

# Precept 3. Institutional organization and award of contracts

## *Technical Guide*

### **1. Introduction: Objectives, Trade-offs and Guiding Principles**

This Precept covers three topics of central importance to the maximization of resource sector value, the promotion of investment and good governance, and safeguarding of the public interest:

- legal contractual and regulatory frameworks are discussed in Section 3 below;
- sector organization and institutions in Section 4; and
- the award of licenses in Section 5.

#### **Objectives**

There are three core objectives that governments must work towards:

***Attracting investment.*** Alongside factors such as geology and fiscal terms (see Precept 4), resource companies also place significant weight on sector governance in deciding where to invest. They look for clarity in laws and regulations, contracts consistent with good international practice, and efficient sector management. Professional, transparent conduct of the license award process, the investor's entry point, will also favorably impress responsible investors.

***Safeguarding the public interest.*** Promotion of investment should be balanced by an equal or greater concern for protection of the public interest. Safeguarding the public interest, too, depends on clear and transparent laws and regulations, their efficient administration, and sector institutions made accountable by clear definition of their roles and responsibilities.

***Maximizing value.*** Legal, contractual and institutional good practice contribute to maximizing sector value not only by attracting investment, but also by encouraging efficient operations. Properly structured, the license award process adds value by eliciting maximum bids whether measured by work committed, fiscal terms or other criteria.

## Trade-offs

There are two types of tradeoffs that governments may face when pursuing these objectives:

***Urgency vs. readiness.*** Resource-rich developing countries may be faced with considerable investor interest without the necessary institutional capacity yet in place to effectively deal with such interest.

If a government has not yet developed an investment framework, it should carefully consider the costs of proceeding with a contract. Best practice would encourage deferring awards until the minimum required capacity is in place, or the engagement of experienced advisers if the decision is made to go ahead regardless.

***Early awards vs. acquisition of information.*** A similar trade-off occurs when the need for investment is great, but the available technical data are insufficient to secure broad investor interest. This rules out competitive auction as an award process, and also, most probably, it places the host country at a disadvantage to those companies who are prepared to pursue a license.

## Guiding Principles

This precept offers a number of guiding principles to help governments achieve the objectives set out above:

***Clarity and transparency.*** Laws, contracts, regulations, and the roles, responsibilities and operations of sector institutions should be clear, transparent and public.

***Comprehensive coverage.*** Laws, contracts, regulations and the roles of sector institutions and agencies should be comprehensive, and coordinated or harmonized, without leaving gaps in any key areas of sector oversight, while avoiding conflict or overlap.

***Minimize discretion.*** The legal and institutional framework established for the resource sectors should minimize opportunities for administrative discretion and possible abuse.

***Build capacity.*** The topics addressed in this precept are complex both in design and implementation. The highest priority should be assigned to acquiring or developing the required skills and resources. In the short term, engagement of experienced international advisers may be appropriate; longer term, the required capacity should be created internally.

## 2. Legal, Contractual and Regulatory Framework

The establishment of a legal, contractual and regulatory framework consistent with international good practice is critical to both the promotion of investment and protection of the public interest.

### Alternative Approaches to Legislation

Three distinct approaches to resource sector legislation exist and can be found in varying degrees in resource-rich countries: Comprehensive, Framework, and Contractual. A separating factor of these approaches is the choice between discretionary and legislated actions available to participants.

**Comprehensive.** Popular in most OECD countries, and, until recently, favored in mining countries, the comprehensive approach fixes in law all or most of the provisions governing resource sector operations. The perceived advantages of this approach are:

- the limitations it imposes on the discretionary actions of the authorities<sup>1</sup>;
- the level playing field it provides to all participants in these sectors<sup>2</sup>;
- the focus it usually provides to a limited number of negotiable variables; and
- its mitigation of the disadvantages host countries may experience in negotiations with more experienced and sophisticated companies.

The disadvantage of the approach is its lack of flexibility which, while perhaps less important in the OECD context, can be extremely important in developing countries.<sup>3</sup>

**Framework.** Framework legislation is a hybrid, between comprehensive legislation and the next listed alternative, legislated contracts. It is probably the most common approach to sector legislation. It covers all the central issues, but with a lighter touch than comprehensive legislation, leaving many details open to elaboration in contracts

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<sup>1</sup> Even generally recognized comprehensive regimes, such as those in place in Norway and the U.K., may sometimes leave room for discretion, e.g., in the determination of capital costs relative to operating costs.

<sup>2</sup> A level playing field in the sense that the same rules apply to all participants. The rules may still have a differential impact on participants depending on their circumstances, e.g., firms that have established profits against which they can write-off losses are better placed fiscally than new entrants to the sector.

<sup>3</sup> OECD countries may have more stable economic, legal and institutional environments reducing the expected need for change or adjustment to the extractive industry legal regime.

and regulations. This may be particularly desirable in the mining sector where flexibility on mine-site specific matters can be important. At the same time, the framework approach typically limits the discretion available to government on core issues, either in the content of the legislation itself, or through the issuance of model contracts.

***Contractual.*** The contractual approach is usually found in countries at a very early stage of resource sector development, where a strong interest in resource exploration and development may have been expressed, but there has been insufficient time to prepare and develop sector legislation. Under such circumstances, all-important provisions are placed in the negotiated contract itself, which, to allay investor concerns over possible renegotiation or revisions, is then typically passed as a law. While an understandable solution where pressures to explore and develop are urgent, the approach has two drawbacks. First, by allowing greater discretion to negotiators it may facilitate corruption. Second, by encouraging a multiplicity of contractual arrangements, it increases the complexity of administration and oversight.

## **Types of Contract**

There are three general types of agreement or contract in the extractives sector:

1. the concession;
2. the production-sharing agreement (PSA); and
3. the risk-service agreement.

While all three forms are commonly found in the petroleum sector, only the first is commonly found in the mining sector. A key factor distinguishing these types of agreements is the extent of ownership of the resource.

***Concession (or Tax-Royalty Agreements).*** Oldest of the three forms of agreement, the concession has evolved considerably since it was first introduced and is still widely used. Under concessions, the investor is the direct contractor of the state, holding exclusive mining rights<sup>4</sup> and title to 100 percent of the produced resource, but not to the resource in the ground. All operations are conducted at the investor's own risk and expense. The state is given an active role in concessions management through a variety of possible channels including: representation on technical

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<sup>4</sup> These include the right to explore for, develop, produce, transport and market resources, within a fixed area for a fixed amount of time.

committees; the direct participation of its national resource company (NRC) in an unincorporated joint venture with non-state investors (common in petroleum); and/or minority state equity participation in an incorporated joint venture (common in mining).

Typical fiscal provisions under concession agreements call for an income tax, a royalty and, increasingly, some form of additional profits tax. Concession agreements are for this reason also known as tax-royalty agreements. As discussed under Precept 4, state participation in a concession, depending on how it is structured, may also have a fiscal dimension.

***Production Sharing Agreement.*** The PSA was introduced in Indonesia in the 1960s and has become a popular form of contract in petroleum-rich developing countries. Under PSAs, an agency designated by the state – usually the NRC – is the concessionaire, owns the mining rights, and contracts with the non-state investor, who bears all costs and risks, as under concessions. The contractor owns only that portion of production to which it is entitled under the PSA. The state is directly involved in management both through its role as concessionaire, and through its participation in the PSA joint operating committee with the investor. Under standard PSAs, the investor is allocated a fixed maximum percentage of production to recover costs, with remaining production shared between government and the contractor based on a formula contained in the agreement.<sup>5</sup> The investor is also usually subject to corporate income tax. Royalties may be applied, and, in some countries, the state may take a direct equity stake in the PSA.

***Risk Service Agreements.*** Risk service agreements are the most recently established contract form and are particularly associated with major petroleum producing countries such as Mexico, and a number of countries in the Middle East. Under these agreements, the investor is a contractor to the state or NRC for specific tasks, but owns no extraction rights nor production facilities, both of which belong entirely to the state. The contractor typically assumes all costs and risks, and is compensated by application of a formula spelled out under the agreement, which normally includes some reward for performance, e.g. production above target, etc. Remuneration is in cash, although some formulations, called '*Buy Back Agreements*', allow for translation of the cash remuneration into production. Except in countries with world-class

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<sup>5</sup> In a limited number of country cases, Indonesia amongst them, no maximum is fixed and up to 100 percent of contractor cash flow is available for cost recovery. A fixed maximum is much more common, however. If less than the maximum is required, the balance is typically shared with government, as noted.

reserves, investors have shown limited interest in risk service agreements because of the limited upside profit potential they offer.

***Incidence of contract types***

Contract labels are far less important than their detailed content (discussed next). As noted in Precept 3, concessions or tax-royalty arrangements and production sharing can be structured so as to be fiscally equivalent. Further, combined legal and contractual provisions can be drafted to produce similar results for the two contractual forms in terms of government oversight, involvement in operations, and non-fiscal benefits. Even risk-service agreements, in response to basic requirements of both government and investor, now contain many of the same core provisions as are contained in concessions and PSAs, although admittedly more assertive with respect to host country control.<sup>6</sup>

History and politics probably have been more important in determining country choices of contract type than any fundamental differences in detailed content. Concessions are the overwhelming choice in mining. In petroleum, concessions are perhaps more common in industrialized countries; PSAs are favored in developing countries; and risk-service contracts are confined to a handful of countries with major reserve bases and strongly nationalistic politics. A number of countries have more than one type of contract. Table 1 shows the incidence of different contract types in a number of petroleum producing countries.

***Table 1 Incidence of Petroleum Contract Types***

<b>Country</b>	<b>Tax-royalty</b>	<b>PSA</b>	<b>Risk-service</b>
<b>Algeria</b>		x	
<b>Angola</b>	x	x	
<b>Azerbaijan</b>		x	
<b>Bahrain</b>		x	

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<sup>6</sup> While there is a growing convergence among contract types in terms of their implications for revenues, control, and risk-sharing, drafting under each label can be managed to produce equivalent results, labels in the past have had more meaning, with, e.g., concessions offering less in terms of government control and oversight than PSAs or service agreements. Certainly, as suggested next, they have differed in terms of political “optics” related to national sovereignty.

<b>Brazil</b>	x	x	
<b>Chad</b>	x		
<b>Colombia</b>	x		
<b>Equatorial Guinea</b>		x	
<b>Gabon</b>	x	x	
<b>Indonesia</b>		x	
<b>Iran</b>			x
<b>Iraq</b>			x
<b>Kazakhstan</b>	x	x	
<b>Kuwait</b>			x
<b>Libya</b>	x	x	
<b>Malaysia</b>		x	
<b>Mexico</b>			x
<b>Nigeria</b>	x	x	
<b>Norway</b>	x		
<b>Russia</b>	x	x	
<b>Trinidad Tobago</b>	x	x	
<b>UAE</b>	x		
<b>Venezuela</b>			x

## Legal and Contractual Content

While sector laws and contracts may contain provisions special to each, many of the provisions common in resource laws may also be found in contracts, and vice-versa. As suggested above, comprehensive laws will contain detailed provisions which, under another legal regime, would be found in contracts. Framework legislation may include the same provisions as are found in contracts, but not at the same level of detail, i.e., the contract elaborates on the provisions contained in the law. And legislated contracts will contain terms that would be otherwise covered by free-standing legislation. The provisions listed below are some of the most important for the protection of country and investor interests alike. They should be included in any

legal-contractual package. The parenthetical letters indicate where they are most commonly found – in laws (*L*), or contracts (*C*), or possibly both. In some cases, best practice with respect to the provision is suggested.

***Ownership.*** With few exceptions ownership of resources in the ground is vested in the state. Often found in sector legislation, this principle may also be established at the level of the constitution. (*L*)

***Roles and responsibilities.*** Identifies key sector agencies together with, in summary form, their roles and responsibilities. See Section 4 below. (*L*)

***Authority to contract.*** Identifies the agency or agencies with authority to enter into contracts with investors on behalf of the state and the procedures to be followed in the award of contracts. See Section 5 below. (*L*)

***Allowable types of contract.*** Identifies the types of contract which may be entered into (concession, PSA, risk service, for example). (*L*)

***Parties to the contract.*** Names the party contracting on behalf of the state (e.g., ministry or NRC), and the contracting investor(s). (*C*)

***Rights and duties.*** The law will usually list the rights and duties of both government and contractor in at least summary form, leaving details to be provided in the contract itself. The government is typically obliged to assist the contractor within the law in such matters as obtaining necessary permits, while the contractor is expected to conduct operations in a manner consistent with best international practice. (*L, C*)

***Exploration and development.*** Provisions governing exploration and development activities may be summarized in the law, but will be set out in much greater detail in the contract. Exploration provisions in the contract will include, among other items:

- a definition of the exploration area;
- the exploration term (6 to 8 years is common) divided into phases, each associated with a work program and budget approved by government;
- ‘*mandatory area relinquishments*’ at the end of each phase;
- procedures for reporting discoveries, appraisals and decisions on commerciality.

Development provisions, on the other hand, will:

- require approval by the authorities of a comprehensive development and production plan and timetable;
- a plan for the abandonment of a field or mine closure at the end of the project life (see Precept 5);



- a specified development phase (e.g., 30 years) with procedures for its possible extension; and
- rights regarding the construction and ownership of infrastructure associated with the project. (L, C)

**Security of tenure.** Investors regard this provision as critical. It belongs with provisions on exploration and development, but is worthy of separate mention. The provision grants the investor, in the event of a successfully appraised commercial discovery, and subject to reasonable approval procedures, with the rights to develop and produce that discovery. See further discussion in Section 5 below. (L, C)

**Assignment.** Provides the terms, conditions and approvals governing the assignment or sale of a license or contract interest. The primary purpose is to ensure that the assignee accepts the obligations of the assignor vis-à-vis the government under the contract and has the technical and financial qualifications necessary to do so. The tax implications of a transfer (see Precept 3) belong in fiscal legislation. (L, C).

**Reporting, monitoring and oversight.** Contractors should be required to submit to government, on a timely basis, regular reports and data on their operations. Government monitoring and oversight may be exercised by the sector minister, the regulatory agency or, although not ideally, the NRC (see Precept 6). (L).

**Data ownership.** Ownership of data generated by operations under the contract is typically assigned to the government, with the contractor being allowed to retain samples or copies subject to confidentiality provisions. (L)

**Confidentiality.** Current practice puts time limits on the government's obligation and on investor rights, e.g., 5 years or relinquishment of the relevant contract area, whichever comes first. Confidentiality provisions need to be carefully defined with respect to, not only term, but also scope. Fiscal terms and financial information are usually included, and the scope of confidentiality may extend to the contract itself.<sup>7</sup> (L, C)

**Accounts, financial inspection and audits.** The law and/or contract should require the contractor to maintain books and accounts consistent with international accounting practice, and provide for government inspection and audit (see also the discussion of fiscal audit under Precept 3). (L, C).

**Foreign exchange.** Best practice with respect to these provisions requires the contractor to report all foreign exchange transactions, and at the same time grant the

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<sup>7</sup> See Precept 2 for a discussion of issues raised by confidentiality clauses.

contractor the right to retain foreign exchange earnings abroad and ensure that earnings generated within the host country are convertible at non-discriminatory exchange rates and can be remitted abroad. (L, C).

**Dispute resolution.** Government-investor disputes are common and the contract should set out in some detail mechanisms for resolving differences, escalating from cooling-off periods or mediation to international arbitration and/or local courts. (C)

**Force majeure.** A standard provision excusing the contractor from certain obligations under conditions of *force majeure*, i.e., conditions which make it difficult or impossible to continue operations. The contract should identify those events which qualify as *force majeure*. (C)

**Termination.** Provisions stipulating the conditions under which either party may terminate the contract, whether voluntarily or automatic (e.g., in the case of a major breach of the law or contract). (L, C)

**Other provisions.** The list above is non-exhaustive. A number of standard legal or contractual provisions are discussed elsewhere in the Charter, e.g., field abandonment and mine closure (Precept 5); local content requirements (Precept 10); natural gas (Precept 4); social and environmental provisions (Precept 5); and NRCs (Precept 6).

## Regulation

Having described the best practice approach towards legislation and the content of legislation and contracts, we now turn to the required regulatory framework.

**Regulatory models.** Regulations complement laws and contracts, filling in the details necessary for their implementation. Several regulatory models are observed in practice. Countries whose resource sectors are in early stages of development may focus their regulations to main principles, leaving details to be completed as sector operations mature. Alternatively, they may wish to import from the outset fully elaborated best practice regimes from other countries. The current trend, in the health, safety and environment area, is to move away from overly detailed regulations towards principle-based regulation which spell out the objectives that must be met, while allowing contractors flexibility in their choice of methods or equipment used to satisfy their obligations.<sup>8</sup> The advantage of this approach is that it avoids the

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<sup>8</sup> Fiscal and financial regulations in most cases remain more detailed and less flexible.

problems that are inevitable when overly prescriptive regulations become outdated and shifts responsibility squarely to the contractor – where action can be taken. Penalties for non-compliance still need to be carefully articulated and enforcement capacity needs to be in place.

**Content.** The main focus of regulations is on technical and operational matters. Their content is suggested below in the description of typical regulatory agency functions. Environmental and social regulations (Precept 5), which have become increasingly central to sector management, may be spelled out or published separately from core operational regulations.

### **3. Implementation: Actors and Instruments**

This section explains the role of various government institutions and other actors in the license award process, how they should coordinate and problems with under-developed institutional capacity. The section then details the instruments used to ensure licenses are awarded correctly, including the auction framework and the criteria that should be used.

#### **Actors**

Clarity with respect to the roles and responsibilities of sector institutions, avoidance of both gaps and overlap in responsibilities, and development of institutional capacities appropriate to assigned mandates is essential to overall sector management and effectiveness.

#### ***Sector Institutions***

**Sector ministry.** The sector ministry is at the nexus of ministries, agencies and institutions charged with management of different aspects of the resource sector. Tasks falling within its mandate typically include: sector policies; monitoring and reporting of sector developments, both local and international (including prices); the drafting of legislation, model contracts and regulations; resource economics at the sector and project level; licensing rounds and the negotiation and award of contracts; oversight of NRCs; industry liaison and coordination with other ministries and agencies listed here. Where scale and skills permit, sector ministries establish individual units to deal with each of these several functions.

**Regulatory agency.** Sector legislation commonly provides for delegation of regulatory oversight functions to a subordinate and sometimes quasi-independent agency. Agency functions can be wide-ranging, and might normally include: detailed

technical specifications and standards (filling in the details of higher level laws and/or contracts); volume metering and verification of prices; calculation of royalties, fees and surface rentals (Precept 3); oversight of contractor operations to ensure compliance with legislation, contractual terms and regulations; analysis of technical data and samples and their storage and retrieval; resource mapping; maintenance of contractual records and cadastres.

**National Resource Company.** NRCs and their functions are discussed in some detail in Precept 6. Their role with respect to resource management has been controversial. Expected benefits range from the strictly commercial to more wide-ranging contributions to sector oversight and economic and social development. There is a present risk that NRCs can have undue influence on other agencies, among them the sector ministry itself, the ministry of finance and the regulatory agency. This is termed as '*regulatory capture*'.

### ***Additional Key Institutions***

**Parliament.** Parliaments and their committees can play a key role in resource sector governance through (a) their core functions - drafting and enacting legislation; and (b) their oversight responsibilities - monitoring and investigating government and industry performance and the management of sector funds and revenue flows. Legislatures play an especially important role in keeping the public informed on industry issues and in acting as a channel of government accountability through the electoral process.

**Executive.** Heads of state and government should ensure that the delineation and alignment of various potentially overlapping and conflicting responsibilities is made clear. They have particular responsibilities for balancing the independent accountability and autonomy of sector ministries, regulators, NRCs, ministries of finance, revenue authorities and central banks, with the need to adopt and implement a comprehensive approach to the governance of natural resources.

**Ministry of finance.** The ministry of finance is responsible for drafting and implementing tax policy and tax legislation. Working closely with sector ministries, possibly the NRC, and with the revenue authority, it is also charged with revenue estimating and possibly resource revenue forecasting<sup>9</sup>. Coordination with the sector ministry and NRC is important for several reasons. First, the sector ministry and NRC

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<sup>9</sup> Estimating receipts is a short-term activity (1 to 2 years); forecasting revenues has a longer term horizon (perhaps 5 to 10 years).

will have the operational data and technical expertise essential to estimating or forecasting. Second, they may be responsible for critical fiscal levies which would not normally come under the finance ministry's jurisdiction, such as bonuses, royalties and/or production shares, but which could account for a significant share of total fiscal receipts (see Precept 4). Resource revenue and expenditure management - the focus of Precepts 7, 8 and 9 - are usually finance ministry responsibilities, comprising among other things, resource revenue stabilization and savings funds and the preparation of economy-wide Medium Term Expenditure Frameworks.

**Revenue authority.** Revenue authorities are responsible for tax administration - the assessment and collection of taxes - and for fiscal audits. They may be part of the Ministry of Finance or be a separate agency. As noted immediately above, the sector ministry or the NRC may be responsible for the assessment, collection and audit of royalties and, in the case of PSAs, production shares (see Precept 4). Where such functions reside within the sector ministry or the NRC, separation of activities is important to minimize conflict of interest. Where capacity permits, countries should seek to have separate independent regulatory institutions.

**Accountant General, Auditor General and Central Bank.** The offices of the Accountant General, Auditor General and the Central Bank should play pivotal roles in the tracking, reconciliation, audit and reporting of resource sector fiscal and financial flows (Precepts 2 and 3). The central bank will also be involved in the macroeconomic response to resource revenue flows given its mandate for the conduct of monetary and exchange rate policy (Precept 8).

**Ministry of planning.** In countries where there is a heavy dependence on the resource sectors, the performance of those sectors is central to macroeconomic planning and should attract the attention of the economics or planning ministry, liaising with the sector and finance ministries.

**Ministries of environment and social affairs.** Ministries dealing with the environment and with local community affairs should be directly involved in addressing the often significant environmental and social impacts of the petroleum and mining industries.

**Other ministries/agencies.** Other ministries and agencies likely to be involved in some aspect of resource sector management include the ministries of foreign affairs, labor, health, and national parks.

### ***Coordination and Capacity***

Two cross-cutting topics are central to successful resource sector management: inter-agency coordination and institutional capacity.

***Coordination.*** As the above list suggests, many different agencies can, and do, claim roles in resource sector management. It is fundamentally important that these roles be coordinated and made complementary, rather than being allowed to develop in independent and/or competing directions. This requires clear leadership from the top, and the fostering of a culture of information sharing and mutual support. All too often, these are lacking. In many cases the biggest risk may be the natural resource company's assumption of roles properly belonging to others, especially the sector ministries, the sector regulator and the finance ministry. This can be expected to not only undermine their authority, compromise transparency and accountability, but also erode any capacity those ministries or agencies might have established or hoped to establish by attracting and retaining essential talent through higher salaries and access to greater influence.

***Capacity.*** Institutional capacity is critical. The petroleum and mining industries typically involve very large investments and are highly complex, requiring skills and technical expertise significantly above those which may be appropriate to other sectors of the economy. Building the necessary capacity is essential for sector oversight and management. It is especially important since the counterparts to government are generally highly sophisticated companies placing any government which does not invest in capacity at a potentially serious disadvantage.

Building capacity in the resource sectors requires recruitment, compensation and resources (e.g., information technologies) at above average levels. Where capacity is weak to begin with, governments can contract the requisite expertise, with donor support or relying on their own funds. This can have the double merit of delivering both immediate technical assistance and longer term training. Experience suggests that capacity does not necessarily have to be built up on a large scale. Small specialized units within larger agencies can produce substantial early benefits. For example, a small well trained unit within a finance ministry, well grounded in sector economics and operations, can contribute significantly to internal effectiveness of government (e.g., in dealings with the sector and planning ministries) and to relationships with external investors and taxpayers (see the Angola case study in the Annex to this Precept). Finally, insulation from political interference is essential to the development of truly professional capacity.

## **Instruments**

Most resource-rich countries still rely on contracts with private companies for exploration, development and production funding and expertise. How, to whom, and under what conditions these rights are awarded or allocated is critically important to achieving the fundamental objective of maximizing financial and operational benefits to the host country.

This section discusses four areas that governments should consider:

- Allocation options
- Conditions required for the successful award of contracts and licenses
- Criteria to be included in determining license awards
- Other Design and Implementation Considerations

### ***Allocation Options***

Governments have a number of options for allocating exploration and development rights to private investors. The three most common options in the resource sectors are: *Competitive auction*, *Open door/set criteria* and *Unconstrained negotiation*.

***Competitive auction.*** Under this option, the award of rights should be based on public competitive bids on a limited number of variables from a reasonable number of interested companies. One of the most important positive features of competitive licensing is that it offsets the information and negotiation skills disadvantage commonly found in resource-rich developing countries. Knowledgeable companies bidding against one another will tend to push the value of the award towards its proper market level even when government itself is uncertain about that value. A second considerable advantage of a well-designed public auction is that, by introducing transparency and integrity, it reduces opportunities for discretionary behavior by government officials and the associated potential for favoritism and abuse. Competitive auctions are now commonplace in the petroleum industry where investor interest is high and information and technical data related to the auctioned rights are often readily available. Far less common in mining, they are beginning to make an appearance where auctioned rights relate to the development of known and documented mineral deposits.

***Open door/set criteria.*** Open door/set criteria licensing policies are best suited to situations where the number of potentially interested companies at any point in time is deemed insufficient for a competitive auction. Like a competitive auction, the approach is usually designed around a set of criteria known in advance, against which proposals will be assessed. Unlike an auction, however, and partly because of the

limited number of proposals expected, assessment is judgmental rather than mechanistic. The set criteria, especially where combined with transparency (e.g., publication of offers received and awards made), will still constrain discretionary behavior, while the judgmental dimension of this approach introduces an element of flexibility which may prove essential where the number of bidders is seriously limited. The open door/set criteria approach (sometimes known as “first come, first served” or “open access”) is common in mining where the necessary conditions of competitive auction are often missing.

***Unconstrained negotiation.*** This usually takes the form of one-on-one negotiation against a wide range of open items. This approach can still be found, although it is increasingly a thing of the past as more and more countries complete and standardize their fiscal, legal and contractual frameworks for resource sector operations, and endorse transparency in licensing. Best practice discourages the unconstrained negotiation approach for three reasons. First, it is liable to significantly increase the complexity of both the contract negotiation process and contract administration, to the host country’s loss. Second, the discretion available to officials is, by definition, greatly increased, and along with it the opportunities for mistakes and abuse. Third, the process is typically not transparent making it difficult for the involved parties to be held to account.

### ***Conditions required for the successful award of contracts and licenses***

Running a successful licensing round is a technical process in which many design issues must be addressed. A number of the conditions considered necessary for success are listed below. The comments are directed primarily at the conduct of competitive auctions or open door/set criteria approaches to contract award.

***Fiscal, legal, contractual and institutional framework.*** The fiscal, legal, contractual, regulatory and institutional framework within which the licensing round is being conducted should be made clear, publicly available, and presented to potentially interested investors as part of the round.

***Specification of the rights being awarded.*** There should be a clear specification of what the successful bidder or applicant will obtain, e.g., exclusive rights to explore, develop and produce, in a delineated area, subject to the framework just referred to, and to the terms of the award. It is extremely important to most investors that any award made be “conjunctive”, meaning that when an exploration program results in a commercial petroleum discovery or mineral reserve, the investor, subject to satisfying reasonable pre-announced approval procedures, has the right to develop and produce that discovery (see however, the discussion under “Unbundling” below).



***Clear, public procedures.*** Award procedures should be well-defined, public and easily accessible by all potential bidders or participants. Procedures covered should include: the timing and venue of any pre-award/auction promotions and of the auction itself (if the award is by auction); authorities responsible for the award process; documentation or possible financial deposits required of award applicants; award criteria; procedures to be followed in making the award; whether or not awards will be published, etc. A premium should be placed on keeping procedures relatively simple.

***Unbiased procedures.*** No individual or group should have a comparative advantage created by favoritism, special relationships to government or by any other means. Beneficial interests by any government official in parties participating in the award process should be prohibited.

***Pre-qualification.*** Any award process should include mechanisms to determine in advance whether license applicants are serious and have the technical and financial qualifications to fulfill obligations expected under the license. Participation in the award process should be restricted to those companies satisfying the pre-qualification requirements. Screening mechanisms may comprise advance fees, payments for data purchases and/or bid packages, and documentation of operational experience and financial strength. Relationships with other bidders should be included in qualification statements. Where bids are made by a consortium, the relationships, qualifications of individual members and requirements for their joint and several liability should be clearly stated.

***Professionally maintained cadastre.*** Potential bidders should be provided with assurance that the areas offered for award are in fact unlicensed. This has been a problem in some mineral-rich countries where mining cadastres have been poorly prepared or maintained.

***Availability of data.*** Availability of technical data is a hugely important ingredient of successful licensing. Access to that data, whether on a free or purchase basis, is highly prized by investors and critical to attracting their interest. In advance of any award process, host country governments should assemble in a user-friendly manner all existing data relevant to the award(s) for review by interested companies. Governments may also consider acquisition of a limited amount of additional data, for instance, seismic surveys. This can often be done without significant investment or risk, either with donor funding (see Box 1), or by engaging service companies on a speculative basis and allowing them to recover costs through the sale of data packages. It should be kept in mind that additional data acquisition may be of value to the host country beyond the role it might play in attracting investment, based on

its use in resource mapping and the land use planning. Papua New Guinea's experience, described in Box 1 below, provides an example of how powerful the impact of data availability can be on investor interest and licensing.

**Number of bidders.** A minimum number of bidders are necessary in order for an auction system to function correctly and produce a desirable results. One method to ensure a sufficient number of independent bidders, is for government to limit or prohibit joint bidding by competitors. Such measures, while limiting companies forming pre-bid joint propositions, do not preclude the option for the government to put together post-bid partnerships with a view to creating synergies. Licensing rounds in both Norway and Angola take this approach.

***Box 1. Impact of Data Acquisition and Availability in Papua New Guinea***

As part of a World Bank initiative for Mining Sector Institutional Strengthening a project for the development of a Geographical Information System (GIS) in Papua New Guinea (PNG) was initiated in 2002. The aim of the project was to digitally capture all existing historical exploration data and integrate it with available geological, geographical, geophysical and geochemical datasets. During Phase 1 of the project, data covering around 60 per cent of the land area of PNG was processed and entered into the GIS. The GIS was then made publicly available to interested companies for a modest fee. Immediately following release of the data the number of new exploration licenses increased—approximately five times the number of license applications were received in areas covered by digitized data compared to areas not digitized. PNG mining law now requires licensees to submit annual exploration reports that detail geological, geochemical and geophysical results obtained. This data remains confidential during the term of the exploration license but is digitized and added to the public database on relinquishment or expiry of the confidentiality term. This lowers the cost of entry and encourages new prospecting, particularly by junior exploration companies.

A second project was a regional airborne geophysical survey of magnetics and radiometrics. A number of new areas of intrusive igneous rocks and deep magnetic anomalies that are corollaries of existing large scale copper and gold projects were identified. These were in areas that had not been seriously explored due to incomplete or inaccurate geological maps. Again, there was an immediate rise in the number of exploration licenses in the areas of interest identified.

***Non-collusion.*** Governments must be confident that bidders do not collude. Collusion amongst bidders limits competition, and the benefits that go with it.

***Reservation price.*** Governments must have a well-defined reservation price or minimum bid for the rights offered.

***Professional management.*** Organizing a licensing round or award process is a specialized skill, too often underestimated. Requirements include expertise in: organizing promotional events (often in two or three locations); website management; preparation of bid or negotiations packages; preparation of data packages, including limited interpretation; specification of award criteria and their prioritization; negotiations; and economic modeling and evaluation. Where government does not have these skills, they should buy them from qualified international consultancies. Funding is often available for this from international development institutions such as the World Bank, or bilateral donor agencies.

#### ***Criteria to be included in determining license awards***

The criteria applied in determining license awards need to be clearly stated, and can take various forms. The choice of criteria can have significant effects on investor interest, the scope of work performed, operational efficiency and government revenues. Ideally, whatever criteria are selected, they should be easily observed and quantifiable.

***Work commitment.*** The would-be investor's technical proposal and commitment to work should be a central consideration in any award process. It is often evaluated first, in a two-stage procedure, before turning to other criteria. The commitment may be expressed in physical or minimum expenditure terms. In petroleum contracts the physical commitment generally dominates – it must be performed regardless of whether or not minimum expenditures have been met. The expected content of the technical proposal (specific activities, time-line, etc.) should be spelled out by the government in advance of the launch of a licensing round. Evaluation of work commitment proposals requires professional expertise. Governments with limited experience are advised to contract the requisite skills. Donor or bilateral funding is generally available for such purposes.

***Fiscal/financial terms.*** The pros and cons of different fiscal instruments are discussed in Precept 4. Fiscal variables often selected as criteria for license allocation include signature bonuses, royalties, and profit or production shares. Bonuses may fail to fully reflect expected resource value because of perceived political risk. Royalties, given their regressive nature, if bid too high, may have negative impacts on development and production decisions. For reasons set out in Precept 3, bids which

are contingent on actual or approximated profitability may be preferable on efficiency grounds.

**Multiple criteria.** Best practice would recommend that award criteria include only one technical variable (such as the work program) and one fiscal variable, if the legal/contractual framework is well established. Restricting the range of variables reduces complexity and limits the number of trade-offs required to evaluate relative terms. If more than one bid or award variable is used, it is essential that the bidding documents contain a clear description of the relative weighting attached to each variable.

### ***Other Design and Implementation Considerations***

**Sequential licensing rounds.** Whatever the form of allocation mechanism, there is likely to be a benefit from phasing or sequencing the allocation of licenses. Sequential allocation can serve multiple objectives from the government's point of view. It can help reveal value, particularly when the government is at an informational disadvantage relative to interested investors. It can also reveal information where information is dispersed among agents (such as geological survey data). It should be noted that the information revealed from one licensing round to the next could have a negative, as well as a positive, impact on investor interest, depending on the exploration results achieved in the first round.

Sequencing also allows governments to regulate the speed of sector development, potentially staggering development over time, which can be useful for the management of revenue flows. Finally, it can help the government improve the design of the contracting regime and build the necessary capacity and expertise between licensing rounds.

**Barter deals and payment in kind.** Work commitments and fiscal terms are the most commonly used variables in the allocation of petroleum and mining licenses. Recently, however, several countries have shown an interest in tying license awards to "strategic relationships" involving the provision of social and/or physical infrastructure in exchange for exploration and development rights. These awards have been largely confined to deals between China and resource-rich African countries.

Barter deals may be context-appropriate, for instance in post-conflict states, where the need for infrastructure and reconstruction is particularly urgent and local capacity to convert money into infrastructure is absent. Where governments wish to pursue such deals, they should be awarded transparently and, if possible, competitively. Direct provision of infrastructure may especially benefit local

communities, offsetting possible negative impacts from petroleum or minerals development and helping to maintain the investor's social license to operate.

Barter deals or tied sales, however, can suffer from a lack of transparency and limited or no competition. The pool of likely investor participants will almost certainly be much smaller than where conventional allocation methods are used. Governments may also face imposed restrictions on the choice of sub-contractors; potentially further reducing value to citizens.

With tied sales the question arises as to whether it would be more efficient to have separate contracts with separate entities for the provision of infrastructure and exploration and development services, rather than one contract and one entity supplying both. The answer will depend on the particular circumstances. There are some guidelines, however, that should help determine the relative benefits and the most appropriate approach in any particular context:

- Infrastructure projects are generally part of the government's investment program. It is essential that the projects proposed as part of a bundle be part of the government's existing priorities and subject to the same due diligence and project appraisal procedures as other government expenditures.
- An economic analysis should be performed to determine whether provision of the bundled product would be less expensive to the state than an unbundled approach, taking into account all costs and revenues, including taxes on government contractors providing the infrastructure.
- Consideration should be given as to whether it might be possible to make separate bids for bundled components.
- Audit methods and accounting rules will have to be developed to determine attribution of costs to the extent that the bundled projects – infrastructure and exploration and development activities – are taxed separately.

There may be other non-economic considerations bearing on the decision to introduce barter deals into the award process. These might include: the speed with which the infrastructure can be provided; the ability to avoid bureaucratic delays or legislative interventions in the provision of higher quality services to affected communities; and the related desire to limit the potential for abusive use of their discretionary powers by authorizing officials.

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