

The Art and Science of Benefit Sharing in the Natural Resource Sector

DISCUSSION PAPER



INTERNATIONAL FINANCE CORPORATION

2121 Pennsylvania Avenue, NW
Washington, D.C. 20433 U.S.A.
Telephone: 202 473-1000
Facsimile: 202 974-4384

www.ifc.org

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DESIGNER AND TYPESETTER

Station 10 Creative, Columbia, MD

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The International Finance Corporation:

Development Institution and Investor in the Natural Resource Sector

The International Finance Corporation (IFC), a member of the World Bank Group (WBG), is the largest global development institution focused exclusively on the private sector in developing countries. Established in 1956, IFC is owned by 184 member countries, a group that collectively determines our policies. Our work in more than 100 developing countries includes a network of nearly 1,000 financial institutions and more than 2,000 company clients and helps create opportunities in emerging markets where they are needed most. IFC uses its capital, expertise, and influence to help end extreme poverty and boost shared prosperity by harnessing the private sector.

IFC blends investment with advice and resource mobilization to help the private sector advancedevelopment. In the most recent financial year, IFC invested more than US\$22 billion, including about US\$5 billion marshaled from other sources across various industry sectors, including agribusiness and forestry, financial institutions, infrastructure, telecommunications and information technology, oil, gas, and mining, manufacturing, and consumer and social services.

In addition to investments, IFC provides advisory services and supports its clients to adopt important standards in areas such as environmental and social performance and corporate governance. Because of its convening power, IFC can bring important parties together for project development and the sharing of technical, industrial, and financial knowledge and innovation.

IFC has been engaged in the natural resources sector—oil, gas, and mining—since its inception. As part of the WBG, IFC shares the objective that its engagement in the natural resource sector supports a positive contribution of a country’s natural resources to sustainable economic development. As such, priorities for the WBG¹ in the sector include the strengthening of governance and transparency, mitigating environmental and social risks, ensuring that the poor benefit and that the rights of affected people are protected. IFC is also concerned with balancing the need to combat climate change with ensuring that the poor have access to affordable energy.

The exploitation and extraction of oil and minerals has become ever more important for many of the world’s poorest countries, and is promising to remain vital in the foreseeable future given world demand for minerals and energy. The sector is a key source of jobs, energy, government revenues, and a wide array of additional benefits for local economies. IFC’s mission in the oil, gas, and mining sector is to help developing countries realize these benefits and promote adequate benefit-sharing between all stakeholders.

1 These priorities emerged as commitments from the WBG in response to the Extractive Industries Review (EIR)—an extensive review of the WBG’s activities and future role in the sector. For more information: http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/industries/oil%2C+gas+and+mining/development_impact/development_impact_extractive_industries_review



About this Discussion Paper

If developed and managed appropriately, a country's oil, gas, and mineral resources can make a major contribution to economic development and poverty alleviation. The revenues generated by the production of oil, gas, and minerals can fund government programs and transform natural assets into human, social, and physical capital, helping to drive sustainable development and long-term poverty reduction. The sector encompasses a diverse group of stakeholders who have strong interests in the decision to develop an oil, gas or mineral resource, the timing, and how the development of the asset is managed, including how the costs and benefits of natural resource development¹ are shared.

For governments, natural resources are part of the national wealth that they have a responsibility to manage for the long-term good of the country. Oil, gas, and mining sectors are often a vital source of taxes and revenues to fund government budgets. Governments face competing priorities when designing policies that determine when, how, and by whom the resource will be developed. From a benefit-sharing perspective, such policies need to embrace the interests of current and future generations and the rights, interests, and needs of different levels of government, communities, and other stakeholders. Also critical is the development of government policies and capacities to manage and monitor the performance of the sector and the appropriate use of revenues for the national good.

For communities, projects are likely to bring a mix of economic benefits and environmental and social costs, particularly for local communities who live close to the asset. Oil, gas, and mineral development can bring benefits, such as jobs and skills development, opportunities for small and large business development, and investment in infrastructure and related services (roads, water, and power). At the same time, projects can bring negative impacts that, if not properly addressed, can result in environmental degradation, social disarticulation and impoverishment, among others. Ideally, projects should improve people's lives overall. Well-managed projects will create opportunities for affected communities to participate in decision-making and design.

For investors, projects offer opportunities to invest capital and deploy their expertise and technical skill. Companies will choose to invest in the exploration and development of oil, gas, and mineral resources if the potential return is attractive and the risks are acceptable. Investors require clear and transparent fiscal frameworks and regulatory regimes, and stable contracts. Companies are increasingly aware that their interest in the natural resources sector is closely linked to the interests of other stakeholders. Deals that are seen to be reasonable and to benefit host communities and countries are more likely to be durable and their operations less likely to be interrupted.

PURPOSE OF THIS DISCUSSION PAPER

The purpose of this paper is to contribute to the understanding and discussion of how the costs and benefits of natural resource development are shared across society. This paper presents how IFC, as both an investor and a development organization, determines whether benefits and costs are shared reasonably, and

¹ The paper only considers the commercial exploration, development and exploitation of oil, gas, and mineral assets.

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how this assessment influences IFC's decision to invest in a particular natural resource project.²

Through its long experience in the sector, IFC has learned that investments likely will run into problems at some point in their life cycles if there are imbalances in the sharing of fiscal, economic, environmental, and social costs and benefits. By describing IFC's thinking and lessons learned, the goal of the paper is to promote a broad, constructive dialogue across stakeholders—governments, investors, civil society, and others—around benefit sharing.

The paper draws on IFC's experience and presents an overarching framework for multi-stakeholder benefit sharing, providing analysis and guidance for a range of complex topics. The paper is intended to provide entry points for stakeholders of varying levels of familiarity with the issues to benefit-sharing assessment. The paper is not a definitive manual for all the issues covered for which more detailed, high-quality and excellent references and literature exists.³

STRUCTURE OF THIS PAPER

This paper is organized along these broad areas of impact that IFC considers in the benefit sharing assessment: fiscal, economic, environmental, and social. The approaches IFC uses to evaluate benefit sharing are presented in each area, along with some lessons learned. This is complemented by a discussion of key issues that are topical in the field.

Each chapter opens with a list of questions that can be used as a guide to assess the potential benefits and costs of an investment. The questions are not exhaustive, but are thought to be a useful starting point for review, or for initiating dialogue about net impacts and risks across constituencies.

At the close of each chapter, some examples are highlighted when further review of a particular aspect of benefit sharing may be warranted. Determining whether a project will generate reasonable benefits is a dynamic process that reflects diversity of national context, changing nature of markets, government priority, human behavior and project realities. As a result, there is a spectrum of what can be considered reasonable overall. However, there may be particular features of a benefit-sharing arrangement that stand out and can signal a risk to its legitimacy.

Our aspiration is that this paper will complement as well as stimulate work by others that can enhance the collective knowledge and encourage dialogue. Many other actors—from civil society, academia, private sector companies, industry associations, multilateral organizations—have made contributions to enrich our understanding of how natural resource development can contribute to sustainable development and what is required for a fair sharing of benefits among all affected stakeholders. Recognizing that the agenda is large and with many different perspectives, IFC hopes that other actors will add to this effort and share their own experiences and practice to create a common database.

IFC is eager to receive feedback from stakeholders. You can send your comments to Liane Asta Lohde, Senior Economist, Infrastructure and Natural Resources at llohde@ifc.org.

The paper is available on the following website: www.commdev.org

² This paper focuses on benefit sharing in the context of a project's development phase (and beyond) once an economic resource has been identified.

³ As a starting point, please see www.eisourcebook.org

ABBREVIATIONS

BCS	Broad Community Support	IFC PS	International Finance Corporation Performance Standards
EFR	Effective Royalty Rate	IMF	International Monetary Fund
EIR	Extractive Industries Review	IRR	Internal Rate of Return
EITI	Extractive Industries Initiative	NGO	Non-Governmental Organization
EP	Equator Principles	NPV	Net Present Value
ERR	Economic Rate of Return—used	OECD	Organisation for Economic Co-operation and Development
ESP PS	Environmental and Social Policy and Performance Standards	MIGA	Multilateral Investment Guarantee Agency
ETR	Effective Tax Rate	RM	Revenue Management
FPIC	Free Prior and Informed Consent	SEP	Stakeholder Engagement Plan
FRR	Financial Rate of Return	SME	Small and Medium Enterprise
GIIP	Good International Industry Practice	SNG	Subnational Governments
ICMM	International Council of Metals and Mining	UN	United Nations
ICP	Informed Consultation and Participation	VAT	Value-Added Tax
IFC	International Finance Corporation	WBG	World Bank Group



CHAPTER 1:

Overview of IFC Approach and Experiences

Nonrenewable natural resource projects—that is oil, gas, and minerals—are usually seen as part of a nation’s wealth. Accordingly, their use for the long-term sustainable development of a country is a prime objective of any legitimate government. The role of government in establishing a framework to manage and invest revenues derived from oil, gas, and mining projects is crucial to ensure that the sector contributes positively to sustainable development.

The fair sharing¹ of the net benefits of natural resource developments, i.e. benefits in excess of costs, between government, investors, and other stakeholders, is important to ensuring that projects and their positive impacts are durable and resilient to change over time. Investors, governments, communities, and other stakeholders share a strong interest in a reasonable distribution of benefits.

Most private-sector investors realize that projects that are good for the host country and communities, and whose benefits are perceived to be shared reasonably, are less likely to face disruption, renegotiation, or even expropriation. Terms and conditions that deliver shared benefits are more likely to survive changes in societal expectations, political regimes or market disruptions and reward investors over the long run for the capital and skills deployed and the risks taken. As developers better understand this connection and experience stakeholder challenges and even social conflict, their interest in a dialogue to create shared benefits and value is growing.

IFC recognizes the important technical and economic differences between the oil, gas, and mining industry, and understanding project and country specifics is crucial. Nonetheless, the three sectors share certain characteristics that distinguish them from any other industry, including high degrees of uncertainty and risk (geological, exploration, technical), price volatility, long project lead times with significant capital expenditures up front, and often a large footprint with environmental social effects. These factors profoundly influence how, when and to whom benefits and costs accrue and the process by which a durable benefit sharing agreement across stakeholders can be reached. In this light, an overall approach to assessing benefit sharing that covers oil, gas, and mining is proposed.

IFC APPROACH

Guided by its development mandate, IFC looks carefully at an extractive project’s potential to contribute to a country’s economic and social development, and how project costs and benefits will be distributed when considering a potential investment. IFC also reviews the profitability of the proposed investment and the underlying economics of the project to make a financial decision on whether or not to put its own capital at risk. These factors are considered throughout the life cycle of an IFC investment along with other key criteria that determine IFC’s engagement, including IFC’s prospective role and value addition, strategic fit with World Bank Group country engagement and institutional priorities as well as general compliance with policies.

A full investment cycle from early review to investment and eventual exit from a project consists of many steps and can unfold over many years, especially in the natural resource sector, where projects have long lead times and face high levels of uncertainty.

¹ The sharing and distribution of a project’s costs and benefits can be considered fair if the development aspirations of all stakeholders are adequately met and net benefits are commensurate with stakeholder expectations over time.

An assessment of prospective project development impacts and benefit sharing is an integral part of IFC's investment appraisal approach. A benefit-sharing assessment typically considers:

- i. the country and community context, the processes by which sharing was determined and how proceeds are managed and used;
- ii. environmental and social issues and risks, mitigation measures and opportunities to enhance outcomes beyond mitigation as well as stakeholder expectations and concerns;
- iii. the overall distribution of diverse, uncertain and sometimes unquantifiable benefits and costs across affected stakeholders, using IFC's stakeholder framework (Lysy, Bouton, Karmokolias, Somensatto and Miller 2000). The timing of these, which are grouped by financial, economic, environmental and social impacts, is also reviewed.

IFC will assess the broader context, starting with the role of the natural resource sector in the country, its economic contribution to date, its prospects, and government vision for its future. Understanding country and sector governance issues and capacity, as well as expectations and concerns by host governments can help determine whether a project will likely contribute to sustainable development.

The assessment includes a review of 'traditional corruption', as it may occur during the acquisition of mineral rights.² IFC looks carefully at the private investors in projects it is asked to support.³ This is done both to satisfy IFC of their integrity and the possible presence of political insiders whose presence may be an indication of a sweetheart deal. Where corruption is a factor, IFC will not invest.

Poor country and sector governance often poses an impediment to the transformation of resource wealth into sustainable development. The engagement of the World Bank (WB), the International Monetary Fund (IMF) and other development actors in a country will help judge the risks along the value chain and verify a country government's commitment to reform and change.

IFC reviews ex ante the risks weak governance poses to key project development benefits. In general, IFC makes careful judgments about whether it should support natural resource projects where governance is weak but development pay-off may be significant, such as supply chain development, shared infrastructure, investment in local communities. IFC also considers project-specific arrangements that can help reduce governance risks, such as technical assistance to build local capacity in revenue management, enhance transparency and accountability. IFC supports the global transparency agenda and initiatives like the Extractive Industries Initiative (EITI). Also, IFC has taken the lead among other development finance institutions by championing full revenue and contract disclosure in its projects.

Understanding who the key stakeholders are, what their aspirations, concerns and expectations of a project are, and what drives these is important for judging the reasonableness of a benefit sharing settlement and its legitimacy and durability over time. If project realities are not commensurate with stakeholder perceptions—be they informed or not—a project may be at risk. Typically, key stakeholders include the government (federal and sometimes subnational), citizens at large, affected communities, and investors.

As part of its due diligence before investing and part and parcel of project supervision, IFC through its Performance Standards requires a stakeholder analysis and engagement plan for the range of stakeholders that are interested in the project. Stakeholder engagement plans must be scaled to the risks and impacts, the development stage of the project and tailored to the characteristics and interests of affected communities.

Stakes in project may go much beyond the immediate project boundaries and the directly affected communities, and they can be high. Especially, projects that are big in scale and are transformational for an entire country

2 Due diligence will focus on how access to resources was obtained, especially in countries where sector regulation is weak and procedures are characterized by inconsistency and lack transparency. Grandfathered contracts will be analyzed for their consistency with prevailing laws/codes, gross aberration of key terms, the history of license acquisition etc.

3 IFC closely investigates board composition, shareholding, investor background and that of other potential beneficiaries. Anti-corruption representations and covenants are required.

Stakeholder Benefit Sharing: Expectations and Concerns

HOST COUNTRY CITIZENS:



Expect that natural resource wealth will be used to develop the country and to benefit its citizens broadly.

May be concerned that (i) natural resources are being exploited and depleted mainly to benefit foreign investors or wealthy locals, or (ii) that the revenues are mismanaged, wasted, misappropriated, or not distributed equitably.

HOST COUNTRY GOVERNMENTS:



Expect that their framework of laws and standards for accessing the country's resources is respected, that they receive a reasonable share of taxes and profits, and that the project has positive linkages with the rest of the economy, helping to develop local skills and expertise.

May be concerned about (i) signing a bad deal because of a lack of expertise or leverage in negotiations, (ii) delays in receiving benefits, or (iii) loss of benefits as a result of inappropriately high costs or transfer prices.

AFFECTED COMMUNITIES:



Expect engagement and respect for providing access to “their” resources, protection from negative impacts, preservation of culture, and tangible benefits from project development.

May be concerned about (i) environmental impacts that threaten their health or livelihoods, (ii) social impacts or changes brought on by boomtown effects and rapid urban development, influxes of newcomers competing for jobs, (iii) lack of access to project opportunities, and not benefiting from project taxes paid to governments.

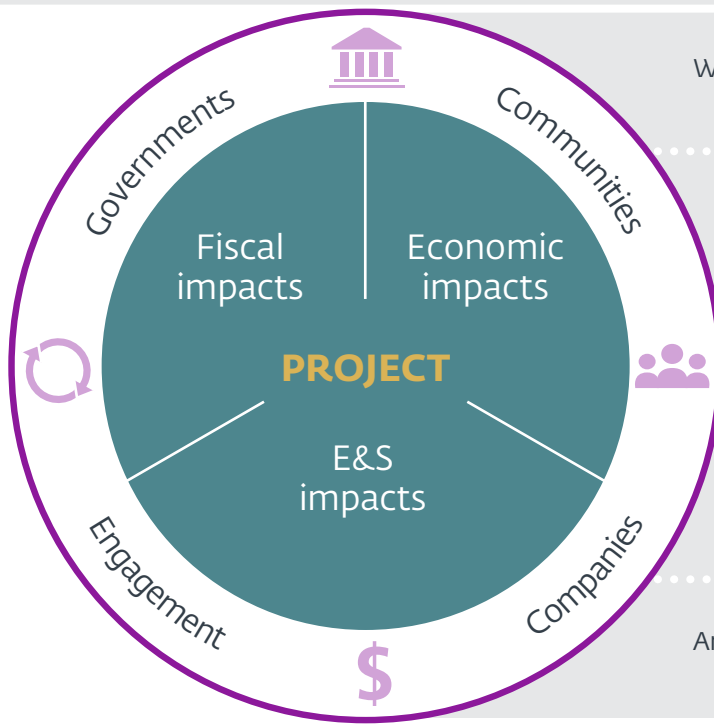
INVESTORS:



Expect to build and operate (or sell) their project and earn profits for providing risk capital and management skills, in addition to paying known taxes and charges.

May be concerned about (i) dynamic politics and their freedom to operate, (ii) unreasonable changes to terms and conditions, and even expropriation, (iii) communities interfering with operations, (iv) being held accountable for a perceived failure of the resources sector to generate sustainable national or local benefits.

FIGURE 1.1: IFC Stakeholder Framework and Areas of Project Impact



Who are the key stakeholders?

What are their main expectations, concerns, motivations, perceptions?

What do key stakeholders need to understand about each other's context?

What are stakeholder responsibilities?

Are functional engagement processes in place?



or even region, national expectations and concerns will inform project-level dynamics and vice-versa.

At the core, IFC assesses a project's costs and benefits and their distribution across stakeholders, in three broad, overlapping areas of impact. IFC considers a variety of questions as part of its due diligence and decision-making process:

1. **Fiscal impacts:** How are the net financial benefits of projects shared through profit sharing, taxation, and in other ways—at both the national and subnational levels of government and with communities and others?
2. **Economic impacts:** What additional economic costs and benefits are generated and shared, such as jobs and training, the introduction of technologies, spending with local suppliers, investment in infrastructure, the supply of energy, such as oil, gas, coal and electricity, or the supply of other raw materials at competitive prices to local industry and households?
3. **Environmental and social impacts:** What are the positive and negative environmental impacts and risks that the project brings and who bears them? How do impacted communities, including vulnerable groups within communities, gain or lose from the development in other ways?

The development aspirations of all stakeholders must be met and the distribution of net benefits should be commensurate with stakeholder expectations over time.



FIGURE 1.2: Schematic IFC Investment Life Cycle

Lessons Learned

IFC INVESTMENT LIFE CYCLE

EARLY REVIEW	APPRAISAL & INVESTMENT REVIEW	PUBLIC DISCLOSURE & BOARD APPROVAL	INVESTMENT SUPERVISION	EVALUATION	IFC EXIT
<p>Initial screening against IFC sector and country strategy, policies and IFC role in project</p> <p>Review of possible environmental and social risks and potential for development impact</p> <p>Preliminary review of investment thesis and broad due diligence on company and sponsors</p>	<p>Detailed and comprehensive review by multi-disciplinary team (finance, technical, environmental, social, economic and country, legal, corporate governance, advisory) with distillation of terms and conditions of IFC investment</p> <p>Discussions with investors on needs and gaps across all aspects of project; identification of opportunities to enhance development impact</p> <p>Decision to invest subject to agreement of prospective client with IFC terms and conditions</p>	<p>Public disclosure of Summary of Investment Information (SII), Environmental and Social Review Summary (ESRS), and Environmental Action Plan (ESAP) required prior to presentation to Board for approval</p> <p>Review and approval of investment by IFC Board</p>	<p>Once invested, IFC supervises investment over life of project, monitoring performance and working with client to ensure compliance with IFC requirements and agreements in all areas of the project</p>	<p>Annual tracking of project results of portfolio projects (Development Outcome Tracking System);</p> <p>Periodic, independent evaluation of investment's development and other contributions</p>	<p>IFC loans may be prepaid or IFC may exit equity investment before end of project life</p>
SELECT BENEFIT SHARING CONSIDERATIONS					
<p>Does the project appear to offer positive development benefits?</p> <p>Are potential environmental and social risks significant? Can they be mitigated?</p> <p>Do the prospective net impacts on and relationships with communities seem reasonable?</p> <p>How did the company obtain access to the license? Does initial review of key terms raise any red flags?</p>	<p>How was the deal obtained, how does it compare with others? What are host government and citizen expectations?</p> <p>What is the prospective sharing of benefits and costs, and how can this change with project circumstance (price, cost, etc.)?</p> <p>What are expected development outcomes overall, and the risks to these?</p> <p>Can risks to development impact be mitigated and enhanced?</p> <p>How will this be achieved?</p> <p>How will affected communities be impacted? Are engagement processes effective, inclusive, participatory? Do communities support the project?</p>		<p>Has the project generated net positive development impact?</p> <p>Who has benefited from the project and how?</p> <p>Was the deal sustained?</p> <p>Is the community better off?</p> <p>Were special initiatives to enhance project development impact successful?</p>		

IFC EXPERIENCES AND LESSONS LEARNED

As both a development institution and an investor, IFC is in a unique position to simultaneously share the perspectives of investors, host countries, and other stakeholders. As a result of balancing these dual roles over many years, through commodity price cycles and industry change, a number of lessons have emerged that have a bearing on how to assess and secure a durable benefit-sharing arrangement.

1

UNCERTAINTY IS A KEY FEATURE THROUGHOUT THE PROJECT LIFE CYCLE

A project's expected business outcomes and performance over time are exposed to many uncertainties. The future values of key drivers of project performance, such as costs of production and commodity prices, are uncertain and can be volatile. Even the scale and quality of a resource may not be fully known until late in the development and its extraction. And there may be substantial technical and production challenges that need to be addressed. Projects may require many billions of dollars, may take years to come to fruition and many more to generate a financial return once operational. Against this backdrop, the planning of programs intended to benefit communities may be difficult, given business and other uncertainties.

Government policies and regulations can change and other political events may have major impacts on a project's success and commercial viability. Tax frameworks and agreements and their impacts on projected benefit sharing that seemed reasonable at the outset of a project may look very different in the future.⁴ For example, much-higher-than-expected commodity prices over the last decade boosted the profitability of natural resource projects and companies. A number of governments came to believe they were not receiving a fair share of project benefits because their incomes from

taxes did not increase in parallel—partly because tax structures and agreements were not designed to cope with these changes.

The considerable deterioration in prices for various commodities in the recent past, as well as the notable price volatility generally seen during the last years, has changed the conversation again, bringing into relief the uncertainty that medium- to long-term investors and governments face in this sector.

2

EVERY PROJECT IS UNIQUE

Individual projects vary greatly in their size and life cycles, the richness of the resource, ease of access, cost of extraction, profitability, and impacts on people and the environment. Oil and gas is a different business from mining. However, gas is also very different from oil,⁵ and mining projects vary greatly from one another.

In regulating the natural resource sector, governments must strike a balance between accommodating the special circumstances of projects and maintaining a transparent, standard and manageable regulatory framework and a bureaucracy that supports it. The way a project is treated and perceived depends on its host country and community context, the present and future economic role of the natural resource sector and the government's vision for it as an engine for sustainable development.

Investors seek acknowledgement for the uncertainty and unique project circumstances they face and value stability of the arrangements that govern their obligations to the government and other stakeholders. Especially for mega-projects, investors and governments may enter negotiations

⁴ Terms and conditions always reflect the relative bargaining strengths of investors and governments. Once projects are built and operating, the balance of power usually shifts in favor of governments, and investors fear the risks of an “obsolescing bargain” where new terms can be unreasonably imposed on them.

⁵ “Oil and gas” is used often to refer to one industry, but differences can be great, especially in the area of pricing. Oil project prices are usually set by international markets. Gas prices may be set by reference to international prices (with a cost-to-market adjustment that is likely to be greater than in the case of oil). When access to international markets is difficult or expensive, gas prices are set by local negotiation at prices far from the prevailing oil price equivalent. As a result, gas projects are less profitable than oil projects and may be taxed differently. Moreover, without easy access to international markets, gas developments also depend on specific supplier-to-off-taker long-term contracts.

about specific aspects as regards project development and benefit sharing. While deal-by-deal negotiation allows for greater tailoring to project specifics, legitimacy rests heavily on transparency of process, symmetry in the access to information and technical know-how and capacity. This may not be achieved in many weak governance countries.

3 **GOVERNMENT POLICY IMPACTS BENEFIT SHARING**

Governments face multiple competing demands and the policy objectives they set impact benefit sharing—including whether, when, and how to develop their natural resources. Although the overriding objective of most governments is to ensure their country benefits to the greatest extent from their natural resources, there are many different ways they may try to ensure this. Government commitment to transparency and accountability, due process and prudent public financial management are key.

Good policy does not necessarily require governments to maximize the net revenue they receive from every project. The benefits of offering standard terms and conditions may outweigh the costs and complexity of trying to implement a more sophisticated tax system or setting terms and conditions project by project. New, emerging countries may be best served by setting relatively attractive terms to encourage a steady flow of new investment. It may also be an appropriate long-term strategy for building a robust, lasting industry, as some of the most important, resource-producing countries, such as Australia, Canada, Chile, and Peru demonstrate.

Governments may accept less tax income in return for investors helping them achieve other development objectives. For example, investors may be expected to increase local procurement and skills development, build, manage, and provide affordable access to infrastructure (power, rail, roads) for use by others, or process production locally rather than export raw materials.

Governments play an important role in providing an enabling environment for private-sector actors so that natural resource projects can link into the local economy and generate benefits for as long as resources are economically recoverable.

4 **PERCEPTIONS AND EXPECTATIONS MATTER**

Diverse stakeholder groups have different perceptions and expectations about natural resource projects and their potential impacts. In particular, countries and communities with little experience developing natural resource projects may have difficulties to fully understand all of the issues, including the scale and nature of future impacts. Even when projects have been constructed and in operation for some time, it can be difficult to fully capture the economic and social impacts that have accrued over decades. Many older projects lack baseline data which can further impede tracking and may breed distrust of company practices and government policies.

Expectations and perceptions by host communities and other affected stakeholders will have a bearing on project success. Stakeholders are unlikely to share equal access to information or understanding of a project's fiscal, economic, social, and environmental effects and impacts. Transparency and access to information are essential to manage misperceptions and enforce mutual accountability among stakeholders. In IFC's experience, imbalance of information coupled with poor stakeholder engagement can derail an otherwise healthy project. Proactive management of diverse local expectations via honest dialogue about benefits, costs, risks, and mitigation measures can help build trust. Ideally, this creates a platform to cooperatively plan strategies to smooth costs and benefits across constituencies.

5 **PROCESSES ARE IMPORTANT**

The processes by which benefit sharing is determined directly influences public perceptions about the reasonableness of the distribution of costs and benefits. This starts with how contracts were awarded, how environmental and social impacts are monitored, how affected communities are consulted to the collection and use of fiscal revenues for the economic development of the country. Transparency of processes along the value chain is important for creating accountability of key actors by enabling access to information and a better understanding of the project benefits and costs. A process

that is perceived as opaque and not inclusive can generate suspicion and negatively impact a project, as stakeholders may persistently challenge the arrangement, including any proclamations about net benefits. Even if company and government agree on what they view as a reasonable split over time, an uninformed, excluded electorate may at some point decide to change the government and the project terms as a result.

There has been a welcome trend of greater transparency about natural resource projects—including revenue flows, contract terms, and reporting to communities. But for benefit-sharing arrangements to be durable, the process must be consultative and participatory. Consultation with affected communities should start early—even during the exploration phase—and should be iterative throughout a project's life, taking into account dynamic, environmental, and social risks. Communities must be able to register their grievances and see them addressed. Resilient agreements are those that are supported by affected stakeholders who have meaningfully participated and can influence decisions about project aspects that affect them. This may relate to land access, water management, in-migration, and infrastructure development. Broad community support is central to managing project risks over time.

6 FISCAL BENEFITS ARE ONLY ONE PART OF A PROJECT'S COSTS AND BENEFITS

Benefit-sharing discussions usually focus on the distribution of the financial (fiscal) benefits and costs of the project between private investors and the central government. However, there is a broader range of other non-fiscal costs and benefits that need to be considered to understand the full range of impacts and opportunities of natural resource development. For example, communities are immediately—and sometimes negatively—impacted by projects near them. Their lives will be impacted in varying ways, and different groups within these communities will fare differently. In addition to tax revenue, projects may bring jobs, infrastructure, local sourcing, and competitive supplies of energy and other materials that may benefit the country as a whole or particular regions and sectors. Projects will also have environmental impacts that need to be assessed and tracked.

7 THE ART AND SCIENCE OF BENEFIT-SHARING

For IFC, determining whether a project has a reasonable balance of benefits and costs depends on an informed, overall judgment based on expert, multi-disciplinary input and review. From a development and commercial perspective, IFC tests for a range of outcomes, and thresholds exist with respect to financial, economic, environmental, and social considerations. For a project to be supported, it must demonstrate, at minimum, that it is profitable, that its economic benefit to society and economic return on investment is positive and greater than its financial return, that it is compliant with IFC Performance Standards (IFC PS), and that affected communities are broadly supportive.

However, given the diversity of national contexts, geographical potential, and business arrangements, IFC has found that there is no single blueprint that can be used to determine what equitable sharing looks like. In practice, investigation and professional judgment from a diverse team of experts, representing specialty areas such as finance, engineering, environmental and social, economics, and law, to name a few, is required.

Often precise measures or cut-offs between what is acceptable, for example with respect to the fiscal sharing between the public and private sector, and what is not are at best imperfect and at worst misleading. Rather, it is important to contextualize and assess fiscal sharing against other project characteristics and drivers, stakeholder expectations and concerns (see Box 1.1), and potential impacts. Even when the overall judgment is that there is a balance of costs and benefits at a particular moment in time, circumstances can change and present risks that need to be addressed and managed carefully.



IFC Guiding Questions on Financial Benefit Sharing

- ☐ How do the project's fiscal terms and conditions (royalty rates, profit tax holiday etc.) compare with those in other countries?
- ☐ How does the project's benefit-sharing compare to common industry measures, such as the Effective Tax Rate (ETR) used in the mining sector?
- ☐ How is the project's net present value (NPV) shared, using a base case set of assumptions of the factors that determine project results?
- ☐ How does the distribution of benefits change with variations in project costs, prices, and volumes?
- ☐ What is the investor's expected real rate of return after tax?
- ☐ What are investors' risks, and are returns commensurate? Did the project result from an exploration investment or is it a known resource? Are there other particularly challenging technical or political risks?
- ☐ Is the project consistent with the government's policy objectives and overall legislative framework, and do these policies seem sustainable? What is the timing profile of anticipated revenue flows?
- ☐ How were rights to exploration, development and production awarded? How were the project's terms set? Was there a transparent process, competitive auction, open access on standard conditions, or were they negotiated? Who are the investors?
- ☐ Are there benefits or costs not captured by the financial analysis that should also be taken into account?
- ☐ Are there any issues of special concern? Even if the fiscal sharing is reasonable, are there any terms that are questionable or possible outcomes that threaten the deal's sustainability?

CHAPTER 2:

Sharing Financial Benefits at the National Level

SHARING THE FINANCIAL BENEFITS AT THE NATIONAL LEVEL

Many governments and other stakeholders believe the financial benefits of oil, gas, and mining projects should be shared because these natural resources are part of a country's collective wealth (that is, they are part of the national "patrimony"). Resource projects can generate high levels of profits ("rents") above their full costs of production, but will eventually deplete these nonrenewable national assets, effectively creating a one-time opportunity to generate benefits.

The possibility of high levels of profitability and the non-renewable nature of mineral resources strongly influences public debate and policy. When private investors are developing resources,¹ especially when they are foreign, governments usually aim to optimize the share of the project's financial benefits that accrue to their countries through the fiscal take and other terms under which they permit development to take place.²

While the objective of optimizing the overall share of rent is straightforward in theory, it is complex in practice. Agreements and taxation frameworks must accommodate uncertainty about what future benefits a project will generate. Country circumstances, natural resource

endowments, administrative capacities, and policies and politics differ. As a result, although there are some broad common approaches, tax policies, structures, and rates vary widely among countries.

Cross-Country Comparison Of Terms And Conditions

IFC usually starts a project assessment by comparing the project's fiscal terms and conditions with those that exist in other countries. This may sound simple but can be difficult in practice because of the detail and variety in the terms and conditions that are used internationally, and their tendency to change. Table 2.1 highlights key aspects of different fiscal regimes from a few selected countries.³

Nonetheless, this sort of cross-country comparison helps to contrast a range of fiscal terms and conditions and can flag important differences early in the review process, especially for terms such as royalty and corporate tax rates, which are usually important parts of resource taxation and often enjoy great political visibility in summarizing 'what a country is getting.' However, without a strong pattern of either tough or generous terms across several dimensions, cross-country comparisons are not sufficient to draw reliable conclusions about the fairness of a particular deal or fiscal regime.

For example, one country may have a higher withholding tax on dividends paid than another, but may allow the withholding tax paid to be offset against any corporate tax that is due. In the apparently lower-tax country, the latter arrangement may not be allowed. In another

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- 1 When projects are owned by state companies, as a large share of the world's oil production projects are, the division of fiscal net benefits becomes a concern for different levels of government if subnational revenue distribution exists. There may also be issues about how a state company is managed, how other stakeholders are treated, and how the net benefits are being used.
 - 2 How the economic rent in mining and hydrocarbon operations is expected to be shared between the government and the investors is detailed in a country's fiscal regime. In the mining sector, fiscal terms are generally set by law. Petroleum sector law defines the framework for petroleum operations and the basic structure of the fiscal terms, while project-specific terms are usually set in the relevant contract or license (Alba 2009).

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- 3 For a more comprehensive example in the mining sector, see PwC (2012).

TABLE 2.1: Cross-Country Comparison of Select Mining Tax Terms

	ROYALTY RATE ^a	CORPORATE TAX RATE	WITHHOLDING TAXES ^c	IMPORT DUTIES EXEMPTION	VALUE-ADDED TAX (VAT) EXEMPTION	PROFITS TAX HOLIDAY	GOVERNMENT EQUITY/STATE OWNERSHIP
Guinea	3.5%	30%	n.a.	Yes	Some	n.a.	Yes, complex
Ghana	5.0%	25%	8%	n.a.	Yes	n.a.	10% free
South Africa	0.5–7%	28%	10% (dividends)	n.a.	Yes	n.a.	No
Mongolia	5.0%	25%	10% (dividends) 20% (interest)	n.a.	Yes	No	Yes, complex formula
Chile	0–14%	18.5%	35% (dividends) 4–35% (interest)	n.a.	Yes	Yes	State Mining Company
Peru	Sliding scale ^b	30–32%	4%	Yes	Yes	n.a.	No
Trends	3.0–5.0%	30–35%	0–15%	Usually	Usually	Rarer	Sometimes

Note: This table illustrates only selected terms and conditions that may apply and may not be generally applicable. Terms change frequently, and comparisons can quickly become obsolete.

a. Royalty rates vary by commodity.

b. Peru's revised approach applies a royalty of 1 to 12 percent and a Special Mining Tax (2 to 8 percent) based on operating income. For projects with stabilization agreements, a Special Mining Burden (4 to 13 percent) has been agreed (EY Peru 2014).

c. Rates vary depending on what the tax is applied to (such as interest and dividends).

n.a. = not applicable.

example, one country's tax regime may look relatively generous, but its resources are of poor quality and high cost compared with those available in apparently more highly taxed countries.

Different countries' tax frameworks and project agreements may have been formulated at different points in the price cycle, and, in some cases, apparently generous terms reflect low prices at the time of agreement.

Looking At Project Specifics—Financial Modeling

To obtain a fuller picture of a potential investment, IFC will look closely at project specifics and construct its own financial models to predict possible project outcomes. The purpose of this modeling is to i) reflect specific project characteristics such as resource size and richness, capital costs, costs of production, and expected sales prices, which usually are determined in

international markets outside investor and government control; ii) account for how these project characteristics interact with the country's full package of taxes; iii) test outcomes, including the projects financial rate of return (FRR) and the distribution of its Net Present Value (NPV), against a variety of assumptions about key operating factors. For IFC, the use of NPV⁴ and FRR are a core part of its analysis of the financial performance of prospective projects.

There are many ways in which investors and governments can benefit financially or be adversely affected. To present a full picture, all financial costs and benefits need to be captured in the modeling and analysis. Box 2.1 describes

4 IFC usually uses a 10 percent real discount rate but may test project performance against other rates.



what issues should be considered to fully capture all financial costs and benefits.

Measures For Capturing The Public And Private Take

There are some commonly-used measures that capture the distribution of a project's fiscal benefits between the government and investors. In the oil and gas sector, two frequently used summary statistics are the "government take" and the "effective royalty rate" (EFR). *Government take* is the share of revenues after all costs that the government collects over the life of a project. The *effective royalty rate* is the minimum share of revenues after costs that the government collects from a project in any one tax year throughout its life. This rate indicates how low a government's share of a project's net benefits may be in any one year. It may not say much about benefit sharing over the life of a project, but could indicate issues in the timing of government receipts.

In the mining sector, the Effective Tax Rate (ETR) captures the government's share of a project's net benefits after capital and operating costs. An ETR of 50 percent shows that the government and the private sector each receive 50 percent of the net benefits of the project. A number of studies have modeled the outcomes of mining projects in to generate an ETR as one measure of fiscal benefit sharing in different countries (World Bank 2006). The ETR can also be used to create some comparability of fiscal regimes across countries. A 2004 study about international tax regimes in 24 countries, modeled the prospective ETR for each country by applying the fiscal package to the same hypothetical copper mine. The ETR, or government take, ranged from roughly 30 percent to 63 percent (Otto 2004). For some purposes, using the "marginal effective tax," which shows how incremental changes in revenues are shared, is also used.

From IFC's perspective, a weakness of using the ETR, the EFR, and government take to measure benefit sharing

BOX 2.1: Capturing all Financial Costs and Benefits

All relevant costs and benefits should be captured in the financial model to present a complete picture of the project's total financial profile for both governments and investors. Fully capturing applicable costs and benefits requires rigorous analysis and should include potentially key items, such as transfer pricing or thin capitalization.

Investors incur costs through their investments and receive benefits through their share of net cash flows, usually distributed as dividends. In addition to normal sales revenue, investors can extract value through service charges from associated companies that more than recover the costs. Sometimes investors may benefit from transfer pricing. Even though many agreements and often general tax law prohibit inappropriate transfer pricing, a 2013 study identified transfer pricing as a potential major source of lost revenues for African governments (Africa Progress Panel 2013).⁵

Investors commonly use a mix of equity and debt to finance projects to leverage their post-tax equity returns or to manage their exposure to project risks through non-recourse finance.^a Financial structure may have some impact on overall benefit sharing through its impact on taxes payable. “Thin capitalization” rules will limit this as the rules control the amount of debt that a company can take on and the rates of interest it can pay. (See discussion of transfer pricing and thin capitalization in Appendix A.)

Countries incur costs and receive benefits from projects through different forms of taxes (Appendix A) and from the country's share of net profits, if any. Countries may also benefit financially if the country gains access to energy or other resources at below-market value, and if the country receives infrastructure or other services from the project at below-market values. Conversely, if a country supplies a project with a service such as electricity or other infrastructure at below its cost or market value, supplying this service will be a cost to the country.

Note: a. Nonrecourse finance refers to funding from commercial and other lenders that will be repaid from the project only when the lenders have no or limited recourse to the investors if the project does not go well.

⁵ Some analysts have questioned the scale of the estimates quoted in the Africa Progress Panel Report. See, for example, Annex C in ICMM (2014).



is that they do not allow for differences in the timing of cost and benefit flows over the life of a project.

To evaluate the public and private take of a resource project, IFC uses the project's NPV⁶—which accounts for the timing of costs and benefits. Investors, governments, and individuals value funds available today more than they value the same funds tomorrow, as costs and income are uncertain and can fluctuate. Using an NPV-based approach that discounts cash flows over time helps adjust for timing differences in payments and receipts. Box 2.2 describes adjustments that should be made to cash flows.

Investors usually spend money on exploration over many years before a discovery is made. Projects may take many more years to plan and construct before funds start to flow back to investors. At the same time, governments typically do not participate in the up-front investment and capital expenditure of a project. Nonetheless, they usually start to earn income in the form of royalties or nonprofit-related taxes once production starts or sometimes even before. In other words, governments usually start receiving some income long before investors receive regular profit distributions. Conversely, there are examples of investors who receive substantial cash flows during periods of high prices, while profit taxes to governments are delayed for a number of years because of generous depreciation provisions or tax holidays.

In IFC's experience, NPV measures will show a smaller share of a project's net benefits accruing to the investors when compared to ETR or *government take*. This is because of the typical pattern of investment, profit, and tax flows that projects face (as described above). In particular, projects with relatively low rates of return will show a notably smaller share of net benefits being received by the private sector when an NPV-based measure is used.

For more discussion on IFC considerations about estimating NPV, see Appendix B.

DRIVERS OF PROJECT OUTCOME AND FISCAL BENEFIT SHARING

In theory, host governments should collect 100 percent of the rent of a project (the project return above the investors' cost of capital) in the form of taxation and profit sharing. While this can happen, IFC sees it as too simplistic a benchmark. In judging the reasonableness of the government take, measured by the project's NPV accruing to government, IFC also takes account of the FRR, which in turn signals the level of risk investors are taking. A higher private take for a low-return project may be just as reasonable as a much lower private take for a high-return project. To form a view about the fiscal benefit sharing, IFC considers a number of factors that drive project outcomes.

Uncertainty About Prices And Other Project Inputs Is Material

A fundamental lesson learned in IFC's investment experience is that outcomes can be very different than expectations at the outset when projects are being planned and built. Any forecast of benefit sharing needs to reflect this uncertainty with key variables, including eventual production levels, costs, and prices, which can and do change frequently. Moreover, tax regimes may behave differently as profitability changes, and a country's terms may also change.

IFC usually estimates a range of possible outcomes for FRR, future profits, taxes, and NPV splits by running different scenarios with different values for key project variables (production levels, costs, price changes). The net fiscal benefit, or rent, of a project and how it is shared can change markedly from a "base case"⁷ forecast.

The variability in projected FRR gives IFC a measure of the risk that investors are taking. For example, for the natural resource projects that IFC finances, project rates of return are expected to be relatively high—in the range of 20 percent—which compares to around 10 percent for

6 IFC usually uses a 10 percent real discount rate, but may test against other rates.

7 While IFC looks at a range of outcomes using different assumptions, it usually works around a "base case" that uses a set of reasonable values for key project inputs and drivers.

BOX 2.2: Adjusting Cash Flows for the Cost of Time and Uncertainty

The financial benefits and costs of a project consist of a series of cash flows, both positive and negative, that can extend over many years. Typically, there are large outflows over a relatively short period at the start as investments are made to build the project, followed by a longer stream of net positive flows once production begins. In assessing the profitability of projects and in making a reasonable assessment of their benefit sharing, analysis should move beyond a simple addition of flows to adjust for the following two factors:

1. **Inflation:** Even modest levels of annual price inflation over long periods mean that the same amount of money in the future will be worth much less in real terms (what it can buy) than it is today. Proper analysis is needed to allow for these increases in inflation by using consistent assumptions about inflation throughout the project analysis (assumptions about costs, prices, financing costs, taxation treatment, and, ultimately, about converting net cash flows to real terms).
2. **Time value of money:** Funds that are received years in the future are less valuable than funds available today that could, for example, be spent or used for other investment. NPV-based analysis adjusts for these timing differences in a project's cash flows by discounting future flows. For example, if it is assumed that for every year a receipt is delayed, its value is reduced by 10 percent, then, in NPV terms, a payment of US\$100 to be received in three years is worth only US\$75.13 today.

Investors typically use as their discount rate a “cost of capital” return that markets expect investments to earn. This expected rate of return can vary by subsector and time period. For industrial companies, 7 to 11 percent in real terms after tax is common. The appropriate discount rate for governments is generally argued to be as low as 2 to 3 percent in real terms. IFC applies a common discount rate of 10 percent real to project cash flows to investors and governments. This is because revenues from natural resource projects are highly uncertain and a discount rate of 2 to 3 percent for governments is too low for many developing countries. Developing country governments are frequently short of investment funds and have uses for these funds with prospective rates of return well in excess of 2 to 3 percent.

There is always uncertainty around expected future cash flows from projects. Using a range of assumptions for key variables can test for alternative outcomes. How project returns and benefit sharing change with different assumptions and scenarios provides an important insight into the risks carried by the different stakeholders. See Appendix B for further discussion of these issues.

industrial projects, generally. In practice, IFC finds that for many of its projects, the risk of low returns or even losses for private investors are very real. Particularly in periods of low prices, while governments may receive over 100 percent of the NPV flows of a project, investors can lose money. As investors continue to pay royalties and other taxes, they may fail to earn sufficient profit for the capital expenditure they have incurred.

Where IFC has found investor returns robust across a reasonable range of assumptions about commodity prices, they are likely to be very profitable projects being taxed at very high tax rates.⁸ For example, some oil projects may face marginal tax rates of close to 90 percent. For such projects, governments would take 90 percent of the benefit of a rise in oil prices, but would also absorb 90 percent of the cost of a fall.

The timing of when deals are negotiated or evaluated in the resource price cycle can be very important. As it happens, in recent years, higher-than-expected commodity prices have meant that investors' profits have risen far beyond levels thought likely at the time the terms and conditions of some deals were set (Stevens and others 2013). As a result, deals that looked

reasonable at one point have come to look less so because revenues to the government have not increased proportionally to the rise in commodity prices. But the pendulum is swinging back, as more recently, prices have fallen, and together with sharply increased costs, companies' profits have been squeezed. In response to pressure from their shareholders, many companies have cut back on capital spending.

Exploration And Technical Risks Make Or Break a Project

Projects bear different types of risk, but exploration risk is particularly high. Historically, exploration is a very risky investment, with a failure rate above 80 percent.⁹ When assessing how project NPV is shared between government and investors, IFC usually includes past exploration costs as part of the project costs (see Appendix B).

The risk of exploration failure is also important in determining an appropriate rate of return for private investors. When countries offer unproven exploration prospects, companies will take on the high risk of exploration only if the terms for future production are attractive enough to cover expected losses on unsuccessful exploration spending. Companies seeking

⁸ Marginal tax rate is the rate of tax paid on each additional dollar of profits. For example, for most individual taxpayers, the tax rate on income increases as income rises. People with low incomes may be paying only 10 percent on each additional dollar of income received, but high earners may be paying 50 percent on each extra dollar.

⁹ Many oil industry analysts assume a success rate of only 1 in 10 for drilled exploration wells.

An important lesson is that outcomes can be very different from expectations at the outset when a project is planned. Any forecast of benefit sharing needs to reflect this fundamental uncertainty.

to develop known resources, or to explore where the potential exploration success already is very high, will not require as high a prospective reward, all else equal. In other cases, resources may be relatively well known, but even in these cases, the technical challenges of extracting the resource from the ground may be formidable and seen as high-risk.

Tax Structure And Other Terms Impact Investor Risk And Government Take

Tax structure will also impact the risks carried by investors. A tax structure with a combination of a high royalty rate that applies regardless of profitability and a low profits tax rate holds higher risks for an investor than an alternative combination of a lower royalty rate but a higher corporate tax rate. In the former, investors will have to pay royalties even in periods of low prices, when projects may be incurring losses. In such a poor profitability scenario, the government's share of NPV may be more than 100 percent.

In general, progressive taxation based on profitability is most likely to encourage investment by reducing investor risk. It should also help ensure governments a better share of high profits during periods of high prices. But progressive taxation of profitability creates more variability in government revenues than taxation of project income. This may seem more risky to governments. In practice, IFC finds such progressive taxation is more likely for oil and gas projects (although some oil taxation terms are very regressive). For most mining projects, royalty and corporate profits tax rates are usually fixed regardless of the level of profitability.¹⁰ As a result, the government's share of NPV usually declines as profitability increases from very low levels.

Governments may also take on risks that might otherwise have been carried by the investor. For example, when they make commitments to build and operate infrastructure that could have been built by the investor. They may

even sometimes take on demand and price risks if they guarantee the sale of project output.

Political Risk Creates Costs

Political risk increases investor's required rate of return and impacts the distribution of net benefits. Investors' perceptions of the political risks of long-term investment will vary by country, and investors will require higher rates of return for investments in countries seen to be at higher risk. Countries that are (re) opening their resource sectors to private investors have a limited track record of successful private-sector investment (and may even have a record of poor treatment of private investors). Such countries will usually initially need to offer more attractive terms to encourage investment, especially if they face competition from countries with a more established sector.¹¹

Investors' previous international experiences will strongly influence their expectations about the political risks projects will face in a particular country. Governments may be able to manage perceptions and effectively reduce risks, even in the short term. The Multilateral Investment Guarantee Agency (MIGA) helps remove possible obstacles to investment by offering political risk insurance for foreign investments in developing countries.¹² By being party to an investment, IFC can also signal support and confidence in a country to other investors.

Other devices can increase investors' comfort level. For example, contracts with long-term stability clauses for key terms with independent arbitration processes may help. However, such long-term "risk-reducing" contracts themselves could become a source of risk if they inhibit appropriate flexibility to deal with radically changed circumstances.

¹⁰ In recent years, linking tax and royalty rates to the rate of profitability has been the subject of much debate in the mining sector. Only a small number of countries have introduced a linkage between profitability and tax rates to increase the share of revenues and profits paid to government as profits increase.

¹¹ To rank countries for their overall attractiveness as investment locations, industry reports use various measures of the attractiveness of a country's resource base compared to its tax terms and perceived riskiness. For example, the Fraser Institute of Canada produces an annual review of the mining industry that uses surveys of mining investors' views of mineral endowments and government policy to determine the attractiveness of countries from a mining investment perspective.

¹² Concerns about investment environments and perceptions of political risk often inhibit foreign direct investment. Besides offering political risk insurance, MIGA also provides technical assistance to improve investment climate, and dispute mediation services.



As prices and profitability of resource projects have risen since the early 2000s, some governments have come under public pressure to renegotiate¹³ deals because of a public perception that they have not received a fair share of the windfall from higher prices. In such cases, they may assess the risk of collecting more revenues in the short run at the expense of discouraging new investment and revenues in the longer run. Several countries, among them Chile and Peru, have changed terms to recover a larger share of the benefits of higher-than-expected prices after a process of engagement and dialogue with investors.

How Was Access To The Resource Obtained? How Were Terms and Conditions Set?

The quality and transparency of award processes to resource development and how terms and conditions for exploitation were set can have a direct bearing on how net benefits are distributed. The likelihood of a fair deal is greater if access is granted in line with clear laws and regulations with limited space for project-specific exceptions or where there is transparency of process and vetting by the public. As noted below, unexamined, bilateral agreements may be more likely to be unbalanced and renegotiated or cancelled in the future. IFC examines in detail how resource rights were obtained.

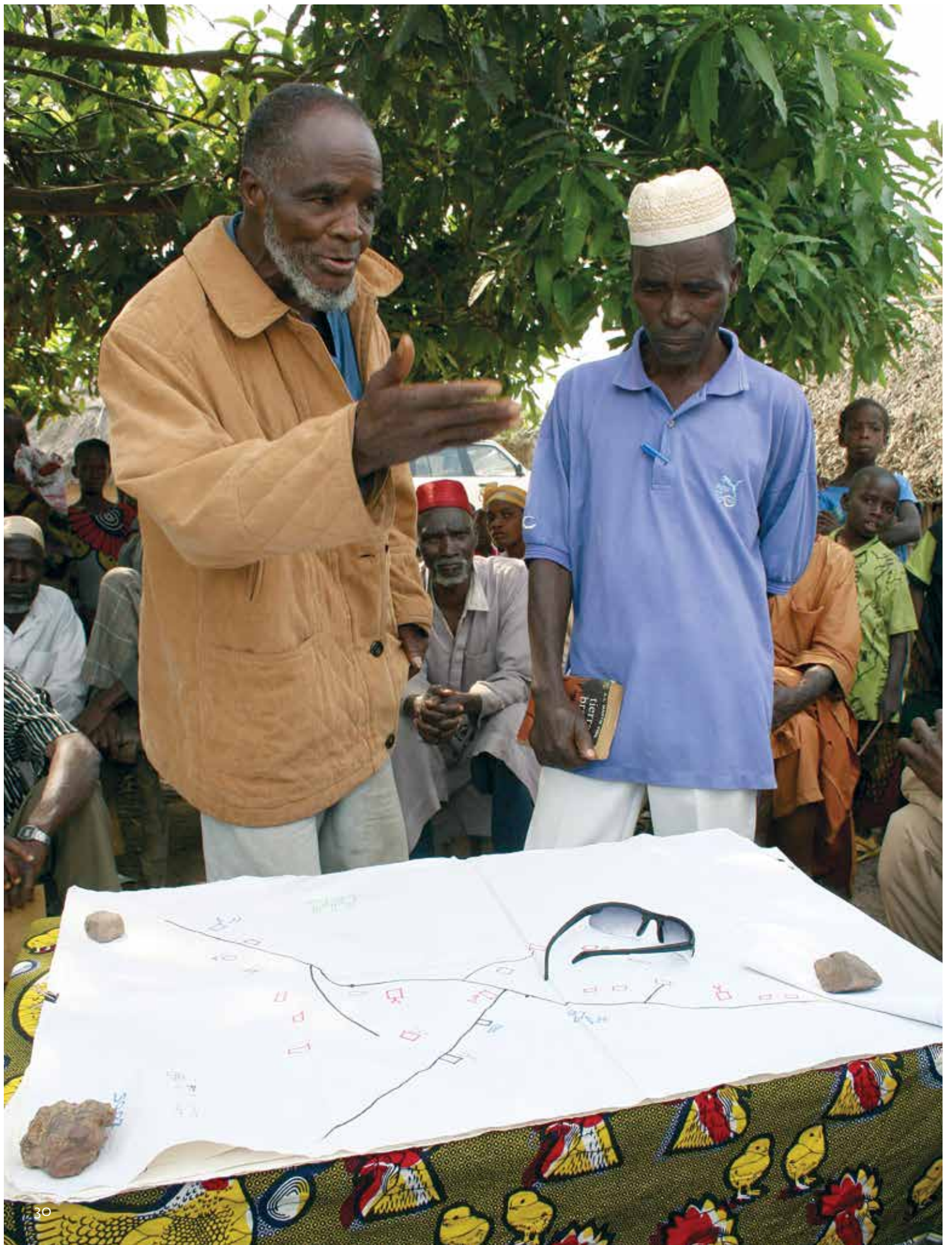
Three commonly used options for awarding rights to resources include:

- **Competitive processes**, where terms set by auction are a good indication that a reasonable deal was struck.
- **Bilateral negotiations**, where terms are negotiated between the investors and government, may offer a higher risk of a poor deal for the government. This is not necessarily the case, especially if such negotiations are conducted transparently within a clear policy and administrative framework with effective government oversight.¹⁴ This option requires considerable government skill and capacity, and commitment to transparency. Since 2012, as a condition of investment, IFC requires the publication of key terms at minimum and the current EITI standard also encourages publication of contracts.
- **Open access through the regulatory process:** For many natural resources (including a large share of mining projects), access is set by government policy and regulation. This is usually done on a first-come, first-served basis for access to exploration acreage that comes with preset standard terms with conditions for any subsequent production phase. The World Bank generally encourages this approach in the mining sector.

In practice, deals may involve a mixture of approaches. Even after an auction, some degree of final negotiation

¹³ For a discussion of some of the issues relating to changed circumstances, see Sachs, Toledano, and Mandelbaum (2013).

¹⁴ There has been a tendency to negotiate for confidentiality clauses, which ultimately is likely to not be in the interest of any contract party. In fact, there is a strong case that full publication is advantageous for all three main stakeholders: the public, the investor, and the government (IBA 2011; Rosenblum and Maples 2009). In recent years, more investors, governments, and industry bodies are advocating publication of contracts.



may be involved between the winning bidder and the government. Some open-access regulatory processes may also include a provision for negotiation of some specific terms.

JUDGING OVERALL REASONABLENESS OF FISCAL BENEFIT SHARING

Ultimately, IFC makes a judgment about the reasonableness of the fiscal benefit and cost sharing in a project after considering the various factors discussed above in its own financial modeling.¹⁵

In recent oil, gas, and mining projects, the share of project NPV (10 percent real) expected to accrue to government has averaged around 60 percent when using IFC “base case” assumptions. For mining projects, a higher-than-average share accruing to government usually occurs in projects whose profitability is projected to be relatively low and royalty payments are relatively important. For oil projects, a higher share going to government is more likely driven by the high taxation of profitable projects.

There are other studies or reviews of outcomes that IFC can draw on. A 2012 International Monetary Fund (IMF) study that reviewed a number of countries found that while there were significant variations and uncertainties about the data, governments seemed to collect at least 33 percent of the rent (net project NPV) for mining projects¹⁶ and 65 percent to 85 percent for oil projects (IMF 2012). Fiscal regimes that did not reach these levels were seen as potential concerns. There have been a number of studies in the mining sector that compare expected splits between the public and private sector across different countries, using hypothetical projects (Otto 2000, 2001, 2004).



CRITICAL AREAS FOR REVIEW

The outcome of a package of fiscal terms may look reasonable in overall NPV terms, but there may be a number of aspects that need further review. For example, IFC will look carefully if:

- There are terms such as extended tax holidays that will create long delays in significant government revenues, even if prices and industry profits turn out to be high.
- There are complex relationships between the investor and related companies, such as for the supply of material amounts of services or for the offtake of the project’s output.
- The government has taken on onerous and potentially risky obligations such as supplying infrastructure to the project, or difficult or expensive future funding commitments.
- The aggregate marginal tax rate is relatively low. Although benefit sharing is reasonable at low prices and profits, if prices and profits rise, the country will benefit much less than may be expected.

Finally, even a reasonable sharing of fiscal benefits at the national level will not necessarily mean that the deal is acceptable to all stakeholders. As discussed below, subnational levels of government and communities may also be concerned about the share of revenues they will receive.

15 The analysis is intended to capture all financial and economic costs and benefits and includes items that would not be captured by standard financial modeling. Examples are benefits such as the value of oil production taken directly by government under a production-sharing contract, or the supply of output to local users at below its economic value, or costs such as the supply of electricity by the government to the project at below-market value (Also, see Box 2.1).

16 Although, based on model simulations, the IMF believed that 40 to 60 percent should be achievable.



IFC Guiding Questions on Financial Benefit Sharing among Different Levels of Government

- ☐ Do any affected subnational governments have the right to tax natural resource projects, and if so, how?
- ☐ Does the central government have a formula for sharing the revenues it collects with other levels of government, how is the sharing determined, and how does it take place?
- ☐ Are the revenues that are expected to flow to subnational governments significant (particularly to the directly- affected local governments), and how widely are the revenues shared with lower levels of government and regions adjacent to the producing areas?
- ☐ Are there constraints on what the revenues can be used for?
- ☐ What are expectations of affected local governments and communities concerning the scale, timing, and volatility of revenues?
- ☐ Are reasonable transparency and accountability mechanisms in place to help ensure that revenues received by local governments will be properly accounted for?
- ☐ Do subnational levels of government have the capacity to effectively manage and use revenues from the project?
- ☐ Are natural resource revenues integrated into local budgeting, with a plan to use revenues to help the impacted communities?
- ☐ Are the developers, local governments, and other stakeholders collaborating effectively to protect communities and is engagement with communities productive?
- ☐ Where revenues flow to communities from voluntary payments by developers, are there conflicts of interest, governance issues, or concerns about fair treatment of neighboring communities; and how is spending evaluated by governments and communities?

CHAPTER 3:

Sharing Financial Benefits at the Local Level

SHARING AT LOWER LEVELS OF GOVERNMENT: STATE, DISTRICT, MUNICIPALITY

Subnational governments¹ (SNGs) and local communities have increasingly demanded a greater share of fiscal revenues and positive development benefits from resource projects over the last decade, which has been characterized by high prices and an investment boom in the mineral and hydrocarbon sectors. There are pros and cons for devolving the power to raise and manage resource revenues to subnational and even municipal levels of government. Criticisms of fiscal decentralization focus on weak capacity of SNGs to manage intrinsic volatility in revenue flows, and limited know-how of public financial management, planning and investments, and fragility of financial control systems. They also point to poor accountability of local authorities and corruption as a result. Moreover, complete decentralization of resource rents could deprive central government of funds necessary for providing national functions and could create geographical disparity and conflict.

In contrast, proponents argue that devolution would enhance allocative efficiency, as SNGs can more accurately determine needs and find appropriate solutions. Importantly, supporters argue that producing regions must be compensated for negative impacts and for the loss of a non-renewable resource which local communities feel they own.

Sharing arrangements in each country are a product of political processes, power dynamics, and economic and social context, and are influenced by the role the resource sector plays in the overall economy and its contribution to central government budgets. Because of the spatial concentration of natural resources in many countries, tensions can also emerge between SNGs about the access to fiscal revenues and their relative distribution between regions.

The main ways through which SNGs can access revenues from the resource sector is either by levying and collecting taxes directly on resource companies or through transfers of resource revenue from the central government.

Local Collection Of Natural Resource Taxes

In the vast majority of countries, the state or national government (or the people collectively) owns the minerals and consequently is the main authority that sets the terms for natural resource projects, collects tax revenues, and uses them for the purposes of government. SNGs are often not allowed to raise sector-specific taxes from natural resource companies, but experience varies.

In a number of countries, provincial or even lower levels of government levy their own taxes on natural resource projects that are within their boundaries. National constitutions may give ownership of mineral rights to SNGs, or a process of fiscal decentralization over time may have enabled lower levels of government with the right to levy taxes on energy and mining projects.

There are different taxation instruments that are deployed to raise revenues, some of which are specific to the resource sector while others are general tax tools levied broadly on all economic activity. The suitability of a particular tax instrument for local taxation and

¹ Subnational government is defined as all levels of government below the national (central or federal) level and includes the state or local government sector. A state, province, or region is defined as 'the largest geographical area into which the country may be divided for political or administrative purposes' (World Bank 2008).

collection depends on many things, including the administrative ability of local levels of government.

A study on fiscal decentralization and mining taxation surveying 23 countries finds that where local tax collection occurs the most frequently chosen instruments are simple in their administration. Local governments often levy taxes, such as royalties, and collect land-use or license fees and administrative charges. Local governments generally do not collect general taxes, including sales taxes and profit taxes. However, there are some exceptions. For example, in Canada and the U.S., some provincial governments do collect corporate income tax (Otto 2001). Also, export and import taxes, which may be part of international obligations, are usually reserved for the central government.

Some examples of countries where lower levels of government tax natural resource projects include:

- **Australia**, where mineral resources belong to the states, which set and recover royalties from production and other specific taxes such as land taxes, transaction taxes, and payroll charges.
- **Canada**, where the provinces also charge royalties, but in addition can impose a range of other taxes, such as a profits tax, excise duties, and payroll taxes.
- **Argentina**, where the provinces can charge royalties on mineral production and impose other taxes. For

example, in June 2013, the legislature of Santa Cruz province approved a controversial annual tax of 1 percent on the value of mineral reserves.

Local taxation will need to be compatible with the prevailing national resource development policies and consistent with national, state, or provincial taxation rules. Even when states or provinces are given the right to raise taxes, broader government objectives and actions may reduce the net impact. For example, when a central government has a policy to equalize revenues or spending among different regions, it may reduce its own funding and distribution of fiscal resources to resource-taxing states.

Revenue Allocation Of Natural Resource Tax Revenues To Local Government

In many countries, central governments transfer resource revenues to lower levels of government and some even to communities. They share the revenue in accordance with distribution rules that are vested generally in law or the constitution. The scale and importance vary widely. At one extreme, for example, only a small part of a single tax, such as a royalty, may be redistributed—although if distribution is down to the municipal level, even small amounts can be relatively important. At the other extreme, all revenue may be pooled and distributed between the central government and SNGs. Within countries, the approach to revenue distribution may vary between the oil, gas, and mining sectors. For example:

Sharing arrangements in each country are a product of political processes, power dynamics, and economic and social context, and are influenced by the role the resource sector plays in the overall economy and its contribution to central government budgets.

- **In Ghana**, for mining, all taxes are collected by the central government, and only 20 percent of the royalty on mineral production is redistributed to lower levels. The central government retains 80 percent; 10 percent is shared with the country's Minerals Development Fund; and 10 percent goes to the Office of the Administrator of Stool Lands, which further distributes to producer district, trade council and customary land title holders. Taxes on mining profits, which potentially should be much more important in times of high prices, are not redistributed.
- **In Mexico**, approximately 16 percent of oil taxation is shared among all states based on the general federal revenue-sharing arrangements. A negligible share goes to municipalities and the major part goes to the federal government.
- **In Nigeria**, revenues from oil account for more than 70 percent of national taxes. Thirteen percent of oil revenues are returned to producing states, with the balance shared according to an agreed formula for sharing federal revenues. Overall, the net result is that approximately 46 percent is retained by the central government. The balance goes to producing-region state governments and municipalities (approximately 22 percent) and to other state governments and municipalities (approximately 32 percent).
- **Peru** stands out for the extent to which the central government shares the mining revenues collected with lower-level bodies. The Canon Minero, which is a fiscal transfer system, requires that 50 percent of all mining taxes collected be redistributed to producing-area governments and producing-area municipalities.

Specific extractive-related revenues (royalties, for example) are often shared with producing regions using the derivation principle. This means that the allocation of revenue is commensurate with each region's contribution to mineral and hydrocarbon production. Allocations to producing regions can be sizeable, and in the absence of other regional fiscal redistribution or equalization mechanisms, this approach may lead to significant disparities in wealth and living standards and inequalities between producing and non-producing regions.

Some countries do distribute extractive revenues to non-producing regions (Bolivia, Indonesia, Nigeria), and in others even private individuals may be direct recipients. A review of seven resource-rich countries finds that countries where revenues from the natural resource sector represent a large share seem to be more likely to redistribute some of taxes collected to non-producing regions (Morgandi 2008). In addition, distributions may take account of disparities between regions by, for example, applying an equalization formula which considers the size of the population, income levels, etc.

Enhancing The Effectiveness Of Local Resource Revenues

Effective management and public investment can be challenging irrespective of the magnitude of revenue transfers to SNGs. Many central governments find the task of managing the flow of revenues difficult due to their volatility; and such tasks may be particularly problematic for local governments. Local governments may also find it difficult to dedicate incoming funds for future needs, especially in the face of immediate demands in the present. For example, funds allocated to finance a project's closure should be set aside when the project is operational to ensure the government's ability to pay for possible long-term environmental costs beyond the life of the project.

In response to this challenge, central governments may earmark part of extractive revenues to be distributed to regions for specific purposes. Despite their good intentions, this may further constrain the ability of local governments to use them as they need. In Peru, for example, revenue flows to producing regions are very large, but low municipal government capacity and demanding central government restrictions and procedures have resulted in large unused amounts of revenues or in the perception that revenues are not being used well.

To deal with weak local capacity, central governments may impose a social spending requirement on investors as a way to leverage the presence and project development skills of private companies. In Papua New Guinea, for example, the central government uses developers, in consultation with the local community,

THE PROS AND CONS OF CASH TRANSFER TO INDIVIDUALS

Some economists feel direct distribution of revenues to citizens is an effective way to reach them and can improve their lives (Arezki and others 2012). However, direct distribution only happens in relatively few places, such as Alaska in the United States. Sometimes, members of a particular community or group may benefit financially directly from projects, such as landowners in Papua New Guinea and members of aboriginal groups in Australia whose traditional land title is recognized. In Canada, First Nations members enjoy rights that can lead to royalties and other benefits flowing to them. In South Africa, some communities may have rights to an equity share in mines nearby.

Revenues that flow to groups can be substantial, and their distribution across current and future beneficiaries requires effective and transparent management. Traditional communities and individuals who have little experience with a cash economy may not successfully manage large amounts of funds and could easily end up worse off. There is the potential for vulnerable groups, such as women, to be further marginalized in cash transfer systems. Disparities among neighbors may raise issues, and cash distributions may generate dependency or credit problems rather than sustainable development. In general, cash flows will be a more effective form of benefit sharing if they are part of a broader package of development objectives and appropriate delivery mechanisms.



to choose and manage infrastructure projects. The costs of such projects are credited to the developers' payable corporate tax. Companies can use foundations and trusts as vehicles for such spending (Wall and Pelon 2011) to achieve wider stakeholder participation and transparency in decision-making, and in some cases, continuity beyond project closure.

To the extent that companies (or foundations) can manage social services and public infrastructure better than local governments and municipalities, this approach may be useful for dealing with the lack of capacity at the local level in remote, poor communities. However, there are also potential drawbacks. For example, investors may not be particularly competent at designing and managing a community project, and may focus on communities close to the project site, resulting in potentially unequal treatment between communities and local tensions. Also, the role of the private developer as provider of important services to communities is likely unsustainable (projects close, investors leave) and may inhibit the development of a local government's management skills and accountability. Increasing local accountability is an important development objective to ensure longer-term service provision and the ability to address post-closure issues.

In general, investments that are not fully integrated into municipal or regional development planning will be less effective. It is important for the private investor to work with the local government from the outset to engage the government strategically. This may include helping to build the capacity of local government partners. The greater the dependency on the role of private investors, the bigger the necessary adjustment at the time of project closure.

What Is A Reasonable Level Of Resource Tax Sharing?

Overall, the trend is towards greater access by SNGs and even communities to natural resource revenue. This trend is driven by fiscal decentralization generally, but also by demands from producing regions to harness more benefits of projects in their regions. There is no agreement on what an optimal revenue allocation between different levels of government looks like, and in all cases,

perceptions, and not necessarily facts, can be important in shaping debate and local attitudes.

IFC does not set any benchmarks for revenue 'take' across levels of government in its review of benefit sharing. Countries vary significantly in their practices. Clearly, the intention of existing legislation and regulations should be met. However, the extent to which the fiscal benefits of a project are shared with lower levels of government, including municipalities and communities, and how this should be done, will ultimately depend on local circumstances and the project or projects concerned.

Some governments argue that no special transfer of revenues to producing regions is justified. These governments hold that the most effective approach to governance and development is for national governments to collect all tax revenues and then use them to benefit the country as a whole, including producing areas. They feel that the producing regions will gain net benefits from projects in their regions, such as jobs, infrastructure, and economic activity, so no additional resources are justified. Other governments and commentators maintain that natural resource projects impose costs on producing regions, and that communities should be compensated adequately for the 'loss' of a non-renewable resource.

Investors usually contend that some revenue from projects should be given back to local governments and communities to help ensure that local people noticeably benefit and to address potential project needs. They may be concerned that affected communities do not experience positive benefits, irrespective of the underlying causes, and are less likely to support a project.

In the absence of obvious benefit flows to local communities from centrally collected taxes (i.e. in the form of new infrastructure or additional social services), investors' social license to operate will depend largely—and sometimes exclusively—on the company's own initiatives. The need for company initiatives tends to increase if local residents have low levels of confidence in their central governments. But even if central governments allocate fiscal revenues to the provincial or municipal level, investors have to take into account the time it may take before these funds arrive. Tax receipts via redistribution may lag behind project construction and the start of

operations by several years. Therefore, revenue flows will not be available to meet the immediate needs and expectations arising from projects, which may be greatest in the projects' earliest stages. Typically, such timeframe issues are not clearly understood by all stakeholders, leading to unmet, accumulated expectations over the years.

Whatever the level of sharing, several factors can support the legitimacy of a particular arrangement. Clarity of legislation, universal application, and transparency in implementation are as important as having effective and efficient systems for revenue distribution. Perceptions of unfairness and disparity between producing and non-producing regions can undermine legislation and any national consensus or shared purpose that may have been created. It is for these reasons that IFC places high importance on transparency, understanding, and accountability for the collection, management, and deployment of fiscal revenues.

IFC ADVISORY SERVICES— REVENUE MANAGEMENT

IFC's approach is to accept national government policy and practice, and it will support projects in which no revenues are collected by, or explicitly distributed to, local governments. However, fiscal transfers can be significant and, if well invested, have the potential to significantly change the level of public infrastructure, the quality of service provision and improve people's lives.

IFC's revenue management (RM) work seeks to enhance the potential impact of extractive-related revenue flows that are, by legislation or accepted practice, transferred to local-levels of government that have decision-making power over the funds they receive. IFC with support from donor partners and extractive companies provides technical assistance to local governments (municipalities) to increase well-targeted public investment while also building the capacity of communities to monitor revenue flows and the effectiveness of public investments. These programs have shown positive results. Many municipalities typically adopt good practices along the investment management chain and improve decision-making, resulting in better resource allocation to meet the basic needs of their communities, i.e. water provision. Local government officials can track the performance of their investment portfolio and can ensure that future

investment decisions are informed by lessons from successes and failures.

To enhance transparency—and ultimately the accountability of local government—IFC works with key local players, such as the media, civil society leaders, universities and others on the monitoring and tracking of investment flows. IFC helps build knowledge and understanding of good public investment practices. As a result, local media becomes more active, reporting regularly on the use of resources. On the back of local media coverage, citizens are able to ask more informed questions and provide feedback to their representatives on investment decisions. Ultimately, this leads to a more informed and more transparent dialogue between local governments and their constituencies as well as greater social accountability. Local governance improves, as captured by the IFC's Good Governance Index.²

In Peru, IFC has long-standing programs with other partners to increase awareness, accountability, and capacity at the local level. IFC has worked with local governments, communities, and civil society to take a “push-pull” approach—helping local governments increase their capacity to access and use funds and, in parallel, increasing awareness in the wider community with the aim to hold local government to account for prudent management of resource-related revenue.

Fifty percent of central government tax revenue from mining are redistributed from the central government to different levels of local government. At the municipal level, the revenues are relatively large in relation to other sources of income. However, municipalities have had difficulties designing projects that satisfy public investment requirements, limiting their ability to use funds.

Some of the results of IFC's ongoing work include:

- Quality of investment management improved on average 40 percent in 30 municipalities (as measured by IFC's municipal investment management assessment methodology).

2 <http://mim.org.pe/menu/MetodologiaPreparacion>



- Authorities monitor the progress of prioritized projects to ensure necessary coordination and timely decision making. There were 1,041 projects worth US\$390 million closely monitored in 2013. These projects register at least 10 percent more progress than other projects.
- Seventy five percent of the multi-annual programs are aligned with priority areas (e.g. health, education, water and sanitation, roads, etc.)
- In 2012 and 2013, municipalities completed 140 projects addressing the population's basic needs, benefiting 183,466 people.
- A web-based platform provides permanent access to information and expert advice. There were more than 19,000 registered users, 22,000 visits per month, and 32,923 issues resolved.

Disparity between producing and non-producing regions can undermine national consensus and a country's shared purpose.

BOX 3.1: Lessons Learned from IFC Revenue Management Programs³

Building Local Government Capacity—What Works?

- **Start with the big picture.** Government officers often act in silos. They need a basic understanding of the overall framework for public financial management and their role in the process.
- **Aspire to changing behavior.** Focus should be on how to change day-to-day behavior in key areas through well-structured guidance, tools, and practical examples of good practice.
- **Concentrate capacity building efforts in a few key areas.** Identify and concentrate on the key bottlenecks. Focus on how things can be done better by sharing proven good practices and support their adaptation through simple tools.
- **Develop trust.** Provide practical advice and solutions.
- **Be mindful that absorptive capacity is weak.** New practices and requirements need to be phased in and targeted so as not to overwhelm already under-capacitated local governments.
- **Capacity building has limits.** There are limits to how much know-how small municipalities will be able to absorb and maintain in-house. Furthermore, some expertise might only be needed occasionally. The important point is not necessarily to have the expertise in-house, but to identify and have access to it when needed.

IFC REVENUE MANAGEMENT—OBSERVATIONS AND LESSONS LEARNED

While building the capacity of local governments is partly the responsibility of central government, companies operating locally have an opportunity to engage and help improve local government skills to manage and invest fiscal revenues. Companies and local authorities ultimately share a common goal, namely that resources paid are invested wisely to benefit the local population. Increasing local benefits may help local authorities to secure their political mandate and support a company's social license to operate. Moreover, helping local governments to invest wisely and provide essential public services alleviates the pressure on the private

sector to provide public goods as a substitute for an underperforming public sector.

In the absence of local government capacity, companies often agree to invest in services for local communities in education (building or improving schools), sanitation (building water reservoirs, sewage systems, wells, latrines, etc.) or health (building or improving sanitary posts or small hospitals). While this can make sense where local government is underfunded, it may not be the best alternative when they are receiving significant fiscal transfers. Building capacity of local government is more sustainable and less likely to undermine democratic processes. A by-product of working with local government is the possibility of forging a

BOX 3.1 (continued)

Creating Civil Society Demand for Good Governance—What Works?

- **Address information needs.** Reliably answer the questions people have on their minds. Establish permanent access to information about the project. Disseminate information through different channels to reach different groups. Translate transparency into accountability, by accompanying information with education about the project, e.g. the investment cycle, investment decision criteria, etc.
- **Disseminate information consistently and in small doses.** Information must be accessible and in a format that can be easily presented and used by the media.
- **Focus on capacity building and dissemination of accurate information, not on advocacy.** Emphasis should be put on building the capacity of local leaders, media, and surveillance committees to track, monitor, and disseminate data accurately. Moreover, they must have an understanding of key aspects of public financial management and investment to provide adequate feedback to local governments, making them aware of the population's concerns and of how their performance is viewed. Accuracy in reporting and factual engagement with authorities has proven successful in raising responsiveness and accountability of local government.
- **Make use of comparator data.** For example, IFC's Good Governance Index provides performance data and can be used for providing feedback to local governments.

3 Building Local Government Capacity: <https://vimeo.com/111179419>; Creating Civil Society Demand for Good Governance: <http://vimeo.com/109164586>

more collaborative relationship to manage risks and opportunities over time.

Through its revenue management programs, IFC has gathered useful lessons with respect to building local government capacity and promoting civil society demand for good governance.



CRITICAL AREAS FOR REVIEW

IFC takes a country's revenue distribution regime as given and does not treat any one regime preferentially in its benefit-sharing assessments. However, IFC will review the implications on benefit sharing in more detail if, for example:

- There are strong local expectations for specific revenues and benefits, but no provisions for them.
- Revenue distribution occurs, but there is conflict among stakeholder groups with respect to access to and adequacy of compensation.
- There are allegations of corruption and mismanagement of funds at the local level.
- Local-level capacity to manage and invest fund is very weak.



IFC Guiding Questions on Project Impacts on the Local Economy

☐ What is the potential impact of the project on the local community and country in terms of linkages to local suppliers, to local off takers or purchasers of product, and local employment?

☐ What are the expected employment multiplier and local spend of the project?

☐ Has the investor compared project demand for skills, materials, and services with the available local human and business resources, including the capacity of local suppliers?

☐ What are national government requirements for local procurement and employment? Are they realistic? Do they offer reasonable returns for any resulting extra costs or tax reductions?

☐ Are there potential areas for competitive local supply and import substitution, and are programs in place to develop local suppliers, including financing sources? Are local businesses aware of opportunities?

☐ Are the investors' recruitment, skills training, procurement, and supplier development plans aimed at enhancing local participation? Are they consistent with community expectations and aspirations for development? Are they integrated as appropriate with government programs? Does a review of skills and procurement demand across the industry exist? Does a sector wide approach to building local capacity exist?

☐ Have the investor's regular international suppliers assessed the prospects for local supply and subcontracting, joint ventures, and skills upgrading?

☐ Is there the potential for all investors present in a particular location to work together and optimize the development of the local supplier industry?

☐ What is the potential for competitive local processing of production from the project? Can, for example, part of production, including oil and gas, be economically used locally and help develop downstream industries or provide more secure and competitive local energy access?

☐ Are there opportunities to meet the infrastructure needs of the project in a cost effective way and have local communities and the economy generally also benefit? Is there scope for increased coverage of infrastructure services at reduced costs? Is there potential for a collaborative approach to jointly serve community, national, and project needs?

CHAPTER 4:

Linkages to the Local Economy

Many countries and host communities see the natural resource sector as a potential vehicle for local economic development through job creation and local sourcing, as well as construction of shared infrastructure. While there are good examples of developed and developing countries whose resource sectors have been harnessed for economic growth and sustainable development, one persistent criticism of modern capital-intensive and technologically-advanced resource projects is that they can be “enclave” projects—that is, projects with weak links to the rest of the local economy. Another criticism is that they generate limited benefits from the relatively small numbers of jobs they create.

The impacts of natural resource development will vary by economy and project. Australia, Canada, Norway, Sweden, the United Kingdom, and the United States are well-known examples in the developed world of sustained economic contributions by the natural resource sector. Brazil, Chile, Mexico, and South Africa are four examples of developing countries whose local resource sectors have generated large linkages with the rest of their economies and directly and indirectly account for significant numbers of jobs.

In many cases, jobs created in the oil, gas, and mining sectors are highly skilled and relatively well paid. In addition to the workers the sector employs directly, projects indirectly create more jobs through the multiplier effect from project spending on suppliers of goods and services.

ENHANCING LOCAL PROCUREMENT

Although many projects require products and services from specialized international suppliers, there is often opportunity for increasing local content. Local suppliers and subsidiaries can be competitive providers of products

and services needed by projects. Such services may include camp management, civil works, and equipment maintenance. The supply of local consumable goods—ranging from provision of food to raw materials that can be used in manufacturing uniforms and personal protective equipment—also offers the potential for establishing local production capacity and economic development.

In general, the larger and more sophisticated the economy and the bigger its existing resource sector, the larger the relative role of local suppliers is likely to be. Very small, poor, non-industrialized countries with new resource sectors are less prepared to develop strong linkages between natural resource projects and local suppliers—at least, not quickly. But even relatively small linkages into local economies with their multiplier impacts are welcome where there are few if any comparative opportunities in manufacturing and services.

Governments may be able to broaden linkages through appropriate government policies (Tordo and others 2013). For example, the governments of Norway, the United Kingdom, and Australia have promoted their oil and gas services sectors to exploit the new opportunities that emerged as large-scale projects started up in their countries. A mix of reasonable requirements for local participation and initiatives to develop local skills and capacities with private actors worked well.

Local content policies need to be compatible with the scale and prospects of the country’s resource sector and the existing skills in the economy. Unrealistic expectations and sudden requirements may create uncompetitive suppliers with an uncertain long-term future, impose unnecessary costs on projects impacting their profitability, possibly reduce the number of projects undertaken, and ultimately reduce the country’s tax revenues.

RESEARCH FINDINGS ON EMPLOYMENT AND MULTIPLIER IMPACTS

A World Bank study on the linkages between mining and the economy found that in Chile, the sector accounts for over 700,000 direct and indirect jobs, or approximately 10 percent of the workforce (McMahon and Moreira, 2014). In Peru, the estimated number of jobs created by its mining sector was similar. Another study found that the multiplier impact—the total number of jobs eventually created from one job in the mining sector—can be 10 or more (Apoyo 2009). An assessment of the Ahafo mine in Ghana found that the employment multiplier was 28 (Kapstein and Kim 2011). Allowing for the impact of government spending of mining tax revenue, the number of jobs created would be even higher. Another World Bank study found that, in Zambia, 2,448 direct jobs in mining led to 26,850 jobs overall (World Bank, 2011).



Governments will not maximize value from local content programs if the overall business environment for the private sector is poor and hampered by unnecessary barriers to competitive business development. Before imposing costly local content- or material-processing programs on the resources sector, governments should work with the private sector to understand the most pressing impediments and remove barriers to private-sector growth.

Investors can generate linkages and support local economic development if they proactively identify ways, individually or collectively, to grow the capacity of local suppliers. In practice, for a successful program to increase local content, industry engagement with government and other partners is essential.

IFC has worked with companies for over a decade on strengthening linkages and ensuring the participation of local SMEs in their supply chain (Figure 4.1). Success of such efforts depends on strong investor commitment, partnerships between other purchasing companies, industry associations, government and other stakeholders. A comprehensive approach to local business development is necessary. This includes training, support to help bid for and meet competitive company requirements, and ability to access financing.

A recent example of an IFC supplier development program is a project being implemented in Guinea with Rio Tinto in the context of the company's Simandou Iron Ore project (Box 4.1). The 'Local Supplier Development Program' builds on the successful implementation of a pilot that focused on basic management capacity building and training. The follow-on project aims to enhance the development impact of the Simandou project and Rio Tinto's operations.

PROCESSING AND USING NATURAL RESOURCES

The processing of raw materials (beneficiation) and use of locally produced resources can also foster broader development and impact overall benefit sharing. However, as with local content, industrial processing and beneficiation will be a net benefit only if they make economic sense given the product, the markets, and the country's comparative advantage. A number of oil-exporting countries have used their national

oil companies to successfully develop oil refining and chemical projects based on the quality of their resource, location, and scale. However, local processing that is uneconomical is a high-cost way to create relatively few jobs, will impose additional costs on other local industry, and will not be a good basis for sustainable diversification and growth.

For energy, in particular, the high cost of imported fossil fuels often means that the development of competitive local energy resources, such as oil, gas, and coal, can make a major contribution to reducing the cost and increasing the security of local energy supplies for local businesses and consumers.

PROVIDING AND SHARING INFRASTRUCTURE

How the infrastructure associated with natural resource projects is developed can have important impacts on benefit generation and benefit sharing. Most projects will require supporting infrastructure for their construction and operation, especially those in remote undeveloped locations. A major mine will need roads, rail, ports, airports, power and other fuel supplies, and water. Oil and gas developments may require long-distance pipelines, ports, and terminals, as well as supporting processing facilities and access roads. In some cases, the costs of needed infrastructure can be substantial and, if built by the project investor, can account for the major part of a project's costs.

Lack of suitable infrastructure or barriers to building new infrastructure will deter new investments in relatively poorly-developed regions. The cost of needed infrastructure is often beyond the financial capacity of any one investor or government, particularly in Africa, where big resource finds require bulk transportation. Where demands and capacity to pay can be pooled between investors and users, governments, investors, and communities could all gain. Shared arrangements should be equitable and appropriately regulated.¹ Natural resource projects can play a critical role as anchor customers and facilitate the construction of large

1 See Toledano et al. 2014 for a review of the issues and country cases.

infrastructure that would otherwise not happen or be long delayed.

When infrastructure, such as a road or railway, can be built by a project for its own needs, it may be able to be used by others at no or relatively low additional cost. In other cases, there may be extra costs to expand capacity beyond the needs of the project. However, if these extra costs can be shared equitably with other users, then both other investors and the country can benefit from greater access to infrastructure at a lower cost.

Where projects do buy infrastructure services from the government, especially in the case of smaller, poorer countries, the value of the contract can be relatively large. Governments should charge an economic price for these services. This price could change over time, and long-term contracts and periodic renegotiations should recognize this. For example, over time, the most economical source of a new power supply in a country may migrate from low-cost hydro to higher-cost fossil fuel. As this migration happens, the economic value of the power supplied is likely to increase substantially, and governments that are committed to supplying for long periods at a low price will suffer economic losses.

Governments may take on some of the risks of the project if they commit to building new infrastructure primarily to supply a natural resources project. For example, project construction may be significantly delayed, or the project may fail and close down. Governments and developers need to understand which risks are being allocated and who is best equipped to carry or mitigate these risks over time.

In some recent resource project deals in Africa, governments and investors have agreed that in lieu of an up-front payment for access to a known resource or for lower future tax payments, the developer will build and operate infrastructure for the country. Whether these arrangements are a good deal for countries will depend on the true value of the infrastructure being built compared with available alternatives, such as collecting more tax or profit revenues and building the infrastructure independently through competitive bids.

At the community level, projects often provide small-scale infrastructure investments, such as power for the local

community, local roads, water supply, and school and hospital buildings as part of their community programs. Power links to communities often happen through the installation of renewable power sources² (solar, wind, hydro), which are also increasingly sought after by the mining industry to complement, if not substitute for, more expensive sources of power (diesel generation) or unreliable, erratic, and often insufficient grid power (Ernst & Young 2014).

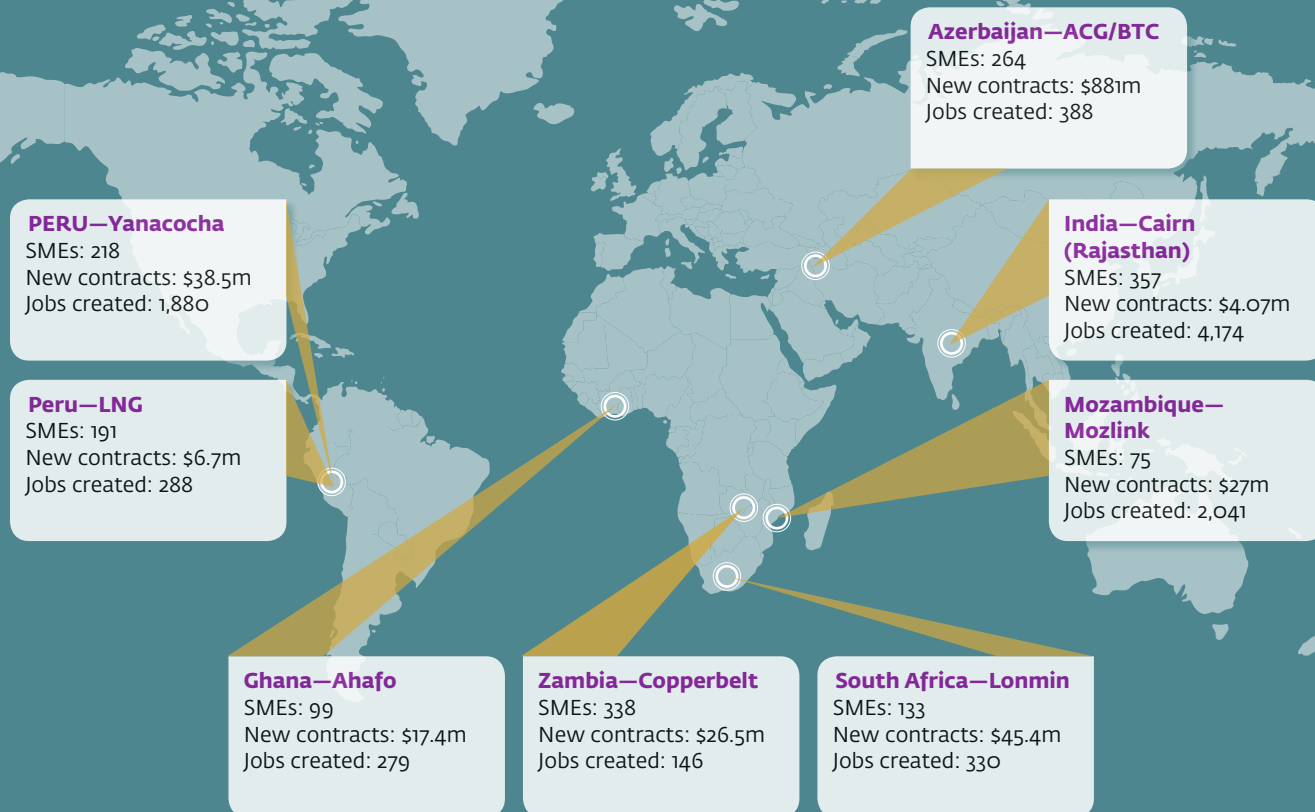
In some cases, the infrastructure investment may not turn out to be very productive or of much benefit if it is not part of an integrated approach that ensures that the teachers, nurses, doctors, and medicines needed to operate services will be available. Even more basic infrastructure investment, such as for roads, needs to be integrated into an appropriate process for maintenance and repair if the benefits are not to be quickly lost. Close coordination with and support for relevant government agencies may be needed. In addition, there will be issues about how nearby communities are treated, the approach to growth in demand, and the sustainability of services following a project's closure.

LOCAL PRIVATE SECTOR OWNERSHIP

Foreign investment flows bring huge advantages to developing countries and are key contributors to their development. International investment flows are a large part of the oil, gas, and mining sectors in particular, and there are many enduring and successful relationships between foreign resource developers and countries. However, foreign ownership can be politically sensitive, especially in times of high prices, when there are concerns about whether the country is getting a fair share of the benefits of developments. Local investor involvement in the sector—directly in production or in businesses that supply production projects—is seen as one way that countries can benefit from resource development. Local investors may share in profits, but local ownership and active investment may also be important for the growth of local firms and entrepreneurs.

2 Examples include projects by Randgold Resources (Kibali); IamGold (Rosebel Gold Mine); African Barrick Gold (projects in Tanzania); Barrick Gold (Punta Colorado mine); Antofagasta plc.

FIGURE 4.1: IFC's Experience in Strengthening Local Businesses' Linkages to Natural Resource Projects



Note: *In most cases, numbers of jobs created are estimated/extrapolated and subject to significant uncertainty.
ACG/BTC = Azeri-Chirag-Gunashli/Baku-Tbilisi-Ceyhan; LNG = liquefied natural gas; SMEs = small and medium enterprises.



BOX 4.1: IFC Local Supplier Development Program—Rio Tinto Simandou Iron Ore Project in Guinea

To optimize its economic impact on local communities, Rio Tinto is developing its local supply chain. However, local businesses lack technical and management skills, consistency in delivery, and an understanding of international firms' requirements for health, safety, and environmental standards. As a response, Rio Tinto and IFC launched the Local Supplier Development Project in late 2012.

The Objective of the Program

The objective of the program is to support the Simandou project to: i) increase local supplier capacity to overcome weak organizational structures, lack of management and low levels of financial and technical skill, and poor access to markets and finance; ii) create market opportunities by adapting procedures and policies of the Simandou project for easier local sourcing from small and medium-sized enterprises (SMEs); and iii) meet expectations for local content despite the limited capacity of the local private sector. Given the economic fragility in which the Simandou project is being developed, expectations are high from the government and the host population that the project will be a catalyst for local private-sector development.

The program is designed to focus on both national suppliers in Conakry and local suppliers in the 10 prefectures impacted by the Simandou project. The program consists of various interventions that are targeted at Rio Tinto, local SMEs, and other actors involved in the cultivation of local entrepreneurship. IFC provides ongoing technical support to Rio Tinto's different operational departments to identify local supply opportunities, particularly SMEs that are active in priority sectors, such as earthworks, agriculture, construction, and transport.

Program Interventions

The program is also training SMEs on financial and management skills using Business Edge, an IFC-backed business training program, as well as specific topics relevant to the mining sector, such as health, safety, environment, and others. Particular emphasis is put on identifying and developing women entrepreneurship opportunities. To leverage expertise widely, local training firms and independent trainers are certified in the use of IFC Business Edge methodology.

Preliminary Results

Thus far, local content principles have been developed and included in the investment framework and a number potential opportunities to contract local businesses have been identified in priority sectors, such as road maintenance, earthworks, catering and transportation. The program created a local training market through 17 local consulting firms who have become Business Edge franchises in Guinea. Over 200 SMEs have been trained and coached, and a database of over 400 SMEs is in place to facilitate interactions between the mining sector and local businesses. Moreover, the program set up an enterprise center in the city of Beyla to provide business services and facilitate communication between local suppliers and Rio Tinto. The current phase of the program has resulted in at least 61 SMEs reporting improved performance with US\$286,000 in increased revenue and 131 jobs created or maintained.

BOX 4.1 (continued)

Lessons learned

A close partnership is necessary to deal with changing circumstances.

Soon after the launch of the supplier development program, development of the Simandou project slowed and construction temporarily stopped. Partners were able to make quick amendments to the program, including a prioritization of women entrepreneurship, to ensure continued implementation.

Dedicated personnel are required. Effective and strategic program coordination and planning depend on dedicated personnel who are also incentivized for successful implementation and delivery. Human and financial resources must be set aside.

Outreach must be targeted at women. Unless the program specifically targets women in its advertising or holds events for women only, women are unlikely to be reached effectively. Despite expectations, general marketing and advertisement to the general supplier population has attracted few women. Even women-owned SMEs frequently send male participants to trainings. Training curriculum must contain modules that specifically address women entrepreneurship needs.





When the sector and the local economy are both large enough, local companies may emerge naturally and over time move up the value chain. However, governments sometimes encourage local investors to work with local companies by offering preferential access to resources or through compulsory local partner rules. As with local content and processing requirements, government intervention may carry economic costs if local private investors gain access to state resources at prices below prevailing market rates. Poor policies could lead to the emergence of passive local investors whose access to secure investment opportunities are ensured through their political connections rather than business acumen.

There may be differences in the amount of taxes government will collect from local compared to foreign investors. Given the complexity and multiple objectives of tax structures, these differences are likely to vary, depending on specific circumstances. For example, the transfer of ownership between local investors is more likely to be captured by capital gains tax provisions than the sale of an asset by one foreign investor to another. Foreign investors, however, are more likely to pay withholding taxes on dividends and interest. In practice, though, both types of investors will try to offset any perceived costs and possible advantages of local compared to foreign ownership through their corporate structures.



CRITICAL AREAS FOR REVIEW

During the assessment, IFC looks for potential barriers to a project's potential to extend its impacts beyond its revenue contribution and its immediate economic benefits. These barriers include:

- Poor links to the local economy, with no plans to strengthen these links for project operation and construction
- Unrealistic government requirements for local content and employment that are not feasible within the time expected and that may distract from more realistic approaches
- Local processing/beneficiation requirements that create relatively few jobs at significant cost
- A poor overall business environment that stifles the capacity of local business to respond to opportunities
- Weak recruitment and training plans to increase local participation in job opportunities.



IFC Key Guiding Questions on Project Environmental and Social Impacts

- ☐ Have project environmental and social risks and impacts been identified and evaluated? Has a mitigation hierarchy been adopted to anticipate and avoid risks and impacts to workers, affected communities and the environment? Where avoidance is not possible, does the mitigation hierarchy minimize and compensate/offset risks and negative impacts? Are appropriate strategies and processes identified to manage adverse impacts and enhance positive impacts?
- ☐ Are national requirements and IFC Performance Standards (IFC PS) on Environmental and Social Sustainability being observed?
- ☐ Are investor commitments to Good International Industry Practice (GIIP) and the IFC PS credible? Does the project have the appropriate policies, staff capacity, and systems in place to manage operations in accordance with these standards?
- ☐ Has a Stakeholder Analysis been conducted? Have all communities and other stakeholders likely to be impacted been identified? Have baseline surveys been conducted to gather information about concerns and expectation to guide environmental and social management plans, community development plans, and future monitoring and evaluation? Is it understood how different stakeholder groups within communities and the country will gain or lose from the project?
- ☐ Has a Stakeholder Engagement Plan (SEP) been devised and implemented? Is there an ongoing process that will run throughout the project life to ensure effective participation by all affected stakeholders, including local communities, civil society, local businesses, local and national government, and investors?
- ☐ Is there an appropriate system of community and public reporting on outcomes and are there appropriate independent oversight, monitoring, and evaluation mechanisms in place and sufficiently resourced? Is there an independent grievance mechanism?
- ☐ Are individual and community issues addressed and community consultations underway to inform, consult, and understand concerns? Are opportunities for community feedback and participation included?
- ☐ Is there an agreed community development plan, consistent with the project and local government plans in areas such as jobs, entrepreneurial opportunities, infrastructure and services? Are local government and others engaged to support sustainability and leverage impacts?
- ☐ Does the community broadly support the project? If there are groups that do not support the project or if there are concerns, are these understood and appropriately addressed? Is an easily accessible and effective grievance mechanism in place?
- ☐ Are there processes and resources available to address long-term issues, such as closure, and unforeseen, but costly risks, such as natural disasters? Are there cumulative impacts that need attention?

CHAPTER 5:

Environmental and Social Benefits and Costs

Resource projects have social and environmental impacts, the scope and nature of which will depend on the project, the location, and the social, economic, environmental, and cultural context. This section provides an overview of how IFC looks at a project's social and environmental impacts and opportunities as a part of an overall benefit-sharing review. This section is not intended to cover all of the social and environmental issues that need to be considered by governments and others when setting policies, permitting developments, and managing projects.

MEETING IFC ENVIRONMENT AND SOCIAL PERFORMANCE STANDARDS

IFC requires that its appropriate environmental and social standards be met by all the projects it supports (IFC 2012). The Performance Standards are a risk management tool and are not intended to be prescriptive from a procedural perspective. They provide a framework for clients seeking IFC financing for their projects, with guidance on how to identify, avoid, mitigate and manage risks in a sustainable way, including stakeholder engagement and disclosure of project-level activities. Together, relevant requirements of the eight standards should be met throughout the life of an investment by IFC, with actions and milestones agreed upon between IFC and its clients. The Standards define the principles by which projects are planned and implemented to avoid negative material impacts where possible, or to offset and compensate for them where not.

The Performance Standards form the basis of the Equator Principles,¹ and thus are used as environmental and social requirements for a large number of the world's project financiers. Other agencies, both public and private, have also adopted the Performance Standards on a voluntary basis. Governments, donors, NGOs, and reputable private investors also have their own requirements. IFC requires a project's compliance with all local laws.

Ground Rules For Managing Impacts

Projects have negative and positive impacts on people and the environment in ways that differ by country, region, context, and project. In order to ensure the effective performance management throughout the project, IFC requires its clients to carry out an integrated assessment of the environmental and social impacts, risks, and opportunities of the project, and affected stakeholders must be given access to project-related information. Communities and stakeholder groups generally have strong views about whether particular impacts or risks are material to them. IFC views their participation in meaningful consultation—and even appropriate inclusion in decision-making—about projects that impact them as a vital part of assessing project legitimacy and fairness. Formal consideration in decision-making is required in projects with potential significant adverse impacts, and all projects affecting Indigenous Peoples. This is referred to as Informed Consultation and Participation (ICP) in IFC's Policy on Environmental and Social Sustainability. IFC assesses whether this process has been undertaken

1 "The Equator Principles (EPs) are a credit risk management framework for determining, assessing, and managing environmental and social risk in project finance transactions, which often are used to fund extractive industry projects globally" (IFC 2014).

FIGURE 5.1: IFC Performance Standards



PS1:

Assessment and
Management of E&S
Risks and Impacts



PS2:

Labor and Working
Conditions



PS3:

Resource
Efficiency and
Pollution Prevention



PS4:

Community
Health, Safety
and Security



PS5:

Land Acquisition
and Involuntary
Resettlement



PS6:

Biodiversity
Conservation
and Sustainable
Management of
Living Natural
Resources



PS7:

Indigenous
Peoples



PS8:

Cultural
Heritage

and whether there is ‘broad community support’ (BCS) for the project in the affected communities. It also gauges whether community support for a project is possible and/or precarious over time. This is prudent given the increasing importance of community attitudes and their capacity to delay or even stop projects, triggering high costs to investors (Davis and Daniel 2011). In practice, enlightened investors treat the ability to deal with community concerns as a competitive advantage rather than as a defensive measure. For natural resource projects, IFC has for some time required that impacted communities should benefit and that they broadly support the project (Box 5.1).

Assessing Environmental And Social Impacts

At the local level, environmental and social impacts intertwine with and influence culture and livelihoods. Environmental and social impacts may be positive or negative. Generally, projects will be considered from the perspective of their potential environmental and social costs, and focus will be put on identifying, avoiding and mitigating negative effects and risks.

Typical risks and key issues are summarized below, followed by a description of positive impacts that are also seen from natural resource development.

The *physical environmental impacts of projects* may be concentrated in a single area or reach across greater territory, depending on the scale and scope of operations including construction and infrastructure. Land will be used for mining, processing, waste disposal and ancillary infrastructure sites. Water will usually be used for production, and any effluents must be appropriately managed with recycling if feasible. Projects may bring noise, traffic, dust, emissions, and management of sites to avoid pollution during construction, production, and processing is critical.

Water may be a highly contested resource and competition over its access and use must be managed holistically from both an environmental and social perspective. Access, quantity, and quality issues upstream and downstream can cause increasing concern and often create conflict across diverse topographies and types of projects. Like land, water rights are organized differently according to local laws and custom.

While companies need water for exploration and processing, host communities and governments are becoming more cautious and proprietary, particularly given uncertainties of climate change, catchment-level water data, and potential cumulative impacts across industries. Many states have laws providing that people and animals must receive water ahead of industry if a shortage occurs. Even companies operating at best-in-class standards are subject to political pressure and social anxieties (regarding water) that can be strong enough to shut projects down or spark costly delays. As companies have learned to manage their water footprint more carefully inside the fence, they now must grapple with how to collectively manage catchment-level concerns with diverse stakeholders. A full understanding of water risks is still evolving. However, companies that adopt policies and practices and are recognized water stewards will have competitive advantages through cooperation with government and stakeholders as well as better managed costs.

Developments may also bring indirect or induced impacts. For example, the construction of access roads enables easier transport for people to move into the area for settlement or logging. There may be low-probability but high-cost risks, such as a major oil spill from an oil platform blowout or the uncertain long-term cost of mitigating acid rock drainage from a mining project.

The *social impacts of projects* on communities can be substantial. Changes brought about by extractive investment can have negative social impacts, such as rapid urban growth, physical and economic displacement of communities, weakening of traditional social structures, new conflicts, and even impoverishment. How people are affected and their perception of these impacts may differ. Communities living near projects are more likely to be most impacted physically. More distant communities may perceive impacts and have expectations about how they will be treated. Projects near isolated, poor communities will differ from those on the edges of cities. Different groups within communities will also vary in the degree to which they gain or lose, often substantially. Local communities themselves can be diverse and differences and disparities can be exacerbated by new resource finds and developments. Customs, legal rights, and governance capacity, as well as investor behavior, will drive some of these dynamics.

BOX 5.1: Broad Community Support

International practice varies regarding the rights of communities to share in the benefits of extractive projects and their rights to approve or veto projects. Some communities have strong legal rights to share in the fiscal flows of projects and may benefit substantially in financial terms. Others may receive nothing in financial terms and may benefit directly only in other ways, such as through jobs, community spending, or access to infrastructure services.

In its Management Response to the Extractive Industries Review (EIR), the World Bank Group introduced the requirement that local communities should benefit from and broadly support oil, gas, and mining projects financed by IFC or another member of the World Bank Group.

Where there is no absolute test of the reasonableness of the overall package of costs and benefits, the community's support or lack thereof is an important potential measure of a project's viability. As part of its appraisal process of proposed projects, IFC verifies whether there is Broad Community Support where applicable.

A community's support was adopted as a condition for natural resource projects after the conclusion of the EIR. In 2006, the IFCs Policy on Environmental and Social Sustainability, which was further revised in January 2012, broadened the requirement for broad community support beyond the resource sector for projects with significant adverse impacts.

Source: World Bank (2004)²

2 World Bank Group Management Response to Extractive Industries Review (2004) http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/industries/oil%2C+gas+and+mining/development_impact/development_impact_extractive_industries_review



Social and environmental impacts on communities often inter-relate, as can be seen with land and water. These assets are the foundation of people's lives and livelihoods, particularly in rural areas where many extractive projects are located. Projects typically involve significant local land access and acquisition, which may require resettlement and the loss of land used for subsistence or economic activity. This introduces complex negotiations and the navigation of rights, customs, legal, and engagement processes across sometimes very large groups of people in addition to the challenge of supporting transition to new homes and communities.

Confusion, competition and conflict are not uncommon. Land issues may come up repeatedly either because people feel they did not get reasonable compensation the first time or because recurrent access is needed for project maintenance. Companies are often under pressure to access land quickly, which may shortcut consultation processes to the possible detriment of relationships, the company's social license to operate, and the project's bottom line.

Additional social pressures can come from project-induced in-migration of workers and others seeking jobs and opportunity. Migrants have the potential to become powerful new stakeholder groups and influx of new people may upset community life, traditional norms, and local leadership. There may be disruptive change to land values, production systems, livelihoods, new or increasing income and wealth disparities, inflation in food prices, spontaneous unplanned settlements, and cumulative impacts.³ Influx of new populations will put strain on public infrastructure, services, and utilities. IFC believes early recognition, understanding, and management of project-induced in-migration will help minimize negative impacts and associated costs (work stoppages or disruptions, demands for financial compensation, permit delays, provision of public infrastructure), and ensure that the overall project has a positive developmental impact (IFC 2009a).

However, projects may also bring benefits to communities and the environment. Resource projects will likely bring jobs, training, and skills development that will be especially valued in remote communities with few alternatives. Business opportunities will open up for suppliers and contractors and in some cases for downstream purchasers of a project's output. Energy and other raw materials can also help spur the development of local businesses or enhance quality of life through, for example, access to reliable electricity. Taxes paid to local and governments can fund a range of activities, including project-related environmental and social oversight and enforcement and pursuit of government development objectives more broadly.

Projects and their secondary impacts can also be positive for the environment, as new business opportunities may reduce the pressure to expand farming or poaching to new areas. Other examples include financing land offsets to protect valuable biodiversity, or programs to help preserve and protect the environment and help local communities enhance the value of their land's ecosystem services.

Investors usually have community programs to provide benefits to the local stakeholders. However, community development programs need to be designed with the participation of stakeholders, and have clear objectives and strategies to achieve them. To be effective, community programs need to be an integral part of the project's core business plan. Absent participatory planning, community programs often fail to deliver real sustained benefits even if they aim to address fundamental needs, such as health and education.

Many impacts will cease once production stops. Some may be reversible, and some may be irreversible. For example, land used for mining or oil development may be rehabilitated and used for farming or forestry, and offshore oil fields can usually be decommissioned with little permanent impact. Some impacts, however, will be permanent, and some may even continue to accumulate after project closure.

The Impacts Of Project Closure

Although an industry may continue in a country for many years, ultimately, individual projects will close down as resources are depleted. The process of closing

³ Cumulative impacts are those that result from the successive, incremental, and/or combined effects of an action, project, or activity when added to other existing, planned, and/or reasonably anticipated future ones. (IFC 2013)

a mine or oil field can be challenging for communities, and the risk of economic and social disruption requires careful planning to ensure the management of post-closure costs and risks. Governments must ensure that investors (and their successors) are responsible for and able to meet any ongoing costs. Otherwise, the country and community will bear these costs. This is already happening in many countries that have hosted mining and oil projects for long periods of time.

The finite physical nature of natural resource projects and the sometimes difficult process of closing them may be put forth as reasons natural resource projects are unlikely to generate sustainable project benefits. However, IFC's perspective is that eventual resource depletion and project closure do not in themselves mean that resource projects cannot bring overall sustainable benefits to a country and its people. Economies constantly change, as do technology, tastes, and comparative advantages. Developed countries have many examples of sectors whose importance has dwindled over time. For example, textiles, iron and steel, and coal mining were the mainstays of the British Industrial Revolution, but are now almost insignificant in the British economy. What matters is whether a project has increased the number and diversity of opportunities for the community, and whether the process of development and operation has enabled human, social, and physical capital to be net-enhanced.

RIGHTS IMPACT BENEFIT SHARING WITH COMMUNITIES

In some cases, local communities have legal rights, such as land and water rights, ownership of the underlying resource, or veto rights over developments that impact them. These rights may put them in a strong negotiating position with investors (and governments) and may have an important impact on the project's overall benefit sharing.

For example, local landowners who are recognized as also owning the resources under their land should be able to negotiate substantial royalties or other forms of payments from investors. In Papua New Guinea, landholding customs and weak governance at the local level mean that landowners effectively control access to mineral resources on their soil, and this right drives

an important process of negotiation with investors and governments. However, land rights held by one group can lead to conflict with community members who do not have land rights, or with neighboring communities that may not be equally affected by a project, but still expect to benefit.

For Indigenous Peoples as defined by IFC Performance Standard 7, IFC may require that projects be subject to FPIC, Free, Prior and Informed Consent. This requirement is triggered in certain circumstances involving significant risk to the community of Indigenous Peoples. The circumstances and guidance related to FPIC are described in Performance Standards 7 and its accompanying Guidance Note. The requirements listed in the Performance Standard apply to those aspects of a project under a company's control, and does not apply to government actions. While governments may consider that this right can ultimately be overridden if the needs of the country require it, the existence of FPIC typically enables communities to negotiate for a fair share of the fiscal and non-fiscal benefits of a project. Civil society and other groups are calling for this approach to be applied more broadly to all natural resource projects, and not just those concerning indigenous people (Greenspan 2013).

Investors are usually not opposed to dealing with communities on the basis of recognizing both formal and traditional rights and good practice standards, and they generally welcome clarity and consistency in their relations with governments. Where legal rights are recognized, through their impact on negotiations and benefit sharing, they may help ensure that projects receive and maintain community support. A number of resource companies, including members of the International Council of Metals and Mining (ICMM), have also adopted FPIC in certain circumstances as the basis for their engagement with indigenous peoples potentially impacted by their projects (ICMM 2013).

Where ownership or collective rights to consent exist, communities and landowners may be able to stop projects or aspects of projects, but in IFC's experience, communities and landowners often want developments to proceed because of the benefits they will bring. Landholder rights may help facilitate effective negotiations and lead to more durable and long-lasting agreements

BOX 5.2: Gender Impacts of Projects

Without special efforts to take account of gender issues and risks, projects typically benefit women (and children) less than men, and may expose women to new problems. Women tend to be substantially underrepresented in the oil, gas, and mining workforce.^a An undifferentiated view of community benefits that does not account for gender differences risks providing a misleading picture of the net benefits on the ground.

A review of the gender impacts of onshore oil projects in three countries found that women typically bear more of the costs of development and receive fewer of the benefits than men.^b How impacts are experienced can relate to changes in economic position and in social status.^c This differential impact is accentuated when existing gender inequalities are pronounced, putting at risk the developmental impact that could otherwise be achieved. Failing to properly assess gender differences is a missed opportunity. More attention to gender issues during project implementation and when engaging with communities could alleviate negative impacts that resource developments can bring to communities. Similar experiences have been identified in mining projects.^d

Companies are increasingly aware of the win-win aspects of proactive policies regarding gender. Community programs are more successful and company workforces more safety conscious, for example, when women are incorporated. Women reportedly make up more than half of the heavy equipment workforce at Newmont's Ahafo mine in Ghana. Some industry analysts report that companies can gain a competitive advantage if they are proactive in employing and mobilizing women.^e

The proportion of women in the workforce is generally low, especially at higher level jobs. The industry group Women in Mining and Pricewaterhouse Coopers found that women fill fewer than 10 percent of board positions in the top 500 mining companies.^f This figure, similar to the oil and gas sector, is the lowest of any industrial sector. They also found a positive correlation between the number of women on a mining company's board and its financial performance. More resource companies and governments have initiated programs to promote women in the workforce recognizing the myriad benefits this can bring to project and community development.^g But alongside hiring efforts, additional sensitization and practical changes often need to be made at the operational level to retain female talent.

Note:

a. IFC 2009b.

b. Scott and others 2013; see also Extractive Industries, Gender and Communities at World Bank extractive industries website, <http://www.worldbank.org/en/topic/extractiveindustries/brief/gender-in-extractive-industries>.

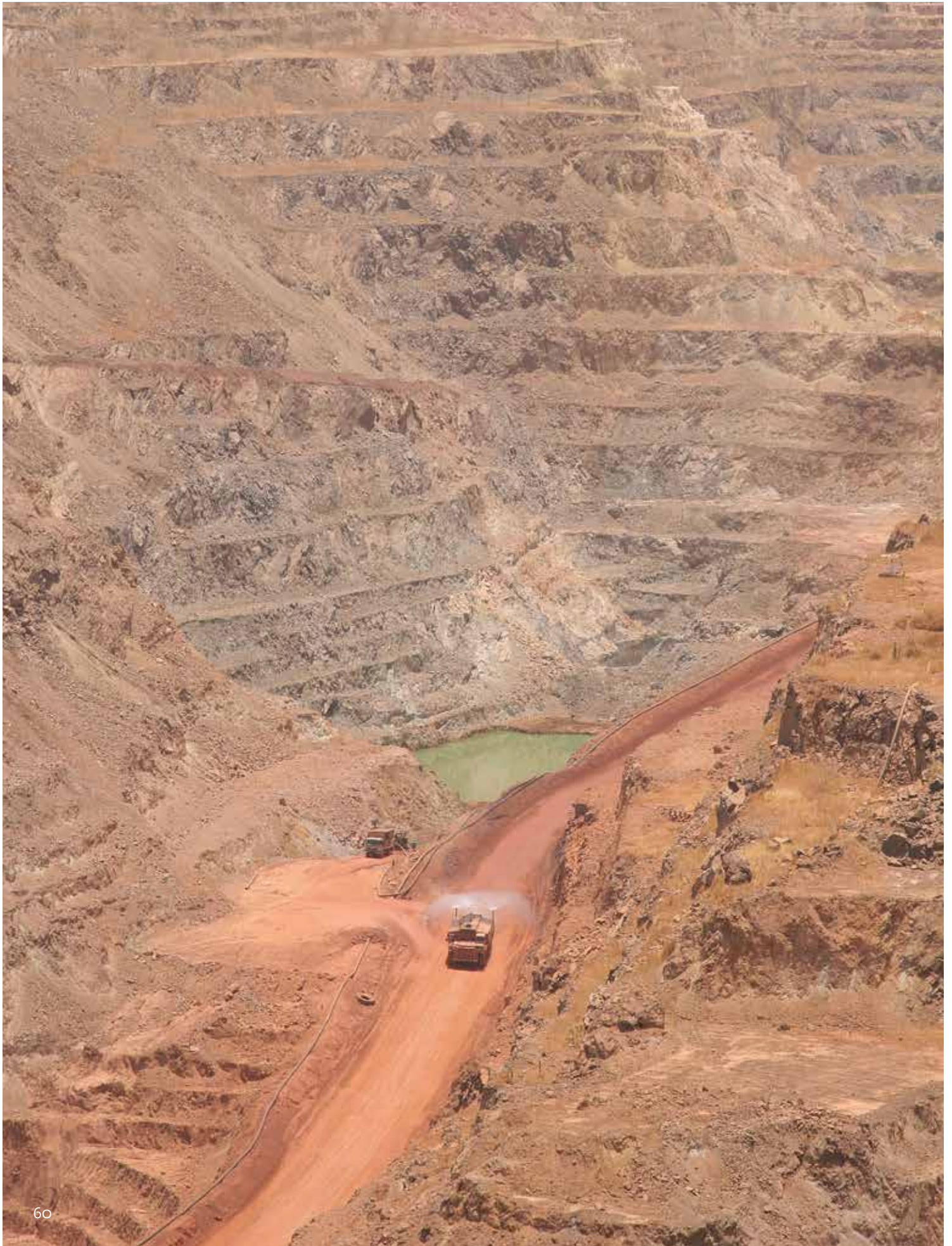
c. See, for example, Souza and others 2013.

d. See report of Women in Mining Conference, PNG, www.worldbank.org/en/topic/extractiveindustries.

e. Kapstein and Kim 2011; Keenan and Kemp 2013.

f. Women in Mining 2013

g. Newfoundland and Labrador Department of Natural Resources 2011



among communities, investors, and governments than would have been the case absent these rights.

In recent years, human rights-based approaches to development have become more prominent. There is general consensus that business should respect human rights. Human rights considerations have become more common in high-impact industries but no uniformly accepted approaches for human rights due diligence and impact assessment exist. IFC recognizes the responsibility of business to respect human rights which, in part, finds expression in inclusive and participatory engagement processes as well as access to effective grievance mechanisms that can facilitate early indication and prompt remediation of various project-related grievances. More generally, each of the IFC PS has elements related to human rights dimensions that businesses may face in the course of their operations. IFC stresses the need to identify and address high risk circumstances related to human rights issues, and recommends that this be done within the overall context of a robust environmental and social assessment process and management system.

In response to extractive company requests for guidance around human rights and conflict, a set of tools was designed to help implement the Voluntary Principles (VP) on Security and Human Rights.⁴ Particularly aimed at those operating in areas of geographical conflict and weak governance, the tools contain four practical modules co-financed and developed by ICMM, IFC, the global oil and gas industry association for environmental and social issues (IPIECA), and the International Committee of the Red Cross (ICRC). Initiatives such as these mentioned can coalesce industry actors around work toward a common standard of behavior even when government requirements vary.

HELPING COMMUNITIES BENEFIT MORE FROM PROJECTS: PROCESS IS KEY

How a community views its share of benefits and how it uses a project's fiscal revenues are important inputs in how IFC views the fairness of a deal. The process of community engagement is vital in this respect (IFC 2008, 2010a, 2010b). Where national and local governance capacity and accountability are weak, there is a greater risk that benefits may be wasted. In these contexts, investors need to be even more proactive in considering how their projects can benefit communities and seek appropriate partners to realize such benefits. Development initiatives that benefit both the community and the project—improved local access roads and water supplies, training of local people to secure project jobs, and other entrepreneurial opportunities—are more likely to receive support from all parties and be successfully implemented and maintained. Every project and community is different, but the ultimate objective must be the generation of positive impacts and shared value that is sustainable in the longer term.

Good processes for sharing benefits with communities include:

- Maintaining active relationships built on trust with communities through appropriate and effective communication. This implies that genuine consultations and participation in decision-making will happen whenever possible and that perceptions and expectations are closely aligned with reality.
- Carrying out comprehensive, participatory baseline studies of the community's socioeconomic, cultural heritage, and socio-environmental context before project development, agreeing to joint objectives for the project's community programs, monitoring outcomes (including community feedback), and responding as needed. This helps address misconceptions, manage expectations, and assuage fears or concerns.
- Establishing robust grievance mechanisms that are understood, accessible and linked directly to project performance measures. Where justified, third party mediation may be required. IFC

⁴ http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Guide+to+Human+Rights+Impact+Assessment+and+Management/http://www.icmm.com/document/2199



maintains a similar practice via the World Bank Group Ombudsman's Office.⁵

Actively looking for “win-win” solutions that can benefit the project and the community. For example, imaginative local staff recruitment and training, finding synergies in the provision of infrastructure between development and wider community/country needs, and nurturing local supplier networks for lower cost and better local impact.

- Using approaches, such as formal Community Development Agreements or processes, such as Papua New Guinea's Development Forum, as vehicles to bring investors, communities, national and local governments, and other stakeholders together for a common purpose and understanding of project outcomes and opportunities.
- Foundations and other long-term approaches may be good vehicles to achieve community development objectives if they ensure broader stakeholder participation and helping identify areas of focus and consistency of priorities across actors, such as company, governments, donors, and communities (Wall and Pelon 2011).

- Integrating project development and community development plans as effectively as practicable with local and national government planning to support development aspirations and balance the expectations and demands of different communities.

WHAT IS REASONABLE COMMUNITY BENEFIT SHARING?

IFC's approach requires that communities, at a minimum, be protected from harm and recompensed for damage done to them by resource projects. Rights given by constitutions, common law, and regulation must be fully respected, especially in key areas such as land acquisition and livelihood restoration. IFC PS provide a framework that, if implemented effectively, ensures that communities are protected and compensated. IFC uses environmental and social specialists with diverse expertise to ensure that the suite of potentially negative impacts and appropriate mitigation strategies are identified. A full understanding of the risks and impacts, their magnitude, distribution, and how they change over time depends on appropriate data collection and accurate measurement. IFC PS requires that risks and impacts are identified and that a meaningful environmental and social baseline is established with impacts evaluated over time to a level of depth and sophistication commensurate with the type, size, and intensity of the project.

IFC PS also requires that communities—when significantly and adversely affected—are engaged and consulted in a way that enables them to bring their perspectives and expectations into a project's net benefit-

⁵ The Office of Compliance Advisor Ombudsman (CAO) is an independent recourse mechanism for IFC and MIGA. The CAO addresses the concerns of individuals or communities that are affected by IFC/MIGA projects, fosters greater public accountability of IFC and MIGA, and ultimately works to enhance the social and environmental outcomes of projects.

sharing design. Similar to other areas of benefit sharing discussed in this paper, there is no single benchmark or indicator that signals a fair arrangement. Legitimate and reasonable arrangements are arrived at through negotiation between the project, the government, and the community over time. Success depends on inclusive, respectful, and transparent processes. For IFC, an important gauge is the quality of stakeholder engagement and ultimately the community's expression of support. (Examples of good processes are discussed further below.)

How benefits are shared within a community also matters. There will be winners and losers as different groups (young and old, men and women, the best- and least- educated, etc.) are impacted differently and have varying opportunities to benefit. Costs may be broadly felt, but important benefits, such as jobs and entrepreneurial opportunities, will likely be distributed more narrowly. The poorest and most vulnerable groups who are frequently excluded from the community's decision-making processes are at greater risk of not benefiting. These groups may include ethnic minorities, disenfranchised social classes, and women (Box 5.2). Adjacent communities may also experience important differences in impact.



CRITICAL AREAS FOR REVIEW

Social

There are no quantitative standards for how much communities should share in the benefits of natural resource projects because community rights and government policies vary widely across countries. Consequently, assessing how communities are treated, the processes used to engage with them, and the relationships established, may be as important as an enumeration of benefits and costs. Areas of concern for IFC might include:

- Lack of regular, diverse stakeholder engagement
- Weak community support for the project
- Strong opposition by a minority or group
- Sharply different treatment of and benefits to

different groups or adjacent communities

- Benefits distributed in unsustainable ways
- Lack of a clear strategic plan to benefit communities
- Lack of coordination among other relevant actors, such as local government, health services, community organizations, and even other nearby developments, etc.
- History of conflicts or abuses.

Environmental

When projects are implemented well and are in line with IFC PS and other standards, the potential material environmental impacts should be known, mitigated where possible, and offset or compensated for in instances when mitigation is not possible. Areas of concern for IFC might include:

- Weak commitment of investors to environmental standards, or weak capacity to implement the standards, or inexperience in doing so
- Large, uncertain environmental risks
- No clear plans and arrangements for potential long-term and post-closure environmental management
- Weak government oversight and enforcement capacity
- Risks of cumulative impacts from other developments, including those that are attracted to the region at least partly because of the success of the project

Continuing a Dialogue

This discussion paper is an initial IFC attempt to encourage an open debate on how to best assess the sharing of costs and benefits generated by natural resources development. Written from the perspective of IFC, the paper explains a wide range of issues, including how the institution, as both investor and development organization, determines whether benefits and costs are shared reasonably and, ultimately, whether IFC can support a particular project. Fundamentally, a project must be profitable, but profitability can be only a starting point.

By sharing IFC's approach with stakeholders and providing a framework for assessing this complex area, this discussion paper is also meant to be a resource for stakeholders to use in designing an equitable sharing of the costs and benefits from natural resource projects.

IFC has benefited from feedback from many stakeholders who expressed great interest and enthusiasm. Our aspiration is that this paper will complement as well as stimulate work by others that can enrich the collective knowledge and debate.



Appendixes

APPENDIX A: RESOURCE DEVELOPMENT AND TAXATION

There is a large pool of literature about the nature of nonrenewable resources and their ownership and optimal taxation. Most reviews of resource taxation identify four key objectives that should drive design:

1. Governments should collect as much of the “rent” (returns generated from the project over and above what is needed to incentivize investors) as possible, and doing so usually requires progressive taxation (IMF 2012).
2. Taxation structures should be “neutral” and not lead investors to develop a resource in a suboptimal way.
3. Investors need adequate compensation to incentivize them to take risks and invest.
4. Taxation structures need to allow for government capacity to negotiate, design, administer, and carry the risk of different forms of taxation.

Uncertainties and Flexibility

If there were complete certainty about the nature of a resource and its future outcomes, estimating its rent and designing an optimal tax structure or agreement would be relatively straightforward. Once in place, taxation structure and agreements should ideally be responsive to changing market dynamics, but getting this right is not always easy, given the complexity of designing and administering appropriate tax systems and the demands these systems put on taxation authorities and investors.

In practice, there is considerable uncertainty about the values of the key parameters that determine a project’s success. This uncertainty will decrease over the life of the project, but will not wholly disappear. In the exploration phase, there may be considerable uncertainty about whether a viable resource even exists. Even when a resource is identified, there will be uncertainty about the capital costs preconstruction; about production levels, operating costs, and sales prices in the operating phase; and about closure and decommissioning costs at the end of project life. There is debate about what the appropriate return to investors should be, how much rent will be generated, and how this rent should be shared.

Any form of contract intended to last over the long life of a resource (sometimes decades) runs the risk of coming under pressure as circumstances change significantly from when the contract was signed. In theory, contracts can be written to build in flexibility. In practice, contracts may not cope well with major changes.

Over the last 10 years, for example, very high commodity prices have led to large increases in profits and company values across the resources sector. While volatile prices are a normal part of the commodities business, and a few years of high prices would not generally signal a major change from expectations, there has emerged a view that high commodity prices in the last decade present a ‘new normal’. There seems to be a strong perception in some countries that they have not participated enough in the windfall. Various oil, gas, and mining country governments have moved to renegotiate and change terms and conditions to capture more of the increased value, as a result.

Common Considerations in the Mining, Oil & Gas Sectors

Most resources are developed subject to specific resource taxes given the particularities of extractive projects, i.e. their potential to generate high levels and volatility of profits. There are, however, some commentators who believe there may be less rent from many resource developments than commonly assumed (Tilton 2010). And they even question whether the resources sector should have a special taxation regime. Nonetheless, resource taxation regimes do exist, and there are some common considerations in how they are constructed.

Balancing sector prospects management capacities and revenues: Governments and investors need to take a long-term perspective of the prospects of projects and the sector that may receive investment and operate over decades. To create the perfect resource framework is very difficult, given the uncertainty of outcomes, the associated complexity of particular taxation systems, and frequent administrative capacity limitations. Governments will have to compromise between optimizing rent collection, neutrality, and administrative and political practicality. Governments may offer standard terms and conditions, rather than negotiating deal by deal. The resources taxation framework should be linked to the overall taxation framework and to other aspects of government policy, such as requiring good accounting standards, transparency, and access to information.

Setting terms: Clarity and stability in terms and conditions are important factors for investors and for governments aiming to attract investment. When governments want to negotiate deal by deal, they need to develop the skills to set terms and conditions and to administer them effectively during the duration of the contract. Given the monetary values at stake, increased knowledge about the issues, and the availability of specialist expertise for hire internationally, acquiring these skills may not be as difficult as sometimes suggested.¹ Increasingly, transparency about contracts and payments is an important factor in generating confidence about the reasonableness of deals and promoting their durability.

Standard, non-negotiated terms are seen as offering the two benefits of simplicity and being less prone to corruption. Some commentators believe that governments will be comparatively weaker negotiators because they will usually have less understanding of a resource’s true prospects. However, there is a trade-off, and governments can supplement standard terms and conditions with some degree of negotiation.

Competitive bidding through auctions and other processes to access known resources or prospective exploration acreage is one way to use the market to optimize tax receipts, enhance transparency,

¹ For example, see the approach taken by Angola as described in McKenzie, Goldsworthy, and Sunley (2009).

and discourage corruption. While they can be complex, auctions can help bypass the complexities and uncertainties that negotiated deals involve, not least because of their demands on government capacity and oversight.

Whether terms are standard or negotiated, large changes in circumstances that are outside the reasonable range of (expected) uncertainty will put agreements under pressure. Having in place or establishing mechanisms to handle such changes constructively will be helpful.

Common taxation principles: Resource projects often generate rents, and taxation arrangements should include some mechanism(s) to recover a share of these rents. Governments have many possible taxation instruments and a wide range of approaches and combinations of these have emerged and are used today. These instruments are based on country, sector, project specifics, and on policy and precedent. Governments will vary in their capacity to carry the risks that some forms of benefit sharing will impose on them (for example, full equity investment). Some approaches are very sophisticated in how they tax projects, simultaneously aiming to capture a major share of the resource rent for government and offering appropriate incentives for private investors. Some common principles across the resource sector include:

- Progressive taxes, such as the corporate profits tax, which increase government tax take as profitability rises, are better than regressive taxes, which impose costs not related to profitability, but to output or price, such as royalties.
- For practical and political reasons, some form of regressive tax such as a royalty tax based on sales, is likely to be part of an overall package.² The package would likely also include a corporate profits tax and sometimes a mechanism to recover a higher share of exceptional profits (rent).
- Tax holidays, in which governments agree not to levy profits taxes and possibly other taxes for a number of years regardless of profitability, are usually not needed and are not encouraged by the World Bank. Overgenerous depreciation allowances that allow the rapid tax write-off of long-life equipment may also pose problems for the timing of government profits from tax flows.
- Full or partial exemption from import taxes and value-added taxes for export-oriented resource projects is common.
- Some form of modest withholding tax on payments for foreign services may be helpful, although it will impact costs and taxation neutrality.

Differences between Sectors

While there are considerable variations in taxation within the mining and oil sectors, there are also long-standing and fundamental differences between these sectors.

² Given the depletion of a particular resource, some economists see a royalty payment as an appropriate fee for the resource's depletion, and therefore an essential component of resource taxation. These economists argue that the capacity of a project to pay the royalty should guide the decision of whether to develop the resource. Normally, governments need to commit to allow development at the exploration investment stage when there is no clarity whether the resource is economic to develop.

Mining projects usually take place within standard sets of terms and conditions that are relatively simple in structure. However, very large projects can be an exception and may involve complex, negotiated contracts. Sometimes, even smaller deals have some component of negotiated terms. Typically, standard terms include a royalty of 2 to 5 percent on sales (a regressive tax), and a simple progressive tax, such as a corporate profits tax at a rate of 30 to 40 percent. Other terms could include a dividend withholding tax and exemption from import duties and the value-added tax. Depending on the actual rates, such packages can generate a reasonable share of the resource rent to governments and are relatively simple to understand and administer. What they do not do well is capture large increases in rent (windfall profits) generated by unexpected large and sustained increases in prices.

For example, with a corporate tax rate of 30 percent, and a royalty rate of 2.5 percent, all other things being equal, only 31.75 percent of any increase in revenues from a price rise accrues to government.³ Very large mining projects are more likely to be based around individually negotiated deals, although some smaller deals may have some negotiated component. Even negotiated mining agreements often do not contain the sort of sophisticated progressive tax terms that many, if not most, oil projects have.

Oil project taxation structures typically are more sophisticated and effective in capturing high levels of profits than typical mining tax structures. Some of the differences from mining are higher levels of profitability and greater rent in the oil and gas sector. While there are different approaches to oil taxation, many terms include provisions for an increasing share of a project's net flows to go to government when prices or production increase. Some approaches will relate the share of benefits going to government to the cumulative rate of return earned by the private investor. In some cases, the marginal share of profits going to government may reach more than 80 percent (Lundgren, Thomas, and York 2013).

Gas projects are often treated differently from oil investments. Due to their transportation and market issues, gas projects are more likely to sell their gas at prices that are below the international price of oil. Gas projects usually are likely to have less sophisticated profit-sharing arrangements than is often the case for oil projects.

The degree of state ownership is another important difference between the oil, gas, and mining sectors. While state ownership varies across countries, the oil sector has a higher degree of government equity participation, varying from complete state monopoly to significant or majority private ownership with substantial state equity interest.

Government Equity Participation

A government equity stake in a resource project can be an alternative to taxes as a way of accessing a share of profits. Government equity participation may also be important politically. Some argue that government ownership may give it greater insight into operations and thereby improve policy or taxation effectiveness. A counterargument is that government ownership may create a strong

3 For example, an additional dollar of revenue from an increase in prices will generate an additional royalty of 2.5 cents for government and 97.5 cents (100 minus 2.5) gross profit increase for the project. Leaving aside timing differences, this increased profit will generate extra taxes for government of 29.25 cents (97.5×0.3 cents), giving a total revenue of 31.75 cents.

government lobby in favor of the state resource development entity at the expense of broader policy demands. In practice, the accumulation of profits in state companies is not necessarily the same as the country's treasury receiving the funds in the form of taxation. As part of their overall fiscal framework, governments need to ensure that state corporations are appropriately taxed and managed.

Depending on the terms under which it is held, equity ownership will bring a different mixture of risk and reward to governments and usually will increase government risk compared to the potential tax alternative. As a normal equity investor in a project, a government will have to put up its share of the equity capital needed to fund the investment before it generates revenues. As an owner, a government will also be exposed to the risk that the venture will not to earn a satisfactory rate of return or fail completely.

There are ways in which governments may be able to tailor their equity involvement to manage their risk-return balance. For example, governments sometimes require private investors to initially finance the government's share of equity with repayment to the investor out of the government's share of future profit flows. Governments can also reduce their risk by holding an option (but not the obligation) to invest in equity in the future at historic cost or some other value once it is clear how the project will actually perform. Alternatively, they could simply negotiate the right to receive a share of the equity profit flows, with no financing obligation. This third alternative is effectively what happens in the oil sector with production-sharing contracts.

Equity participation and rights need to be seen as part of the overall fiscal and investment conditions package. The rights and options that a government has will impact the distribution of benefits (and risks) to private investors, and this distribution will have costs in terms of other conditions and taxes that can be imposed. Moreover, some forms of equity rights held by governments require investors to provide funding for government that may be repaid only out of future profit flows. The charges that investors can make for such financing will also impact the net benefit sharing of governments and investors.

Other Issues in Resource Taxation

Relevant for almost any resource tax structure, a number of practical issues recur and can impact how much tax is actually collected compared to the tax indicated by the resource's value and the taxation system. What follows is a discussion of six related issues that have recently attracted considerable attention.

Transfer pricing: Generally, taxation arrangements relating to resource agreements (and in general purpose tax legislation) explicitly state that output and services will be sold and bought at fair market prices. Resource production companies may be part of integrated companies that produce, trade, and process materials and buy and sell from associated companies. Local companies may receive expert technical services or supplies from international affiliates. In the absence of a market-based, third-party relationship, companies need to establish appropriate transfer prices for transactions between themselves.

By mispricing these transactions, there is considerable scope for investors to effectively transfer profits from what is considered a relatively high-tax local regime to another low-tax regime, possibly in an offshore financial center. As a result, governments will receive lower amounts of taxes than they should receive under legal agreements or tax law. Some studies have claimed that the amounts

of taxes or profit sharing being evaded in this way are substantial in the African resources sector (Africa Progress Panel 2013).

Using inappropriate transfer prices usually is contrary to general tax law and is considered tax evasion. Governments should ensure that requirements concerning pricing are known and effective and, where appropriate, part of the resource development agreements. For example, the International Bar Association's Model Mine Development Agreement⁴ proposes that transactions with affiliated companies follow the Organisation for Economic Co-operation and Development's (OECD) "Transfer Pricing Guidelines for Multinational Enterprises and Tax Administration,"⁵ based around arms-length market pricing as the appropriate basis for transfer prices.

Governments also need to ensure sufficient capacity to identify risks and to audit properly. While it can be complicated to validate sales and cost values for some commodities, for many commodities quoted market prices exist, or reasonable unbiased relationships can be derived using the more widely quoted prices of related products. Furthermore, considerable expertise exists internationally, the cost of which is likely to be low compared to the value at stake. IFC is often an equity investor in projects and tries to assure itself that pricing between the company in which it invests, and the company's associates is based as much as possible on verifiable market prices.

"Thin capitalization" is a special case of transfer pricing. Investors usually have incentives to finance projects through a mixture of equity and debt financing. When the leverage ratio between equity and debt goes beyond typical industry standards, and interest charges go well above market rates, the financing structure can become a mechanism for tax reduction. Most governments have "thin capitalization rules"⁶ to limit financial structures to proportions that are close to what is market appropriate.

In many cases, companies employ complex tax and financial structures to minimize taxes in ways that are legal in the investment country and in their home countries and that account for the relevant tax treaties between both. In some cases, structures are driven to minimize tax in their home countries as the result of deliberate government policy objectives. For example, current U.S. tax policy, which does not tax international profits that are not brought back into the United States, may encourage the use of offshore tax financial centers as a means for U.S. companies to invest across a number of countries.

Governments and the public generally may be surprised at the complexity of arrangements and perceive that taxes are being avoided inappropriately. In some cases, this may put considerable pressure on governments to react and remedy what is seen as unfair. Recent examples of apparently legal, but very low, corporate tax payments by foreign companies in the IT and other sectors in the United Kingdom are an example of this tax avoidance from outside of the natural resources sector. Currently, there is an international reaction against the aggressive tax planning and transfer pricing of multilateral businesses. The G20,⁷ for example, issued a 15-point action plan that covers this kind of tax planning.

4 www.MMDAProject.org.

5 <http://www.oecd.org/ctp/transfer-pricing/transfer-pricing-guidelines.htm>.

6 "Thin capitalization rules determine how much of the interest paid on corporate debt is deductible for tax purposes" (http://en.wikipedia.org/wiki/Thin_capitalisation_rules).

7 The G20 members are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and the European Union.

Offshore financial centers: Almost all foreign investors use offshore financial centers as a mechanism to manage ownership of investments and to optimize tax payments. These centers are not illegal and are not necessarily associated with tax evasion. Tax optimization for investors may mean taking advantage of home country policies and tax legislation that discourages the direct remittance of profits from foreign investments to home. These policies may have allowances that delay any tax payable on profit until it is repatriated. A third-party low tax base enables investors to flexibly redeploy pretax profits elsewhere. Investment host governments should not necessarily have a problem with this. Host governments that can reasonably structure tax arrangements to enable investors to take credit in their home country for local taxes paid probably can increase their own tax revenues, as a result.

Offshore financial centers may also play a part in schemes intended to disguise true ownership of assets and flows of illicit funds. Governments need to be alert to what may be money laundering and respond appropriately in their approach to taxation audits, requirements for disclosure of contracts, and beneficial ownership, among other factors. International initiatives are working to increase the information flows and information about offshore centers and their clients. IFC will support investments that involve the use of entities based in offshore financial centers that meet WBG policy guidelines (World Bank Group 2011).⁸

Stabilization clauses and changes in terms and conditions: Investors about to commit to investments that will pay back only over a long time, are often concerned that the tax terms and conditions under which they will operate may change after the investment is committed, the project is operational, and their relative negotiating power with a government is significantly reduced (the “obsolescing bargain”). Such investor concerns may delay investments. To help alleviate these concerns, governments sometimes agree to include stabilization clauses in agreements that guarantee that key terms will not vary over the project life and provide specific remedies if they do.

A United Nations-sponsored study supported by IFC concluded that, if reasonably drafted, such clauses may serve a purpose by reducing perceived risks and encouraging investment, especially for large, complex projects with long paybacks (Shemberg 2009). In general, countries can strengthen their reputations as good investment locations by respecting agreements made. However, when circumstances change considerably, these agreements may come under pressure because the distribution of net benefits is no longer perceived to be fair. A number of governments have made this case in recent years when large rises in commodity prices have boosted the profitability of resource projects (Toledano et al. 2014).

Timing of resource taxation flows: Closely related to concerns about the overall sharing of benefits from resource projects is the timing of government flows. Profits-based taxes usually will be the most important source of revenues to government on the condition that the project is profitable.

However, it will usually be several years between the announcement that a project will begin construction and the date it begins producing. Moreover, even if the project is profitable early on,

⁸ http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/what+we+do/due+diligence

sometimes several more years pass before it pays taxes, because depreciation and other tax terms may delay the date that the profits tax is payable. These lengthy delays can frustrate both the government and the public, especially in countries in which resource development is starting, and particularly in the case of large projects for which expectations are great.

In some ways, investors are best placed to understand when they are likely to be paying taxes, in what form, and the level of uncertainty about these payments. In contract discussions, investors should have a strong interest in ensuring that governments understand these issues of delay, and that in the investors' communication and consultation processes, the wider public understands these issues as well. The risk of delayed or uncertain taxes on profits needs to be considered carefully when governments and investors structure agreements.

This risk is one of the reasons that governments usually have a royalty component in the taxation package. Other approaches or forms of nonprofit-related taxes that may be adopted by governments, with different advantages and costs, include:

- Up-front payments generated through auctions or negotiated fees and signature bonuses for access to known resources and prospective exploration areas.
- Greater focus on other taxes such, as import taxes, that could be levied on imported equipment and materials even in the construction phase, and that can increase project costs up front.
- Less government equity investment requiring up-front financial commitments.
- Minimizing tax terms that delay payment of the profits tax, such as tax holidays or generous depreciation provisions.
- Borrowing against (uncertain) future tax receipts, although doing so may pose risks in terms of fiscal management and public disappointment when tax revenues that finally come in are committed to repay borrowing.
- If delays in tax receipts come as a surprise, governments may be prompted to change the previously agreed terms and conditions to generate revenues immediately.

Capital gains on assets sales: In the last five years, foreign investors have sold or attempted to sell the rights to nonproducing resources in a number of countries for large profits. The governments of these countries felt that if the investor was realizing a substantial profit, the government should receive a share in the form of taxation. However, there was no agreed or unambiguous taxation mechanism to do this. For example, the change of ownership might be effected not through the direct sale of the asset, but through the sale of shares in an offshore company that directly or indirectly owned the asset. There was no consensus among the parties on whether such transactions realized a capital gain that was taxable under the existing tax frameworks and agreements. Governments have tended to feel that it was unreasonable that the original investor was realizing a large profit without any immediate tax due as a result. The high prices realized also suggested that the existing tax structure might have been too generous or that the resource was more valuable than governments had originally believed. In some cases, governments have attempted to claim a tax from the purchaser and not the seller.

This is likely to remain a complicated and evolving area of taxation in which governments need to clarify intentions and legislation, and companies may need to be aware when they negotiate the sale or purchase of assets.

Offshore accounts: Some local civil society groups have questioned the use by investors of offshore accounts for receiving and holding the proceeds of production sales (Akabza and Ayamdo 2009). It is suggested that using offshore accounts leads to loss of benefits to a country from its resources sector, and that the proceeds of sales—which are usually denominated in U.S. dollars—should be converted and held in local currency accounts. While offshore bank accounts can be a means of facilitating corruption, investors view the use of such accounts as essential to pay for foreign-currency-denominated costs, such as interest and debt repayment costs, fuel, supplies, and equipment. Forced automatic conversion of U.S. dollar proceeds into a local currency with the risks of depreciation and nonconvertibility would materially increase risks to investors, discourage investment, and increase required rates of return. Banks and other international lenders will be much less likely to lend to projects for which currency convertibility is a risk.

In practice, once governments have agreed on an overall framework for the development of a resource, their real interest is not in the gross sales proceeds of production, but in the taxes, profits, and other payments due under the agreement. Forced repatriation of gross sales proceeds seems unlikely to offer any sustained net benefit to governments or countries.

APPENDIX B: IFC MEASURES TO ASSESS NATURAL RESOURCE PROJECTS

IFC uses the following measures of project financial and economic performance (all adjusted for inflation to real terms) to assess resource projects:

- **Economic rate of return (ERR)** estimates the overall economic rate of return that a project earns. The ERR is a broader measure of a project's rate of return than the financial rate of return, FRR (see below), because it aims to include all of the economic costs and benefits. Thus, the ERR will be calculated before taking off taxes that are a financial but not an economic cost, and it will bring into its calculation benefits and costs such as, market externalities that are not captured by the project's accounting. For example, an adverse environmental impact that is not paid for by the project is an example of an economic cost that would be included as such in the ERR. For IFC, it is fundamental that the ERR is positive and high enough to show that the project is generating a reasonable economic return for the resources it employs. Without this, economic value is being destroyed, even though it may be attractive to investors because the FRR is high enough.⁹ The ERR says nothing about the sharing of benefits of a project, only that it is creating real economic value that is available among all stakeholders and society at large.

⁹ A project could have a high FRR for investors, but a low or negative ERR for the world as a whole, if, for example, the project was supported financially through subsidies from the government or users (for example, through import restrictions or tariffs).

TABLE A.B.1: Share of Net Project Benefits Going to Government (hypothetical project) (%)

	NPV AT 10%	NPV AT 0%	INVESTOR REAL POST-TAX RATE OF RETURN
Base Case Profitability	97	38	10.1
Higher Profitability Scenario	56	35	16.8

- **Net present value (NPV)** establishes the value that the project creates above all of its costs, including an appropriate cost of capital for the funds invested. That is, projects with a positive NPV will earn an ERR that is above the cost of capital of the project. How the NPV is shared is core to understanding the overall benefit sharing of a project.
- **Investor's financial rate of return (FRR)** shows the net financial rate of return (after tax but before financing charges) that accrues to the private investment made in the project.

Other measures IFC may also use from time to time include:

- **Return on investors' equity:** Investors usually finance with a mixture of equity and debt. IFC will also estimate the private return that the private investment earns on its equity investment (after tax and financing charges). This gives IFC insight into how attractive the project may be to the investors it is supporting.
- **Return to the domestic economy** measures the return the country earns in all forms on the resources it commits to the project. It provides a guide to the overall attractiveness of an investment from the country's perspective. This can be a useful test for governments that plan to invest resources to support the project on the expectation of a broad range of national benefits, especially when the investors are all foreign.

Selected Issues

Discount Rates to use: There is a rich and active business school and economic literature about such estimates, and in particular about the appropriate cost of capital that should be used for NPV analysis and to set benchmarks for ERRs. For simplicity, IFC uses a common 10 percent real discount rate for its NPV calculations. This is close to many estimates of the appropriate cost of capital for resource investment, which vary according to the historical time period used to estimate them. IFC will also look at how benefit shares vary using different discount rates.

How important the choice of discount rate may be depends to a certain extent on the project. However, a positive discount rate when calculating the public versus private take will invariably reduce the share of total benefits going to the investors. This is because of the typical nature of the project investment cycle where investors put up the capital expenditure for the project in the beginning and it will be some time before they reap profits. Typically, the higher the discount rate the lower the private investor's share will be.

Higher profitability projects will be relatively less impacted than low-rate-of-return projects. For example, an IMF study of a number of mining and petroleum-producing countries found that projects with relatively high rates of return did not experience much change in the proportions of NPV cash flows to the governments when different (lower) discount rates were chosen (IMF 2012). However, for low-rate-of-return projects, changes in the discount rate used can have a marked impact on shares. This can be illustrated by using a simple hypothetical model (Appendix C) of a resource project and looking at how NPV shares differ between one based on a zero percent discount rate and one based on a 10 percent real discount rate.

Using this simple model, in a lower-rate-of-return “base case,” the share due to government changes from 38 percent to 97 percent, as the analysis changes from not discounting flows (a 0% discount rate) at all to applying a 10 percent discount rate (table A.B.1). In the “higher profitability” scenario, the government share changes less, from 35 percent measured on a zero percent discount rate basis to 56 percent measured on an NPV (10 percent) basis.

Project scope: An important factor in IFC’s decision to invest in the development of a project will be the expected net economic benefits that the development will bring *going forward*—treating past spending on exploration as sunk costs. These net benefits are captured by the economic rate of return. However, in its review of the overall benefit sharing of the project—the split of NPV—IFC will include the preconstruction spending by the investors, including on exploration. In some cases, allowing for such spending may be relatively straightforward. For example, an investor may have taken out an exploration license, explored for a few years, found a resource, evaluated it, produced a bankable feasibility study, and then approached IFC for financing as it moves into the development phase. Adding back such predevelopment costs to get a sense of the overall sharing of costs and benefits including these costs is relatively straightforward.

In other cases, the discovery may have followed a decade or more of unsuccessful exploration in the same region or in different regions of the country or even in adjoining countries. It is a judgment call as to which portion of these past costs should be included in an analysis of benefit sharing for a particular project.

Sometimes, the investor developing the project may not have found the resource, but instead bought the rights to it from another investor, possibly at a substantial premium. While the acquisition price is a cost to the new owner and developer, part of the price may be profit to the seller, who may or may not have paid taxes on such profit. The overall private sector balance of costs and benefits will be different from that of the investor who is developing the project. This difference may lead to differences in perspective between investor and government on how profitable a development is and the reasonableness of the benefit sharing.

Depletion of resources and future generations: There is a rich literature about the economics of natural resources and their depletion. When it comes to benefit sharing, it is important to address the issue of benefit sharing across generations. For example, it is argued that a country today and for some time will enjoy the taxes and other benefits that flow from a natural resources development, but future generations will not benefit in the same way if the resource is depleted. From this perspective, benefit sharing assessments should take into account the issue of whether and how future generations should be compensated and what are the implications for resource development. National wealth accounting is one possible framework to consider in the context of evolving approaches to national accounting.

Arguments against the need for accounting for depletion focus on the ambiguity about whether resources will be actually depleted in practical terms, given the potential for new discoveries and technological advances that will expand the resource base. Depletion may be true for a specific resource, but not for resources generally. And, typically, societies do pass on greater wealth to future generations than was inherited, although its form may change without specifically accounting for the benefit derived from natural resources development.¹⁰

APPENDIX C: INTRODUCTION TO SIMPLE MODEL AND SCENARIOS

Financial models of oil, gas, and mining projects can be very complicated, in part because of the nature of projects themselves and the key factors that drive their success. Additional complexities are created by the multiple forms of taxes that interact with one another and with other assumptions such as financial structure, interest rates, exchange rates, and inflation. A simple model can help illustrate key characteristics of a project and tax system, provided limitations arising from these simplifications are kept in mind.

The hypothetical model in tables C.1 and C.2 is intended to illustrate what might happen to a government's share of the net financial benefits of a project measured in NPV terms. This model assumes that the government made no investment in the project and receives revenues only in the forms of profits taxes and a fixed percentage royalty on sales.

To keep it simple, the project is not leveraged and is financed by the investor in the form of equity. In practice, this scenario would be unlikely, and introducing debt probably would increase the overall share going to the private sector, but not by much. No tax holiday for a profits tax is assumed here. And the project is assumed to pay tax once the accumulated net profits after accumulated depreciation are positive. It is assumed that the government does not collect any taxes based on capital and operating costs, such as import duties and nonrefundable value-added tax. In reality, this assumption is not unusual, but in some cases, these forms of tax can be important, especially in the early or preoperational phases of a project. Other forms of payments to the government that would likely exist, such as land rental and administrative fees, are not assumed here and are not likely to be important to the overall messages. Governments may also earn taxes on employees' salaries and spending, but these taxes are not included here.

The investor's net returns are the sum of the investment costs and its share of profits after taxes. No account is taken of any additional taxes that the investor (if a foreign investor) or the investors' shareholders may pay in the investor's home country. From a high-level economic perspective, a decision as to whether to support a project depends on costs and benefits going forward, so past exploration spending would not figure in. However, from the perspective of sharing the financial benefits of the project, past costs of the investor to find and appraise the resource are figured in here. NPV estimates are made on the basis of a 10 percent real discount rate. All dollar values are expressed in real terms. For simplicity, prices are assumed to be constant at scenario values through all the years of the scenario.

10 Some of the richest resource-producing countries do account for and plan to preserve the benefits of their resource development for future generations through sovereign wealth funds and other mechanisms intended to ensure that the financial flows from resource developments are used for longer term development or future generations.

TABLE A.C.1: Hypothetical Mine Model Assumptions

ASSUMPTIONS			
Profitability Scenarios:	Poor	Base	High
Prices US\$/ton	250	360	450
Annual production tons	950,000	1,075,000	1,250,000
Capital cost US\$ million	1,000,000,000	900,000,000	950,000,000
Unit production costs \$/ton	220	180	160
Project life years	20	20	20
Years to develop	5	5	5
Past exploration costs (NPV to year 1) US\$ million	125,000,000	125,000,000	125,000,000
Depreciation per year (%)	20	20	20
Royalty (%)	4	4	4
Tax rate (%)	30	30	30

TABLE A.C.2: Hypothetical Mine Model Outcomes by Scenario

DISCOUNT RATE		LOW CASE SCENARIO IRR: -7.5%		BASE CASE SCENARIO IRR: 10%		HIGH CASE SCENARIO IRR: 16.8%	
		Distribution of financial flows (US\$ million)	% Total Project Flows	Distribution of financial flows (US\$ million)	% Total Project Flows	Distribution of financial flows (US\$ million)	% Total Project Flows
NPV @ 0%	Government		>100%	Government	38%	Government	35%
	Royalty	190,000,000		309,600,000		450,000,000	
	Corporate tax	(1)		760,619,999		1,717,499,999	
	Government Total Flows	189,999,999		1,070,219,999	62%	2,167,499,999	
	Investor		Neg	Investor		Investor	65%
	Total Net Cash Flow	(745,000,001)		1,774,779,999		4,007,499,999	
	Overall Project Total	(555,000,002)		2,844,999,998		6,174,999,998	
NPV @ 10%	Government		>100%	Government	99%	Government	56%
	Royalty	73,526,233		119,809,061		174,141,075	
	Corporate Tax	(1)		335,835,793		567,161,593	
	Government Total Flows	73,526,232		455,644,854		741,302,668	
	Investor		Neg	Investor	1%	Investor	44%
	Total Net Cash Flow	576,061,254		2,653,660		576,061,254	
	Overall Project Total	1,317,363,922		458,298,514		1,317,363,922	

Note: IRR = internal rate of return; Neg = negative; NPV = net present value.

Glossary

Beneficiation: The processing of raw materials.

Commodities super cycle: Longer-lasting period of higher commodity prices than in a normal commodity price cycle.

Cost of capital: The minimum return markets require for investment in a particular project or sector.

Derivation: Distribution of tax revenues to extractive-producing areas.

Dividend withholding tax: Taxes levied on dividends that are paid out (usually) to foreign investors.

Economic rate of return: Rate of return earned on project funds invested, but including all economic costs and benefits, not just the financial ones (as in financial rate of return).

Effective royalty rate: Minimum share of net revenues that the government collects in any one tax year from a project during its life; indicates how low a government's share of a project's net benefits may be in one year.

Effective tax rate: Government's share of a project's net benefits after capital and operating costs; effective tax rate is effectively net present value at a zero percent discount rate.

Equity ownership: Owners of the project or enterprise.

Financial rate of return: Rate of return earned on the project funds invested—usually expressed in real terms (after adjusting for inflation) and, most often, after tax. However, practice varies in this respect, so financial rate of return may be quoted on a pretax basis.

Government take: Share of revenues after costs that the government collects in all forms over the life of a project; this rate provides an overall measure of benefit sharing.

Internal rate of return: See financial rate of return.

Marginal effective tax: Rate that shows how incremental changes in revenues are shared.

Marginal tax rate: Rate of tax paid on the additional dollar of profits earned.

Monte Carlo analysis: “A problem-solving technique used to approximate the probability of certain outcomes by running multiple trial runs, called simulations, using random variables” (<http://www.investopedia.com/terms/m/montecarlosimulation.asp>).

Net present value: Value of a future stream of payments and receipts discounted by a rate to allow for the different timings involved.

Real post-tax rate of return: Financial rate of return/internal rate of return after taxes and adjustment for inflation.

Real rate of return: Financial rate of return/internal rate of return after adjusting for inflation.

Rents: Net fiscal benefit; returns generated from a project over and above what is needed (cost of capital) to incentivize investors.

Resource corridor: Physical area around a resource project, usually a transport corridor through one or more countries.

Social license to operate: Approval (usually tacit) of a community for a project to take place and operate in its area.

Stabilization agreement: Agreement between a government and investors that key clauses will not be changed during the lifetime of the agreement (or may be changed only in certain ways).

Tax holiday: A period usually of several years for which a government agrees that certain taxes (especially a profits tax) will not be applied even if the project is profitable and otherwise would be taxable.

Thin capitalization: When a project or company is highly leveraged with a large amount of debt supported by only a small amount of equity. This status can be seen as a special case of transfer pricing. “Thin capitalization rules determine how much of the interest paid on [such] debt is deductible for tax purposes.” (http://en.wikipedia.org/wiki/Thin_capitalisation_rules)

Transfer pricing: Setting prices for transactions among associated companies other than being set independently in arms-length market-related transactions. Transfer pricing sometimes is needed. However, *inappropriate* transfer pricing that uses prices that are not related to true market values can be a mechanism to transfer profits inappropriately out of a country’s tax base.

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