, hiring, or net contribution rules. Licensing oil fields or mines to inexperienced, underfinanced or technically incapable companies can hamper exploration or project development, reduce volumes exploited or, in extreme cases, contribute to social conflict and environmental damage. The reasons for deficient licensing can range from inadequate licensing rules and procedures to corruption in the licensing process. In most countries, licensing is carried out by ministries of petroleum, mining, or natural resources or by regulatory agencies. But in some, SOEs are the licensers.

The Liberian national oil company NOCAL's decision award an oil block, Block 13, to Broadway Consolidated PLC / Peppercoast Petroleum PLC (BCP) is a case in point. In June 2005, NOCAL signed a contract with BCP to explore for oil despite the company not having a "specific track record of petroleum agreements" and possessing no capital other than "firm commitments from investors". The contract was ratified by parliament in 2007. Since BCP was not capable of exploring the block due to technical inexperience and lack of funds, it was subsequently sold to Canadian Overseas Petroleum Ltd. (COP) and Exxon in 2013.²⁷ Licensing of Block 13 to BCP delayed exploration by at least six years. This delay could have cost the government millions if not billions of dollars since oil prices were higher in the 2000s than they are today. However, COP and Exxon have since relinquished the block due to lack of commercial discoveries.

Weak property rights or fear of nationalization can also slow project development by deterring private sector investment. In Venezuela, some oil companies have held back investments fearing withdrawal of their licenses in favour of state-owned PDVSA.²⁸ This is in response to a series of nationalizations over the last decade, including dissolution of two joint ventures between PDVSA and ConocoPhillips in 2007 and the nationalization of Las Cristinas, a gold reserve owned by Canadian company Crystallex, in 2011.²⁹

Hiring or procurement based on loyalty, patronage or connections rather than professional competence can also slow or block projects. Managers at Mongolia's Erdenes Mongol, for example, are generally required by policy to procure supplies from those companies linked to the

²⁷ Global Witness (2018) *Catch Me if You Can: Exxon's complicity in Liberian oil sector corruption and how its Washington lobbyists fight to keep oil deals secret*. Online: <https://www.globalwitness.org/en/campaigns/oil-gas-and-mining/catch-me-if-you-can-exxon-complicit-corrupt-liberian-oil-sector/>.

²⁸ Patrick Heller (2017) *Doubling Down: National oil companies as instruments of risk and reward*. WIDER Working Paper 2017/81.

²⁹ Marianna Parraga (2018) "PDVSA ordered to pay Conoco \$2 billion after Venezuela oil nationalization: arbitration" *Reuters*. Online: <https://www.reuters.com/article/us-venezuela-conocophillips/pdvs-a-ordered-to-pay-conoco-2-billion-after-venezuela-oil-nationalization-arbitration-idUSKBN1HW2NV>; Gideon Long (2018) "US judge allows Crystallex to seize Venezuela's Citgo" *Financial Times*. Online: <https://www.ft.com/content/70189b76-9c43-11e8-9702-5946bae86e6d>.

current government. Moreover, managers and even technical staff are usually replaced after a change in government. This turnover in contractors and managers hinders the development of networks and supply chains, and impedes institutional learning.³⁰

India's ONGC has faced similar problems. Following a period of excellent performance in the 1970s and early 1980s, ONGC's reserves began to dwindle in the 1990s and 2000s. In some cases, exploration contracts were handed to companies without the technical or financial capacity to deliver, leading to significant project delays. In a separate instance, grossly inadequate technical planning of the Neelam fields led to a production peak, years before it was predicted. An audit report found that despite the availability of 3D data, ONGC has used old 2D seismic data to prepare the field development program. These exploration and production challenges have their roots in weak contracting systems, poor planning and lack of performance-based incentives for managers, which in turn has led to rent-seeking behaviour.³¹

Finally, some SOEs are used by their governments as proverbial "cash cows". While the ultimate goal of an SOE is to generate value for a government and an economy, transferring too much revenue from the SOE to the treasury can drain much needed capital from the company and hamper its ability to discharge mandated tasks. For example, for years Mexico's PEMEX transferred all net revenues to the federal treasury. As a result, it was not able to adequately reinvest in its core activities, namely exploration and production.³² Mexico's oil output has declined annually since 2005. However, Mexico's recent energy reform is expected to change the way PEMEX is managed going forward.

High costs

Given their widely differing mandates, SOEs have varying spending needs. In general, purely regulatory bodies, for example, require less capital than operational entities. The stage of resource development also impacts an SOE's spending requirements. For a commercial or operational entity, day-to-day operating costs represent the bulk of expenses in the stage before a commercial discovery is made. Once discoveries are made, costs can increase substantially as SOEs might have to pay their share of capital costs.

³⁰ Interview with former Erdenes Mongol executive and Mongolian politician.

³¹ Varun Rai (2012) "Fading star: explaining the evolution of India's ONGC" in *Oil and Governance: State-owned Enterprises and the World Energy Supply* (eds. David G. Victor, David R. Hults and Mark Thurber). New York: Cambridge University Press.

³² Robert Campbell (2010) "Mexico oil, gas exploration results improve in 2009" *Reuters*. Online: <https://www.reuters.com/article/mexico-oil-exploration-idAFN039206920100303>

Their staff costs can also grow as employees are given overseas scholarships to study oil, gas or mineral engineering, geology, and other technical subjects such as accounting, and staff numbers are increased. A typical operator producing 100,000 barrels per day requires about 100 staff. 14 years after it began commercial production, Norway's Equinor had more than 8,000 staff.³³

From 2010 to 2015, NOCAL expanded its staff from 37 to 162 despite acting mainly as a regulator and not as a commercial entity over that period. In response, the Board of Directors demanded a reduction in the company's workforce. Only 43 staff were retained.³⁴

In extreme cases, the cost of overemployment can become a major burden. PetroChina provides a striking example. In 2015, Exxon and PetroChina's operations were relatively similar and they both reported approximately USD 260 billion in operating revenue. Yet PetroChina employed more than 500,000 people compared to fewer than 75,000 at Exxon. Similar to SOEs in some other socialist or formerly socialist countries, heavy employment by PetroChina has been viewed as a way to deliver stable, well-paying jobs. In response to lower oil prices leading to layoffs at private oil companies, Chinese President Xi Jinping was clear that "today's economic restructuring cannot come at the cost of workers' well-being; we must guarantee the incomes and treatment of the front-line employees."³⁵

One study found that government-owned oil companies suffer more from over-hiring than private sector oil companies. Based on the study's 2004 data, China's PetroChina and Sinopec, Croatia's INA, Iran's NIOC, Russia's Gazprom and Rosneft and Turkey's TPAO represented some of the most severe cases of overemployment. China's CNOOC, Saudi Aramco and Thailand's PTT were among the most streamlined NOCs in terms of employment.³⁶

While some overemployment may be justified on the basis of training workers in the natural resource sector or protecting jobs and incomes from short-run commodity price volatility, overemployment at SOEs represents an implicit policy choice to engage people in the petroleum or mining sectors rather than other sectors, such as healthcare or education. Furthermore, whereas private sector company shareholders suffer in the case of their inefficiency, it is the general public that suffers the most as a result of SOE inefficiency.

³³ Valerie Marcel (2016) *The Cost of an Emerging National Oil Company*. Research Paper. Chatham House.

³⁴ Ibid.

³⁵ Brian Spegele (2016) "Where Oil Workers Have Job Security: China" *Wall Street Journal*. 29 March 2016. Online: <https://www.wsj.com/articles/where-oil-workers-have-job-security-china-1459267426>

³⁶ Stacy Eller et al. (2007) *National Oil Company Efficiency: Theory and Evidence*. Rice University Presentation. Online: <https://www.bakerinstitute.org/media/files/event/241c0596/Dubai-Hartley-Empirical.pdf>

Capital costs are generally much larger than labour costs. However, while we have data on revenue per employee, finding indicators to measure the efficiency of capital spending is more complicated. For instance, it can be difficult to differentiate between legitimate and illegitimate costs and between expenditure items that represent value-for-money versus those that do not. Still, we can point to some well documented cases of spending that was not needed to fulfill SOE mandates or of SOEs paying too much for a given good or service. These costs can add up. After all, each dollar wasted by an SOE means either one less dollar is reinvested by the SOE or one less dollar is transferred to the treasury to be spent on public services and infrastructure.

Brazil's Petrobras is an example of an SOE that overspent on capital goods over many years. From 2004 to 2012, a cartel of companies and employees systematically inflated the prices of construction projects such as a refinery and oil rigs. Petrobras has estimated that these cartels cost the company approximately USD 2 billion.³⁷

Analogously, a PwC audit found that Indonesia's Pertamina lost about USD 6.1 billion between April 1996 and March 1998 due to "embezzlement, illegal commissions, price mark-ups on procurement contracts, gross inefficiency and incompetence." For example, Pertamina had signed a 10-year lease for an oil tanker from PT Dwiputra, a joint venture between a Japanese company and one of former President Suharto's sons. Pertamina was charged 36-40 percent more than the market rate.³⁸ The enterprise subsequently cancelled or retendered more than 150 contracts.³⁹

Open public tenders can help SOEs reduce costs and are therefore standard practice at some of the world's most profitable SOEs. Mexico's PEMEX, for example, requires open public tender of supplies with certain exceptions. Unfortunately, these exceptions have been used frequently to circumvent tender procedures. In 2015, exceptions were granted in 77 percent of supplier contracts representing 78 percent of the total value of contracts.⁴⁰

³⁷ Fernanda Odilla de Figueredo (2016) *Inside the Car Wash: The Narrative of a Corruption Scandal in Brazil*. King's College London Working Paper. Online:

https://www.psa.ac.uk/sites/default/files/conference/papers/2016/Car%20Wash%20PSA%20final1_0.pdf; Nicolas

Torres (2015) "Petrobras: Graft scandal expenses reach \$2 billion" *Petro Global News*. Online:

<http://www.fcpablog.com/blog/2015/4/27/petrobras-graft-scandal-expenses-reach-2-billion.html>; Nicolas Torres

(2015) "Petrobras sues five contractors to recover \$424 million corruption losses" *Petro Global News*. Online:

<http://www.fcpablog.com/blog/2015/5/15/petrobras-sues-five-contractors-to-recover-424-million-corr.html>

³⁸ Leslie Chua (1999) "Corruption cost Pertamina \$6.1 billion in 2 yrs" *ICIS News*. Online:

<https://www.icis.com/resources/news/1999/07/12/83568/corruption-cost-pertamina-6-1bn-in-2-yrs/>

³⁹ Donald I. Hertzmark (2007) *Pertamina: Indonesia's State-Owned Oil Company*. Rice University. Online:

https://www.bakerinstitute.org/media/files/page/9d12f310/noc_pertamina_hertzmark.pdf

⁴⁰ OECD (2016) *A review of the procurement rules and practices of PEMEX in Mexico*. Online:

<http://www.oecd.org/daf/competition/OECD-PEMEX-review-2016.pdf>.

Debt issuances by SOEs can also engender unwarranted costs. In one example, the Myanmar Oil and Gas Enterprise (MOGE) borrowed approximately USD 2 billion in foreign denominations from Chinese state-owned banks at 4.5 percent annual interest over 15 years. This was far above the 1.75 percent interest over 25 years the company paid the Indian government or the concessional 0.01 percent loan over 40 years from Japan. The interest on these loans cost MOGE approximately USD 60 million in FY 2016/17, notwithstanding that the company held approximately USD 3.9 billion in savings in its so-called “Other Account”, enough to pay the principal.⁴¹

A more explicitly illicit example involves Angolan national oil company Sonangol. In 1996, the Angolan state owed USD 5 billion to the Russian Federation. A deal was struck to reduce the debt obligation to USD 1.5 billion and for Sonangol to make the payments. Instead of paying the money back directly, an unnecessary middleman company called Abalone Investments was used while “offering nothing of substantial value” in return. In brief, Abalone purchased the debt from the Russian government for USD 750 million using the money it received from an Angolan pre-payment yet agreed separately with Sonangol to pay the full USD 1.5 billion. More than USD 123 million of the USD 750 million in profit for Abalone was returned to five Angolan officials, including USD 36.25 million to the President and USD 4.47 million to the Director General of Sonangol. The cost to citizens was substantial. The Angolan state paid USD 750 million plus interest more than was received by their creditor, the Russian state. The Russian state may have lost a similar amount in the deal.⁴²

In an added twist, the Angolan government paid USD 387 million to an account for onward payment to Russia, however that money was never transferred to its intended destination. The Angolan government only requested that USD 206 million be returned, leading to a loss of USD 181 million for the state. It is unclear whether even the USD 206 million was transferred back.⁴³

SOE managers are not always responsible for high costs. Sometimes the owner of the company, the state, mandates SOEs to make non-commercial investments or cover quasi-fiscal expenditures for political or social reasons.

⁴¹ Andrew Bauer et al. (2018) *State-Owned Enterprise Reform in Myanmar: The Case of Natural Resource Enterprises*. Renaissance Institute-Natural Resource Governance Institute. Online: <https://resourcegovernance.org/analysis-tools/publications/state-owned-economic-enterprise-reform-myanmar-case-natural-resource>.

⁴² Corruption Watch UK (2013) *Deception in High Places: The Corrupt Angola-Russia Debt Deal*. Online: <https://www.documentcloud.org/documents/2721713-2013-04.html>.

⁴³ Ibid.

Fuel subsidies are one such item commonly covered by SOEs. The cost of fuel subsidies to SOEs can be enormous. In the case of Iran, NIOC has traditionally been required to purchase refined fuels from abroad at market prices and then sell them domestically at cheaper prices. According to the OECD / IEA, oil subsidies alone cost the Iranian state USD 40.2 billion in 2014 while gas subsidies cost another USD 22.3 billion.⁴⁴ In the same year, India's oil subsidies cost USD 29.7 billion while its gas subsidies cost USD 4.8 billion.⁴⁵ Much of the cost was covered by its NOC.⁴⁶

These energy subsidies are generally regressive, meaning that the marginal benefit to the rich is greater than to the poor. The IMF estimates that only 20 percent of the diesel and gasoline subsidies in Iran benefit the bottom 40 percent of the population. In Egypt and Mauritania, less than 5 percent of these subsidies benefit the bottom 40 percent.⁴⁷

Financial losses are not the only types of costs associated with SOEs. Environmental and social costs are often equally or even more important. One striking example can be found in Papua New Guinea. In 1984, the tailings dam failed at the Ok Tedi copper-gold-silver mine. Instead of rebuilding the dam, the government regulator allowed the mine to dispose of waste in the rivers. Consequently, fish stocks declined between 50 and 90 percent, depending on the affected river, and gardens and plantations along 200km of river have been damaged or destroyed.⁴⁸ In 1999, the operator estimated that up to 3,000 square kilometres of forest may ultimately die due to rise in the river bed, flooding and toxic sediment deposition.⁴⁹

One reason the regulator allowed for mine waste to be disposed of in such a harmful manner was that state-owned Ok Tedi Mining Ltd. (OTML) held a 30 percent share in the project. According to one insider, the regulator was ordered to set aside environmental standards due to the government's need for cash to service its debts. In 2002, the foreign partner's shares were transferred to OTML. Since then, the mine has been fully owned and operated by OTML.

⁴⁴ IEA (2015) *World Energy Outlook*. Online: <http://www.worldenergyoutlook.org/weo2015/>

⁴⁵ Ibid.

⁴⁶ Andrew Cheon et al. (2015) "Instruments of Political Control: National Oil Companies, Oil Prices and Petroleum Subsidies" *Comparative Political Studies*, Vol. 48(3). Online:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.862.7679&rep=rep1&type=pdf>

⁴⁷ Carlo Sdravovich et al. (2014) *Subsidy Reform in the Middle East and North Africa*. Washington DC: IMF.

⁴⁸ Glenn Banks (2001) *Papua New Guinea Baseline Study*. IIED / World Business Council for Sustainable Development. Online: <http://pubs.iied.org/pdfs/G01003.pdf>.

⁴⁹ Ok Tedi Mining Ltd (2006) *Key Statistics*. Online:

<https://web.archive.org/web/20060820172746/http://www.oktedi.com/aboutus/keyStatistics.php>

Low revenues

SOEs are sometimes wholly or partly responsible for setting fiscal terms, licensing, contract negotiations, or monitoring and enforcing laws, regulations and contract terms. SOEs with policy setting and regulatory functions include Angola's Sonangol, Ghana's GNPC, Iran's NIOC, Liberia's NOCAL, Malaysia's Petronas, Myanmar's MOGE and Nigeria's NNPC.⁵⁰ Accordingly, SOEs can have significant influence on the size and timing of revenues generated by the extractive sector.

On the one hand, providing regulatory responsibilities to entities with experience and capacity can generate positive returns for the state. Angola's 2006 Production Sharing Contract (PSC) yields one of the world's highest average effective tax rates (AETR) for oil and gas, notwithstanding the governance challenges at Sonangol described in this report. Similarly, Ghana's Jubilee field yields an AETR above 60 percent as do Malaysia's deep water contracts.⁵¹

On the other hand, SOEs can act as less accountable "states within a state" and may have less capacity or incentive to negotiate favourable contracts than other government entities.⁵² Myanmar's MOGE, for example, agreed to pay all taxes and duties except corporate income taxes on behalf of its offshore oil and gas joint venture partners, despite only owning 15 to 20.45 percent of these fields. Furthermore, the profit petroleum allocation and other terms are less favourable to the government than in the model PSCs. The government's Internal Revenue Department conservatively estimates that more than USD 100 million is lost annually to tax exemptions in the oil sector.⁵³

SOEs can sometimes sell state assets in addition to subsoil rights, for example state equity, crude oil, raw minerals or equipment. Inadequate tendering processes or commodity trading can lead to massive losses. In one recent example, a single bad contract in 2011 by the Nigeria National Petroleum Corporation (NNPC) that swapped oil for less valuable products cost the state at least USD 381 million.⁵⁴ In another case, the DRC's Gécamines systematically undervalued assets. The

⁵⁰ Patrick Heller et al. (2014) *Reforming National Oil Companies: Nine Recommendations*. Natural Resource Governance Institute. Online:

https://resourcegovernance.org/sites/default/files/documents/nrgi_9recs_eng_v3.pdf

⁵¹ IMF (2012) *Fiscal Regimes for Extractive Industries: Design and Implementation*. Online:

<https://www.imf.org/external/np/pp/eng/2012/081512.pdf>.

⁵² In other cases, SOEs may have more capacity than the rest of the government and therefore are well-placed to negotiate contracts.

⁵³ Andrew Bauer et al. (2018) *State-Owned Enterprise Reform in Myanmar: The Case of Natural Resource Enterprises*. Renaissance Institute-Natural Resource Governance Institute. Online :

<https://resourcegovernance.org/analysis-tools/publications/state-owned-economic-enterprise-reform-myanmar-case-natural-resource>.

⁵⁴ Alex Gillies et al. (2015) *Inside NNPC Oil Sales*. Natural Resource Governance Institute. Online:

<https://resourcegovernance.org/analysis-tools/publications/inside-nnpc-oil-sales-case-reform-nigeria>.

Africa Progress Panel examined five sales of mining assets to offshore companies. It found that these assets were sold on average at one-sixth their commercial market value, costing the state at least USD 1.36 billion from 2010-12. Offshore companies were able to secure large profits from the onward sale of these concessions.⁵⁵

Similarly, shares in Russia's state-owned oil, gas and mining companies were sold at large discounts during the mid-1990s. Five percent of Lukoil was sold for USD 41 million when the estimated valuation of the stake was USD 383 million. 40 percent of Surgutneftegaz was sold for USD 83 million when the estimated value was USD 288 million. And 25 percent of Gazprom's shares worth more than USD 1 billion were given away to the company, managers and staff in 1995; the company share was later sold at low prices to firms largely owned by relatives and associates of top Gazprom executives. By 1997, the value of these shares had risen from USD 1 billion to more than USD 10 billion. While some oligarchs benefited from these "loans-for-shares" and privatization programs, the biggest winners were the managers of the SOEs who placed themselves on both sides of the transactions.⁵⁶ By 2005, a majority of Gazprom's shares were repurchased by the Russian state, generating additional profits for some shareholders.⁵⁷

In an even more egregious example of a transfer of assets without any benefit to the state at all, Angola's Sonangol transferred its 20 percent stake in any oil block purchased for USD 1.3 billion in 2010 to another company named China Sonangol. 70 percent of China Sonangol was owned by Dayuan International Development Ltd., a Hong Kong stock exchange listed private company. The transaction represented a free transfer of an asset valued at USD 910 million from the SOE to Dayuan.⁵⁸

In the Republic of Congo, roughly 6 million barrels of crude oil worth USD 600 million were transferred from state-owned SNPC to its own subsidiary, CORAF, in each of 2012 and 2013 without compensation. This represents an implicit subsidy to the refinery, generating artificial

⁵⁵ Africa Progress Panel (2013) *Equity in Extractives: Stewarding Africa's natural resources for all*. Online: [https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9fff/147083502900/2013 African+Progress+Panel+APR Equity in Extractives 25062013 ENG HR.pdf](https://static1.squarespace.com/static/5728c7b18259b5e0087689a6/t/57ab29519de4bb90f53f9fff/147083502900/2013+African+Progress+Panel+APR+Equity+in+Extractives+25062013+ENG+HR.pdf).

⁵⁶ Daniel Treisman (2010) *'Loans for Shares' Revisited*. NBER Working Paper 15819. Online: <http://www.nber.org/papers/w15819.pdf>.

⁵⁷ Macey A. Bos (2012) *Gazprom: Russia's Nationalized Political Weapon and the Implications for the European Union*. Georgetown University Thesis. Online: https://repository.library.georgetown.edu/bitstream/handle/10822/557642/Bos_georgetown_0076M_11565.pdf;sequence=1.

⁵⁸ J.R. Mailey (2015) *The Anatomy of the Resource Curse: Predatory Investment in Africa's Extractive Industries*. The African Center for Strategic Studies. Online: <https://africacenter.org/wp-content/uploads/2015/12/Africa-Center-Special-Report-No.-3-EN.pdf>.

profits for CORAF. These profits were then partially transferred to Philia, a Swiss commodity trading company, which exported petroleum products.⁵⁹

Finally, SOEs are sometimes revenue collectors on behalf of the state. Should administration of these activities be lacking, revenues can be much lower than expressed in law. State-owned Myanmar Gems Enterprise (MGE), for example, has been tasked with collecting gemstone royalties, license fees, production shares and special goods taxes, though not corporate income taxes. Unofficial sources estimate that MGE captures less than a quarter of total transactions since most of the country's high-value gems, such as jade, are smuggled to the Chinese border from mine sites. The gems that are valued by MGE are generally undervalued; the average assessed value of jade is between USD 1 and USD 2 per kilogram though the lowest-grade rough jades sell between USD 3 and USD 10 per kilogram. As a result, the government loses hundreds of millions if not billions of dollars in revenue annually.⁶⁰

Inefficient allocation of revenues between SOEs and other public entities

Since SOEs are public entities, each dollar allocated to or retained by an SOE represents a dollar not being transferred to the treasury to be spent on other public sector priorities. Budget allocations and revenue retention may be justified from a public policy perspective should this investment add value to the domestic economy over the long-run or serve a reasonable national objective such as energy security or greater control over natural resources. However, the cost of growing an extractive SOE at the expense of other sectors or expenditure items cannot be ignored. In some cases, the opportunity cost of investing in the SOE rather than, for instance, education or healthcare, can be significant.

The Nigerian National Petroleum Corporation (NNPC) is a case in point. The government allocates 445,000 barrels per day to NNPC to feed domestic refineries. Since Nigerian refineries only process 100,000 barrels per day, NNPC sells the remainder and payments enter separate NNPC accounts which can be drawn upon freely by the enterprise. Between 2010 and 2013, discretionary spending out of domestic crude averaged USD 6 billion per year. While some of the domestic crude allocation was spent on fuel subsidies and downstream operations, it is unclear how the rest was used.

⁵⁹ Berne Declaration (2015) *Philia's Refined Ventures in Brazzaville: How Swiss traders misappropriate Congolese oil rents*. Online: https://www.publiceye.ch/fileadmin/files/documents/Rohstoffe/BD-2015-Investigation-Philia's_refined_ventures.pdf.

⁶⁰ Andrew Bauer et al. (2018) *State-Owned Enterprise Reform in Myanmar: The Case of Natural Resource Enterprises*. Renaissance Institute-Natural Resource Governance Institute. Online : <https://resourcegovernance.org/analysis-tools/publications/state-owned-economic-enterprise-reform-myanmar-case-natural-resource>.

Similarly, the Nigerian Petroleum Development Company, NNPC's upstream arm, retained USD 6.82 billion in 19 months from 2012-13 without major operating costs. There was no justification or explanation for how that money was spent.⁶¹ In comparison, Nigeria's national education budget was approximately USD 3.2 billion in 2013.

A similar story can be found in Myanmar. As of January 2017, MOGE had saved USD 3.9 billion in its so-called "Other Accounts" held at the state-owned Myanmar Economic Bank (MEB). Myanmar's state-owned mining companies held another USD 600 million combined. A large proportion of this money has been loaned out by MEB based on unspecified criteria and to unknown borrowers. In comparison, Myanmar's education budget was USD 1.25 billion, and its healthcare budget was USD 640 million in FY 2016/17. By one estimate, doubling the country's electricity supply would cost just over USD 2 billion.⁶²

While some SOEs are permitted to retain too much money, others do not retain enough to fulfill their mandates. PEMEX, for example, was unable to expand its exploration and production activities due to underinvestment, as discussed. Malaysia's Petronas has likewise claimed that its productive capabilities have been hampered by state dividends that drain the company of its profits.⁶³ Utilization of SOEs as proverbial "cash cows" can impede revenue generation over the long-run and therefore turn out to be a misallocation of resources. Governments must try to find the right balance between investing in the resource sector versus other sectors.

Some SOEs also become "states within states" or parallel government administrations, taking over the role of ministries in providing public services and infrastructure. These actions can undermine public financial management systems. They sometimes also bypass parliamentary oversight and normal budgetary procurement systems that help control corruption or patronage. And they inhibit coordination between service providers and prevent specialized departments and agencies from carrying out their duties.

Angola's national oil company, Sonangol, is a clear case of such a "state within a state". From 2007 to 2010, Sonangol retained USD 31.4 billion. More than USD 27.2 billion of this was used for "quasi-fiscal expenditures", including housing, railways, shipping, aviation and other

⁶¹ Alex Gillies et al. (2015) *Inside NNPC Oil Sales*. Natural Resource Governance Institute. Online: <https://resourcegovernance.org/analysis-tools/publications/inside-nnpc-oil-sales-case-reform-nigeria>.

⁶² Andrew Bauer et al. (2018) *State-Owned Enterprise Reform in Myanmar: The Case of Natural Resource Enterprises*. Renaissance Institute-Natural Resource Governance Institute.

⁶³ Patrick Heller et al. (2014) *Reforming National Oil Companies: Nine Recommendations*. Natural Resource Governance Institute. Online: https://resourcegovernance.org/sites/default/files/documents/nrgi_9recs_eng_v3.pdf.

infrastructure.⁶⁴ Sonangol acted essentially as a parallel government administration. Rather than transfer its earnings to the treasury, the company retained and spent these revenues at the governing body's discretion.

Venezuela's PDVSA is another extreme case of an SOE behaving as a parallel public administration. In 2012, the company's public securities disclosures revealed that it spent USD 4.35 billion on its social programs, including literacy and health promotion. In contrast, it spent USD 2.99 billion on its oil sector operations.⁶⁵

Ghana's GNPC has gone down a similar route, albeit on a smaller scale. The law allows the Ghanaian parliament to allocate up to 55 percent of carried and participating interest to GNPC to finance its activities, based on the company's requested budget. Parliament may allocate less than that amount should it so wish. From 2011 to 2017, parliament allocated USD 1.24 billion or 31 percent of all oil and gas revenues to GNPC. 27 percent was allocated to sovereign wealth funds and the remaining 42 percent to the treasury.⁶⁶

The GNPC's operational costs and mandate have not justified such large allocations. Two outcomes of excessive budgetary allowances have been soaring staff costs and "investments" in a number of non-commercial assets and activities. In its reports, Ghana's petroleum revenue management oversight body, the Public Interest and Accountability Committee, highlighted loans to the Ministry of Finance and financial assistance to a transportation company and a refinery.⁶⁷ GNPC has also engaged in quasi-fiscal spending on roads, a school, a motel, a telecommunications company and the Black Stars, the national football team. In 2017, parliament ordered the company to cease spending on non-core activities.⁶⁸

Financial liability to taxpayers

⁶⁴ IMF (2011) *Angola: Fifth Review Under the Stand-By Arrangement*. Online: http://www.imf.org/~media/Websites/IMF/imported-full-text-pdf/external/pubs/ft/scr/2011/_cr11346.ashx; IMF (2012) *Angola: Sixth Review Under the Stand-By Arrangement*. Online: <https://www.imf.org/external/pubs/ft/scr/2012/cr12103.pdf>

⁶⁵ Patrick Heller et al. (2014) *Reforming National Oil Companies: Nine Recommendations*. Natural Resource Governance Institute. Online: https://resourcegovernance.org/sites/default/files/documents/nrgi_9recs_eng_v3.pdf.

⁶⁶ PIAC (2017) *Annual Report on Management of Petroleum Revenues for the Period January-December 2017*. Online: http://www.piacghana.org/portal/files/downloads/piac_reports/piac_2017_annual_report.pdf

⁶⁷ See PIAC's 2015 and 2016 reports at <http://www.piacghana.org/portal/>.

⁶⁸ Joy Online (2017) *GNPC ordered to stop sponsoring Black Stars*. Online: <https://www.myjoyonline.com/business/2017/july-28th/gnpc-ordered-to-stop-sponsoring-on-black-stars.php>

As public sector entities, SOE obligations represent liabilities on the government and, ultimately, the taxpayer. In fact, 10 percent of all corporate bonds globally are issued by wholly-state-owned SOEs. In some cases, certain SOE liabilities are explicitly guaranteed by the state, as in South Africa and Vietnam. In other countries, such as Azerbaijan, Chile, Mexico and Peru, state guarantees of SOE liabilities are treated as implicit by lenders.⁶⁹

Mexico's PEMEX provides a prime example of a company that has built up excessive liabilities, and in doing so has cost taxpayers. In addition to being used as a cash cow (see above), PEMEX accumulated pension obligations valued at USD 90 billion without setting aside adequate savings to meet those obligations. The sum owed to retired workers was almost four times the size of Exxon's pension liabilities, which has the world's second highest pension obligations among oil and gas companies. In 2014, Mexico's congress passed a bill allowing the government to assume part of the firm's unfunded pensions. In 2016, the Ministry of Finance assumed USD 10.2 billion of these liabilities. This was followed by a USD 4.2 billion "liquidity boost" from the government to the company.⁷⁰

In 2016, China's Guangxi Nonferrous Metals Group, owned by the Guangxi provincial government, declared bankruptcy. Having only started operating in 2008, losses started accumulating in 2012. By 2015, it had stopped publishing financial information. As of 2016, the company owed approximately USD 2.2 billion to creditors—USD 200 million of which was owed to state-owned China Development Bank—and could not make its interest payments.⁷¹ Guangxi Nonferrous Metals Group assets are being liquidated; however a large portion of the debt will be written off by state-owned banks or covered by other government agencies.

New Zealand's state-owned coal company is undertaking a similar exercise. Previously called State Coal Mines, then Coal Corporation, Solid Energy had a near monopoly on New Zealand's coal industry. The company was profitable as recently as 2011. The chairman at the time even called on the government to allow the company to float shares to raise additional capital. Starting in 2012 when coal prices were slumping, and with the company formulating ambitious plans, Solid Energy began borrowing heavily, accumulating losses, and receiving government bailouts.

⁶⁹ Rodrigo Wagner et al. (2018) *Implicit Bailouts and the Debt of Wholly-State-Owned Corporations*. Online: <https://ssrn.com/abstract=2670899>

⁷⁰ Wharton School (2016) *Pemex's Pension Problem: Why the Oil Giant is on Slippery Ground*. Online: <http://knowledge.wharton.upenn.edu/article/pemexs-pension-problem-oil-giant-slippery-ground/>

⁷¹ Cathy Zhang (2016) "Guangxi Nonferrous Metals is China's first interbank bankruptcy" *South China Morning Post*. Online: <http://www.scmp.com/business/article/2020992/guangxi-nonferrous-metals-becomes-chinas-first-interbank-bankruptcy>

The company is now being liquidated, having cost taxpayers approximately USD 130 million in bailouts and a portion of its approximately USD 300 million in accumulated debt.⁷²

The next section of this report examines what international governance guidelines and disclosure standards currently exist to support SOEs in their effort to improve performance. Based on this survey, we will discuss whether there are any gaps in existing guidelines and standards that could be filled.

⁷² Hamish Rutherford (2015) "Solid Energy brought down by debt and ambition" *Stuff.co.nz*. 13 August 2015. Online: <https://www.stuff.co.nz/business/industries/71088037/solid-energy-brought-down-by-debt-and-ambition>

Guidelines and standards for SOEs

This report aims to map out existing SOE governance guidelines and standards, with a special focus on transparency policies. In this section, we examine what we mean by SOE governance and transparency and why they are important. We also distinguish between guidelines and standards. This is followed by a mapping of the guidelines and standards that are relevant for SOE reporting.

Defining SOE governance and transparency

Good state-owned enterprise governance refers to decisions and actions taken by SOEs that serve the public interest. While the term “good governance” is ill-defined in the literature, there seems to be a consensus among international organizations like the United Nations, Asian Development Bank and World Bank that it requires:⁷³

- A clear legal and regulatory framework and impartial enforcement
- Efficiency such that the government is making best use of public resources
- Equitable allocation of costs and benefits
- Accountability of managers and staff to senior policymakers and the public
- Transparency

Transparency, in turn, is broadly defined as “the degree to which information is available to outsiders that enables them to have informed voice in decisions and/or to assess the decisions made by insiders.”⁷⁴ This definition begs three questions in relation to SOE transparency: What characteristics must information have in order to be deemed transparent? Transparency of what information? And why is transparency important for good governance?

The IMF’s *Fiscal Transparency Handbook* suggests that transparent information must be:⁷⁵

- Presented in a manner that is clear to users

⁷³ UNESCAP (unknown) *What is Good Governance?* Online: <https://www.unescap.org/sites/default/files/good-governance.pdf>; ADB (2018) *Governance Policies and Strategies*. Online: <https://www.adb.org/sectors/governance/policies-strategies>; World Bank (2017) *World Development Report 2017*. Washington DC: World Bank. Online: <https://www.worldbank.org/en/publication/wdr2017>

⁷⁴ Ann Florini (2007) “Introduction: The Battle over Transparency,” in *The Right to Know: Transparency for an Open World* (ed. Ann Florini) New York: Columbia University Press.

⁷⁵ IMF (2018) *Fiscal Transparency Handbook*. Washington DC: IMF. Online: https://www.elibrary.imf.org/doc/IMF069/24788-9781484331859/24788-9781484331859/Other_formats/Source_PDF/24788-9781484348598.pdf

- Reliable, accurate and verified
- Timely and frequently updated
- Relevant to users
- Open such that users can easily access it

SOE transparency does not just refer to information on financial data. The transparency guidelines and standards referred to in this report also emphasize transparency of the roles and responsibilities of SOEs and their ultimate owners, boards, managers, staff and oversight bodies; mandate and objectives; corporate structure; activities; agreements; risk factors; performance; and social and environmental impacts.

Transparency can benefit SOEs and their ultimate owners, the state, in a number of ways. First, they allow SOEs to tell their own story and, as such, invalidate false rumours or misinformation about their activities and finances. In doing so, they also build trust with citizens, investors and other government bodies, easing their operations.

Second, transparency can improve investor confidence and understanding of the regulatory and business environment. Investors are more likely to invest in a jurisdiction where policy is predictable, and they have access to information on the risks inherent in a given project or country.⁷⁶

Third, transparency can improve SOE performance. Disclosure requirements can encourage SOEs to improve the quality of data they gather and maintain. This can make it easier for SOEs as well as executives, parliaments and oversight bodies to track and benchmark performance. They can also help government owners, oversight bodies and SOE managers prevent or respond to crises or course-correct if they have free access to accurate information on SOE activities and finances.

Fourth, transparency improves public accountability by allowing the public and civil society organizations to engage in a constructive dialogue around policy formulation and SOE performance.⁷⁷

While many SOEs understand the benefits of transparency, they are often unclear how to transform these abstract concepts into concrete actions. In response, organizations have

⁷⁶ IMF (2007) *IMF Guide on Resource Revenue Transparency*. Washington DC: IMF. Online: <http://www.imf.org/external/np/fad/trans/guide.htm>.

⁷⁷ Perrine Toledano and Andrew Bauer (2014) "Natural Resource Fund Transparency." *Managing the Public Trust: How to make natural resource funds work for citizens* (ed. Andrew Bauer) Columbia Center on Sustainable Investment – Natural Resource Governance Institute. Online: https://resourcegovernance.org/sites/default/files/NRF_Complete_Report_EN.pdf

developed guidelines or standards to help SOEs improve their governance or simply their reporting practices.

Here, the report maps out the various guidelines and standards that can help SOEs improve their reporting policies and practices. Some are governance frameworks while others are transparency frameworks. Some are generally applicable to all public sector entities while others are SOE-specific. Some focus on company governance in all sectors while others are extractive-specific.

These documents are also separated into guidelines and standards. Guidelines are recommended actions and, as such, are generally flexible and open to interpretation. Standards, on the other hand, are mandatory and measurable actions. The common element among all the documents is that they provide guidance or benchmarks for public sector reporting and are relevant for extractive SOEs.

Map of guidelines and standards for SOEs

At least two organizations have mapped out public financial management guidelines or standards. First, the Global Initiative for Fiscal Transparency (GIFT), a network of governments, international institutions, civil society organizations and other stakeholders, has mapped internationally-accepted documents related to public sector transparency and oversight. The mapping can be found in Figure 5.⁷⁸ The World Bank carried out a similar exercise focused on PFM diagnostic tools (see Table 1).⁷⁹

Based on these previous mapping exercises, interviews and an independent search, this report describes 14 sets of guidelines and standards that are relevant to extractive sector SOE governance and transparency. They are separated into three types of documents: General public sector performance guidelines or standards; SOE or extractive company guidelines; and SOE or extractive company standards. Each section below discusses the aim and target audience of the document and provides a summary. This is followed by a discussion of the document's strengths and weakness and any gaps that could be filled by the EITI or other international bodies. Table 2 summarizes the documents assessed.

⁷⁸ GIFT (2018) *Fiscal Transparency Mapping*. Online: <http://fiscaltransparency.net/documents/mapping.pdf>.

⁷⁹ PEFA Secretariat (2018) *Stocktake of PFM Diagnostic Tools 2016*. Online: https://pefa.org/sites/default/files/asset/study_document/Stocktake%20PFM%20Tools-04-17-2018_clean.pdf

Figure 5. GIFT mapping of public sector transparency and oversight guidelines or standards

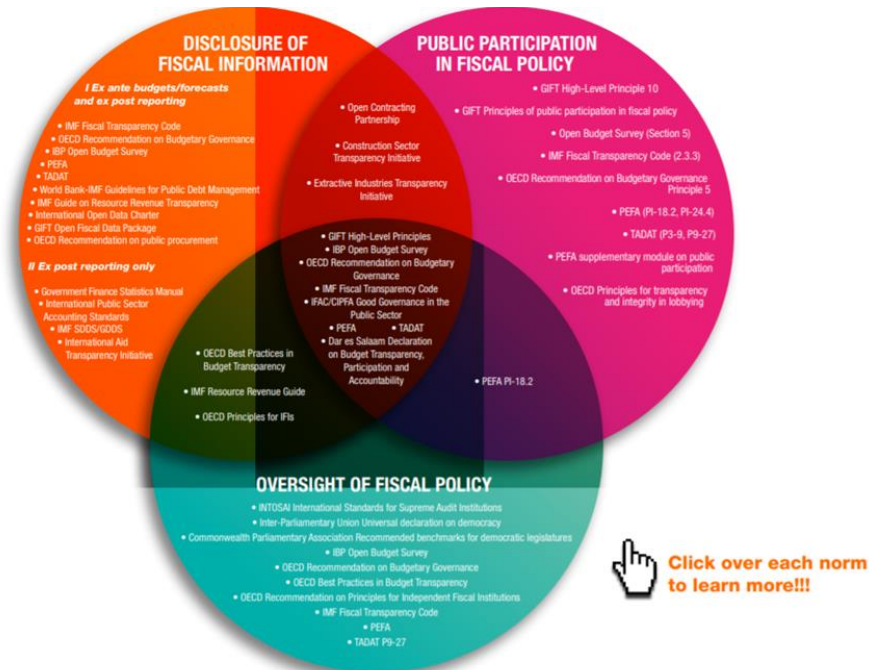


Table 1. Overview of PFM diagnostic tools identified by the World Bank in 2016

Type	Diagnostic Tools (with custodian)
A. Broad PFM diagnostics	A1. PEFA framework for assessing PFM performance (PEFA) A2. IMF fiscal transparency evaluation (FTE) A3. OECD recommendation of the council on budgetary governance (RCBG) A4. OECD international budget practices and procedures database (IBPPD) A5. SIGMA principles of public administration (PPA) A6. IBP open budget survey (OBS) A7. GIFT principles on financial transparency (PFT) A8. WB public expenditure review (PER) A9. ECFIN operational assessment (ECFIN-OA) A10. WB rapid assessments and action plans to improve delivery in SNGs (RAAP-ID) A11. WB MiGestion institutional capacity diagnostic in SNGs (MiGestion) A12. COE benchmarking fiscal decentralization (BFD)
B. Diagnostics which focus on individual PFM elements, or subsystems	B1. TADAT tax administration diagnostic assessment tool (TADAT) B2. WB integrated diagnostic tax assessment tool (IAMTAX) B3. OECD tax administration comparative information series (TACIS) B4. USAID collecting taxes database (CTD) B5. EU fiscal blueprints (EU-FB) B6. WB handbook for tax simplification (HTS) B7. IMF revenue administration fiscal information toolkit (RA-FIT) B8. IMF revenue administration gap analysis program (RA-GAP) B9. WB customs assessment trade toolkit (CATT) B10. EITI extractive industries transparency initiative (EITI) B11. WB state owned enterprise corporate governance and risk toolkit (SOE Toolkit) B12. WB debt management performance assessment (DeMPA) B13. IMF public investment management assessment (PIMA) B14. WB diagnostic framework for assessing public investment management (DF-PIM) B15. OECD methodology for assessing procurement systems (MAPS) B16. WB public expenditure tracking surveys (PETS) B17. WB diagnostic framework to assess the capacity of a government financial management information system as a budget management tool (DF-FMIS) B18. IRMT integrating records management in FMIS (IRM-FMIS) B19. WB gap analysis framework for comparing public sector accounting and auditing to international standards (AA-GAP) B20. WB accounting and auditing report on observance of standards & codes (AA-ROSC) B21. IIA internal audit capability model (IA-CM) B22. IDI supreme audit institutions performance measurement framework (SAI-PMF) B23. AFROSAI-E institutional capacity building framework (ICBF) B24. CIPFA financial management model (FMM)
C. Tools used to make decisions on fiduciary risk and/or the use of country systems	C1. ADB assessing and managing governance risks in ADB operations (AMGR) C2. ADB financial management assessment (FMA) C3. IDB guidelines to determine the use of the public financial management system (GUS) C4. WB assessment of the use of country FM systems in bank financed investment projects C5. EU budget support guidelines (EU-BSG) C6. DFID fiduciary risk assessment (FRA) C7. BMZ guidelines for budget support in programme-oriented joint financing (BMZ-BSG) C8. DANIDA guidelines for risk management (GRM) C9. USAID PFM risk assessment framework (PFMRAF)

Table 2. Overview of extractive SOE-relevant governance or transparency guidelines or standards

Document	Guideline	Standard	Extractive -specific	Governance	Public reporting details
General public sector performance guidelines or standards					
PEFA Framework		X		X	X
TADAT		X		X	
GIFT Principles	X			X	X
SOE or extractive company guidelines					
OECD Guidelines	X			X	
World Bank Toolkit	X	X ⁸⁰		X	X
NRGI Guide	X		X	X	X
Global Reporting Initiative	X		X	X	X
IMF Note	X			X	X
Chatham House Report	X		X	X	
Transparency International	X			X	X
SOE or extractive company standards					
EITI Standard		X	X	X	X
IMF Code	X	X	X ⁸¹	X	X
IASB's IFRS		X	X ⁸²		
SASB Standard	X	X	X		X

Relevant public sector governance and reporting guidelines or standards

PEFA Framework (World Bank 2016)

The World Bank's Public Expenditure and Financial Accountability (PEFA) Framework for assessing public financial management is relevant in that it covers public sector governance widely, including activities and finances of SOEs. The Framework provides governance indicators on: budget reliability; transparency of public finances; management of assets and liabilities; policy-based fiscal strategy and budgeting; predictability and control in budget execution; accounting and reporting; and external scrutiny and audit. The document is meant to be used by government officials to benchmark elements of the public financial management system against other countries and good practices.

⁸⁰ Appendix E

⁸¹ Pillar IV of the Code

⁸² IFRS 6 only

The sections covering reporting and monitoring provide a list of governance standards for public entities, including SOEs. For instance, higher scores are given for incorporating extra-budgetary spending into government financial reports, reporting on performance by program, reporting on fiscal risks, and using international accounting standards.

The score categories are broad and are neither SOE- nor extractive-specific. As such, the document may not be particularly useful for providing guidance to SOE on reporting templates. At the same time, the PEFA framework does provide a set of governance and transparency principles that are relevant for extractive SOEs. For instance, it lists topics that should be covered in all public sector reporting, such as performance plans and performance, budgets, and investment project selection, costing and monitoring. After all, SOEs should abide by general public financial management standards.

The PEFA Secretariat offers advice on designing and implementing an assessment, preparing reports, and monitoring performance, among other activities. It also offers trainings in PEFA. As of August 2018, 507 PEFA assessments have been completed around the globe, both at the national and subnational levels.

Tax Administration Diagnostic Assessment Tool (TADAT)

The TADAT is the revenue collection equivalent to the PEFA's expenditure-side PFM assessment. The aim of the standard is to provide a means of assessing the health of key components of a country's tax administration system and to benchmark performance against international good practice. TADAT is explicitly not designed to assess the administration of special tax regimes, such as those applying in the natural resource sector.

The TADAT consists of 9 performance indicators and 28 sub-indicators. These cover: taxpayer information; compliance and institutional risks; timely filing and payments; accurate tax declarations; dispute resolution; tax revenue accounting and forecasting; and accountability and transparency. Where SOEs are tax collectors, these standards are relevant if not essential. They are less relevant for purely commercial or even regulatory entities.

The TADAT Secretariat provides technical support on implementation of the standard. Assessment reports from 13 countries have been posted online, although other countries have also undertaken assessments.

The High-Level Principles on Fiscal Transparency, Participation and Accountability (GIFT 2018)

The Global Initiative for Fiscal Transparency (GIFT) published a list of high-level principles for policymakers and other stakeholders to improve fiscal transparency, participation and accountability, and advocate for improvements to standards. The principles cover: legal frameworks; objectives and performance measures; financial and non-financial disclosures; social and environmental impacts; financial relationship between the government and the private sector; roles and responsibilities of government entities; role of parliament; effectiveness of supreme audit institutions; and public participation.

The document provides a list of standards and indicators applicable to each principle, each published by a separate organization. It is the most comprehensive compilation of public sector governance and reporting standards available. Given that it provides an enormous menu of options rather than a template or clear guide, the document may be less practical than some of the other guidelines and standards listed in this report.

SOE- or extractive-specific governance or reporting guidelines

OECD Guidelines on Corporate Governance of State-Owned Enterprises (2015) and Accountability and Transparency: A Guide for State Ownership (OECD 2010)

The OECD's SOE governance guidelines are designed to serve as a "roadmap to reform" for government entities that manage and oversee SOEs. The documents cover the rationales for state ownership; government management and control; the relationship between SOEs and private sector companies; protection of private sector SOE shareholders; disclosure and transparency; and board activities. The Accountability and Transparency document is meant to provide practical guidance on how to implement those guidelines. It is based on the 2005 version of the guidelines but is still relevant.

The OECD Guidelines provide market-oriented advice to governments on how to manage their SOEs. For instance, the document recommends that all SOEs have full operational autonomy from the government, the legal framework should treat SOEs similar to private sector entities, and SOEs should have boards. There is significant emphasis on protecting private investor and private competitor interests.

The OECD uses the guidelines in at least two ways: As a legal instrument since governments must demonstrate a willingness and ability to implement the guidelines in order to accede to the OECD; and as an aspirational standard to be used in technical assistance projects or at SOE

governance fora. Countries wishing to become regular participants to the OECD Working Party on State Ownership and Privatization Practices must undergo a review of SOE corporate governance, using the guidelines as a benchmark. Assessments are carried out by the OECD Secretariat and evaluated by the Working Party. To date, reviews for Argentina, Colombia, Latvia and Lithuania are available online.

The OECD claims that the guidelines have contributed to improving governance of the weakest performers over the last decade. Specifically, officials point to increased board and management professionalism and strategy-setting; fewer ministers or political appointees on boards; more comprehensive reporting and disclosure; more external auditing; development of ownership policies; and better privatizations.⁸³

Several elements of the guidelines may be useful for EITI clients. First, the guidelines have been widely accepted by governments as a legitimate framework. Governments from 36 OECD countries as well as Partners of the Organisation reviewed the document. Many other governments have discussed the document and participate regularly in OECD fora, including the Working Party on State Ownership and Privatization Practices. Second, the guidelines are high-level, which allows them to be used easily as a starting point for discussion. Third, many of the principles are relevant for NOCs and NMCs. For example, they encourage the government to publicly clarify: the SOE's rationale, mandate and objectives; the ownership and voting structure of the company; any material risk factors and measures taken to manage such risks; financial transactions with other government entities; financial and operating results; and board and executive remunerations.

The guidelines are vaguely drafted in many areas. For instance, they call for the publication of "enterprise financial and operating results, including where relevant the costs and funding arrangements pertaining to public policy objectives." Yet they do not include a list of what specific information ought to be covered. They also do not cover some information relevant to the extractive SOEs, such as transparency of production and providing information to non-state actors. This is understandable given that the guidelines are intended for the state as owner of SOEs and for all SOEs rather than extractive companies. As such, they do not provide specific guidance to SOEs themselves nor do they have a sectoral focus.

Notwithstanding the vagueness, the guidelines are prescriptive, using the term "should" throughout. As we have seen above, extractive SOEs have vastly different mandates and needs and exist in widely different institutional environments. These guidelines may not be relevant for

⁸³ Interview with OECD officials Sara Sultan and Alison McMeekin (21 June 2018).

all, a point acknowledged by the OECD. Since many countries cannot realistically be expected to implement the guidelines, there is no expectation from the OECD that they do so.⁸⁴

The OECD guidelines may resonate strongest with advanced-economy governments that have adopted a generally market-based approach to economic governance, but which maintain a few SOEs. They may resonate less well with governments owning SOEs that are not operational; are essentially public service entities; operate in low-capacity environments; operate in countries with underdeveloped financial markets; or which require time to develop into companies that can compete on a level playing field with the private sector.

Corporate Governance of State-Owned Enterprises: A Toolkit (World Bank 2014)

The World Bank's SOE Toolkit is the most comprehensive SOE governance policy guide. It was designed for government officials and SOE managers undertaking reforms of commercial SOEs. Among the topics covered by the toolkit are legal and regulatory frameworks; institutional structure; performance monitoring; financial and fiscal discipline; boards of directors; disclosure requirements; and external oversight. The World Bank uses this document as a guide for assessing corporate governance of state-owned enterprises in many of its country-level projects.

Running at more than 350 pages, the document provides a wealth of information on SOE governance, informed by country experiences. While the language is sometimes less prescriptive than the OECD guidelines and covers a broader range of issues, the advice is generally aligned with the OECD. For example, the toolkit calls for SOEs to be subject to the Companies Law and encourages the establishment of boards.

Chapter 7 on enhancing transparency and disclosure provides some guidelines on financial and nonfinancial reporting. With regard to financial reporting, the toolkit calls for the publication of audited financial statements aligned with the International Financial Reporting Standards or similar standards and states that a management commentary should accompany the annual financial statements. The toolkit does not provide detailed guidance on what information to disclose. With regard to nonfinancial reporting, the toolkit suggests publishing company objectives and social obligations (e.g., costs of providing social services), information on subsidiaries and minority shareholdings, and risks faced by the company.

Appendix E provides a set of governance standards that are more detailed than the OECD guidelines. Standards are classified into four degrees of sophistication under the headings of

⁸⁴ Email with OECD official Hans Christiansen (28 August 2018).

financial discipline; structure and functioning of the board of directors; transparency, disclosure and controls; treatment of minority shareholders; and commitment to corporate governance. Once again, these standards are orthodox and market-oriented. For instance, they call on companies to publicly list shares, follow only commercial objectives and ensure private sector dominance of the board.

The toolkit provides valuable information on SOE governance, especially through the case studies. In spite of that, some of the advice contained therein may resonate strongest with well-established SOEs rather than nascent or low-capacity companies, similar to the OECD guidelines. Furthermore, the transparency and oversight elements remain high-level.

Guide to Extractive Sector State-Owned Enterprise Disclosures (Natural Resource Governance Institute 2018)

The Natural Resource Governance Institute's (NRGI) guide is the only document focused exclusively on extractive SOE reporting. It offers SOEs a framework for developing their own reports, and provides benchmarks for oversight bodies to be able to compare their SOEs' public disclosures with international good practices. It draws on the EITI, World Bank, OECD and Transparency International publications mentioned here, in addition to NRGI's Resource Governance Index, NRGI's country reports on SOEs and a review of SOEs' annual reports, websites and other disclosures. The guide is being used in NRGI's technical assistance on state-owned enterprise reform in Indonesia, Mongolia and Myanmar, among others.

The guide covers: sector context; mission, structure and organization; commercial and non-commercial activities and agreements; performance and results; transfers with national and subnational government entities; and social, environmental and human rights impacts. Along with a list of items to disclose under each category, the guide provides concrete examples from SOE reports and websites. It also occasionally refers to other standards such as the EITI Standard.

The document is a comprehensive list of all possible items SOEs could disclose. It provides a level of detail on specific kinds of disclosures that can be a tool for making individual disclosure decisions. Unlike *Appendix E* of the World Bank's toolkit or the other standards mentioned in this report, it does not rank disclosures in terms of least to most important nor does it draw a red line in terms of required disclosures. As such, it is less a standard to achieve than a catalogue of potential options. Needless to say, NRGI encourages SOEs to disclose all the information listed in the document.

Of note, NRGi's Resource Governance Index state-owned enterprise scores are an implicit set of standards for SOE transparency and oversight. For example, it gives higher scores for countries that set clear rules for fiscal transfers between treasuries and SOEs, for those that undergo regular independent audits, and for those that disclose production and finances.⁸⁵ However since the index questionnaire is not considered a standard by NRGi, it is not assessed here.

G4 Sustainability Reporting Guidelines, Oil and Gas Sector Disclosures and Metals and Mining Disclosures (Global Reporting Initiative 2012 and 2013)

The Global Reporting Initiative (GRI) is an international organization—funded by governments, private foundations and corporations—working to improve sustainability reporting among companies and governments. GRI drafts and encourages implementation of its reporting templates.

GRI's core document is its G4 Sustainability Reporting Guidelines which provides advice on drafting a sustainability report. Of relevance to SOEs, it is suggested that the following elements be included: company operations, including employees and supply chains; related parties; governance structure; board structure and remunerations; economic impacts; financial results; and social and environmental impacts. The G4 Guidelines place heavy emphasis on social and environmental impacts such as emissions, biodiversity, water use, employment, occupational health and safety, and gender equity.

GRI has produce two extractive-specific disclosure standards which are meant to supplement the G4 Guidelines. The mining and metals disclosures are focused on environmental and social impacts. The oil and gas disclosures also add elements on environmental (e.g., effluents and waste; energy use; fossil fuel substitutes) and social (e.g., asset integrity; involuntary resettlement; emergency preparedness; indigenous rights) indicators. However, there are also new economic indicators added. These include suggestions to disclose:

- Host government and SOE production entitlements
- Profits, taxes, license fees, royalties, dividends and other significant benefits to host governments
- Risks and opportunities associated with a carbon price
- Actions to support local content, including through procurement policies
- Initiatives related to shared-use infrastructure

⁸⁵ NRGi (2017) *Resource Governance Index Questionnaire*. Online : <https://www.resourcegovernanceindex.org/about/methodology>

- Economic spillovers from extractive activities
- Volume and type of estimated proven reserves and production

There is specific reference to EITI disclosures in the oil and gas supplement.

According to their website, GRI “does not judge the outcome or quality of the organization’s process for defining report content, or the report itself.” GRI simply provides the G4 guidelines, provides training material on its website, and offers workshops for users, journalists, civil society organizations, and investors. To date, Abu Dhabi’s ADNOC; Brazil’s Vale; Chile’s Codelco and ENAMI; China’s CNOOC, Sinopec and Shenhua Group; Hungary’s MOL; India’s Coal India and ONGC; Indonesia’s PT Bukit Asam, PT Timah and Pertamina; Kuwait’s KOC; Malaysia’s Petronas; Norway’s Equinor; Peru’s PetroPeru; Russia’s Gazprom; and Vietnam’s PetroVietnam are among those extractive SOEs that have produced sustainability reports aligned with the G4 guidelines.⁸⁶

How to Improve the Financial Oversight of Public Corporations (IMF 2016)

The IMF’s *How to Improve the Financial Oversight of Public Corporations* focuses exclusively on SOEs. In some instances, it mimics the OECD guidelines or World Bank toolkit in stressing, for example, the importance of ownership policy, clear legal framework and clear management structure. It also covers financial reporting and auditing standards, monitoring reports, and the importance of reporting on non-fiscal activities. Yet unlike these documents, it is largely non-prescriptive, simply outlining international experience and suggesting strengths or weaknesses of certain policies.

The note provides guidance on elements not covered in other documents. For example, it goes into detail on which SOE decisions should be approved by more senior governments officials and provides a list of performance indicators. A checklist of key oversight measures is included.

The document is an easy-to-use guide, a perfect synopsis of SOE oversight. However it is not extractive-specific nor is it a standard. The IMF also provides limited technical assistance to SOEs on how to improve reporting standards.

Report on the Good Governance of the National Petroleum Sector (Chatham House 2007)

Like the World Bank toolkit and OECD Guidelines, Chatham House’s report aims to provide policymakers and non-state actors with guidance on how to improve SOE governance. The

⁸⁶ GRI reports list limited (2017)

document is focused exclusively on the oil and gas sector and provides guidance not just on SOE governance but sector governance more broadly. The report covers many of the same topics as the other documents, such as the relationship between the SOE and the state, company mandate and objectives, the financial relationship between SOEs and the state, performance benchmarks, and transparency. Unlike the others, it does not cover legal frameworks in detail. Other differences include discussing the role of private sector oil companies, different regulatory models and SOE tax collection.

The advice in the document is less orthodox than that provided by the World Bank or OECD. For instance, the report does not insist on separation of a NOC from a ministry, it encourages local content policy, and it promotes contract transparency. It also emphasizes that rules governing NOCs should be context-specific, even providing in *Appendix 1* a list of variables to help better understand a country's context. On the other hand, the report does suggest clarification of goals, roles and responsibilities; raises concerns regarding dual regulatory and commercial mandates; and advocates for robust disclosure requirements, similar to the other documents.

As with the World Bank toolkit and OECD Guidelines, the advice provided is high-level and therefore difficult to translate into an implementable template. It also does not provide a detailed list of information that a NOC could disclose.

10 Anti-Corruption Principles for State-Owned Enterprises (Transparency International 2017)

Transparency International's SOE principles suggests 10 principles to help SOEs develop anti-corruption programs. They are meant to complement the OECD's anti-corruption work.

The document presents the universe of functions and transactions subject to high corruption risks (e.g., use of third parties; procurement) though not all in one location. It also suggests specific information that an SOE should make public, including:

- Mandate
- Operational relationship with ownership entity
- Percentages owned, countries of incorporation, and countries of operation of all subsidiaries and non-fully consolidated holdings
- Country-by-country sales, expenditures, pre-tax income, income tax, major contracts and projects, and community contributions
- Beneficial owners of SOE shares
- Anti-corruption policies, procedures, risks identified and controls to mitigate risks

The principles are high-level and often vague. For example, Principle 1 call for SOEs to “operate to the highest standards of ethics and integrity” yet neither defines ethics nor integrity. Many of the principles are generally applicable to public sector or even private sector entities. Much of the advice can be found in other documents, for instance the OECD’s Principles of Corporate Governance, INTOSAI’s Guidelines for Internal Control Standards for the Public Sector or Transparency International’s other publications. The document does not provide a reporting or disclosure template.

SOE- or extractive-specific governance or reporting standards

The EITI Standard 2016 (EITI 2017)

Given the nature of this report, it may be redundant to expound on the EITI. Simply to mention that several elements of the EITI standard are relevant for SOEs. Requirements 2.6, 4.2, 4.5, 5.1 and 6.2 explicitly refer to SOEs. However, given the varying mandates and activities of SOEs, several other requirements may also apply, which we will review one-by-one.

Requirement 1: Since SOEs are government-owned and operate commercial activities, thus making payments to the treasury, this requirement could encourage SOEs to engage in the EITI process, though as part of which stakeholder group is unclear.

Requirement 2: In some countries such as Liberia and Myanmar, SOEs are responsible for establishing the licensing process and awarding and registering licenses. They would also then be the holders of the contracts. Furthermore, there is another set of countries (e.g., Angola) where SOEs can make decisions regarding purchase and sale of state assets. Of course, Requirement 2.6 focuses on SOEs—their roles, responsibilities, operations and finances—and is therefore relevant. However, multiple sub-requirements are relevant.

Requirement 3: This requirement applies to SOEs that engage in exploration and production, which is the majority of SOEs.

Requirement 4: Where SOEs collect or pay taxes, royalties, fees, dividends and in-kind revenue, 4.1 and 4.2 apply.⁸⁷ Where SOEs trade crude oil or raw minerals for other products, as in Nigeria, or are required to provide infrastructure, as in Venezuela, 4.3 applies. Where SOEs are pipeline owners or operators or make money from mineral transportation, 4.4 applies. Requirement 4.5

⁸⁷ The EITI has developed special guidance on commodity trading available at <https://eiti.org/GN26>.

deals specifically with the fiscal relationship between SOEs and other government entities. Where SOEs make direct subnational payments, 4.6 applies.

Requirement 5: Where SOEs collect resource revenues and make extra-budgetary payments, such as in Angola and Ghana, 5.1 requiring disclosure of distribution of revenues applies.

Requirement 6: In countries where SOEs have quasi-fiscal expenditures or make payments directly to communities, this requirement is relevant.

As we have seen, many elements of the EITI Standard apply to SOEs, not simply the ones explicitly mentioning the term. The standard does not go into the same level of detail and is not as comprehensive in its guidance as, for example, the World Bank toolkit, NRGi's SOE disclosure guidelines or GRI's G4 guidelines. Neither do the EITI's guide or guidance notes, though they are useful additions to the EITI toolkit available for implementers. However, it is the only document to offer extractive-specific public disclosure standards which apply to SOEs.

As of August 2018, the EITI Standard is being applied in 51 countries.⁸⁸ While not all of these countries have been assessed against the 2016 standard, there is little doubt that the EITI reports that have been produced to date have greatly improved the quantity and quality of public information on SOEs. In several Francophone African countries, such as Chad, the Republic of Congo and the DRC, EITI reports provide the most valuable public information available about what SOEs are doing with public resources. Still, there is a lack of clarity around definitions (e.g., "transfers"; "SOEs") and the standard lacks a requirement to disclose all SOE revenues, expenditures and activities.⁸⁹ The implication is that the standard would need to be revised *if* the goal is for EITI reports to provide comprehensive information on SOE finances and operations. Should the current standard be maintained, other sources of data would need to complement EITI data to provide a comprehensive portrait of SOE finances and operations.

Fiscal Transparency Code and Handbook (IMF 2014; 2018) and Guide on Resource Revenue Transparency (IMF 2014)

The IMF's *Fiscal Transparency Code* is an international standard for disclosure of information about public finances. It contains four pillars of principles: Fiscal reporting; fiscal forecasting and budgeting; fiscal risk analysis and management; and resource revenue management. Similar to

⁸⁸ <https://eiti.org/countries>

⁸⁹ Patrick Heller (2018) *I Read Hundreds of Pages of EITI Reports. Here's What I Found*. Blog. Natural Resource Governance Institute. Online: <https://resourcegovernance.org/blog/i-read-hundreds-pages-africa-eiti-reports-here-is-what-i-found>.

the World Bank toolkit's *Appendix E*, it differentiates between basic, good and advanced practices. The Fiscal Transparency Handbook provides detailed guidance on how to interpret elements of the Code. The Guide on Resource Revenue Transparency provides guidance on the fourth pillar. The Code is used by the IMF to carry out voluntary Fiscal Transparency Evaluations subject to government requests.

The Code consists of 36 fiscal transparency “dimensions”. While not all of them are applicable to SOEs, the following are among the ones that are:

- Fiscal reports coverage: All entities should report on financial and non-financial assets and liabilities; revenues, expenditures and financing; and loss from tax expenditures.
- Quality of reporting: Information should be usefully presented and consistent.
- Integrity of reports: Fiscal statistics are reported according to international standards; entities should be subject to independent external audit; and fiscal forecasts and budgets are published.
- Investment projects: The government should regularly disclose its financial obligations under multiannual investment projects and subjects all major projects to cost-benefit analysis and open and competitive tender.
- Governance: The role of the executive and legislature should be clear and the legislature and public are given adequate time to scrutinize public finances.
- Performance: There are measurable objectives for entities; results are recorded; and the implications of budget policies are explained with an opportunity for public participation.
- Public-private partnerships: Obligations under public-private partnerships are regularly disclosed and actively managed, and financial risks are analyzed, disclosed and managed.
- Natural resources and the environment: The government's interest in exhaustible natural resource assets and their exploitation, as well as fiscal exposure to natural disasters and other major environmental risks are valued, disclosed, and managed.
- Public corporations: The government regularly publishes comprehensive information on the financial performance of public corporations, including any quasi-fiscal activity undertaken by them.

The *Guide on Resource Revenue Transparency* goes into substantially more detail on resource-related disclosures, including reporting on: company payments; resource-related debt; and the flow of resource revenues between government entities.

The Code provides a useful addition to the landscape in that it provides a list of public finance transparency standards rather than simply guidelines. That said, it is not SOE-specific and the elements that are extractive sector specific (Pillar IV, still in draft form to be released soon, and

the *Guide on Resource Revenue Transparency*) do not differ significantly from tools available elsewhere. On the other hand, the IMF provides credibility and international recognition of the issues.

The Code is implemented by the IMF through two mechanisms: Fiscal Transparency Evaluations (FTEs) and Reports on the Observance of Standards and Codes (ROSCs). FTEs are assessments of country practices against the standards set by the Code along with recommendations. As of March 2018, 23 FTEs have been conducted, including in resource-rich or EITI candidate countries such as Albania, Bolivia, Brazil, Peru, the Philippines, Russia, Uganda and the United Kingdom. ROSCs cover more than just the Code's standards, including anti-money laundering and banking supervision. However, ROSC assessments also analyze countries' adherence to the principles and practices in the Code. Most IMF members have undergone ROSC assessments, though many not for a decade or more.

International Financial Reporting Standards (International Accounting Standards Board)

The International Financial Reporting Standards (IFRS) provide specific rules for oil, gas and mining companies to follow when complying with international accounting standards. These rules are designed to provide investors with adequate information to assess company performance.

Describing the full accounting standards here would be overly cumbersome. Still, it bears mentioning that IFRS 6 requires disclosure of reserves and resources, licensing and finances related to exploration and evaluation. Information required under other sections include joint operation finances, payments to governments, and environmental liabilities.

Clearly, IFRS provides a comprehensive list of required information. But these are not requirements to make information public. Rather, they are meant for internal tracking of activities and finances and for investors. As such, they are deemed internal reporting standards rather than for external reporting. That said, some SOEs have adopted these standards and release public reports that utilize them. According to NRG's soon-to-be-released NOC data set, 27 out of the 63 NOCs or their subsidiaries for which data was collected audited their financial reports to IFRS standards. These included Abu Dhabi's IPIC, Angola's Sonangol, China's CNOOC Ltd, Denmark's Ørsted A/S, Ghana's GNPC, Indonesia's Pertamina, Jamaica's PCJ, Kazakhstan's Kazmunaigaz, Namibia's NAMCOR, Russia's Rosneft and Venezuela's PDVSA.

Oil and Gas Exploration and Production Sustainability Accounting Standard (Sustainability Accounting Standards Board 2014)

The Sustainability Accounting Standards Board (SASB) standards are designed for companies that must disclose material sustainability information in their mandatory filings to the Securities and Exchange Commission in the U.S. They provide guidance and accounting standards.

The SASB Standard for Oil and Gas Exploration and Production provides guidance that is mostly aligned with GRI's template. For example, it suggests that companies disclose a description of the business and subsidiaries and risk factors. One principal difference is that the disclosures are only applicable to projects that are of material relevance to investors rather than all projects or those that are material to affected communities and governments.

The disclosure standards in the document focus mainly on metrics for evaluating social and environmental impacts, for example the quantity of barrels of proved or probable reserves lie in or near conflict areas or metric tons of volatile organic compounds released into the air. The four accounting metrics dealing with financial or governance matters are: sensitivity of reserves to future price scenarios that include a carbon price; impact of price and demand changes on capital expenditure; quantity of politically-motivated spending; and five largest recipients of political donations. The standard also requires disclosure of production figures and number of sites.

Commonalities and gaps in guidelines and standards for SOEs

There is significant overlap between the 14 guidelines and standards reviewed in this report, as can be seen in Table 3. Specifically, nearly all the documents suggest disclosure of an SOE's legal framework; mandate; shareholdings; corporate structure; partnerships; corporate governance; commercial and non-commercial activities; finances; performance; risk factors; and transfers to / from the treasury. There is less consensus around disclosure of contracts, however the newest generation of standards and guidelines—such as the GIFT Principles, 2016 EITI Standard and NREGI's reporting guidelines—are incorporating contract transparency. Social and environmental disclosures are also not universally recommended; however, this may be a function of the documents reviewed, which were focused on SOE corporate governance and financing.

Technical support is available for help in implementing 10 of the 14 documents. In some cases, support is through formal channels, such as EITI Validation, the OECD's SOE corporate governance reviews, PEFA assessments, or the IMF's ROSCs and Fiscal Transparency Evaluations. In other cases, implementation is more informal or provided on an *ad hoc* basis. Technical

assistance on compliance with standards or use of guidelines is available from many of the organizations listed in this report, including the EITI, GRI, NRGi and the World Bank.

It may be reasonable to conclude that these commonalities represent a global consensus on what elements constitute good reporting practice by SOEs. Yet, to date, a definitive internationally-accepted extractive SOE disclosure standard has not been developed. The 2016 EITI Standard and Resource Governance Index methodology are the closest available tools.

Perhaps existing guidelines are adequate for improving SOE public disclosures. After all, as mentioned, a single standard covering all SOEs, no matter their varying mandates and activities, may be inappropriate. Furthermore, guidelines are more flexible than standards, allowing SOEs to adapt their reports to their specific contexts.

Table 3. Topics covered by a subset of guidelines and standards covered in this report

Document	Context / legal framework	Mandate / objectives	Shareholdings	Corporate structure	Partnerships	Board / corporate governance	Commercial activities	Non-commercial activities	Contracts	Risk factors	Finances	Performance	Transfers to/from treasury	Social and env impacts
EITI	X	X	X	X	X	X	X	X	X		X		X	
PEFA							X	X		X	X	X		
GIFT	X	X			X	X	X	X	X		X	X	X	X
OECD	X	X	X	X	X	X				X	X	X	X	
World Bank	X	X	X	X	X	X	X	X		X	X	X	X	
NRGI	X	X	X	X	X	X	X	X	X		X	X	X	X
GRI	X		X	X	X	X	X	X		X	X		X	X
IMF Code	X			X	X		X	X		X	X	X	X	X

Yet, as we have seen, despite the existence of these documents and the implementing mechanisms attached to many of them, SOE reporting in the upstream oil, gas and mining sectors remains insufficient. This report therefore proposes a number of policy options for improving corporate governance and reporting.

Conclusions, policy options and recommendations

As we have seen, upstream oil, gas and mining SOEs can generate significant revenue for the state, enable a government to exercise greater control over the sector, help improve local technologies and skills, and address market failures. For instance, the presence of an SOE in the upstream oil sector is associated with higher government take. And some SOEs such as Abu Dhabi's ADNOC, China's Sinopec, Norway's Equinor, Saudi Arabia's Saudi Aramco and Thailand's PTT have arguably generated significant value for their shareholder, the state, and contributed to the economic development of their countries.

Transparency and oversight can contribute to good governance at SOEs. We have documented instances where additional reporting has led directly to improved performance or returns for citizens, for example at Ghana's GNPC and Indonesia's Pertamina. The larger effects may be the ones we cannot measure: problems avoided thanks to public reporting.

At the same time, we have highlighted a series of serious challenges at SOEs that collectively cost governments and their citizens many billions of dollars annually. These challenges can empower and sometimes enrich officials and those with connections to the government at the expense of the average citizen. There are many underlying causes, some of the most important being inappropriate governance rules and failures of transparency and independent oversight. The 2017 Resource Governance Index scores bear out a tendency towards opacity among SOEs. 58 percent of national oil companies and 72 percent of national mining companies measured in the index do not disclose enough quality, timely information about their activities and finances to carry out proper external assessments.

Many governments have taken steps to address these challenges. Public reporting is improving through the publication of annual reports, greater adherence to international accounting standards, and participation in EITI reports. Companies like Chile's Codelco, Colombia's Ecopetrol, Ghana's GNPC, India's ONGC, Mongolia's Erdenes Mongol, Nigeria's NNPC, the Philippines' PNOC and Zambia's ZCCM-IH have made great strides in disclosing information on their finances and activities.⁹⁰

To support the work of governments, international organizations have developed a collection of guidelines and standards to improve the transparency and governance of extractive companies, state-owned enterprises or public entities more generally. As we have seen, there are at least 14 sets of useful guidelines or standards and significant overlap between them. There is significant

⁹⁰ Based on EITI compliance assessments and Resource Governance Index SOE scores.

overlap between them, indicating an international consensus on many elements of what constitutes good governance and what information ought to be disclosed. The World Bank Toolkit's *Appendix E*, the NRG1 Guidelines and GRI's G4 Guidelines and sector specific guidance might be the most useful for improving extractive SOE disclosures. Some other documents listed in this report could be more useful for improving SOE governance or performance beyond just public reporting.

To date, a definitive internationally-accepted extractive SOE disclosure standard has not been developed. The 2016 EITI Standard and RGI methodology are the closest available tools. Part of the reason might be that extractive SOEs do not lend themselves easily to disclosure standards; mandates and activities vary significantly across SOEs. For instance, it would be difficult to develop a common disclosure standard for a regulator and a vertically integrated energy company.

Another reason this type of standard may not have been developed is a lack of demand. Few SOEs are asking for disclosure standards or even templates, and their ultimate owners either receive the information they need or manage their SOEs at arms length. Many government officials simply do not see the usefulness or need for greater disclosure.

A third reason might be the supply-driven nature of international initiatives. SOE fora exist, for example at the OECD or through Chatham House's New Petroleum Producers Discussion Group. SOEs are made aware of governance tools at those events. Yet even existing guidelines and standards are often underused or ignored by SOEs. In some cases, they are viewed as more appropriate for advanced than emerging economies. In many cases, government officials and SOE managers do not feel that they "own" their development, never mind their implementation.

On the other hand, many SOEs and their owners do not participate in these events. This report has identified 146 oil, gas and mining SOEs. The vast majority of managers and owners are not involved in the fora mentioned throughout this paper. Nor do they engage regularly with good governance experts. Many may be unaware of existing guidelines and standards.

While we should not be naïve—SOE opacity and poor performance often serve manager, staff or private sector interests—there are surely marginal cases where additional international support and advice could improve governance. The question though is whether international certification, a new standard, an international forum and peer review, individualized technical assistance from peers or experts, piggybacking on existing initiatives or some other form of support or encouragement would be most useful. And for each option, which are not mutually exclusive, what might be the role of the EITI?

1. *Certification*: Like the EITI standard, the success of SOE certification would rest upon its perceived value for improving SOE reputations and performance as well as support available for implementation. This would naturally require the development of a new standard (see option 2 below). Among the advantages would be a raised profile of SOE governance challenges, experience sharing between SOEs, and encouragement for SOEs to improve their disclosure standards. SOEs with an interest in improving their reputation among investors or international partners, but which are presently relatively opaque, would benefit the most. Those less reliant on private partners or which resist transparency for political reasons would likely benefit less. Depending on how it is designed, a certification based on achieving a certain standard might limit improvements to elements where a box can be ticked, rather than broader financial or governance performance. The administrative costs of establishing a brand new certification scheme might be prohibitive. Incorporating the regime into the EITI Standard would reduce costs, though only SOEs in EITI implementing countries would benefit. The IMF or Chatham House might be alternative or concurrent venues for hosting such a certification.

2. *New disclosure standard*: As this research has shown, there does not currently exist an internationally recognized standard for extractive SOE disclosures. Still, PFM disclosure standards (e.g., PEFA, IMF Code), SOE disclosure standards (e.g., World Bank toolkit *Appendix E*), extractive company guidelines (e.g., GRI, SASB) and extractive SOE guidelines (e.g., NRGi, Chatham House) do exist. These could be drawn upon to develop a new standard. The benefit of developing a new standard is that it would increase the profile of existing tools and could be used in a certification scheme or technical assistance. It would also help clarify several EITI Standard requirements, such as definitions (e.g., “SOEs”, “transfers”) and what information SOEs must disclose on their expenditures (Requirements 5.1, 6.1 and 6.2). On the other hand, a new standard might encourage box ticking rather than improved performance. Also, the same goal may be achieved by simply developing enhanced EITI implementation templates for SOEs. Should the EITI develop this standard, only implementing countries would be subject. An alternative would be to develop a new standard in partnership with others, for example Chatham House, GRI, ISO, NRGi, OECD, United Nations or World Bank.

3. *Building on and expanding EITI implementation guidelines*: The EITI has already produced a number of guidance documents applicable to SOEs, including on state participation and commodity trading. The EITI could build on and expand the scope and depth of these documents, for instance by elaborating on existing guidance documents and creating new ones. The advantage of this option would be that it would clarify some elements of the

current standard that remain hazy. The expanded guidelines could, for instance, incorporate additional clarification on interpretation of terms and even suggest templates relevant to SOEs' respective mandates. Another advantage would be that guidance would constitute a relatively low-effort initiative given the existence of so many other publicly available documents. On the other hand, as this report has shown, there is no lack of advice or guidance available on SOE reporting, yet public disclosure remains insufficient. The challenge in many countries may not be a lack of resources but rather a failure to implement standards and guidelines. As such, enhancing the EITI's guidance offerings may simply duplicate others' efforts, especially GRI, IMF and NREGI documents, without significant concrete benefits.

4. *Officialising or adapting existing guidelines and standards*: EITI could adopt some of the existing guidelines or standards as “official” advice to EITI candidate countries. Among the existing documents, the GRI and NREGI guidelines are the strongest contenders. The EITI Secretariat could work with these organizations to agree on a final “official” document that would be co-branded. The OECD may not be an appropriate partner for this exercise since several interviewees expressed a view that the OECD is perceived as Western-focused and its advice may be inappropriate for most emerging economies. This option is lower effort—requiring staff time, a handful of meetings and buy-in from various EITI stakeholder groups—but its impact may also be limited.
5. *International forum / “SOE Transparency Leadership Group”*: The EITI could work to establish a new non-profit forum similar to the International Forum of Sovereign Wealth Funds (IFWSF) or the Open Government Partnership. The forum would aim to share experiences among SOEs and their owners and would commit to improving performance based on some standard or measurable set of country-specific targets. A peer review mechanism, such as the G-20's Framework for Strong, Sustainable and Balanced growth, could be incorporated into such a forum. Governments would assess each others' progress towards achieving specific targets, meeting commitments or complying with a new standard. These fora are often effective at providing political cover for improving governance and generating one-time gains which are usually not sustained. They are also useful for sharing experiences across countries, covering issues beyond transparency and demonstrating the benefits of openness and good governance. They can be prohibitively expensive to organize and become “talk shops” consisting of officials sent to meetings as rewards rather than to learn how to implement reforms.
6. *Technical assistance*: One challenge with international initiatives is that they are not context specific. They are blunt instruments for dealing with governance failures that are

rooted in domestic politics and that require domestic approaches to solve. Furthermore, SOEs have such differing mandates and activities that a single standard for all may be inappropriate. Therefore, technical assistance and peer exchanges on specific cases could be the most effective method of improving SOE transparency and governance. It could also serve as a more demand-based approach. Technical assistance on SOE reporting is already being offered on an *ad hoc* basis by a large number of institutions around the world, including the EITI Secretariat, ADB, AfDB, Chatham House, OECD, GIZ, NORAD, NREGI, World Bank and the “big four” accounting firms. Additional technical assistance could be offered through a new multilateral initiative on the model of the African Legal Support Facility or the World Bank’s multilateral trust funds, or a technical assistance group could be housed at existing organizations such as the EITI or Chatham House. The hosting organization would need international credibility and capability to manage such a program. Such an initiative would require some administrative capacity, building a roster of technical assistance providers, and funding from donors or SOEs themselves.

7. *Piggybacking on existing initiatives*: Another means of improving SOE governance would be to work through existing venues—such as the Open Government Partnership, the PEFA, Chatham House’s New Petroleum Producers Discussion Group, the IMF’s Article IV Consultation or Reports on the Observances of Standards and Codes (ROSCs), or the OECD’s Policy Dialogue on Natural Resource-based Development or Working Party on State Ownership and Privatization Practices—to incorporate good SOE governance into their efforts. This might take the form of, for instance, making international commitments to improved disclosure, using a forum to discuss the importance of SOE performance, or incorporating new elements on SOE performance and transparency into existing standards or measures of good governance. These might take less effort than some of the other options listed above. Already some of these fora are taking steps in line with EITI’s mandate, such as an OECD initiative to develop a template for companies to disclose information on payments to governments. The EITI could allocate resources to encourage other organizations to more thoroughly incorporate specific elements of SOE good governance into their initiatives, fora or standards.

The EITI may wish to consider the different policy options listed here on systematic basis. This could be done through a set of internal meetings or discussions. Questions to ask might include:

- Is the goal of the EITI to improve SOE public reporting or performance and governance more generally?
- What tools currently exist—documents, fora and technical assistance initiatives—with which we can start working immediately?

- What are the pros and cons of each of the options listed in this report?

This report also recommends that the EITI convene a forum of SOE owners (e.g., Office of the President, Ministry of Finance, state-owned holding company) and managers, along with other relevant institutions such as Chatham House, IMF, NRGi, OECD and World Bank, to discuss these various options. This would allow the EITI to determine whether there is interest and opportunity to go beyond existing standards and adopt one of the other options.

Annex: Partial list of state-owned upstream oil, gas and mining enterprises

Afghanistan (Northern Coal Enterprise)*	Denmark / Greenland (Nunaoil)	Mauritania (SMHPM)
Albania (Albpetrol)	Ecuador (PetroEcuador)	Mauritania (SNIM)*
Algeria (Sonatrach)	Egypt (EGPC)	Mexico (PEMEX)
Angola (Endiama)*	Equatorial Guinea (GEPetrol)	Mongolia (Erdenes Mongol)*
Angola (Sonangol)	Equatorial Guinea (Sonagas)	Morocco (OCP)*
Argentina (Enarsa)	Eritrea (ENMC)*	Morocco (ONHYM)
Argentina (YPF)	Ethiopia (Adola)*	Mozambique (ENH)
Azerbaijan (SOCAR)	Gabon (Gabon Oil Co)	Myanmar (ME1)*
Bahrain (BAPCO)	Georgia (GOGC)	Myanmar (ME2)*
Bangladesh (Petrobangla)	Ghana (GNPC)	Myanmar (MGE)*
Bolivia (YPFB)	Ghana (Sankofa)*	Myanmar (MOGE)
Botswana (Debswana)*	Guinea (SGPM)*	Namibia (NAMCOR)
Brazil (Petrobras)	Haiti (Petrogaz-Haiti)	Namibia (Namdeb)*
Brazil (Vale)*	Hungary (MOL)	Niger (SPMN)*
Brunei (Petroleum Brunei)	India (Coal India)*	Nigeria (NNPC)
Cameroon (SNH)	India (ONGC)	Norway (Equinor)
Chad (SHT)	Indonesia (Pertamina)	Oman (OOC)
Chile (Codelco)*	Indonesia (Antam / PT Aneka Tambang)*	Pakistan (Pakistan State Oil)
Chile (ENAMI)*	Indonesia (PT Bukit Asam)*	Papua New Guinea (Ok Tedi Mining)*
Chile (ENAP)	Indonesia (PT Timah)*	Papua New Guinea (Petromin)*
China (China Energy Corporation)*	Iran (NIOC)	Peru (PeruPetro)
China (CNOOC)	Iraq (NOC)	Philippines (PMDC)*
China (CNPC)	Iraq (SOC)	Philippines (PNOC)
China (PetroChina)	Italy (ENI)	Poland (JSW)*
China (Shenhua Energy)*	Japan (JOGMEC)	Poland (KGHM)*
China (Sinopec)	Jamaica (PCJ)	Poland (Kompania Weglowa)*
China (Zijin Mining)*	Jordan (JPMC)*	Poland (PGNiG)
Colombia (Ecopetrol)	Jordan (NPC)	Qatar (Qatar Petroleum)
Congo, Rep. of (SNPC)	Kazakhstan (KMG)	Russia (Gazprom)
Cote d'Ivoire (PetroCi)	Kenya (NOCK)	Russia (Rosneft)
Croatia (INA)	Kuwait (KPC)	Russia (Rostec)*
Cuba (CUPET)	Kyrgyzstan (Kyrgyzaltyn)*	Saudi Arabia (Ma'aden)*
DRC (CoHydro / SNH)	Liberia (NOCAL)	Saudi Arabia (Saudi Aramco)
DRC (Gecamines)*	Libya (Libyan NOC)	Senegal (Petrosen)
DRC (MIBA)*	Madagascar (Kraoma)*	Seychelles (Petroschelles)
DRC (SODIMICO)*	Malaysia (Petronas)	
Denmark (Ørsted A/S)		

South Africa (PetroSA)
South Africa (AEMFC)*
South Sudan (NilePet)
Sudan (Sudapet)
Suriname (Staatsolie)
Sweden (LKAB)*
Syria (SPC)
Tajikistan (Oil, Gas and Coal / Naftugaz va Angisht)
Tajikistan (Vostokredmet)*
Tanzania (Stamico)*
Tanzania (TPDC)
Thailand (PTT)
Timor-Leste (Timor GAP)

Trinidad and Tobago (National Gas Company of T&T)
Trinidad and Tobago (National Quarries Company Limited)*
Trinidad and Tobago (Petrotrin)
Tunisia (Compagnie des phosphates de Gafsa)*
Tunisia (ETAP)
Turkey (TPAO)
Turkmenistan (Turkmennebit)
Turkmenistan (Turkmengaz)
Ukraine (Naftogaz)

Uganda (Uganda NOC)
UAE – Abu Dhabi (ADNOC)
UAE – Abu Dhabi (IPIC)
UAE – Abu Dhabi (TAQA)
UAE – Dubai (ENOC)
Uruguay (ANCAP)
Uzbekistan (Uzbekneftegaz)
Venezuela (PDVSA)
Vietnam (PetroVietnam)
Vietnam (Vinacomin)*
Yemen (YOGC)
Zambia (ZCCM-IH)*
Zimbabwe (ZMDC)

* Principally act as state-owned mining enterprises

About the author

Andrew Bauer is a public sector finance and governance consultant. He provides technical assistance on public financial management; state-owned enterprise and sovereign wealth fund governance; subnational public finance; mining and petroleum sector regulation and taxation; and good governance mechanisms. He is a former senior economic analyst at the Natural Resource Governance Institute (NRGI) where he advised on institutional and legal reforms in more than 25 countries, including Canada, Ghana, Indonesia, Kyrgyzstan, Libya, Mexico, Mongolia, Myanmar, Timor-Leste and Uganda. Prior to joining NRGI, he served on the Government of Canada's G8/20 team in the Department of Finance and worked for several governmental, private sector, academic and non-profit organizations. He is the author of several publications on public finance and has been cited by *BBC*, *BloombergView*, *CBC / Radio-Canada*, *The Economist* and *Reuters*. He holds degrees from McGill University and Oxford University.

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