Extractive Industries for Development Series #22
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Mineral Resource Tenders and Mining Infrastructure Projects Guiding Principles

Case Study: The Aynak Copper Deposit, Afghanistan

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Cover photos: Oil rig, hematite-banded ironstone, LNG tanker

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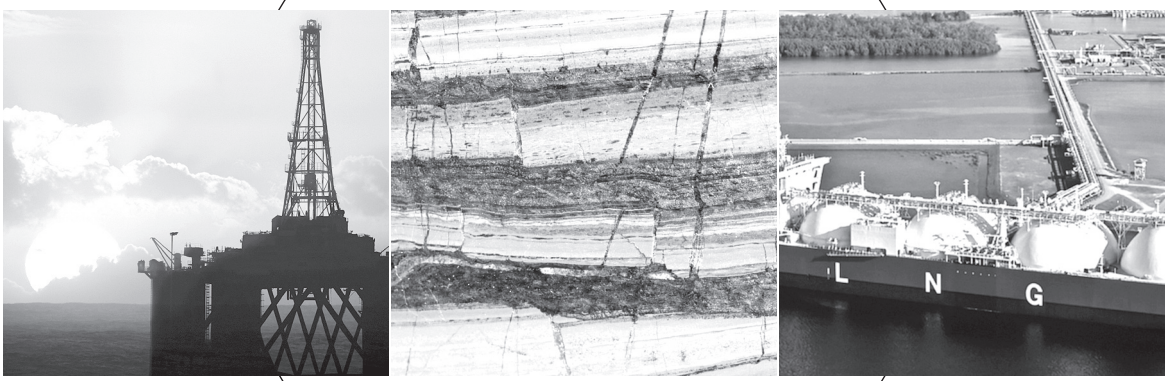

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World Bank | Oil, Gas, and Mining Policy Unit Working Paper

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Abbreviations

EITI	Extractive Industries Transparency Initiative
EOI	expression of interest
IAC	International Advisory Panel
IMC	interministerial committee
JCCL	Jiangxi Copper Company Limited
MCC	China Metallurgical Group Corporation
NEPA	National Environmental Protection Agency
PPI	public-private infrastructure
PPP	public-private partnership
REOI	request for expression of interest
RFP	request for proposals
SDNRP	Sustainable Development of Natural Resources Project

All dollar amounts are U.S. dollars.

Foreword

Numerous recent changes in the mining industry have led governments to an increased interest in the tender process as a means of awarding mineral rights. High demand and high mineral prices driven by rapid economic growth in countries such as Brazil, China, and India, and the emergence of new global companies in these countries, have resulted in increased competition to obtain access to mineral resources worldwide. Governments believe they are in a position to demand better terms, not only with respect to fiscal considerations but also with regard to the granting of access—the award of mineral rights—and the overall development impact of mining, including infrastructure, all of which can be defined and packaged in a tender.

To address these considerations, the World Bank's Sustainable Energy, Gas, Oil and Mining Department developed this paper to provide guidance and good practice examples to maximize the overall benefits for countries seeking to award a contract for a known mineral resource. The paper primarily focuses on the tendering of mineral assets; it also touches on the broader subject of mine-related infrastructure.

A detailed case study on Afghanistan's Aynak copper deposit is included to illustrate the application of an international competitive bidding procedure to mineral resource tendering in a developing (also a postconflict and fragile) country.

The two parts of this paper—the guidance/good practices and the case study—are presented together even though they do not directly draw on each other's conclusions. Both examine guiding principles and good practices for governments to use in attracting mineral investments. Although it is noted by the authors that the Aynak tender was not a perfect process, occurring as it did in a difficult environment with a deficient in-country capacity and myriad investment challenges, it is a relevant example of what is involved and what must be considered by a government in the process and content of a tender.

The paper is expected to motivate long-term strategic thinking among decision makers in mineral-rich countries on ways to "begin mine development with the end in mind." Its intention is not to prescribe a set of actions, but rather to inform possible ways of maximizing the local content from mining projects which will need to be adjusted in each unique case.

Acknowledgments

Part I of this paper, "Guiding Principles," was written by Michael Stanley, Lead Mining Specialist, and Ekaterina Mikhaylova, Senior Mining Specialist, both within the Sustainable Energy Department, Oil, Gas, and Mining Unit, of the World Bank Group. Noora Arfaa, Consultant, Oil, Gas, and Mining Unit, contributed research and case studies.

Part II, "Case Study: The Aynak Copper Deposit, Afghanistan," was written by Michael Stanley; John Strongman, Consultant and retired adviser to the Oil, Gas, and Mining Unit; and Ekaterina Mikhaylova. Craig Andrews, formerly with the unit and now retired, made additional contributions. The sections on social issues were contributed by Asta Olesen, Senior Social Specialist in the South Asia Region of the World Bank. Environmental issues were summarized by Jane Nishida, Senior Environmental Specialist, South Asia Sustainable Development (now working outside the World Bank Group); and Ernesto Sanchez-Triana, Lead Environmental Specialist, South Asia Region of the World Bank.

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Part I
Guiding Principles

Michael Stanley and Ekaterina Mikhaylova

Chapter 1

Overview

Mineral resource development today can affect a nation for many years, sometimes for generations to come. Consequently, the award of mineral rights can be one of the most far-reaching activities a government undertakes. Mineral resource development is thus often enshrined in constitutions and overarching mineral laws to ensure that such development is undertaken in the public interest, in recognition of the strategic and economic contribution of minerals to the nation, and with the greater good of society in mind.

In a majority of countries, subsurface rights (mining cadastre) take precedence over surface rights (land cadastre). Subsurface rights and access to explore and extract a mineral resource can be granted to a third party by the state for a defined period of time; it is in most cases the responsibility of the subsurface rights owner to negotiate rights to access the property, within the provisions of applicable laws and regulations, with the surface land owner(s). This usually entails surface rent arrangements, resettlement of current occupants, and—in some cases—land acquisition.

The award of mineral rights for exploration and/or exploitation follows one of two principal processes—either **open mineral access** on a first-come, first-served basis or **competitive resource tenders** (or auctions)—depending on the type of mineral commodity, the amount of information available about the resource, and the amount of potential investor interest.

The award of a mineral exploration or exploitation right through a competitive resource tender can be compared to and parallels the methodology used for privatization of public enterprises and for public-private partnerships (PPPs) around infrastructure projects, where the information on the resource is packaged together with a preliminary set of concession terms and key requirements and incentives, and made available through a public tender to qualified investors. Underpinning the approach is a clear understanding that the state's role and authority is to regulate and administer mine development—from awarding contracts

and licenses to monitoring operations, enforcing environmental protection and social mitigation requirements, collecting taxes, and implementing sustainable development policies and projects. In contrast, the investors' role is to explore, develop, produce, and sell the mineral while complying with all license, contract, and regulatory conditions.

Efficient and effective mineral rights allocation policies exhibit the following characteristics:

- Transparent, competitive and nondiscretionary procedures for the award of exploration, development, and production rights, as well as consideration of ancillary infrastructure to service development and production
- Clear legal, regulatory, and licensing/contractual framework
- Well-defined institutional responsibilities
- Clearly specified environmental and social safeguards

Interestingly, over the past decade, governments have shifted from focusing largely on fiscal terms and incentives for ore extraction and export toward the negotiation of comprehensive packages of contributions from a mining company to ensure an operation's broader economic impact beyond the mine's lifetime. The cornerstone of such negotiations is optimal planning and financing of mine-related infrastructure. With more attention given to the assessment of potential developmental options in mining areas and how the mining industry can stimulate those, the concept of a **mineral resource corridor** has emerged. The concept views development of mining and mining infrastructure as a stepping stone toward a diversified economy in the region. The following chapters discuss this approach and its application to the negotiation of mining agreements mindful of future sustainable development.

Chapter 2

Award of Mineral Rights

In most countries, the constitution provides for state ownership of subsurface minerals. Through legislation or contract, the government grants third-party rights for the exploration and/or exploitation of mineral resources. The holder of these rights (and its shareholders) undertakes the significant financial risks associated with mineral exploration/exploitation and thus requires that its expected share of the benefits is commensurate with its risk-adjusted cost of capital. The government, as the other principal beneficiary of this arrangement, ensures ongoing systematic exploration and exploitation, and is responsible for levying and collecting taxes and fees on the financial flows from mineral production and for collecting economic rent through royalties or other measures against the depletion of this national nonrenewable asset. The government plays the role of resource owner and regulator, while granting decision-making authority to mineral rights holders whose responsibility is to mine the minerals in accordance with prevailing rules and regulations, including environmental and social stipulations.

Mineral ownership is often enshrined in constitutions, but mining policy and laws can also state the ownership principle and the requirements for sustainable development of those resources. The laws ensure that mineral development is undertaken in the public interest, in recognition of the strategic and economic contribution of minerals to the nation, and with the greater good of society in mind.

The award of mineral rights for exploration and/or exploitation follows one of two principal processes: **open mineral access** (first-come, first-served principle) and **competitive resource tenders**. **Direct negotiations** are also used, often as a means of securing other investments that are to be made by the investor; in other cases, direct negotiations are engaged in, unfortunately, as a result of corrupt practices. The process selected will depend on the type of mineral commodity, the level of information available for the resource and deposit type (strata-bound deposits versus those placed in varying host stratigraphy), and the amount of potential investor interest at the time of award (table 2.1). In general,

Table 2.1 Types and Characteristics of Mineral Rights Awards

Award type	Characteristics	Exploration	Exploitation
Direct negotiations	Least transparent process	In some cases, the government provides direct exploration rights to investors in exchange for information they will generate	Government negotiates directly with a company for rights to a known resource in exchange for other investment(s) including infrastructure development
Open mineral access	Assignment of mineral rights on a first-come, first-served basis	Based on standard cadastral units whose area may be expanded or reduced through exploration activities In good practice, exploration rights cannot conflict with restricted areas (such as urban areas, protected habitats, or major infrastructure) or with other exclusive mineral rights, and cannot contain delineated mineral resources	In good practice, the holder of exploration rights has security of tenure and is granted the right to transfer to mineral exploitation rights, subject to successful exploration and full regulatory compliance
Competitive resource tenders	Assignment of mineral rights through auction/ bidding process (tender)	Exploration for strata-bound or strata-form mineral commodities, or an area where geological information has been collected and disseminated that improves understanding of the mineral potential and makes the area of interest to more than one potential investor concurrently	Where the exploration rights were granted through a tender, conversion of an exploration right to exploitation is granted subject to full regulatory compliance (security of tenure)

Source: Authors.

governing mineral policy, laws, and regulations will stipulate the circumstances under which open mineral access or competitive resource tenders are to be used and the procedure to be followed by the mining regulator to ensure consistent, transparent, and nondiscretionary application. The practice of direct negotiations may also be incorporated into governing laws, but is the least transparent and is more often not defined.

Open Mineral Access

When relatively little is known about the resource endowment[1] and there is no competition for the deposit, many successful mining countries—such as Australia, the United States, various Latin American nations, and now quite a few African countries—employ the open mineral access (first-come, first-served) process.[2] Under this approach, license holders have time-bound access to license areas. Award provisions encourage the turnaround of exploration properties. For example, binding work programs, mandatory surrender of part of the licensed area, and/or increased land rental fees over time ensure that companies expedite exploration work and surrender those areas they do not find suitable so as to enable other companies to obtain the exploration data and express their interest in the area or deposit.

Open mineral access has been successful in attracting prospecting over large search areas and has ultimately led to exploration holdings (licenses) over smaller areas of more prospective ground. Because open mineral access has been described in a number of other papers,[3] it is not the focus here, but is mentioned in the interests of comprehensive coverage of mineral award processes.

Competitive Tender

The second approach—the competitive tender—largely presumes a greater knowledge of the mineral potential (either from earlier exploration or mining activities, or the recognition that some minerals are likely to be found in particular geologic formations) and an increased demand

[1] This may be the case for "hidden deposits." Metallic minerals, both precious and base metals, are generally considered to be hidden deposits in that they occur at depth and are less likely to have a surface expression. Thus, without the aid of expensive sensing technologies, little is known about the underlying resource potential.

[2] This approach is not as widespread in some developing countries, for example, those in Europe and Central Asia and in the Middle East.

[3] See, for example, Ortega, Pugachevsky, and Walser (2009).

for rights as evidenced by the existence of several companies interested in applying for the same license area.

The rights to many bulk commodity minerals (such as iron ore), coal, industrial minerals (such as phosphate), and construction minerals are sometimes assigned through resource tenders or concession leases. This has much to do with the strata-bound nature of the deposits. Once the presence of a deposit is verified on a mineral holding, there is, by geological extrapolation, a higher probability of discovery for adjoining resources should they occur within the same stratigraphy and with similar geological characteristics. A competitive licensing process or systematic leasing of concessions sets the requirements and standards higher to limit license applications to more technically and financially qualified investors rather than leave the door open to any individual or company that could have obtained such licenses through open access (box 2.1).

In some cases, an open mineral access license granted for a particular mineral prospect (a hidden deposit) is relinquished or revoked through regulatory action. A government might then want to take the opportunity to shift to a resource tender to competitively reassign the mineral right. This shift is possible when previous exploration efforts have yielded sufficient information about the quantity and quality of the resource asset that a subsequent investor will enjoy appreciably reduced discovery risk. When this situation arises, the government may obtain a share of the resource rent up front in exchange for the information provided along with the mineral rights.

As governments increase their knowledge of their country's resource base and strengthen their regulatory control, the number of resource areas for which a license may be reissued increases. This scenario is becoming more commonplace in postconflict countries and fragile states where mineral assets, including past operating mines, have been severed from the prior rights holder.[4]

[4] The Aynak copper deposit in Afghanistan described in part II is one such example of the need for a competitive award of mineral exploration/exploitation rights. Other examples can be found in many African postconflict countries—including Liberia, Mozambique, and Sierra Leone—and the state mineral deposits of former Soviet Union and other former communist bloc countries following the change of political regimes. In some cases, however, the existing geological interpretation may be of limited use for mining companies.

Box 2.1 Peru: Antamina Mining Agreement

In the early 1990s, the Peruvian government embarked on a program of market reforms, seeking to return many of its state-owned companies to the private sector, including Antamina, a polymetallic ore deposit.

While part of the ore body in Antamina had been well studied, very little was known about a large portion of the deposit. Exploration was expected to take about two years and $24 million. Developing Antamina required roads, mining rigs, crushing plants, and other ancillary facilities, in addition to the purchase and transport of heavy mining equipment. The capital expenditures to develop the mine were estimated to be at least $581 million.

In 1996, Antamina was auctioned by Centromin, the Peruvian state mining company. Bidders were asked to submit two figures—an initial payment (the amount of cash to be paid immediately, to exceed $17.5 million) and a pledged investment commitment (additional exploration investment of at least $13.5 million over a two-year period, and mine and related infrastructure construction expenditure). The winning bidder would be the firm proposing the largest total bid.* At the end of two years, the winner had to either give up rights to the property or develop the mine. If the bidder decided to proceed and its investment by the end of Year 5 fell short of the pledged investment commitment, it would owe the Peruvian government a penalty equal to 30 percent of this shortfall.

Centromin received three bids and announced the Rio Algom-Inmet partnership—the smallest of the three bidders—as the winner; it bid $20 million up front and a pledged investment commitment of $2.5 billion.

The mine's construction was completed under budget, triggering a penalty cash payment of $111.5 million. A large portion of this penalty went to the Ancash Development Investment Fund, with communities in the mine's surrounding Ancash region receiving the following benefits:

- A major road constructed through Huascaran Park
- Five electricity projects, providing access to about 227 communities in 2005
- A dock built at Huarmey port, potentially industrializing the fishing industry
- Substantially improved educational infrastructure, notably laboratories and training facilities at Ancash's two universities

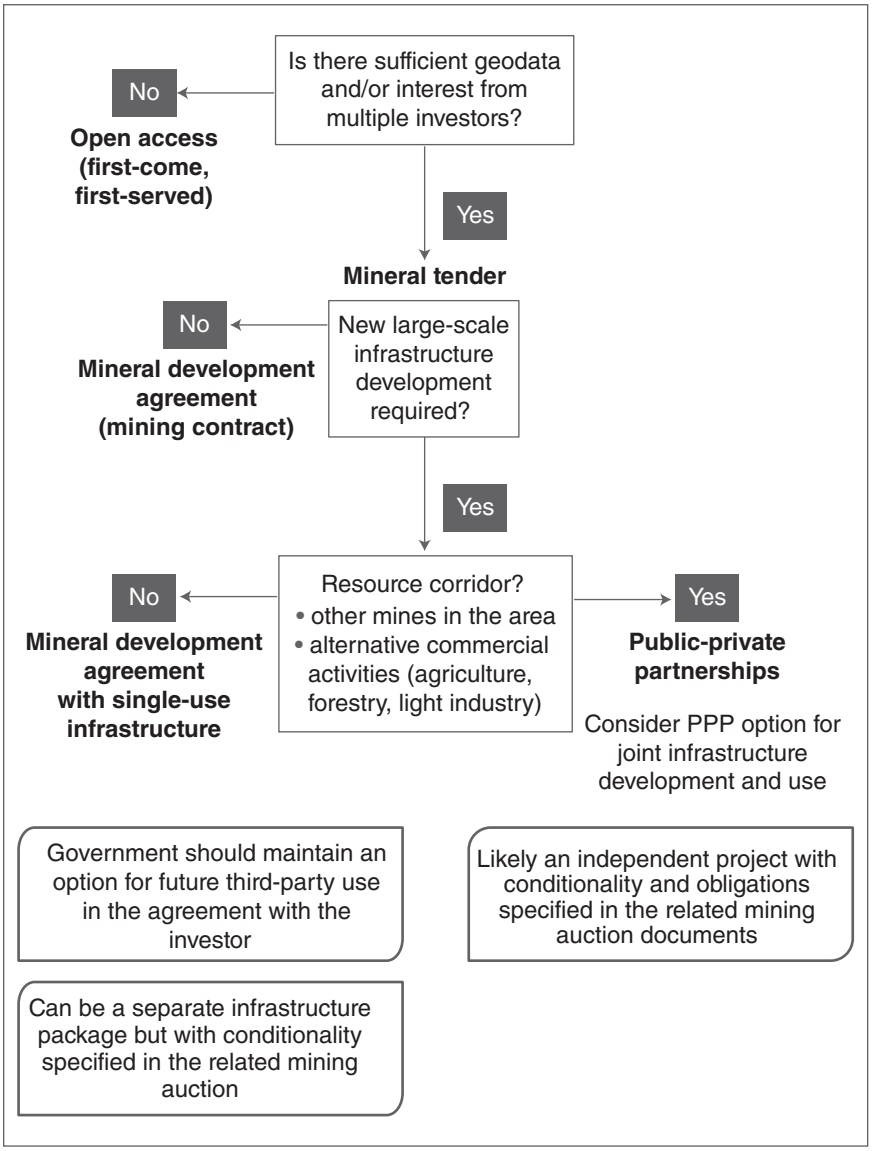
*By allowing bidders to set both bid parameters, the government may have motivated them to propose inflated investment levels for plant.

Sources: Moel and Tufano 1998; AccountAbility and BSR 2004.

Selecting the Appropriate Process

The decision flowchart shown in figure 2.1 presents the issues and parameters to be considered in making the decision to award mineral rights on an open access basis or via a tender process. It also displays options to be considered with regard to mining infrastructure development.

Figure 2.1 Decision Flowchart for Determining Which Mining Rights Granting Method to Use



Source: Authors.

Recent Trends in Tenders and the Importance of Infrastructure

There have been many changes in the mining industry over the past decade. Notably, high demand has resulted in high prices for most minerals and metals, and numerous new global companies have emerged. These changes have caused a shift in the traditional government approach to negotiating mining agreements. Instead of focusing on financial terms and incentives for ore extraction and export, governments now seek to negotiate a comprehensive package of contributions from a mining company to ensure the broader economic impact of the operation. One of the main elements of such a package is the planning and inclusion of mining infrastructure.

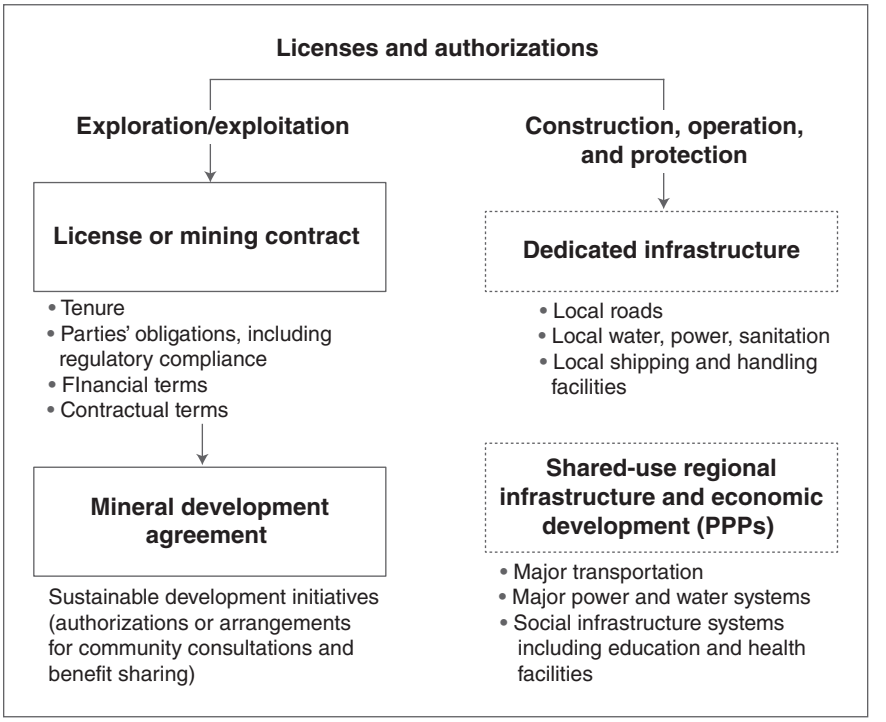
This trend has become particularly pronounced in developing nations. Emerging economies have accounted for most of the growth in global production of iron ore and nickel, and effectively all of the growth in global production of aluminum and steel. In the Democratic Republic of Congo and Zambia, Chinese investments in mining were accompanied by commitments to invest $8.5 billion in infrastructure in 2007 alone (Humphreys 2009). These investments that combine mining and infrastructure have been presented by the governments as "a major step toward ensuring that in the future the resources of the country would be used to benefit its people" (Komesaroff 2008; *The Economist* 2008).

In light of this trend, the resource tender methodology needs to be refined by drawing a distinction between, on the one hand, the mine and its ancillary dedicated infrastructure and, on the other, the broader regional infrastructure which is most often transportation and energy related (figure 2.2).

A mineral tender increasingly gives consideration to the entire package of economic, environmental, and social linkages that will occur within the mine and across the broader economy. The bid package may bundle mine and infrastructure, or otherwise convey how the developer and government would work to jointly address the issue. In the early stages of development of a mining district, an initial development mine proposal may be necessary in order to frame the discussion around longer-term regional infrastructure options, to be revisited once a better understanding of the commercial viability of the resources in that region has been gained.

Shared-use infrastructure necessitates consideration of mineral agreements that have public-private infrastructure (PPI) components. In a less-developed region, such infrastructure may, in addition to indirect impacts

Figure 2.2 Large-Scale Mining and Related Infrastructure Contracts



Source: Authors.

on economic growth, have a knock-on effect with regard to other mineral resources within the region which had previously been too remote to be commercially viable to explore. Governments and investors are recognizing the potential contribution of early infrastructure in catalyzing regional benefits and fostering economic diversity.

The remainder of this part looks at issues and methods involved in the tendering of a mineral asset, including dedicated infrastructure, as well as considerations regarding regional infrastructure that may be developed by a mining company, either as a separate project or a PPP (chapter 4) depending on the level of demand and financing.

Chapter 3

Structuring Mining Tenders to Attract Investment

One simple rule underlies efficient structuring of the mining tender: the more completely specified the bid package is, the more efficiently the project will achieve closure, contractually and financially. Governments wishing to accelerate a tender should dedicate time up-front to improve the quality of the bid package. Upstream investment by the government in quality transaction support will normally result in greater investor interest and number of bidders—with a potentially better deal resulting for the government.

Frameworks

The success of a tender will be governed by a strong governance/anti-corruption framework that provides a system of checks and balances throughout the process. In general, the most common problems arise through varying interpretation of developer and government objectives; this may arise from policy gaps and a process that launches prematurely without the requisite analytical and other preparatory work. Moreover, weak capacity and unfamiliarity with the tender process among the stakeholder groups need to be addressed through locally targeted information campaigns and strong capacity-building efforts. Where policy is poorly defined or it is unclear how the developer is to comply with existing guidance, frameworks can provide clarity to ensure common understanding of the objectives, processes, and roles and responsibilities of key actors. Frameworks can be either general or project specific.

- **General framework.** A country's mineral law, regulations, and procedures define the legal and institutional framework for the exploration/exploitation of its mineral resources. In the interest of transparency, this information should be published online and/or included in the tender bid package. The tender rules favor the award of development rights by simple, transparent, clearly defined, and nondiscretionary actions.

- **Project-specific framework.** Such frameworks are discussed in more detail throughout this chapter.
  - —In support of overarching laws and regulations (and in the absence thereof), the government should define an institutional structure and roadmap for processing of a specific transaction, including clearly specifying (through a notification or similar legal instrument) the roles and responsibilities of sector ministries, an interministerial committee (if applicable), and technical decision makers and transaction advisers.
  - —The investment opportunity should be clearly defined in a project information memorandum.
  - —The policies and regulatory obligations that guide the development, together with roles and responsibilities, should be defined in, for example, a transaction principles and policies statement adopted prior to issuance of the bid package.
  - —"Local content" should be defined, including requirements for local consultations and the use of local labor, goods, and services; together with obligations to improve the project's economic and social benefits, and help minimize long-term risk.

A Model Tender Methodology

There are no global norms or specific guidelines nor a formal methodology for mineral rights tenders. The World Bank approach is based on international procurement procedures for international competitive bidding or limited international competitive bidding, and—in cases where a public benefit justifies a public funding contribution to the project, thus making it in the public interest to pursue an economic resolution by selecting investors through a competitive process—the privately provided infrastructure transaction (tender) methodology.[1]

Based on these models, steps in a typical procurement cycle include advertisement, prequalification, bid solicitation, evaluation, and contract award. Additional steps may be required for mineral resource development projects to overcome information deficiencies and perceived or real project risks:

[1] This methodology covers a full range of concession-type arrangements for the provision, upgrading, maintenance, and operation of infrastructure projects such as long-term service, management, and lease contracts; and build-operate-transfer (BOT), build-operate-own (BOO), build-operate-own-transfer (BOOT), and registered operations trader (ROT) arrangements. See Araujo (1998).

- At the bid solicitation stage, the tender process may include a "market sounding" step, during which the request for proposals (RFP) is discussed with prequalified bidders prior to its formal issuance.
- In the case of large-scale shared-use mining infrastructure, a two-stage bid procedure may be applied. The first stage might call for an unpriced technical proposal based on a conceptual design or performance indicators and subject to technical and commercial clarifications. This would be followed by a second stage of amended bidding documents and the submission of a bid package consisting of a final technical proposal accompanied by the price bid in a separate envelope.

The award of a mineral exploration/exploitation right through a competitive resource tender may be established in a national mining law (as, for example, in Afghanistan); it may also be subject to procurement and concessions law (as, for example, in Liberia). PPI transactions fall under PPP arrangements, which are circumscribed by laws that often specifically exempt mining and mining infrastructure projects. Thus, mine-related regional infrastructure will in many cases constitute a hybrid to be governed by mining law—making the definition and application of a framework (see above) critical.

Efficient and effective award policies have the following characteristics:

- Transparent, competitive, and nondiscretionary procedures for the award of exploration, development, and production rights
- Clear legal, regulatory, and contractual framework
- Well-defined institutional responsibilities
- Clearly specified environmental and social safeguards

The state's role and authority to regulate and administer mine development is to be clearly distinguished from the investors' role to explore, develop, produce, and sell the mineral product. State-owned enterprises might participate in the development through a variety of arrangements (for example, provision of power or other infrastructure, or equity participation), but would be discouraged from negotiating contracts and licenses with private investors on behalf of the state; this function should be handled by the sector ministry or specialized facilitator agency (such as an interministerial committee) so as to avoid conflicts of interest.

General Principles to Be Applied to the Tender

Ensuring Transparency and Integrity

Several actions to foster transparency in large-scale developments such as major mine operations fall under government control:

- The role of any state companies and government agencies within the development should be clearly defined to separate commercial activities from regulatory functions.
- An ombudsman/information dissemination office within the mining area should be established by the sector ministry prior to selection of the bidder.
- Principal terms and conditions of the negotiated contract and the corresponding payments of taxes, royalties, and fees from the company to the local, provincial, and federal governments should be publicly disclosed and published annually throughout the duration of the project.

It is a good practice for the government to nominate, early in the process, a **third party** to maintain the integrity of data access and of the tender process itself. This party should be trusted by all stakeholders, including the potential investors, and will handle all inquiries and information flows between the government and the bidders. This third party is generally a **transaction adviser**—that is, an independent and trusted consultant or firm with the requisite core technical expertise, contracted by the government to serve as the interface between it and the pool of bidders. Where sufficient expertise and capacity exist in-house, the government can use its own specialized designated entity to serve as third party. To ensure full transparency when a government entity is performing this role, all communication and inquiries—from the onset of the tender through announcement of selection—must be channeled through the designated entity in written form, with written responses distributed to all prequalified bidders and relevant government officials. As the point of primary contact, the third party must be present at any and all meetings between government agencies, representatives, or officials and the pool of bidders.

Rules and penalties for noncompliance should be agreed upon before the tendering process begins. These rules should, at a minimum, address inquiries, bid procedures, access to information, communication, and complaints. They should be posted online (see below) and be referenced and expanded upon in the request for expressions of interest (REOI) and the RFP.

The government should maintain an **information website** describing the resource investment opportunity; data access procedures; rules and procedures for the issuance of the RFP and receipt of bids; and questions and clarifications regarding roles and responsibilities, regulatory compliance, and investor obligations.

Safeguard Measures

Safeguard measures to be implemented around the resource tender

- minimize the adverse effects of the development on the environment and people, and
- comply with international good practices for environmental and social sustainability.

Many governments voluntarily apply the safeguard measures used by the World Bank Group and other agencies, in cases where the donor invests directly in the project; and/or the Equator Principles, to which many international financial institutions adhere. Under regulatory compliance obligations, the developer of the mine would typically be required to prepare environmental and social impact assessments, resettlement action plans, and mine closure plans.

Left unaddressed, conflicts in and around a mining development can cripple the operation, lead to social unrest, and even close the mine. The sector ministry (or other authorizing agency) should have a regulatory obligation to create an **ombudsman's office** and website for recording complaints and managing the environmental and social conflicts arising from mine development. The ombudsman could also identify practical capacity-building activities to include training, the development of guidelines, and the sharing of international good practices. Alternatively, should the tender include implementation of a strategic environmental and social assessment, the sector ministry could, based on the findings of the assessment, set up an ombudsman's office for the tender area prior to selecting investors.

Task 1. Project Identification and Concept Formalization

To initiate a tender, the government will need to gather and analyze the information available and consider the policy, fiscal, and broader economic impacts of the potential new development. The government needs to

- have a relatively clear picture of what can reasonably be expected as an end result of the tender given the depth of information, risks, and projected revenues;

- identify any policy, regulatory, institutional, and information gaps that need to be addressed to attract the best investment and achieve financial closure most expeditiously; and
- decide what it may contribute to the development in terms of equity and/or infrastructure to achieve the best results.

Preliminary Documentation

These considerations are typically addressed in an **information memorandum** and a **transaction principles and policies statement**. The terminology and organization used in these documents will vary and is adjusted to fit country circumstances and frameworks.

Preparation of the project **information memorandum** is the responsibility of technical experts such as the transaction adviser. Given the linkages of major mine development to the broader national economy, it is recommended that a committee or specialized entity be engaged for oversight and to review and provide data as needed.

The information memorandum should clearly describe the treatment of the mine investment and dedicated ancillary infrastructure and major regional infrastructure, such as power and transportation, having a possible shared use and/or public benefit. While regional and ancillary infrastructure tend to be treated separately, this consideration will depend on local prevailing conditions. Award of the exploitation right is, in many cases, decided mostly on the basis of investment in the mine and dedicated ancillary infrastructure, with the regional infrastructure dimension agreed to separately upon conclusion of the mining contract and subsequent feasibility analysis of infrastructure alternatives and options in coordination with the government and in consideration of broader development policies and objectives. Under any scenario, however, requirements for major regional infrastructure development (such as compatibility with existing and proposed public road and rail networks and port capacities, and potential for shared-use arrangements) need to be agreed upon early on, with the details emerging as a result of further analytical work.

The **transaction principles and policies statement** specifies key policies governing the proposed development and the corresponding roles and responsibilities of government agencies and the investor. The document reinforces sector policy, and in some instances updates it and addresses gaps. It can identify minimum mandatory requirements to the developer (such as expected annual production and mineral refining arrangements, requirements on environmental performance, community

development contributions, and infrastructure requirements), as well as offer contributions from the government to facilitate the investment (such as equity participation, rights-of-way, access to power or other public utilities, access to the public transportation system, and incentives for development of regional infrastructure). Because this document will unequivocally communicate the government's commitment to certain measures regarding the project, it should be prepared by technical experts in close coordination and consultation with the responsible government entities and key policy makers. Having such a policy-level document adopted prior to the issuance of an REOI or RFP demonstrates to potential investors the seriousness of the tender and of the government's commitment to and understanding of it.

Bid Methodology

A technical team of experts (the transaction adviser) will recommend to the government the specifics of the mine's tender and of the regional infrastructure, if applicable. These recommendations will be based on the data available; the complexity of the development; the level of the government contributions; and the government's institutional organization and capacity to handle the transaction, assign the rights, and manage the regulatory aspects. The tender should be designed and conducted in line with relevant country procurement laws and, where international institutions are financing the project, in line with applicable donor guidelines.

The bid methodology must incorporate open, nondiscretionary access to the suite of information available on the investment opportunity, including technical studies, prior prefeasibility work, revised laws and regulations, roles and responsibilities, and regulatory obligations. This information can be presented in the form of a tender plan approved by relevant government authorities before the process is launched in the public domain.

Before proceeding with the advertisement and soliciting interest from the investor community, the government should

- clearly define the bidding procedure (including the steps to be followed and the separation of technical and financial evaluations, if applicable);
- assign roles and responsibilities; and
- agree on one or a few parameters to be scored in arriving at a selection decision (such as, the selected bidder must have the highest combined score for up-front cash payment and total investment value, or the selected bidder must have the highest combined score for local

economic development contribution and total investment value, or the selected bidder must have the highest score on regional infrastructure development contribution).

Given the complex nature of major mine and related infrastructure development, the government should prequalify interested firms (see Task 2). While it is not necessary in all cases, where an RFP is quite complex and/or when a response from the private sector is uncertain, the government should consider adopting a two-stage approach (see Task 3) that makes use of market sounding to improve the quality of the final bid package, thus increasing chances of better-quality investments and quicker financial closure. The use of bid bonds is recommended to minimize speculative proposals.[2]

In some cases (where there is a good information base and where the government has a prior track record of undertaking a complex review of a large volume of proposals), the government undertaking the mineral resource tender may opt for a process akin to a major works bid, wherein the prequalification stage is omitted and bidders are allowed to purchase a full bid package once it is advertised and submit their bids accordingly. The bid evaluation then combines both a screening of bids (following a process similar to that of prequalification) and an actual evaluation (see Task 5).

Task 2. Advertisement and Prequalification

Once the data are assembled, policy-level decisions made, and the bid methodology approved, the government is ready to make a public announcement of its intention to solicit bids for the development of a mineral asset and the opening of a data room (if such is envisaged). The government's REOI is compiled for publication in major newspapers and journals. It must specify the nature of the development, reference data availability, and provide points of contact and rules for making inquiries. Additionally, it must clearly state the requirements for submitting expressions of interest (EOIs), the EOI content, and the prequalification criteria and process.

[2] A bid bond is a debt secured by a bidder for a construction job or similar type of bid-based selection process for the purpose of providing a guarantee to the project owner that the bidder will take on the job if selected. The existence of a bid bond assures the owner that the bidder has the financial means to accept the job for the price quoted in the bid.

Prequalification of potential bidders restricts the competition to only those firms having the requisite technical and financial capacity, and makes it easier to obtain market feedback before calling for bids. Potential bidders should be given ample information about the project, and they should be allowed to access/purchase more detailed data on request. Potential bidders should be informed that any bidding documents disclosed at this stage remain subject to modification until formal issuance.

The criteria for prequalification should be based on a quantitative scoring system and could include the following:

- **Financial.** Applicants should demonstrate their ability to finance or obtain financing for the investments required (such as statements of sources of funding, levels of debt to equity, and how much equity would be paid in ordinary shares as opposed to subsidiary debt or unpaid capital). They should also demonstrate dependable access to a requisite minimum level of cash or line of credit (as defined in the prequalification documents) for the working capital requirements of the mine development.
- **Mine design.** Applicants should demonstrate that they or their partners or subcontractors have the minimum experience, as defined in the prequalification documents, in the design of a mine that optimizes underlying mineral resources.
- **Mine construction.** Applicants should demonstrate that they or their partners or subcontractors have the minimum experience, at the level defined in the prequalification documents, in the construction of a mine of the size and annual output envisioned by the government.
- **Mine operation.** Applicants should demonstrate that they or their partners or subcontractors have the minimum number of years of relevant experience, at the level defined in the prequalification documents, in the operation of an efficient mine to some minimum level of mineral production (across other operations and corresponding capitalization).
- **Environmental/social performance.** Applicants should demonstrate that they or their partners or subcontractors have the capacity and experience to ensure good environmental and social management, together with adequate attention to mine closure. They should also demonstrate that they or their partners or subcontractors have no environmental or social regulatory infractions that have led to temporary suspension or permanent revocation of an exploitation license over the past five years. Prior legal actions requiring mediation and/or court-administered resolution should be reported.

Quantitative scoring criteria are preferable.

The bidder is responsible for the financing, design, construction, and operation of the mine, and prequalification will ensure that only those firms with the requisite technical and financial capacity to finance, construct, operate, and maintain the mine participate in the bidding.

To maintain the integrity of the process, once firms are prequalified, their financial or operational standing or past performance (which are key criteria for prequalification) would no longer be factored into the evaluation process.

Task 3. Finalizing the Request for Proposal

This section describes a two-stage methodology as noted above. The first stage—market sounding—is optional, but is recommended for complex tenders where some technical issues remain undefined or undecided and on which the government seeks input from qualified bidders around a set of options. It may also be employed where interest from investors is less certain, and the government wishes to retain flexibility to redefine the bid package upon receipt of further market information. For simpler tenders and where there is less uncertainty about the project, the market sounding stage may be omitted.

The two stages are as follows:

- **Stage I—issuance of a draft bid package followed by market sounding.** The draft package is shared with those firms that passed the prequalification stage in order to seek their comments, perhaps around a predefined set of options; and to obtain investor feedback on the information memorandum, transaction principles and policies statement, model contract, or other technical specifications or reports contained therein.
- **Stage II—issuance of a final bid package to which prequalified bidders prepare their submissions.** The final bid package would require inputs from and clearance by relevant government authorities and would reflect general market conditions based on initial soundings, the financial viability of the project given global markets, and the competitive advantages of the resource over other undeveloped resources. As noted above, the use of bid bonds is recommended to minimize receipt of frivolous proposals.

The draft and final bid package—the RFP—would be prepared based on decisions made at the project identification stage, drawing on the information memorandum, transaction principles and policies statement,

and tender plan. The RFP should specify the format for bid submissions, such as separation of technical and financial proposals (a two-envelope approach), predesigned forms to be filled out, a checklist of supporting documents, and so on.

Given its technical nature, the RFP is generally prepared by technical experts—usually the transaction adviser—but should be approved by the relevant government authorities, such as a sector ministry and/or designated entity or committee if such was established for these purposes.

The bid package should include the model contract (box 3.1). In this regard, there are two possible models:

- a contract that becomes a legal act and is approved in the same manner as any other legal act, and covers all aspects of the operation ("regulation by contract" case); and
- a contract that describes only operation-specific matters, cross-referencing existing laws and regulations on all other standard matters (such as fiscal terms and conditions and environmental compliance).

This latter option is possible only in countries with adequate mining and fiscal laws and where a high level of investor confidence exists. In most such countries, these contracts will be a combination of a mining license accompanied by an additional agreement, if necessary, addressing only the issues related to the very high investment values of mining projects and their long development time and other associated risks. Under any scenario, the key issues to be considered and explicitly stated in the contract include the following:

- Whether the contract provides for stabilization of royalties and of certain taxes for a specified period of time; in some cases, the investor may be given the option of choosing for the duration of the project (or for a specified period of time) between the current rate as per the law (which may increase or decrease over the life of the project) or a stabilized rate[3] that may in some cases be higher
- Whether the contract includes any specific incentives (or concessions) that are envisaged and their sunset conditions

[3] For example, in Chile, Decree Law 600 grants all investors access to the foreign exchange market, either to purchase or convert; the right to return capital actually brought into the country without any taxation; and a stable taxation rate for 10 years (extended to 20 if the capital investment exceeds $50 million). In exchange, foreign investors pay 42 percent combined corporate income tax and tax on dividend or profit distribution (not including a specific mining tax).

Box 3.1 Model Mining Contracts

The International Bar Association is one example of an initiative to reach global norms around mining contracts. The International Bar Association has developed a Model International Investment Contract for Mining and Sustainable Development. The model has been developed from a diverse base of good practice contracts collected across the mining industry, and is structured around the following major concepts:

- **Tenure—**including specifics about the exploration of prospect areas and development of the mining area, together with the orderly planned surrender and termination of the exploitation rights and obligations at contract end
- **Parties' obligations—**including necessary government assurances, the provision of goods and services to the mine, employment and training expectations and assistance, environmental issues and compensation for damage, and fair and economical project operation (resource utilization optimization)
- **Financial terms—**fiscal obligations including taxes and royalties; financing requirements as defined in the nation's tax laws; regulatory requirements for keeping records, statements, foreign currency accounts; audit requirements as set forth in the nation's tax and mining regulations; and any financial incentives
- **Contractual terms—**including insurance and indemnity requirements and agreements, assignment of authorizations, confidentiality, force majeure provisions, cooperation and arbitration agreements, notices, applicable law and jurisdiction, project and contractual review, and ancillary provisions (infrastructure)
- **Community relations and sustainable development—**including mitigation of social risks such as involuntary resettlement, role of and programs for local communities, negotiating and complying with community development agreements, postmining concerns (planning for closure), and national concerns

- Whether the contract shall repeat applicable sections of current laws in mining agreements to provide contractual security to the investor in the event of material changes to the law during the development

Task 4. Issuance of the RFP

The final RFP is provided to prequalified bidders. These firms would submit their bid package, with the technical and financial bids in separate envelopes, by the stated deadline.

Task 5. Bid Evaluation and Selection

The evaluation and selection of the preferred bidder should be carried out strictly in accordance with the procedure set forth in the RFP. Any modifications (if warranted, in exceptional circumstances) must be announced to all bidders immediately, and adequate time should be provided for them to respond.

An evaluation committee is usually established early on and should include diverse technical expertise in all aspects of proposed development, financial expertise, procurement expertise, and an independent member to provide oversight. The committee should be of a manageable size to ensure that meetings take place in accordance with the schedule and as needed. The committee carries out the evaluation, with the transaction adviser providing assistance and guiding the process as needed.

Where technical and financial bids are separately submitted, the technical envelope is opened first, and the technical bid evaluated and scored. The price envelopes are then opened for those bids that meet a minimum predefined score (the "compliant bids") as specified in the RFP. The evaluation is completed, and the preferred bidder selected. For technical bids that did not meet the predefined minimum score, the price envelopes are returned to the bidder unopened. In some cases (as in Afghanistan's Aynak copper deposit, discussed in part II) evaluation of technical and financial proposals of responsive bids was carried out simultaneously. If this is an appropriate option for a particular tender, the bidders should be advised of this in the RFP.

The bid evaluation and selection of the preferred bidder should be subject to acceptance by the relevant government authorities prior to announcement of any results or commencement of negotiations. The bid evaluation report summarizing the selection process and results for each stage should include

- a technical evaluation of the submitted bids to ensure compliance with the published final bid package;
- transfer of compliant bidders, based on the technical evaluation, to the pool of final financial bidders; and

- a financial evaluation of the compliant bidders' proposals (opening of the financial proposals needs to be announced in advance to the compliant bidders to allow them to be present for the opening and the read-out of the quotes).

The selection process should be conducted in public, and third-party observers should be invited to ensure transparency and integrity. Evaluation committee members should not discuss any aspects of the evaluation outside of their duty. The results of the bidding should be reported by the transaction adviser to all final qualified bidders and to the public (within the confidentiality parameters set forth in the RFP) in a consistent manner when all approvals are in place for each of the steps.

The bids should be scored as per the weight placed on each evaluation criterion as published in the information originally provided to the bidders. Many countries are increasingly using a selection scoring system that integrates work commitment/time to production/projected output volume, mine design, attention to environmental/social considerations and mine-affected communities, total investment value, and premium (cash payment) to be paid the government against completion of benchmark activities. The top-scoring bidder is designated the preferred bidder for negotiation of the final contract within a specified period of time, and the second-highest-scoring bidder is designated as the reserve bidder should the government not be able to conclude a contract with the preferred bidder by the deadline.

Chapter 4

Public-Private Partnerships and Large-Scale Regional Mining Infrastructure

Regional infrastructure PPPs can be used to facilitate additional large mining investments where a mine carries the exclusive burden of infrastructure development, and such investments represent a large preproduction expense. Such large preproduction expenditures in infrastructure cut into the commercial viability of a mine, when the time-value of future revenues are discounted to present dollars (using a net present value calculation). A mine has few options beyond seeking tax and other incentives to bring the proposed operation to commercial viability.

Mining development agreements can in themselves be PPP arrangements; alternatively, a mining contract can be supplemented with ancillary PPPs for infrastructure and services. A review of the literature shows that relatively few PPPs have been formally structured and completed for mine infrastructure development. While not all mining projects could involve PPPs, such partnerships might yield a variety of technical and financial benefits and efficiencies. Examples of mine-centered PPPs range from regional railroads and deep seaports (if, in addition to transporting the ores, they have the potential to stimulate other economic activities in the area), to local water supply and drainage systems into and from the mining area, trunk and service roads, border stations, power stations, and training facilities.

Mining-centered PPPs are generally based on known deposits for which a full feasibility study can be undertaken. It is far more difficult to base a PPP on an inferred resource potential and/or expectations for future market conditions.

In designing a PPP structured around mining, feasibility and the profitability of the mining project must be kept in mind. Also, the PPP should look to meet the specific needs of the region, taking into account the ability of different users to pay toward development and maintenance expenses.

Under a PPP approach, the government outsources to a third party the construction and/or operation and maintenance of a—at least partially—publicly designated infrastructure asset. The government contributes to the project by providing right-of-way, licensing, risk mitigation and guarantees, fiscal incentives, and—in some cases—direct equity.

Structuring the PPP

A PPP structure is best informed by a region-specific assessment of opportunities in other commercial and noncommercial sectors. Such an assessment helps the government identify development scenarios where more systematic and strategic public investment in shared-use infrastructure within broader mineral resource corridors is warranted. The Maputo Development Corridor linking Pretoria, South Africa, to Maputo, Mozambique, is one such example (box 4.1). In the Maputo Corridor case, the governments of South Africa and Mozambique used PPPs to develop infrastructure based on an analysis of potential industrial use. Public sector investment here resulted in a boost in overall investment in the area and industry-led economic growth.[1]

A variety of approaches can be used to engage the private sector in infrastructure development, ranging from basic service contracts to concessions and asset sales. This range reflects a continuum of increasing allocation of risk to the private sector. The main distinction among the approaches is how responsibility is allocated for asset ownership, operations and maintenance, capital investments, and commercial risk (figure 4.1).

There is no predetermined structure that fits all PPPs; therefore, its ultimate structure will likely be a combination of various models tailored to best suit local circumstances. That said, two possible base models are

- an asset holding company responsible for all of the development of an area, or
- a specific special-purpose vehicle for a given mining concession with ancillary services (such as water and roads) attached to the main concession contract.

[1] Some would argue that the growth in the Maputo Corridor was substantially less than was anticipated at the design stage, but that is not the subject of this analysis. The Maputo Corridor is an example of one of many possible models of government-led effort to boost industrial growth in a specific geographic area through targeted infrastructure development. Separate studies are being done in Mozambique to better understand what additional interventions are needed.

Box 4.1 Maputo Development Corridor, South Africa–Mozambique

The Maputo Development Corridor, which was first conceptualized in 1994 as a rehabilitation project on an already existing but nonoperational transport corridor, was expanded to full scale and takes into consideration a potential path for the development of all economic sectors within it. It serves as a demonstration project for other development corridors, particularly for states that have inherited nonexistent or destroyed infrastructure, and offers useful lessons both positive and negative.

Development along Maputo's mineral corridor has to date helped facilitate over $5 billion in private sector investments in regional infrastructure development, industrial development, and natural resource exploitation and beneficiation. Key infrastructure investments have included the following:

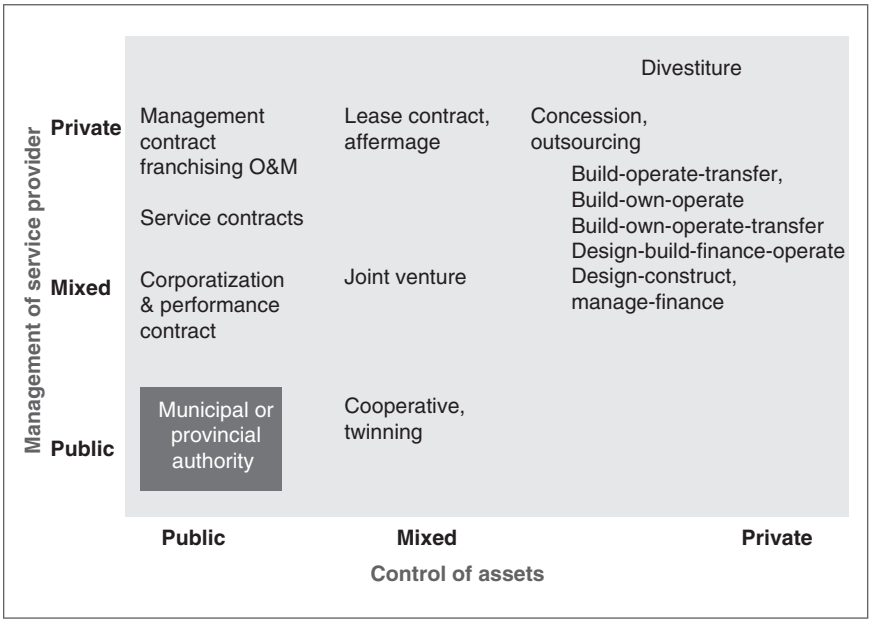
- The N4 Maputo Toll Road—a PPP awarded in 1997 to the Trans African Concessions consortium for a period of 30 years
- A management agreement with Liverpool's Merseyside Docks and Harbour Company to upgrade and operate the Maputo Port
- Improvements to the Lebombo Border Post between South Africa and Mozambique
- Construction of two high-voltage electricity lines from Duvha, South Africa, to Maputo, Mozambique
- Development of the Pande-Temane gas field in Mozambique and construction of a $1.4 billion gas pipeline to South Africa

The access to better infrastructure afforded by the corridor has sparked other initiatives, including the following:

- BHP-Billiton is making investments in Maputo's Mozal Aluminium Smelter.
- The Beluluane Industrial Park, a 600-hectare free-zone development adjacent to the Mozal plant, is attracting a mix of foreign, regional, and local investors in heavy industry, manufacturing, and high-tech businesses.
- Numerous smaller investments are being made in the tourism (hotels), retail, manufacturing, and service sectors.
- A $2 billion iron and steel complex in Matola, based on South African ore and Mozambican gas, is being assessed.

Sources: Jourdan 2008 and authors.

Figure 4.1 Variety of Available PPP Arrangements



Source: Delmon 2009.

Note: O&M = operation and maintenance.

PPP arrangements, as compared to regular public financing and management options, can improve the efficiency of a project or provide a means for the government to manage its budget limitations and planning. Successful PPPs need to target efficiency gains. As an example, the Moatize coal development project (box 4.2) involved PPPs in ancillary infrastructure development for coal transport. Another example is Port d'Ehoala in Madagascar which was built as a PPP between the regional (Malagasy) government and the Rio Tinto ilmenite project in Fort Dauphine (box 4.3). The case of Zambia's Copperbelt illustrates options for structuring municipal services (water, sewage, waste management, local power) in mining areas as PPPs (box 4.4).

The Moatize and Port d'Ehoala cases feature partnerships that were driven by existing mining concessions; in the cases of the Maputo Corridor and the Zambia Copperbelt, the PPPs were structured separately to stimulate investment.

Challenges

PPPs have become very popular in middle- and high-income countries; they can also be very effective in low-middle-income countries. Structuring

Box 4.2 Moatize Coal Project, Mozambique

Mozambique's Moatize coal reserves were estimated at 2.44 billion tonnes. With assistance from the International Finance Corporation, the country structured a tender for the resource in 2004. CVRD (now Vale) was the winning bidder. The project will have a production capacity of 11 million tonnes of coal per year. Vale's total investment will reach $1.322 billion. When production starts, approximately 8.5 million tonnes of metallurgical coal and 2.5 million tonnes of thermal coal will be exported to Brazil, Asia, the Middle East, India, and Europe. In addition, 3 million tonnes of coal will be consumed by a 600-MW thermal power station to be built next to the mine. Construction of a new rail line toward Nacala port will take place in the future; negotiations are ongoing under a memorandum of understanding with the government of Malawi. In the interim, shipments will be transported to a new maritime coal terminal in the port of Beira via the Sena rail line, whose capacity will limit Vale's coal production to about 3 million tonnes per year (the rail's total capacity is low and is to be shared with other projects shipping from Tete). The Sena rail line's rehabilitation to Beira was carried out by a private sector majority (51 percent ownership; the remaining 49 percent is owned by Mozambique's state rail company) consortium. Vale has commissioned its mine in May 2011, and the first shipment is to take place by autumn 2011. Modalities for the Nacala rail and port are yet to be agreed on, but are expected to include a shared use of this regional infrastructure by several investors under infrastructure concession agreements and a certain level of participation by the government of Mozambique and possibly that of Malawi.

The success of the project has brought international visibility to Mozambique's potential as a coal producer, spurring investment by large international companies such as Tata, Riversdale, and India Coal in the Tete region of the Zambezi Valley; this will result in large inflows of investment to the region.

Sources: IFC 2008 and authors.

a successful PPP in a low-income country is more challenging, however. Challenges a government will face in this regard include the following:

- **Project design—**lack of technical data and limited options for data collection to design a bankable PPP; insufficient legal, regulatory, and

Box 4.3 Port d'Ehoala, Madagascar

Agricultural, mining, and sea products have been underexploited in Madagascar due to a lack of public infrastructure and related services. This lack exacerbates inflation of imports such as rice due to logistics costs.

The government of Madagascar and QMM, a subsidiary of Rio Tinto, have funded Port d'Ehoala construction (up to $240 million from QMM and $35 million from the Malagasy state) through the Anosy Integrated Growth Poles Project funded by the World Bank. The QMM mine is the port's key initial customer. Over time, it is expected the port will make an important contribution to economic development of the whole region. QMM manages port operations. At the end of the life of the mine, the port will fall under the responsibility and control of the government of Madagascar. The mine's life is projected at 40 years from first production in 2008.

The global concession agreement for this new southern port development was signed on March 24, 2006, between the Agence Portuaire et Fluviale, the Integrated Growth Poles Project, and the concessionary company Port d'Ehoala SA, a fully owned subsidiary of QMM. Port d'Ehoala has been open since July 8, 2009.

Sources: World Bank 2005; www.ehoalaport.com/about-port-dehoala.

institutional frameworks and capacity to design and manage tenders and to understand contractual rights and obligations

- **Financing—**limited donor funding and limited ability of governments to borrow in the market, at times combined with additional restrictions that may have been imposed by the International Monetary Fund and the World Bank on government borrowing;[2] limitations that may be imposed on governments' contingent liabilities, thus eradicating the minimum usage guarantees that are common for infrastructure PPPs in some cases; additional challenges as noted in table 4.1
- **Regulation—**absence of appropriate legal, regulatory, and institutional frameworks and mechanisms; lack of regulatory capacity within institutions and the need for capacity to understand government's rights and obligations under the contracts

[2] In particular, countries under Highly Indebted Poor Countries (HIPC) debt relief obligations imposed by the Word Bank and the International Monetary Fund on fiscal discipline.

Box 4.4 Infrastructure in Zambian Mine Townships

The mining sector has historically been the engine of growth in Zambia, accounting for, at times, up to 80 percent of the country's export earnings. However, by the 1990s, the production of copper, the main exportable mineral, was in decline largely due to the inability of the state mining conglomerate, Zambia Consolidated Copper Mines Ltd (ZCCM), to develop new mines and inadequate reinvestment in the sector. The government of Zambia, unable to undertake the large investments required to reform ZCCM, began a large-scale privatization program.

ZCCM had been the main provider of such basic infrastructure services as water and sewage, sanitation, solid waste, drainage, street lighting, road maintenance, and electricity distribution in major mining towns. Because potential investors were reluctant to assume responsibility for assets not directly linked to their core business, in 2000, the government of Zambia embarked on a five-year, $37.7 million project (financed by the World Bank) aimed at facilitating the completion of ZCCM's privatization by supporting the provision of efficient and reliable water supply services, wastewater services, and solid waste management in five mine townships. The project's two main complementary activities aimed at

- introducing a performance-based management contract to promote private sector participation and commercialization in the sector; and
- developing a longer-term strategy to integrate the management of water, wastewater, and solid waste in the mine townships with those of the corresponding municipal township in preparing options for enhanced sustainability.

The project was intended as a bridge to support the definition and begin the implementation of a permanent system for the delivery of infrastructure services in the Copperbelt by acting as a pilot project for the use of private sector contracting to achieve sustainable results. Consequently, water production capacity and its environmental management increased substantially. During 2000–05, 320,000 people benefited directly as access to water supply increased, with improvements in water quality as well. Additionally, the involvement of a private operator under a management contract addressed public sector capacity gaps and provided operational "breathing space" for designing a longer-term local authorities–based solution.

Sources: World Bank 2000, 2006.

The use of PPPs for dedicated mining infrastructure may not be feasible if the government does not have funding available for such investments or if there is no significant potential for adequate economic growth in the area to justify public investment. In such cases, dedicated infrastructure development will remain the sole financial responsibility of the mining company, and the government can request third-party access or shared use of such designated infrastructure. Examples of relatively recent transactions employing such arrangements are the Liberia Bong Mines (an iron ore project to be developed by China Union Mining Co., Ltd) and the Mongolia Oyu Tolgoi Project (a copper, gold, silver, and molybdenum mining project to be developed by Ivanhoe Mining and Rio Tinto).

Other possible PPP models involve subsidies and government guarantees to attract investors toward less-profitable projects, but these need to be viewed with caution: if the private sector is not interested in a project, it probably means it is not designed for success, and/or it represents too great a political risk. Government subsidies or guarantees can still help to generate a solid and profitable project in the long run, but these interventions need to be very carefully planned and will require significant market sounding.

Institutional Considerations

The public sector plays a major role in any natural resource concession or related PPP transaction. Table 4.1 lists government functions with respect to PPPs and mineral tenders and mining contracts, which can collectively be referred to as concessions.

The relationship between government and the private sector is critical to the success of PPP arrangements. The government's ability to effectively plan, design, implement, coordinate, and regulate will have a direct impact on returns to all parties. Implementing the following principles would improve the way PPPs are managed (Kerf and others 1998):

- Clarification of roles and responsibilities with respect to private investors
- Effective coordination of relevant government policies and approvals
- Establishing access to the expertise needed to design and implement complex transactions

This last is a particular concern in many cases. Developing countries often have weak capacity in virtually every sector, and thus ensuring specialized expertise for transactions within the government is a major challenge. While expertise is best placed within the sector ministry to

Table 4.1 Sample Government Responsibilities for Mineral Tenders, Mining Contracts, and Mine-Related PPPs

Intervention	Responsibilities
Framework	• Adopting legal provisions to enable the granting of concessions • Establishing or identifying regulatory authorities • Managing government support to infrastructure projects • Managing public relations and information
Project identification and analysis	• Identifying projects amenable to concessions (including in-house and unsolicited proposals) • Prioritizing projects amenable to concessions • Hiring advisers • Performing a preliminary review of the costs and benefits of the project (without duplicating the analysis to be performed by the private sector), especially in cases where the government will be assuming part of the market risk • Reviewing legal and regulatory issues • Determining preliminary selection criteria • Granting permission for the project to go ahead (for example, for the opening of the bidding process) • Setting a timetable for the project
Enabling and supporting measures for specific projects	• Granting permits and other necessary authorizations (such as environmental permits, rights of way) • Determining the form of government support for the project
Design of concession arrangements	• Choosing legal instruments • Allocating responsibilities • Choosing and designing pricing rules and performance targets • Determining bonuses and penalties • Determining duration and termination • Designing adaptation mechanisms to new or unforeseen circumstances • Choosing and designing a dispute settlement mechanism
PPP/ concession award	• Choosing the method of award • Making decisions regarding prequalification and short listing • Determining bid structure and evaluation method • Determining bidding rules and procedures • Proceeding with the bidding • Negotiating
Exercise of monitoring/ regulatory function	• Implementing regulatory rules • Supervising and monitoring • Enforcing rules (for example, imposing penalties)

Source: Kerf and others 1998.

institutionalize capacity for the sector, this is not always feasible. As a result, some competencies related to mining or PPP transactions should be developed within the government structure and retained for future projects, while other more technical and specialized competencies should be outsourced. In some rather extreme cases, the entire process may be outsourced to ensure timely execution. Box 4.5 describes a few models that have been used around the world to manage PPPs and/or the concession process.

The government affiliation, functions, and responsibilities of any entity charged with PPP or concession coordination or management are

Box 4.5 Types of PPP and Concession Management and Coordination Arrangements

- **Within a government.** These are the most frequently applied arrangements and may involve either (1) a PPP or concession unit of a ministry that coordinates all initiatives between the private sector and various agencies, or (2) separate PPP or concession units in sector ministries with or without central coordination. Use of interministerial committees is becoming more prevalent in recognition of the fact that major resource development has broad implications for the economy as a whole and requires the involvement of a number of sector ministries in the process.
- **External autonomous agency.** This may be an institution set up by the government that is attached to or reports to a ministry but operates outside its jurisdiction. Two instances of these arrangements are India's Adhra Pradesh Infrastructure Authority and Ireland's National Development Finance Agency.
- **Government-owned company with board.** This arrangement may entail separate legal entities that operate on a commercial or quasi-commercial basis with a board appointed by government. Canada hosts such an arrangement with its Partnerships BC and PPP Canada.
- **Joint venture between public and private sectors.** This arrangement may entail separate legal entities with public and private sector capital and a board of directors. It operates on a commercial basis and reports to the authority determined by the legal instrument. Partnerships UK has this structure.

Source: World Bank 2010.

determined by the political history of the governmental structures in each particular country. Some combination of centralized (central government), decentralized (provincial, municipal, and/or local level authorities), or outsourced (a third party, either government-owned or private) management is often used to adequately factor in political economy considerations in each country while following the new global trend toward broader stakeholder involvement and the adoption of transparency principles.

Part II
Case Study: The Aynak Copper Deposit, Afghanistan

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Chapter 5

Overview

Since 2002, the government of Afghanistan has been engaged in various programs to build the country's security, legitimacy, and economy. Although it has made progress in many areas, such as primary education, basic health services, irrigation rehabilitation, and rural development, the country remains extremely fragile, and security continues to be a serious obstacle to the implementation of reconstruction programs. Moreover, Afghanistan's poverty and social indicators are among the lowest in the world. Government capacity is weak despite improvements, and the pace of implementation of reconstruction programs has been slowed by security considerations. The combination of poverty, insecurity, and a significant dependence on foreign aid on the one hand, and a very low domestic revenue base paired with the persistence of poor governance on the other, means that the government faces daunting challenges in moving the reconstruction agenda forward.

Afghanistan does have a rich endowment of mineral and energy resources, however. It possesses deposits of copper, gold, and iron ore, among other metals, as well as construction materials, architectural stone and gemstones, coal, and hydrocarbons. Development of the minerals sector has been identified as an important lever to diversify the economy, create employment, and raise government revenues. Existing mineral production is currently limited to small-scale operations of construction materials (sand, gravel, crushed rock) and artisanal operations of gemstones and dimensional stones. Hydrocarbon production consists of natural gas in the Sheberghan area and very limited production of oil in Sar-i-Pol. Afghanistan's resource endowment could support substantially larger operations.

The country's progress to date toward macrolevel stabilization, institutional capacity building, and government capacity building in the management of complex projects has enabled domestic and foreign direct investment within the mining sector to become a driver of employment, fiscal revenue generation, foreign exchange earnings, and source of innovation. The government's long-term vision for development of the sector (Ministry of Mines 2010) includes infrastructure investments in

roads, rail, power, water, and information and communications technology (Government of Afghanistan and Ministry of Mines 2010), as well as sociocultural investments in locally affected areas including schools, health care, and training, and gemstone and handicraft-based entrepreneurial activities for women in selected mining communities. To ensure that future mineral and energy investments produce equitable and sustainable outcomes, the government's vision also includes the integration of good governance principles of transparency, accountability, and inclusion in all sector interventions.

The World Bank has been providing policy advice to the government of Afghanistan on the mineral sector since its reengagement with the government of Afghanistan in 2002. Its benchmark mining sector 2004 report defined the challenges to the government in creating an enabling environment for private sector foreign direct investment (World Bank 2004). Since late 2006, the International Development Association has funded the Sustainable Development of Natural Resources Project (SDNRP), a $40 million assistance package supporting efforts to improve the governance of the extractive industries in Afghanistan, and—more recently (2011)—the Second SDNRP for $52 million.[1] The objective of this initiative is to assist the Ministry of Mines and the National Environmental Protection Agency (NEPA) in further improving their capacities to regulate Afghanistan's mineral resource development effectively, transparently, and efficiently, and to foster private sector development.

Under the SDNRP, the government of Afghanistan has made good progress in improving the regulatory and investment environment for its extractive industries sector, particularly mining. As of today, the regulatory framework is nearing completion, and there has been significant progress in institution building on the technical, revenue-generation, and monitoring aspects of mining, driven in part by in-bound investments at the Aynak copper deposit and the ongoing tender of the Hajigak iron ore deposit.

While acknowledging the importance of the Afghan broad sector framework and context, this paper focuses on the competitive international tender of the Aynak copper deposit that was supported beginning

[1] The SDNRP was approved by the World Bank Board of Directors June 2006 for $30 million. Additional financing was approved in 2009 in the amount of $10 million to cover cost overruns under the original project and additional activities. The Second SDNRP, which is a separate project, will continue the reform process. It was approved in May 2011 for $52 million and will focus on second-generation reform of the extractive industries sector and ensure the sector's economic contribution.

in 2005 through a Bank-administered trust fund,[2] and thereafter using SDNRP project funds. The Aynak tender spans a relatively long time period, from its 2004 conception to issuance of the bid package in 2007 and issuance of the exploration license to the selected bidder in 2008. As of mid-2011, the feasibility report and associated environmental/social impact assessment had yet to be completed by the investor. Because the tender-related activities overlap with many other events occurring in Afghanistan and within its economy, as well as with the ongoing reform of its mining sector's governance, this paper touches on Afghan sectoral reforms and strategic vision as warranted within this narrower discussion of the Aynak tender.

Aynak was selected as a pilot tender given its proximity to Kabul and the field security thus provided, and the advanced stage of geologic understanding associated with detailed exploration undertaken during the 1970s through mid-1980s. The tender has served to demonstrate the unique demands and exceptional circumstances of a postconflict fragile state. The newness and inexperience of government agencies have demanded considerably more capacity building, discussion, and resolution of a diversity of opinions on mineral resource development than has been the case in other postconflict countries.[3] The process has been especially complex given a proposed mine development that will have linkages to many sectors of the economy and the need to leverage that investment for broader economic development and diversification. Moreover, increasing attention is being given to building adsorptive capacity within emerging resource corridors to ensure that local populations can effectively participate in the planning and implementation of sustainable development projects, as well as engage in economic opportunities resulting from linkages with the mine. As the first multibillion-dollar investment to emerge within Afghanistan, the Aynak tender has uncovered policy and institutional gaps requiring increased dialogue around which government agencies can coalesce.

The Aynak tender was carried out as an international competitive bid which attracted nine global mining consortia. The developer selected—a

[2] The Afghanistan Reconstruction Trust Fund under the Technical Feasibility Studies Unit grant facility.

[3] For example, in West Africa and the Democratic Republic of Congo, the Bank has been able to reengage technicians and resource managers from preconflict governments given the relatively short duration of the countries' wars. After 25 years of fighting in Afghanistan, however, there were few remaining sector specialists on whom the SDNRP initiative could build.

consortium of the China Metallurgical Group Corporation (MCC) and Jiangxi Copper Company Limited (JCCL)—offered a premium of $808 million payable in three tranches. Financial modeling from Aynak projects annual revenue streams through direct and indirect taxes, royalties, and other fees as established by mining law and the contract at $250 million per year. It is estimated that Aynak will create 5,000 direct jobs with broader economic linkages through the economy (Minister of Mines 2009).

The Aynak tender represents a milestone event in the government's overall program to attract foreign direct investment. It was initiated to protect against unsolicited proposals seeking sole-source rights to one of Afghanistan's largest assets—a deposit known globally as one of the larger undeveloped copper resources in the world. Background policy discussion on this tender framework commenced in 2004, and required considerable time to review issues relating to the award of contracts and licenses, together with regulatory considerations that would govern exploration and exploitation of the deposit. In 2006, the government contracted with a transaction adviser—a team of legal, fiscal, and technical specialists—to assist it in the preparation of the bid package, market promotion/attraction of investors, evaluation of bids, and selection of a preferred bidder. The Aynak tender was completed by signing a contract with the selected investor—the MCC-JCCL consortium (box 5.1)—in 2008. While contractual close was a significant benchmark within the tender process, it marks the beginning of a much longer process of feasibility studies, mine design, environmental/social impact assessment, preparation of management plans, and construction. Throughout this process, the developer will be required to file studies and applications with the government, all of which will be subject to regulatory compliance. As of mid-2011, this feasibility period is under way; to date, the developer has submitted the first environmental/social scoping report which frames the forthcoming environmental/social impact assessment.

The investor is currently concluding a feasibility study for the main ore body and other exploration work; this feasibility stage has gone beyond its initial 2010 deadline because of delays in the government's clearing of unexploded ordnance in the area as well as the discovery of Buddhist antiquities at the mining site (Mes Aynak, which is now recognized as a unique archeological find countrywide; this is further discussed in chapter 6). Consequently, finalization of the feasibility study has been behind the schedule. After a decision is taken to advance to mine development, the period between commencement of mine

Box 5.1 The Selected Developer

The China Metallurgical Construction Company and Jiangxi Copper Company Limited formed a consortium for their eventual successful bid on the tender for the Aynak copper deposit. MCC owns 75 percent of Aynak's shares, and JCCL owns 25 percent.

JCCL is China's largest copper producer. It manufactures 340,000 tons of copper annually from its mines, which include the Dexing and Yongping pits and the Wushan underground mine. It owns a copper smelter and refinery, and its majority-owned Jiangxi Copper Products subsidiary manufactures copper rods and wires. Other company operations include gold and silver production. JCCL was formed in 1997 by parent Jiangxi Copper Corporation, which is owned by the Chinese government. Jiangxi Copper Corporation owns 48 percent of JCCL's shares. Other shareholders include USB AG of Switzerland at 5.2 percent. JCCL won the 2008 Chinese Mining Environmental Protection Award for the Dexing Copper Mine Acidic Waste Water Treatment Project.

MCC, a Chinese state-owned enterprise, is China's leading engineering contractor. It also operates mines in Papua New Guinea, Pakistan, and Argentina. Russian steelmaker Evraz Group has joined forces with MCC to develop the Cape Lambert iron ore project in Western Australia. It is currently ranked 486th on *Fortune*'s Global 500 List.

construction and production is expected to take three to four years, depending on the level of in-country processing and the development of ancillary infrastructure.

The Aynak copper deposit was the first mineral resource to be tendered through international competitive bidding under Afghanistan's recently established Ministry of Mines. It is one of several prospective resource areas under state control identified for national development opportunities. The Hajigak iron ore deposit has similar potential and is slated to be the country's next resource tender.

The following chapter provides background information relevant in assessing the environment within which the tender was conducted and for understanding the various parties involved. Chapter 7 describes the step-by-step process used by the government; chapter 8 presents lessons learned.

Chapter 6

The Context

Challenges to Sector Development

Despite its excellent mineral endowments, the Afghanistan minerals sector suffered chronic underinvestment resulting from several factors as identified in the 2004 World Bank benchmarking report:

- Regulatory and fiscal deficiencies around outdated minerals legislation, regulations, and fiscal regimes
- Institutional deficiencies within poorly staffed and illogically structured agencies which were not providing transparent, nondiscretionary sector regulation
- Lack of infrastructure, reflected in poorly developed roads, energy, water, and other systems which limited access to regional and global markets
- A shortage of trained and skilled technical and managerial workers and limited vocational training
- A lack of investment capital and weak local capital markets for financing small to medium-size domestic operations
- An aversion on the part of international investors to larger investment opportunities given political, security, and regulatory risks

Moreover, while the government and its many ministries and agencies had prepared laws, policy frameworks, and regulations, they had not been put to the test around a mining sector development as would emerge at Aynak. It is not that Aynak was disproportionately problematic or large (it was appreciated by 2010 that transportation and other infrastructure projects were encountering the same issues but in a less visible way), it was that Aynak was elevated in terms of its profile and that the good practices used by the World Bank and other institutions under such circumstances would be imposed more strictly for the first time.

The Aynak Copper Deposit

The Aynak deposit is located 35 kilometers south of Kabul in the northern portion of Logar Province (figure 6.1). The site consists of a mineralized body contained within a small 5- by 4-kilometer land parcel, together with the Darband and Jawkhar copper prospects to the east and south, respectively. Aynak is accessible year round via a new paved highway and has few physical barriers in the immediate area.

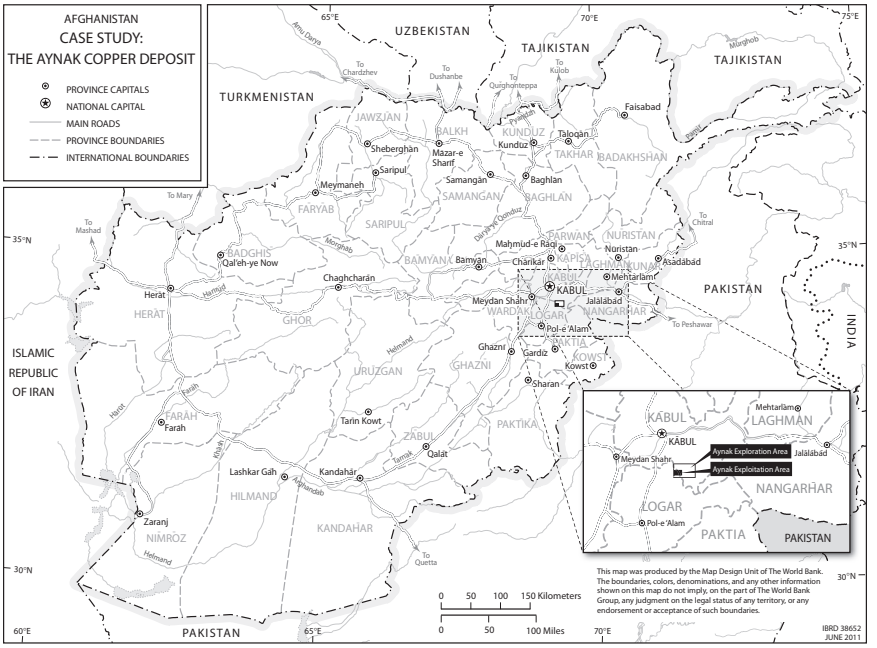
Small-scale production at Aynak dates back 2,000 years, but recent exploration interest stems from 1973–74, when Soviet and Afghan geologists conducted prospecting and geological mapping (Shcherbina, Petrov, and Silkin 1975). Based on favorable early findings at Aynak, the Soviet Technoexport geological mission performed a systematic exploration program in two main phases in 1974–76 and 1978–89.

By 2003, the government was receiving unsolicited proposals for the rights to develop Aynak and was under pressure to move such assets into the investment community. Some investors were seeking to capitalize on the situation through unsolicited proposals to circumvent formal licensing procedures and transparency initiatives and thereby gain exclusive access to the rights to develop the deposit.[1] The World Bank advised the

[1] Indeed, by mid-2004, there were signals through unofficial channels that an investment group was seeking to conclude negotiations for exclusive mineral rights to the Aynak deposit in exchange for a one-time $5 million cash payment.

Aynak project site; by Mohammad Haroon Naim, SDNRP Acting Project Coordinator, and Dr. Atiq Sediqi, Acting Director, Geological Survey of Afghanistan.

Figure 6.1 Location of Aynak Copper Deposit



Source: International Bank for Reconstruction and Development 2011.

Ministry of Finance that the deposit had much greater immediate financial benefit to the nation and that a more clearly defined development program by the government would provide sustained monetary and economic benefit for generations. A discretionary assignment of mineral development rights to a third party would not maximize resource rents to the government or necessarily lead to the selection of a developer with the financial and technical wherewithal to undertake a multibillion-dollar investment (the tender was initially estimated at $3 billion). The Ministry of Mines and Ministry of Finance thus agreed to tender the project rather than make it available to an interested party on a noncompetitive basis.

The political will to implement the Aynak tender in accordance with good international practices was present; however, the capacity to manage the tender and, later, to monitor regulatory compliance was very weak. The Ministry of Mines, like its predecessor, the Ministry of Mines and Industries, was still building technical and administrative capacity to govern the sector. Box 6.1 provides the framework supporting the Aynak project.

Box 6.1 Aynak's Supporting Fiscal and Regulatory Framework

The Aynak tender builds on three years of policy dialogue, legal reforms, and sector strategy work supported by the World Bank and undertaken by four ministerial administrations. Highlights of this work follow:

- **Ministry of Finance's Extractive Industry Taxation Provisions (2005).** The ministry included in the general tax code a subset of extractive industry provisions relating to large-scale capital projects, the tax treatment of these provisions, and the roles and responsibilities of the ministry and the Interministerial Committee in mineral development agreements.
- **Strategy for the Natural Resources Sector of Afghanistan (April 2005).** This strategy, adopted by the Ministry of Mines and Industries, serves as an interim framework. It builds on the previous National Development Framework (2002) and "Securing Afghanistan's Future" (April 2004).
- **Minerals Law of Afghanistan (July 2005).** This law creates an enabling environment for private sector–led investments in mining, including the roles and responsibilities of the Ministry of Mines and Industries and the Interministerial Committee in administering the sector and the authorizations that lead to a special offering of a deposit through competitive tender. The law undergoes periodic amendment and in 2009 clarified the government's preference regarding mineral auctions.
- **Letter of Sector Development Policy (February 2006).** This letter from the government of Afghanistan/Ministry of Mines to the World Bank (which was a supporting document for the SDNRP in the absence at that time of a mineral policy) underscores the country's commitment to and understanding of its policy thrust in the extractive sector's development. As stated in the letter, the government aims "to provide a transparent and efficient regulatory environment for Afghanistan's mineral, oil, gas, and industrial development that enables private-sector led investments, facilitates sustained economic growth, and increases revenues to the government."

Prior to embarking on the Aynak tender, it was discussed with the government that viability of the development depended on lasting field security; removal of unexploded ordnance; favorable copper commodity prices; low mine operating costs; and the availability of a supporting infrastructure that included water, power, and transportation for the

import of plant and equipment and the export of copper products. Given the uncertainty of the market response to such variables within a tender, it was agreed that market soundings would be necessary to determine the interest of international investors given the image of Afghanistan as a war-torn state whose government had no prior experience with large-scale mine development.

Transparency and Anti-Corruption Measures

Concurrent with the Aynak tender, the Afghanistan Extractive Industries Transparency Initiative (EITI) was launched through a national EITI Multi-Stakeholder Working Group and a national secretariat. As of mid-2011, the EITI has made significant progress, and a first-pass assessment has been made of operating mines nationwide. EITI activities are expected to have a transformative effect, leading to broader transparency and strong public disclosure policies across the sector. In this regard, the transparency initiative undertaken by the Ministry of Mines has expanded to include publication on its website of the particulars of 108 mining contracts currently under license.

The EITI is also working to strengthen civil society, by providing it with opportunities for discussion with high levels of government. While Kabul hosts some strong civil society organizations, it was noted from the outset that local civil society groups around Aynak with a deep interest in the extractive industries were not present at such meetings; this continues to be the case as of mid-2011. Efforts are under way to organize such groups locally to strengthen community engagement through associated capacity-building efforts under the EITI.

In the spirit of full transparency, the Ministry of Mines in November 2010 posted an executive summary of the Aynak contract to its website and has since begun to post summaries of the activities of all consultants, key issues that are being addressed by the Aynak Authority and core documentation (including terms of reference for public comment and key reports). Concurrently, local governance is being improved through the establishment and support of the Aynak Authority which includes an ombudsman, and general continued support to the Ministry of Mines to strengthen its ability to deal with social issues.

Strengthening Aynak (and the proposed Hajigak tender) outcomes is very much about enforcing regulatory monitoring and contractual compliance while building linkages into the broader economy through education, capacity building, and public-private partnerships around regional shared-use infrastructure. The SDNRP has further funded Aynak

tender support through the International Advisory Panel (IAP), a third-party mechanism to enhance sector governance by ensuring transparency, competition, and fairness in procedures and processes leading to contracts with private investors. The IAP is staffed by international industry experts under contract to the government and is tasked with providing third-party oversight on the tender process. It is a unique concept, in that the government has essentially created an independent body that is in effect monitoring a process led by the government.

Implementation of the IAP has been slow and problematic in the case of the Aynak tender. The IAP began in 2007 and, during the early years of the tender, it did not achieve its objectives. The IAP encountered structural problems regarding process, in that authorization to undertake tasks was built around a step-by-step approval system that led to institutional bottlenecks. However, in recognition of the important contributions of the IAP within the highly scrutinized environment of Afghanistan and Aynak and other tenders, the procedures for the IAP were amended in early 2011. The IAP is now achieving satisfactory third-party observation of the Hajigak tender, in fulfilment of its terms of reference.

Specifically, to strengthen oversight in anticipation of the launch of the Hajigak iron ore tender, it was agreed that (1) prior authorization to convene and deliberate on core issues would be granted, without the need for reauthorization by the minister after each finding within the tender process; and (2) reporting lines would be extended to the Interministerial Committee (IMC) to ensure ownership across a broad constituency associated with the tender process. In late 2010, a Secretariat within the IMC was created to provide support on the processing of tenders and serve as a direct liaison with the IAP. Furthermore, it was agreed that the IAP would prepare annual work plans to be reviewed and approved by the minister and that subsequent execution of the work plan could commence without the need to seek periodic authorization in advance of each activity.

Regulatory, Cultural, and Social Issues at Aynak

The Aynak tender process has led to an increased awareness of the importance of proper redress of safeguard issues and of the government's response in addressing weaknesses in the implementation of environmental, social, and cultural protection laws that had yet to be implemented. Critical to this process, as discussed below, is the need for effective dissemination of information at the local level and consultation according to international good practices. The resulting tripartite

discussion between the government, the company, and the communities was a process initiated in Afghanistan for the first time through the Aynak development, but there is much room for improvement.[2]

Social Issues

A range of social issues related to land acquisition, resettlement, and social impact assessment in connection with the Aynak project emerged, underscoring inadequacies in the Afghan legal framework and regulations relating to administration of eminent domain and involuntary resettlement. Weak implementation capacity on the government side resulted in early local dissatisfaction and opposition and frustration on all sides, in that the communities did not understand the leading role of the government on consultation and compensation issues. Furthermore, government systems relating to the intake, review, and approval of social impact assessments, resettlement action plans, and broader social policies were previously untested. Although NEPA nominally is developing a certain measure of capacity with regarding to social safeguards, it has no mandate or authority with reference to the land acquisition process, nor in relation to the preparation of social impact assessments, resettlement action plans, or broader social policies such as benefit sharing/community involvement in the mining sector.

By way of response, the line ministry managing the development, the Ministry of Mines, established an interministerial Aynak Authority, which is responsible for broad community-based issues and includes an ombudsman located at the Aynak site. The minister and senior advisers have been working with the World Bank and other donors to operationalize many regulatory processes, initially with respect to MCC's environmental/social impact assessment, and later to other social and cultural issues.

Afghan Law and Policy on Land Acquisition

The development of Aynak is in the national interest and requires that the state exercise its right of eminent domain to enable associated infrastructure investments. The national law establishing the conditions and relevant agencies for exercising the right of eminent domain (the Law on

[2] The following summary of social, environmental, and cultural issues is based on material prepared in 2011 by Asta Olesen, Senior Social Specialist, and Ernesto Sanchez-Triana, Lead Environmental Specialist, of the World Bank in support of the Second SDNRP.

Aynak project site; by Mohammad Haroon Naim, SDNRP Acting Project Coordinator, and Dr. Atiq Sediqi, Acting Director, Geological Survey of Afghanistan.

Managing Land Affairs approved in 2007) is not yet fully operational, nor is the Law on Land Expropriation of 2009. Moreover, the Aynak case has shown that the country did not begin with a resettlement policy fully aligned with the standards employed by international donors such as the World Bank. The Afghan constitution of 2004 has three articles that relate to compensation and resettlement for public interest purposes, such as the establishment/construction of public infrastructure or for the acquisition of land with cultural or scientific value, and land of higher agricultural productivity. The Law on Land Expropriation provides that the acquisition of a plot or portion of a plot for public purpose is decided on by the Council of Ministers and is compensated at fair value based on current market rates. Nonetheless, there is no set of clear rules on the empowerment of institutions to execute, regulate, and monitor land acquisition; the processes and institutions of participation and consultation; how affected people may gain benefits and assert rights under the law with respect to compensation; the manner of assessment of compensation; the timing and payment of compensation; and the process of decision making and appeals on compensation. With respect to resettlement, the laws provide no guidance on process and procedures, financial

and other assistance with resettlement, and processes and institutions for challenging and contesting decisions.

Thus, major legal and regulatory issues need to be addressed before the Afghan policy framework regulating the exercise of eminent domain will be able to facilitate essential investments for public purposes as well as handle resettlement issues in a socially responsible and sustainable manner.

In 2008, the Afghan government requested assistance from the World Bank in revising its law and regulations for land acquisition. Aynak has served to elevate the priority of this request. The support provided should aim to strengthen the laws and regulations for land acquisition, the methodology for assessment of lands and market valuation, the processes by which government is to consult with land holders (both title holders and customary users), the legal requirements for involuntary resettlement processes including appropriate levels of compensation and livelihood restoration, and appeal options and grievance processes. Absent these reforms, major mining, oil, and gas projects in Afghanistan (as well as many other infrastructure projects) will be slowed.

Resettlement Policy Framework for the Mining Sector

Systemic issues relating to socially sustainable management of involuntary resettlement emerged at Aynak, which highlighted a range of specific and urgent needs relevant not only to further land acquisition at Aynak, but also in connection to the ongoing preparation for Hajigak and other smaller mining operations. The Ministry of Mines is now preparing a Resettlement Policy Framework for all mining projects; this sets out the general principles and policies to be followed in connection with any land acquisition and resultant resettlement that will occur under the auspices of the Ministry of Mines.[3]

Protection of Physical Cultural Resources

The Aynak project area includes one of the most prominent new archeological sites in South Asia, Mes Aynak.[4] The unique cultural risks

[3] Such a resettlement policy framework is required to be consistent both with the World Bank's Operating Policies 4.12 which deal with involuntary resettlement and with existing local laws and policies.

[4] First discovered in the 1960s, Mes Aynak is a rich depository of Buddhist monastery ruins, statues, and stupas dating back to the 1st century C.E., and attesting to the significant role Afghanistan played in the proliferation of Buddhism in Central and East Asia. It is the world's largest archaeological dig, with some 1,000 workers excavating artifacts from dozens of areas scattered in the hills (http://en.wikipedia.org/wiki/Mes_Aynak).

associated with the recovery of Buddhist antiquities from the Mes Aynak archeological site are being addressed in a timely manner, in coordination with mining development plans for Aynak copper. Emergency support of the archeological assessment of cultural activities at Mes Aynak and an assessment for full recovery was funded through the SDNRP. Initial work has focused on support of the implementation of the Archaeological Recovery and Preservation Plan of the Aynak antiquities emphasizing the integration of the artifact recovery plan with the Aynak mining plan, thereby supporting recovery of antiquities in high-priority areas. The French Archaeological Delegation to Afghanistan had engaged in excavations at the Mes Aynak site since 2009, and was retained by the Ministry of Mines, with World Bank support, to undertake an assessment aimed at developing a Cultural Heritage Management Plan. This plan has become the foundation for a collaboration between the Ministry of Mines, MCC, and the Ministry of Culture in safeguarding the archaeological site, and provides a basic reference for the government's attempts to raise funds for preservation and development of the site and associated museum.

The experience has demonstrated the government's ability to address a complex issue in an organized way, including attracting and using international expertise, creating a plan for assessment and recovery, and planning for eventual preservation and presentation in a museum. However, the newness of this experience as well as capacity gaps in managing such a sensitive and complex project resulted in a delay for the Aynak copper project.

Environmental Safeguard Issues

One of the most fundamental issues to arise at Aynak has been the need for a policy framework and institutional capacity to develop, implement, and enforce environmental laws and policies. At the time of the Aynak tender, a project-specific approach had to be employed by the government, with the help of international advisors, so as to design a specific framework for Aynak to address these regulatory gaps. The Aynak investor is contractually required to prepare a full environmental/social impact assessment prior to acquisition of the mining license. The scope of this assessment was agreed upon at the time of the contract negotiations; as of this writing, however, it has yet to be submitted.

Under the Afghan Environment Law, NEPA has been established as an independent institutional entity responsible for coordination and implementation. It has three basic mandates:

- **Sustainable development—**ensuring the integration of economic, environmental, and social considerations in natural resource allocation
- **Management of activities affecting the environment—**implementing a regulatory process whereby a proposed project is supported by sufficient information to NEPA and the Environmental Impact Assessment Board of Experts to determine potential adverse effects and positive impacts; relatedly, NEPA creates a permitting system based upon environmental/social impact assessment and appropriate mitigation through an environmental/social management plan
- **Compliance monitoring and enforcement—**ensuring the compliance and enforcement of the permit system, environmental/social impact assessment and environmental/social management plan, and all other requirements of the Environment Law

While important environmental legislation and policies have been adopted to safeguard impacts from mining, NEPA is still in the process of establishing regulatory systems and procedures and building the environmental/social capacity required to ensure sustainable development outcomes. At present, NEPA has weak institutional and human capacity for identifying, assessing, and monitoring the environmental/social impacts associated with extractive industries development at Aynak. It was thus decided (as was discussed above) to reinforce regulatory oversight by hiring a firm to monitor contractual, environmental, social, and cultural protection issues at Aynak for a period of five years.

Chapter 7

The Process

The Aynak tender process spanned three successive Ministry of Mines administrations. It was initiated under H.E. Mir Sediq, Minister of Mines, in 2005; the RFP was launched under H.E. Ibrahim Adel, Minister of Mines, in 2006–09, and final contractual close was realized under H.E. Wahidullah Shahrani in 2010. Gustavson Associates of Boulder, Colorado, was procured as transaction adviser to the project, initially paid for with funding made available from the Afghanistan Reconstruction Trust Fund under the Technical Feasibility Studies Unit grant facility, and subsequently, beginning in late 2006, under the SDNRP. The British Geological Survey provided data support through the compilation of information initially prepared by the Afghan Geological Survey and the former Geological Survey of the Soviet Union.

The World Bank's role under the Aynak tender was to help ensure a transparent, competitive, and nondiscretionary process while respecting the Mining Law and the exclusive mandate and responsibility of the government to undertake the tender process, and to evaluate and select the preferred bidder. The process was designed to ensure that the selected bidder had the requisite financial and technical capacity to comply with the nation's laws and regulations, and would contribute to the region's broader indirect economic growth by fully complying with environmental and social development guidelines.

Selection of a developer and negotiation of the main mineral development contract concluded in September 2008 with the MCC consortium named as the preferred bidder. MCC committed to $808 million in timed cash payments mapped to development benchmarks:

- $80.8 million paid at award in September 2008
- $161.6 million payable upon approval of the bankable feasibility study
- $565.6 million payable upon commencement of commercial production

Between 2008 and 2010, the Ministry of Mines, assisted by the transaction adviser, negotiated with MCC and signed five ancillary agreements to the Aynak mining contract involving security, water, power and coal

mines, other minerals, and a railroad. With these agreements in place, development of the Aynak mine and infrastructure can proceed on a number of fronts simultaneously once the overall feasibility assessment is completed. The railroad agreement was of particular importance, as it commits the investor to build a railroad that serves both the project and many other parts of Afghanistan as well. The agreement is predicated on the final feasibility study of the railway and an agreement to be negotiated on cost-sharing and shared-access issues. The power and coal mining ancillary agreement commits MCC to build and operate a 400-MW coal-fired power plant and the coal mine to feed it. Transmission lines will be constructed to deliver 200 MW to Aynak; the other 200 MW will be distributed on the national grid for use by rate payers.

The tender process's broad scope of work was divided into the following tasks.

Task 1: Preparation of a Tender Plan

The transaction adviser undertook due diligence of the fiscal and regulatory regime and consulted with the British Geological Survey and Afghanistan Geological Survey on geologic data support in order to define a tender plan. The plan was developed and adopted concurrent with the request for expressions of interest (see Task 2), and consisted of the following:

- Tender methodology and evaluation criteria by which companies would be prequalified and final submissions scored
- Guarantee and bond posting requirements and corresponding procedures
- Determination of submission evaluators, evaluation rules, and means by which consultants would support the process
- Required inputs and outputs of selected government agencies during the process

The transaction adviser consulted with the Ministry of Mines and the Interministerial Committee established for this purpose on particulars of the program to ensure a clear understanding of the following and to build realistic expectations regarding outcomes:

- The step-by-step tender process and required government inputs and outputs
- Information requirements and demands to be made by international competitors

- Procedures by which equal access to information and equal treatment of competitors would be ensured
- Principal terms and conditions of the tender and points of negotiation
- National expectations with respect to outcomes
- Contents of a model mineral development contract for Aynak

It was decided at a meeting with the minister of mines that the transaction adviser's dialogue with the IMC would be coordinated by the minister.

Task 2: Solicit Expressions of Interest

The request for expressions of interest was published in September 2006 and provided information on prequalification, data availability, and the application process. The transaction adviser launched the tender in accordance with principles for international open bidding, addressing the following:

- Promoting the tender in leading trade journals for a minimum of three weeks prior to formal solicitation of interest
- Actively encouraging the interest of potential investors in the tender through direct contact
- Conducting liaison with potential investors, encouraging them to participate in the privatization and to meet with the minister
- Receiving and collecting EOIs

In all, 13 major mining companies submitted EOIs.

Task 3: Prequalification of Bidders

The transaction adviser supported the Ministry of Mines—and, indirectly, the IMC—in prequalifying companies using an evaluation matrix defined in the tender plan, which quantitatively scored each firm's technical and financial capacity, and regional experience. The evaluation committee consisted of 14 members with various technical backgrounds. Each evaluator scored the firms according to the criteria and instructions; these scores were then combined and weighted. Box 7.1 presents the prequalification criteria.

The prequalification resulted in the identification of nine companies that were considered qualified to undertake development in accordance with the Afghan government's objectives and requirements.

Box 7.1 Prequalification Criteria

Technical capacity

- Internal staff with more than 10 years of experience in
  - exploration,
  - mine development,
  - mine operations,
  - process engineering,
  - environmental management.
- Corporate record
  - Project management
  - Operations management
  - Environmental management
  - Social management

Financial capacity

- Market capacity of over $1 billion
- Financing of large mine developments
- Previous large copper mine development track record
- Previous projects developed on time and within budget regional experience (South Asia)

Task 4: Preparation of the Bid Package

The bid package, or RFP, was the basis for obtaining indicative bids from potential investors from the short-listed companies; it included the following:

- **Instructions to bidders—**describing in detail the bidding procedure (including rules for tender, application forms, and other templates) and the process for and contents of acceptable offer submissions, the evaluation criteria, and the timing and the place of submission
- **Rules for negotiation—**detailing the process by which the government would negotiate with the successful bidder including time limitations and extenuating factors that could delay or cancel the negotiation
- **Draft model contract—**defining for bidders the broad terms and conditions under which the successful bidder would negotiate

- **Fiscal and regulatory regime—**summarized from relevant overarching instruments including the Law on Mining, draft extractive industries' tax provisions, draft investment law, draft environmental law, and draft customs law
- **Available data—**including a summary of available geological data compiled by the British and Afghan Geological Surveys

The RFP was completed and approved by the Ministry of Mines in January 2007 following the prequalification process, and was distributed to the nine prequalified firms.

Task 5: Bidder's Due Diligence

This task allowed qualified bidders to have access to a data room and to perform preliminary due diligence, regardless of whether they ultimately intended to prepare a bid. The transaction adviser, working in conjunction with the British and Afghan Geological Surveys, performed the following:

- Uniformly distributed geologic information to the prequalified companies
- Invited the prequalified companies to review available documentation in a data room in Kabul for a period of two weeks
- Arranged procedures in conjunction with the Ministry of Mines under which interested parties could visit the Aynak site for field inspection (box 7.2)
- Arranged for meetings with various ministries while the firms were in Kabul to gain a wider perspective on the government's expectations

Box 7.2 Bidder Site Visits

Six of the prequalified bidders visited Kabul; they were accommodated in two groups, as follows:

- Group 1: Bahar Consortium, Hunter Dickenson, and Strikeforce
- Group 2: Kazakhmys Consortium, MCC, and Phelps Dodge

Their itinerary included visits to the Aynak site, the data room, and the Vulcan Model developed by the British Geological Survey. They met with representatives from the Ministries of Mines, Finance, Justice, Interior, Environment, Commerce, Foreign Affairs, and Economy; and participated in a formal presentation at the Ministry of Mines.

Task 6: Receipt of Submissions and Selection of Responsive Bids

The transaction adviser managed the receipt of final bid submissions and helped the evaluation committee check these for compliance with the original instructions to bidders and with all deadlines and requirements stipulated therein. Further, the transaction adviser assisted the Ministry of Mines and the IMC in technical evaluation of the submissions. Technical and financial evaluation of the submissions was performed by the minister of mines, who reported on his findings to the IMC.

Initial screening of the documents submitted by the bidders determined that the proposals were satisfactory and in compliance with the RFP, and that they contained realistic and reasonable technical plans supported by appropriate financial plans. From the nine prequalified firms, a total of five bid proposals were received, all of which were considered responsive and were proposed for further detailed evaluation and scoring. The responsive bidders were

- Hunter Dickenson—Canada
- Kazakhinvest (subsidiary of Kazakhmys)—Kazakhstan
- MCC—China
- Phelps Dodge (Freeport McMoRan Copper & Gold)—United States
- Strikeforce (Rusal Group)—Russian Federation

Task 7: Technical and Financial Evaluation of the Responsive Bids

The technical and financial bids of the five companies were considered simultaneously, in recognition of the necessarily intricate and inseparable nature of the technical and financial approaches to Aynak, as well as the large size and scope of the technical and financial commitments required. Of the five bidders that submitted responsive proposals, two provided significantly more detail as to how they would develop the project and the benefits that would accrue to Afghanistan.

At this point in the tender process, a dissenting opinion was brought forward by a former consultant, stating that the preliminary technical evaluation performed at the Ministry of Mines favored Asian firms. This concern was forwarded to the transaction adviser which responded that, pursuant to the terms of the RFP, selection was based on the highest-scoring proposal, and that the technical evaluation was sound on the basis of the submissions. The evaluation matrix was then posted to the Ministry of Mines website to inform interested parties of those relative scores.

Dissenting opinion is important and valuable, bringing checks and balances to the tender process. This particular issue related to upstream preliminary technical evaluation within the Ministry of Mines, ahead of IMC review and final selection. As noted above, the IMC records were not of sufficient quality to assess how this issue was considered as part of the official IMC deliberation. As such, the dissenting opinion served to underscore this deficiency and the need for improved recordkeeping by the IMC throughout the process.[1] Moreover, it highlighted that independent observers (monitoring at the IMC level) would permit third-party evaluation of such concerns during the execution of the tender process.[2] And it is important to note that the IAP, in response to the expression of the above-mentioned opinion, has since been authorized to take a more substantive role in this regard.

Scoring

The technical proposals were scored to determine which best satisfied the requirements identified in the RFP. The financial proposals were scored to determine the most attractive and financially sound one. The preferred bidder was the firm that offered the maximum benefits to the country from among the most attractive technical and financial proposals.

The RFP explained that the preferred and reserve bidders would be selected for their responses in the following areas:

- Proposed plan of work
- Financial and technical capacity
- Evidence of previous mineral exploration and international mining experience in the copper mining industry
- Evidence of commitment to environmental protection and sustainable development
- Socioeconomic benefits that might accrue to Afghanistan
- Proposed financial benefits to Afghanistan

Bid Evaluation Matrix

Use of an evaluation matrix allowed objective assessment of the bids. The matrix was based on the RFP and scored items on a scale of 1 to 5, with

[1] An allegation in November 2009 of a bribe having been paid in connection with the tender further illustrated heightened media focus at a time of weak recordkeeping and with regard to a ministry unprepared to counter such stories (Partlow 2009, Ministry of Mines 2009).

[2] This independent monitoring role has now been assigned to the IAP.

5 being the highest. These scores were not ranks—that is, one or more bidders could receive the same score for an item, depending on the merits of their individual bid in the particular area being scored. The scores were then multiplied by a weight from 1 to 10 (with higher weights indicating the relatively greater importance of a particular line item), and the weighted scores were tabulated under the appropriate grouping at the end of the matrix.

The groupings and their relative weights were determined by the IMC. The weights were designed to reflect Afghan expectations in terms of what the development of the Aynak project would provide. The weights were discussed with and agreed to by the minister of mines. The groupings and their relative weights are presented in table 7.1.

Table 7.1 Groupings and Weights of Bid Criteria

Evaluation grouping	Weight (%)
A. Technical Mine Development Program	20
B. Financial Benefits to Afghanistan	25
C. Social/Economic Development	25
D. Infrastructure Development	10
E. Environmental Consideration	20

Source: Aynak RFP.

The evaluation process began with approximately 40 potential evaluators selected by the minister of mines. They received training on the details of the Aynak tender process, the technical specifics of the future development of the Aynak project, the bid scoring methodology, and a general overview of Afghanistan's expectations for benefits to the country from the tender. After additional training, the evaluator group was reduced to 20 participants from the Ministry of Mines. During the scoring, all 20 evaluators scored the bids and were involved in every session. The minister of mines attended all sessions at which evaluations took place.

Bid Evaluation Process

Discussions were held with the minister of mines concerning the scoring matrix, weights for individual line items in the matrix, and the methodology to be followed in scoring the line items. Regarding this last, several options were assessed:

1. Consider a company's bid in a grouping as a whole, scoring vertically then moving to the next company
2. Consider all five companies' responses on a particular line item, scoring each company before moving to the next horizontally
3. Consider all five companies' responses on a particular line item, as above, but wait to score the line item until all five companies' relevant submissions were heard and described before scoring that line

Despite its being the most time consuming, the second method was selected.

All bids were opened on June 2, 2007, and each page of each original bid was initialed by the minister of mines and two members of the transaction advisory team. The originals were locked in a safe to serve as a source document in case of disputes. Security was maintained in the Ministry of Mines conference room at all times, and the bid bonds and irrevocable letters of credit from the bidders were under ministry control. No handwritten notes or printed materials were allowed to leave the conference room at any time, save those materials needed by the transaction adviser core team.

At the end of each session, the individual score sheets for each evaluator were collected and placed in sealed envelopes for eventual opening during the scoring tabulation. Executive summaries of the bids were distributed to the evaluators, and reviews of the documentation continued, with a compliance review conducted of the bids. All bids were accepted, and the evaluation proceeded.

The bid evaluation took three weeks, including some days of preparatory work by the transaction adviser. The minister of mines was in attendance on all occasions when the bids were under discussion. Although a concern was raised as to the adequacy of the oversight of the tender process, the Ministry of Mines and its advisers are considered to have shown full diligence at each stage.

A member of the transaction advisory team explained each bidder's submission under a particular scoring item, referring to multiple places in the bids to provide as clear an explanation of the bid as possible, recognizing the necessity for objective consideration of each bid in each area. Comments by members of the transaction advisory team on various issues were provided to the evaluators with respect to the technical, financial, and practical aspects of the bid being discussed. The presentations were simultaneously interpreted into Dari. The minister of mines generally expanded on the adviser's comments. Following any comments, the

evaluators independently and individually scored the item for the particular company. The minister of mines did not participate in the scoring.

On June 26, 2007, the scoring sheets were simultaneously tabulated on four separate computers in the Ministry of Mines conference room to avoid tabulation error. The tabulation team consisted of three members of the transaction advisory team, the minister's secretaries, and nine evaluators acting as observers. The final scores represent a true tabulation of the scoring as carried out by the evaluators.

The IMC met several times to consider the recommendations of the Ministry of Mines. It asked the bidders to clarify additional benefits to their offer and invited them to be available to answer any questions the IMC might have at its September 17–19, 2007, meeting. The transaction advisory team was in attendance at this meeting, to advise the minister of mines and to provide answers to any questions the IMC might have. The team clarified to the IMC that all but one bidder (not the preferred bidder) had agreed to adopt and implement all World Bank Environmental and Social Safeguard Policies, the Equator Principles, and the Voluntary Principles on Security and Human Rights.

The IMC accepted the preliminary decision of preferred and reserve bidders forwarded by the Ministry of Mines. The preferred bidder was invited to negotiate a mining contract to develop the Aynak copper deposit.

Task 8: Negotiation with the Selected Bidder and Award of a Mineral Exploration Right

Upon selection of the preferred bidder by the IMC, the transaction adviser provided legal and fiscal analysis, in accordance with the draft model contract and rules for negotiation to support contract negotiation with the selected bidder. It also helped the Ministry of Mines and the IMC draft a mineral rights certificate to the preferred bidder for the exploration and potential exploitation of Aynak.

The mining contract negotiations began in December 2007 with a kick-off meeting in Kabul. At all times during the negotiation process, observers from the Afghan government—including the Ministry of Finance, Ministry of Commerce, Ministry of Economy, and Ministry of Foreign Affairs; and NEPA—the parliament, and Logar Province were in attendance.

The RFP required the parties to conduct negotiations within a 60-day period with a 60-day extension period, if necessary. The parties agreed to a procedure for counting days that reflected the ministry's regular work

and holiday calendar and the holiday calendars of the preferred bidder and advisers.

Substantive negotiations began in January 2008. Negotiations proceeded slowly in order to give the government sufficient time to develop its policy positions on issues raised during the process. At various points, the negotiations were slowed by lengthy discussions among various members of the government team.

Negotiations continued through the winter and spring of 2008. Sessions typically lasted four to five hours per day. The bidder accommodated the scheduling to the extent possible but, on several occasions, requested additional time to review government proposals.

The parties were required to invoke the 60-day extension period, and the principal mining contract was signed in May. As the contract evolved during the course of negotiations, it became clear that several ancillary agreements would be necessary to achieve the shared goals of the parties within the overall project time frames.[3]

Contingency

The bid included a provision that if the IMC was unable to conclude a contract with the first selected bidder under the rules for negotiation, it could terminate these negotiations and, with legal and technical support from the transaction adviser, open negotiations with the next highest-scoring bidder. This stipulation ensured that the government would not have to agree to unacceptable contract provisions. It was not invoked, however, because the government and the preferred bidder successfully concluded their contract negotiations.

[3] Ancillary agreements were signed in late 2008 and early 2009 regarding government commitments to secure the project area, the bidder's development of an ancillary 400-MW thermal power plant, the water supply, and other minerals required including coal and limestone to provide inputs to copper production. Agreement for a proposed regional shared-use railroad was finalized in mid-2010.

Chapter 8

Lessons Learned

The Afghan government reports that it is satisfied that it selected a superior developer, achieved a significant share of resource rents through the competitive tender process, and is now advancing its first major resource asset toward development. The cash component of $808 million for the preferred bidder was the highest of any bidder, and the royalty rate agreed on with the investor is one of the highest of any country. Indeed, this outcome is all the more remarkable given the impetus for the tender was the potential of a $5 million single-source award to an unsolicited proposal, as noted above.

Given a lack of experience with large-scale private sector investment, plus the loss of capacity over the past 20 years, the government was not well prepared for such a large development at the outset. Consequently, the World Bank, together with other donors, paid great attention to ensuring that the Afghan government had well-qualified and experienced professional advisers providing support.

The task ahead is for the government—with continued support from the Bank and other donors—to put in place the requisite technical capabilities to ensure full regulatory and contractual compliance on technical matters, environmental/social performance, and community consultations and agreements; and to develop shared-use infrastructure and equitable distribution of resource rents.

The SDNRP-funded IAP rendered an opinion on the Aynak contract in July 2009, stating that the ministry negotiated and established the contract's conditions in accordance with good international regulatory practices. However, in its report, the IAP "did cite concerns about lack of guidance in the Contract for the application and management of the Contract and those concerns make up most of the body of the report." It was on the strength of this statement that actions were taken to increase monitoring of contractual compliance and regulatory oversight of Aynak.

The media also commented on contractual and compliance issues related to Aynak, focusing on weak implementation capacity across government agencies and a related lack of interministerial coordination to suggest that the process was deficient.

It was widely discussed that capacity building aimed at improving regulatory oversight within the Ministry of Mines and NEPA would need to be extended to the IMC, which holds the key decision-making role for resource tenders. As the IMC was a standing committee external to any one ministry, it was found to be beyond the focus of sector capacity-building efforts across donors. During the early stages of the Aynak tender, IMC participants changed often, and the committee lacked a professional secretariat to channel support on technical matters and take complete minutes of discussions and decisions taken. The fact that IMC decisions were not being properly documented undermined the more rigorous recordkeeping upstream at the Ministry of Mines in preparing background materials for IMC consideration. Indeed, many IMC members were later unable to explain the decisions that were taken or the basis on which they were made, or the implications of specific issues.

Based on the Aynak experience, issues can be identified in preparing for the next transaction. These issues range from overall methodology to social development and are discussed below.

Bid Methodology

The Bank team helped prepare the methodology used by the government and its international transaction advisory team to reach a negotiated mineral development agreement.

As noted earlier, according to the IAP, the tender was conducted in an objective and fair manner in accordance with the bidding documents. A similar conclusion was reached in an independent review conducted by Integrity Watch Afghanistan in 2008. But as noted, questions have arisen as to whether the evaluation was biased in some manner and whether the mining contract was fair for the government. Recognizing that questions will always be raised with regard to such a large and complex investment, these concerns can be mitigated in the future. Specifically, the Ministry of Mines and the IMC could improve the design of the bid documents and bidding procedure by

- using a two-stage bidding process with separate technical and financial bids submitted in the second stage;
- modifying the bid documents to include publication of the final mineral contract and ancillary infrastructure agreements, together with pending community development agreements;
- using the IAP to monitor the process at the IMC level, giving support to the IMC Secretariat where needed; and

- increasing communication throughout the tender process.

It has been suggested that mining companies may be hesitant to bid on projects that require substantial downstream investments (such as including a steel plant with an iron ore tender). Thus, another useful change to the bid documents would be to modify them to include greater separation of mining development from requirements for downstream mineral processing, offering options through separate lots under one or more transactions.

Roles and Responsibilities of Different Government Ministries

The Aynak tender process has identified a need for greater clarification of the roles and responsibilities of the various government ministries, agencies, and committees involved in large resource developments. Future mining contracts should provide considerably more time for negotiations, taking into account the inexperience of the government and the noncohesive positions of ministers around a number of issues, including policies toward shared-use infrastructure provision. This situation would be improved by the following:

- The Ministry of Mines should ensure that representatives from other ministries are included on the bid evaluation committee so matters of taxation, revenue management, regional economic development, environmental and social protection, civil society, and community support are properly addressed in the evaluation.
- The Ministry of Mines should coordinate the development of government negotiation positions with other relevant ministries early on in the tender process and should defer to the specific legal authority and jurisdiction of each relevant ministry in the development of government negotiation positions.
- The relative roles and responsibilities of the Ministry of Mines and NEPA should be clarified. Under the Environment Law, NEPA was established as the national independent authority responsible for environmental protection, including clearance of environmental/social impact assessments and permitting. Under the Minerals Law, the Department of Environmental Protection was created within the Ministry of Mines. It provides environmental protection in connection with mineral activities, and its duties include the technical evaluation of environmental/social impact assessments. These overlapping duties have created some confusion regarding which agency has primary

responsibility for supervising the environmental/social impact assessment process for Aynak. This deficiency has since been addressed,[1] but it led to lost time for the project developer.

Strengthening the Interministerial Committee

Whereas the Ministry of Mines had some technical capacity, the IMC had no background in or technical understanding of mining and mining-related infrastructure provision at the start of the tender process. The transaction adviser reported on lengthy delays associated with the IMC debating policy matters and struggling to reach broad consensus on macrolevel policies. To build an appropriate level of capacity, much more time needs to be dedicated to the process by the IMC members. This includes the establishment of a supporting, well-experienced secretariat, so that key issues can be addressed and positions established in a timely manner. The establishment of a secretariat for the IMC—possibly through the placement of technical experts reporting to the IMC—would also help provide third-party review of the selection process, and thereby serve as a system of checks and balances against speculation or malpractice. Improvements could be achieved through the following:

- The IMC should build its capacity on technical mining and infrastructure development issues through the newly established IMC secretariat, supported where needed by the IAP, in addition to having access to the transaction adviser.
- The IMC should evaluate the processes associated with the early stages of project implementation, specifically the roles and responsibilities of government entities (NEPA; Ministry of Agriculture, Irrigation, and Livestock; Ministry of Mines; and any other government agencies as appropriate) regarding land acquisition and resettlement in the case of mining projects.

Mining and Infrastructure

Aynak, with direct employment of 5,000 and an estimated annual revenue stream of $300 million to the government, is fostering the concurrent development of much-needed physical and social infrastructure

[1] It was agreed that the Ministry of Mines would have primary responsibility for MCC contract management, and that the Ministry of Mines and NEPA would meet to establish a similar agreement on their respective responsibilities related to supervision of the Aynak environmental/social impact assessments.

Aynak project site; by Mohammad Haroon Naim, SDNRP Acting Project Coordinator, and Dr. Atiq Sediqi, Acting Director, Geological Survey of Afghanistan.

through the provision of shared-use road, rail, power, and water systems. Consistent with global patterns, the development of Aynak and other known mineral resource assets will provide transportation links to global markets that valorize additional mineral resources, while contributing to economic diversification. It is expected that Aynak copper (and Hajigak iron ore) will be the first assets with sufficient production quantities to warrant analysis of transshipment routes for bulk commodities. All routes lead toward existing rail systems, and the viability of interconnection would be subject to cost and engineering considerations. The World Bank and other donors have, since 2010, begun an analysis of emerging resource corridor scenarios that integrate mining and local/regional infrastructure to derive greater value added from resource development—thus facilitating broader economic development and diversification. From this work, policies on public-private infrastructure partnerships will be developed and implemented to ensure that such new infrastructure is shared across several industries and thus leads to economic diversification. It is recommended that the IMC perform the following:

- Develop a policy on the provision of potential joint use of shared regional infrastructure, such as rail linkages, including the role of PPPs.
- Investigate and encourage economic development within resource corridors, using strategies to stimulate mineral clusters.

Safeguards

Community Consultations

Community consultation, while undertaken, lacked sufficient documentation to satisfy all inquiries. The Ministry of Mines had organized community consultations to inform and consult with community leaders and project-affected persons on Aynak-related issues. The minister undertook site visits and consulted with local parliamentarians, local government officials, and other community representatives. The deputy minister of sectoral affairs visits the Aynak site once a week and consults with community representatives on land acquisition and compensation issues. It was agreed that the minister of mines and the NEPA director general would jointly visit the Aynak site and hold a community meeting. However, there was some divergence of opinion on the quality of these consultations, which have apparently led to some community misinformation and concerns regarding the project. Other ministries and agencies need to be included in considering possible improvements to community consultation, resettlement, and compensation activities. It is recommended that licenses and contracts require the following to improve communication with communities and build trust:

- Companies should begin consultation with affected communities before they start the exploration work.
- Such negotiations should continue throughout the life of the mine, and communities should be invited to participate fully in decision making on mine activities.

Land Acquisition and Compensation

The Afghanistan Land Acquisition Law diverges from international good practices. A comparative analysis of the law with the World Bank Safeguards Policies was undertaken in 2007 and presented to the government at the time it was acquiring land in connection with Aynak. The key areas of divergence between the Afghan law and Bank policies are as follows:

- The law affords no opportunities to project-affected persons to discuss acquisition and resettlement alternatives.
- Under the law, information on land to be acquired is sent to the affected persons a scant three months before acquisition.
- The law makes no provision for resettlement action planning and resettlement support.
- The law recognizes legal title for land with respect to compensation, but does not equally recognize customary use where there is no land title.

- The law contains no provision for independent grievance mechanisms or for a monitoring body.

In addition, weaknesses in the Afghan law point up the following:

- There is a need to start the process of land assessment and negotiation with the communities well in advance to avoid delays and complaints.
- There is a need to establish a cut-off date for verification of land status for compensation consideration and to carry out a household survey in the area by that cut-off date to avoid an influx of people into the affected area claiming compensation.

The Ministry of Mines has since established a high-level Aynak committee chaired by the deputy minister of sectoral affairs. A Clearance and Acquisition Committee was also created, which includes representatives from the Ministry of Agriculture, Irrigation, and Livestock; the Ministry of Finance; provincial and local governments; and affected communities. This committee has been working to resolve the land acquisition and compensation issues related to the Aynak mining project. According to the Ministry of Mines, the government has decided to give 400 residential plots to project-affected families, although it is estimated that there are only 200 affected families in all. No information was provided on productive lands (for example, orchards) in the area; however, subject to further analysis, the government plans to provide proper compensation.

Resettlement

As noted above, the Afghanistan Land Acquisition Law has no provision for a resettlement action plan and resettlement support. To date, resettlement has been taking place nationwide without the benefit of such plans. Aynak represents the first instance in Afghan history in which the government and developer will prepare a resettlement action plan. The Bank supported the effort by detailing for the Ministry of Mines the importance of such a plan along with recommending a process for involving and assisting project-affected persons in compensation and resettlement issues. It was recommended that a resettlement action plan be prepared according to international good practices and World Bank guidelines. As part of ongoing actions by the Ministry of Mines to address this important procedural gap, the following actions are recommended on resettlement:[2]

[2] In terms of resettlement in Afghanistan, the government is responsible for land acquisition, resettlement, calculating compensation, and implementation. The investor is responsible for paying full resettlement costs.

- Government must play a proactive role in rehabilitation of affected communities, especially in the development of the resettlement site, given its unique responsibility in this regard in Afghanistan.
- Government should make regulatory provisions and require that all facilities for education, medical care, drinking water, sewage, and so on, are properly planned and provided for in the resettlement site before communities are moved.
- To ensure their engagement, communities must be consulted throughout the process of developing the resettlement site regarding their requirements at the site.

Community Development

The Aynak transaction encountered a blurring of the lines between the investor and the government with regard to responsibility for local community development. The World Bank has since undertaken an analysis of the potential contributions of Aynak and other mines for economic development under different scenarios with respect to linkage and multiplier impacts. The company may choose to work from its own offices or through foundations and trusts at the local level and to outsource key programs to nongovernmental organizations or other parts of civil society with greater core competencies in monitoring and evaluation. A Community Consultation Guideline and Community Consultation Framework are being prepared by the Ministry of Mines to support mining sector policy and clarify key roles and responsibilities in this regard. This initiative will include information dissemination for affected communities to ensure that they are well informed about developments that will affect them as they consult with the company and evaluate proposed measures to mitigate key risks. It is recommended that the Ministry of Mines sector policy give consideration to the following in order to improve community development:

- Efforts should be made to employ as many people from the local communities to work in the project as possible.
- The hiring process should be fair and transparent; this fosters a sense of ownership toward the project on the part of the local people.
- When local people are employed in the project, they have something at stake and will give their full support to the success of the project.

Regarding income restoration, it is recommended that the IMC give consideration to the following:

- As relocation involves loss of land and other sources of income to affected persons, alternative means of livelihood should be devised before relocation is planned.
- Delays in providing alternative means of livelihood can create great unrest and dissatisfaction within the local communities.

Areas for Improvement

As the government continues to build capacity and institutional efficiency in mineral resource tenders, the Aynak experience has brought to light a number of preliminary lessons learned and areas for improvement for the Ministry of Mines; the Ministry of Agriculture, Irrigation, and Livestock; NEPA; and the IMC to consider.

- The **government**'s policy should include provision of alternative options for encouraging the development of resource corridors and shared regional infrastructure, such as rail linkages, including the role of PPPs. This will increase the linkages and economic benefits from new minerals projects.
- The **Ministry of Mines and the IMC** might consider using a two-stage bidding process to finalize the RFP for Hajigak with continued use of separate technical and financial bids in the second stage. The model mineral contract and terms and conditions should be published.
- Actions for the **Ministry of Mines** to consider would include using a more select group of technical bid evaluators, working in concert with observers from other government agencies, civil society, and the community. At the same time, the absolute number of technical evaluators and observers should remain manageable.
- Actions for the **IMC** to consider would include establishing a secretariat as an institutional resource for technical expertise, in recognition of the fact that representation on the IMC changes frequently.
- Actions involving **other ministries** might include greater attention to information presentation and dissemination in appropriate and culturally acceptable formats to the local communities. All government agencies need to be more inclusive of civil society in working with local communities and building local capacity on complex development issues.

Annex

Summary of Good Practices in the Tender Process

1. Preparatory Work

- Prepare a complete
  - —draft information memorandum
  - —draft transaction principles and policies statement
  - —draft model contract
  - —review of relevant policies/laws/regulations
  - —summary of available data and technical reports
- Establish a data room
- Draft the REOI (referencing all available resources, key requirements, rules of the tender, and contact information)
- Work with the IMC to define acceptable short-listing criteria

2. Prequalification of Bidders

- Publish the REOI
- Work with the IMC in the evaluation of responses to the REOI

All minimum criteria for technical and financial standing of potential bidders are to be considered at this stage. Due diligence exercise by the government can be appropriately undertaken at this stage to minimize the risk of being faced with speculative proposals at a later stage.

3. Preparation of the RFP

- Assemble the bid package (referred to as the RFP)—based on the information memorandum and transaction principles and policies statement—consisting of
  - —a model contract
  - —review of relevant policies/laws/regulations and supporting technical studies

  - —draft policy statement of roles/responsibilities of developer, regulatory authorities, and other stakeholders
  - —points of negotiation
  - —technical specifications and financial specifications
  - —bid evaluation criteria including the minimum acceptable technical score and the relative weightings of the technical score and the financial bid
- Undertake capacity building with the IMC
- Obtain IMC approval of the draft bid package
- Confirm the major policy positions within the draft information memorandum and the transaction principles and policies statement with the IMC

4. Issuance of the RFP

- **Stage I: Market Soundings and Bidder Feedback** (optional step for complex transactions or transactions in which investor interest is uncertain)
  - —Undertake market soundings with short-listed bidders using the draft bid package to confirm the two key documents (draft information memorandum and the transaction principles and policies statement)
- **Stage II: Issuance of Final Bid Package**
  - —Revise the bid package according to input from short-listed bidders during market soundings and feedback
  - —Issue the final bid package to short-listed bidders (approved by the IMC)

5. Initial Field Inspections by Short-Listed Bidders

- Coordinate field visits for short-listed bidders
- Ensure that inspection of the contents of the data room is under controlled supervision; no documentation is to be taken from the data room

6. Bidding

Bids should be submitted by the short-listed bidders with separate envelopes for their technical and financial bids, comprising the following:

- A technical proposal compliant with the technical specifications laid out in the bid package
- A financial proposal compliant with the financial specifications laid out in the bid package

7. Bid Evaluation and Selection of Preferred Bidder

Technical evaluation:

- Bids are opened transparently by representatives of the IMC with bidders, government representatives, and other observers present
- Technical proposals are scored by the evaluation committee, which verifies that the proposal submitted by each bidder is compliant with the RFP and meets the minimum technical score for compliance
- All technically compliant bids are advanced to the final pool of bidders
- The evaluation committee must be satisfied that all candidates have the requisite technical capacity
- Technical support is provided by the transaction adviser

Financial evaluation:

- Bids are opened transparently by representatives of the IMC with bidders, government representatives, and other observers present
- The financial envelopes of any bidders that failed to qualify under the technical evaluation are returned unopened

Selection of the preferred bidder and first alternate bidder is based upon a weighted average score of the technical scores and the financial scores according to criteria specified in the RFP.

Submission of the bid evaluation and recommendation to the IMC:

- Recommendation for the preferred bidder and alternate, together with the technical and financial bids, the scoring sheets, and all other relevant materials, are reviewed by the IMC for approval and endorsement
- The IMC then informs the bidders of the results of the tender evaluation

8. Negotiation and Contractual Closing

- The IMC, assisted by the technical specialists/transaction adviser, conducts negotiations with the preferred bidder on the terms and conditions appropriate for sustained development of the mine
- Should commercial and/or financial close not be achieved within a prior specified period of time, the IMC may revert to the next alternate bidder for negotiation

9. Contract Monitoring

Following the contractual/financial close, the government should ensure that ongoing contract monitoring is conducted throughout the life of the project on key contractual obligations, including

- engineering, procurement, and construction
- environmental/social impact management
- health and safety
- labor compliance

References

AccountAbility and BSR (Business for Social Responsibility). 2004. *Business & Economic Development: Mining Sector Report.*

Araujo, Armando Ribeiro. 1998. *Procurement in Privately Provided Infrastructure (PPI) Projects Financed by the World Bank.* Washington, DC: World Bank. http://rru.worldbank.org/Documents/Toolkits/Highways/pdf/85.pdf.

Delmon, Jeffrey. 2009. *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risk.* Washington, DC: Kluwer International and the World Bank.

The Economist. 2008. "A Ravenous Dragon: A Special Report on China's Quest for Resources," *The Economist* March 15. Cited in Humphreys 2009, 11.

Government of Afghanistan and Ministry of Mines. 2010. "Infrastructure Development Cluster: National Extractive Industry Excellence Programme." Kabul.

Humphreys, David. 2009. *Emerging Players in Global Mining.* Extractive Industries and Development Series #5. Washington, DC: World Bank. http://siteresources.worldbank.org/INTOGMC/Resources/ei_for_development_5.pdf.

IFC (International Finance Corporation). 2008. "Mozambique: Moatize Coal Deposit." *Infrastructure Advisory Success Stories.* Washington, DC: Infrastructure Advisory Services.

Jourdan, Paul. 2008. "Plan of Action for African Acceleration of Industrialization—Promoting Resource-Based Industrialization: A Way Forward." Pretoria. Mimeo.

Kerf, Michael, with R. David Gray, Timothy Irwin, Céline Levesque, and Robert R. Taylor. 1998. *Concessions for Infrastructure: A Guide to Their Design and Award.* World Bank Technical Paper No. 399. rru.worldbank.org/Documents/Toolkits/concessions_fulltoolkit.pdf.

Komesaroff, Michael. 2008. "China Eyes Congo's Treasures," *Far Eastern Economic Review* (April). Cited in Humphreys 2009, 11.

Minister of Mines. 2009. "Fairness Opinion of the Aynak Mining Contract—Sustainable Development of Natural Resources Project (SDNRP)—Review and Comments by the Minister of Mines on the International Advisory Committee's Report." Letter to the Management Committee Afghanistan Reconstruction Trust Fund, July 14, 2009.

Ministry of Mines. 2009. "Afghanistan Minister of Mines Denies Bribery Allegations." Information release November 21, 2009. http://www.docstoc.com/docs/48527985/Afghanistan-Minister-of-Mines-Denies-Bribery-Allegations.

———. 2010. "Oil, Gas and Mining—Sector Vision." Draft report. Kabul.

Moel, Alberto, and Peter Tufano. 1998. "Bidding for the Antamina Mine: Valuation and Incentives in a Real Options Context." www.managementplace.com/fr/mcf/bidding.pdf.

Ortega, Enrique, Alexandra Pugachevsky, and Gotthard Walser. 2009. *Mineral Rights Cadastre: Promoting Transparent Access to Mineral Resources.* Extractive Industries for Development Series #4. Washington, DC: World Bank. http://siteresources.worldbank.org/INTOGMC/Resources/Mining_Cadastre_Revised.pdf.

Partlow, Joshua. 2009. "Afghan Minister Accused of Taking Bribe." *Washington Post* November 18, 2009. http://www.washingtonpost.com/wp-dyn/content/article/2009/11/17/AR2009111704198.html.

Shcherbina Yu.I., S.E. Petrov, and V.G. Silkin. 1975. "Geology and Minerals in the Central Part of the Kabul Mid-Massif." Report of the Adreskan team. Kabul: Rec. Off. DGMS.

World Bank. 2000. "Zambia: Mine Township Services Project." Project Appraisal Document. Washington, DC: World Bank.

———. 2004. "Transitional Islamic State of Afghanistan: Mining as a Source of Growth." Report No 28231-AF. Washington, DC: World Bank.

———. 2005. "Republic of Madagascar: Integrated Growth Poles Project." Project Appraisal Document. Washington, DC: World Bank.

———. 2006. "Zambia: Mine Township Services Project." Implementation Completion Report. Washington, DC: World Bank.

———. 2010. "Liberia Review of Concessions Management Practices and Approaches to Concession Management." Draft background consultation report prepared by the Sustainable Development Department. Washington, DC: World Bank.

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The World Bank Oil, Gas, and Mining Unit

The World Bank Group's role in the oil, gas, and mining sectors focuses on ensuring that its current interventions facilitate the extractive industries' contribution to poverty alleviation and economic growth through the promotion of good governance and sustainable development.

The Oil, Gas, and Mining Unit serves as the Bank's global sector management unit on extractive industries and related issues for all the regions of the world. It is part of the Sustainable Energy Department within the Sustainable Development Network.

Through loans, technical assistance, policy dialogue, and analytical work, the Unit leads a work program with multiple sector activities in more than 70 countries, of which almost half are in Sub-Saharan Africa. More specifically, the Oil, Gas, and Mining Unit:

- Advises governments on legal, fiscal, and contractual issues and on institutional arrangements as they relate to natural resources, as well as on good governance practices.
- Assists governments in setting up environmental and social safeguards in projects in order to promote the sustainable development of extractive industries.
- Helps governments formulate policies that promote private sector growth and foreign direct investments.
- Advises governments on how to increase the access of the poor to clean commercial energy and assess options for protecting the poor from high fuel prices.

In essence, the Oil, Gas, and Mining Unit serves as a global technical advisor that supports sustainable development by building capacity and providing extractive industry sector related advisory services to resource-rich governments. The Division also carries out an advocacy role through the management of the following global programs:

- The Extractive Industries Transparency Initiative (EITI) Implementation Support Facility, which supports countries implementing EITI programs
- The Global Gas Flaring Reduction (GGFR) Public-Private Partnership, which brings governments and oil companies together to reduce gas flaring
- The Communities and Small-Scale Mining (CASM) Partnership, which promotes an integrated approach to addressing issues faced by artisanal and small-scale miners
- The Women and Extractive Industries Program, which addresses gender issues in extractive industries
- The Petroleum Governance Initiative (PGI), which promotes good governance.
- The Extractive Industries Technical Advisory Facility (EI-TAF), which facilitates "rapid-response" advisory services on a demand-driven basis to build capacity for extractive industry resource policy frameworks and transactions.

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