NATURAL RESOURCES AND SUSTAINABLE DEVELOPMENT
INTRODUCTION

This issue of *Law in transition* concentrates on natural resources and that sector's contribution to sustainable development. We are very pleased to have a wide range of contributions from authors and organisations working both within the EBRD's countries of operations and without.

Paul Moffatt's article looks at the importance of clear policy-making, legal certainty and robust institutions to sustainability development, highlighting that these characteristics have proven fundamental to attracting and sustaining investor interest and attention. While pointing to the EBRD's role as a problem-solving partner for responsible natural resources investors, Eric Rasmussen's piece examines how the EBRD has gained the trust of its partners to become recognised for its experience and pragmatism in helping natural resources investors to coordinate and resolve a variety of issues associated with a project's diverse and multiple stakeholders in challenging environments.

An identification and exploration of four key sustainability challenges facing governments in the extractive industries sector today - the developmental, environmental, social and governance challenges — feature as Professor Peter Cameron's contribution.

Andrew Michelmore draws on the experiences of the International Council on Mining and Metals in many of the countries where it operates in an effort to identify lessons that could be applied to resource-rich countries in transition.

Erdenes Mongol's Ch. Otgochuluu provides a timely insight into Mongolia's new minerals policy as part of his contribution, examining the policy's application in the pursuit of sustainable development for the country and its citizens.

Jonas Moberg and Victor Ponsford focus on the Extractive Industries Transparency Initiative and examines the critical role that initiative can play in delivering sustainable development in the extractive sector.

Lastly, Anastasia Rodina's research looks at another aspect of natural resource governance which is the subject of active EBRD/World Bank collaboration: how efforts to reduce the flaring of associated petroleum gas provide an opportunity to enhance aspects of sector governance.

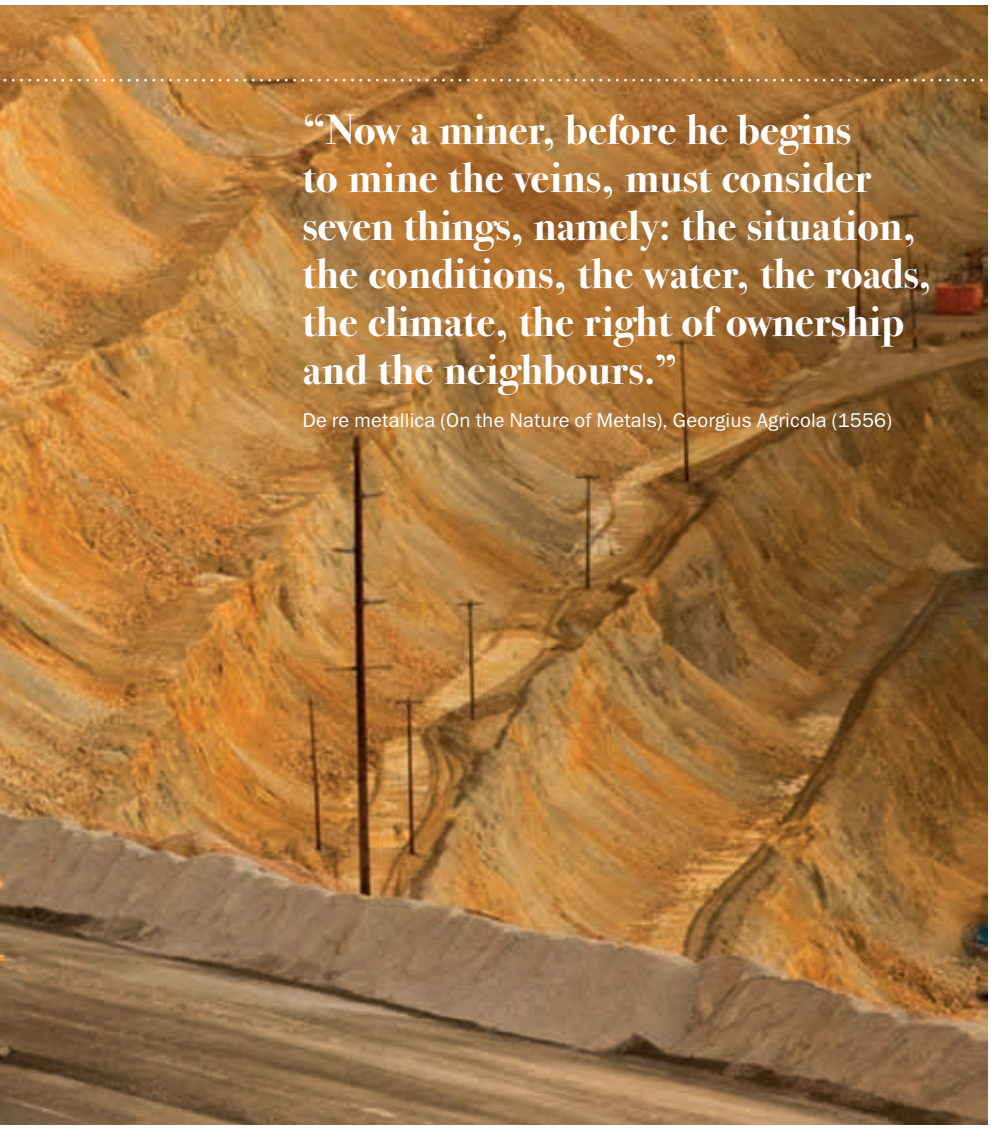
Paul Moffatt

SUSTAINABLE DEVELOPMENT AND THE EXTRACTIVE SECTOR

THE IMPORTANCE OF CLEAR POLICY-MAKING, LEGAL CERTAINTY AND ROBUST INSTITUTIONS

OVERVIEW

Mineral resources represent both a substantial source of wealth and a formidable challenge to regulate in a manner that will maximise the benefit to host nations and improve prosperity for their communities. Although there is some debate over the role of resource extraction in growth and what can be achieved by the application of particular policies, it is obvious that clear policy-making can capitalise on the extractive sector as an engine of broader-based economic growth and development.



"Now a miner, before he begins to mine the veins, must consider seven things, namely: the situation, the conditions, the water, the roads, the climate, the right of ownership and the neighbours."

De re metallica (On the Nature of Metals), Georgius Agricola (1556)

AUTHOR

PAUL MOFFATT
SENIOR COUNSEL
EBRD
Email: moffattp@ebrd.com

Key to the development of the sector is the attraction of sufficient investment. Resource extraction is highly capital intensive and requires substantial and long-term investment. Potential investors therefore put a premium on political and regulatory stability. Thus, to attract maximum attention from potential investors a government needs to send clear signals as to its intentions regarding the development of the sector, applicable rules and the envisaged role of the various stakeholders. Sector policy is the key vehicle for the government's objectives, intentions and methodology.

Since the days of Agricola, quoted above and known as the "father of mining", it has been apparent that the issues highlighted in that quote need to be addressed for resource enterprises to have a chance of sustainable success. Added to this have been the lessons learned from the experiences of jurisdictions throughout the globe. This article looks at the key aspects that need to be dealt with in sector policy. It aims to distil the experience of policy content in an effort to identify some of the key factors that need to be addressed for sector policy to be considered as an effective, fundamental instrument of sector development.

EXPERIENCES OF THE EXTRACTIVE SECTOR IN THE EBRD REGION

Resource extraction is a key component of economic growth and social development in a number of the EBRD's resource-rich countries of operations, such as Kazakhstan, the Kyrgyz Republic, Mongolia and Ukraine. While there are examples of countries that have managed to turn the endowment of mineral resources into broader-based national wealth it has become clear from these examples that the potential benefits which can flow from a resource endowment are contingent on whether extraction activities and the associated revenues are developed and managed responsibly and sustainably over time. The key to ensuring this is a clear, substantive and coherent plan, containing all the necessary ingredients which experience has shown positively contribute to the attraction of investment into the responsible management of extraction over time. The experience of translating resource wealth into broader-based prosperity in the EBRD region has been mixed to date and indicates deficiencies in the policy-making process. Improved understanding of the role and content of policy can be a valuable exercise for resource-rich developing and transition economies as they strive to identify the key ingredients necessary to translate resource abundance into broader wealth and benefits for citizens.

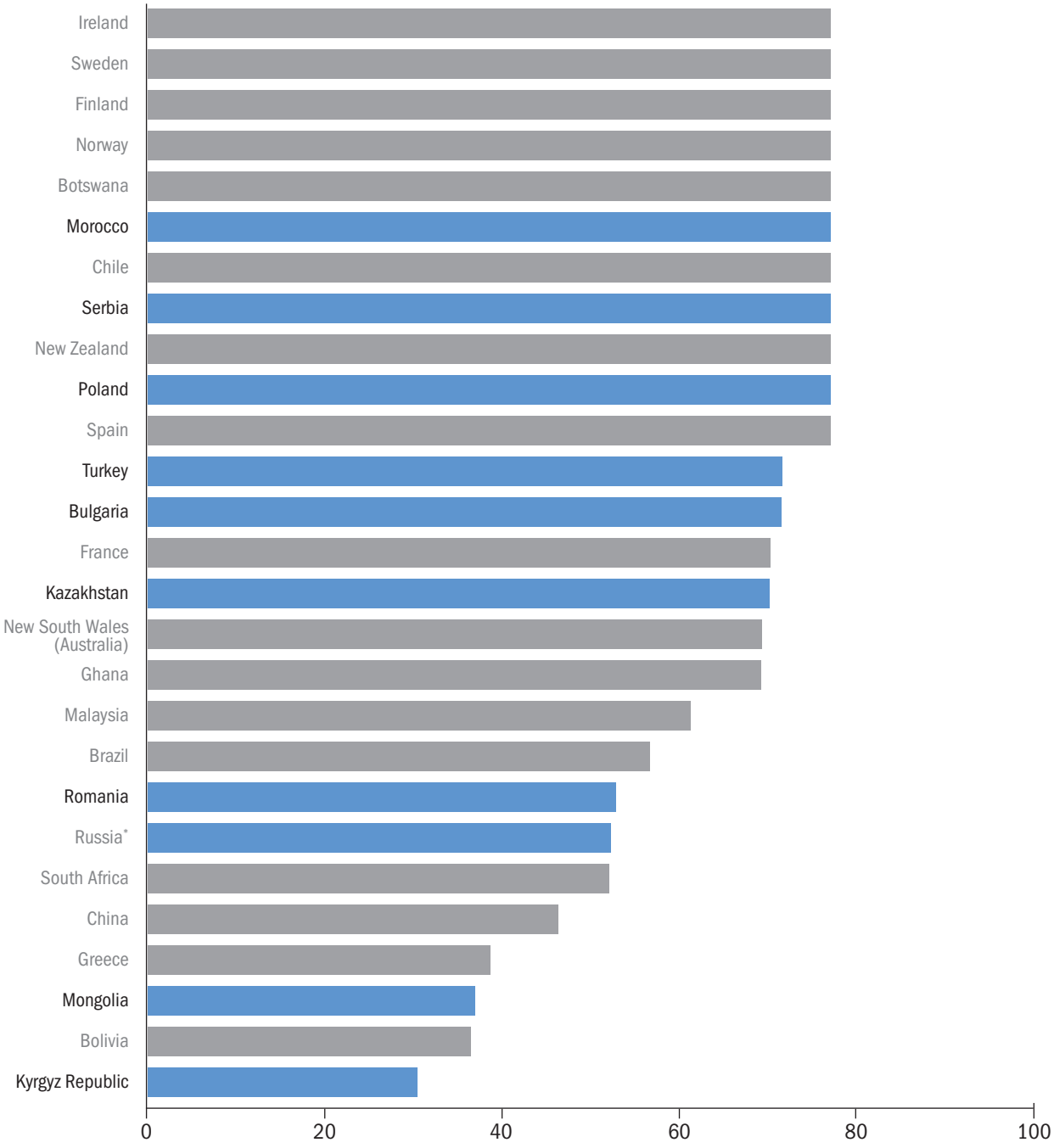
EXPERIENCE OF THE EXTRACTIVE SECTOR GLOBALLY

Over the last two decades there have been substantial advances in the global understanding of how extractive operations can be administered more responsibly and with more attention to sustainability issues. These improvements have fed into the policy-making process, providing many modern policy tools for governments to apply to their particular circumstances and stages of development or transition. Best practices in addressing environmental, health, safety and social issues have made significant advances and continue to evolve and provide a solid base for modern policy-making. Good governance, stable and constructive institutional relations and good economic management have also been recognised as key issues to be managed by responsible companies and have featured consistently in effective policies across the globe. In particular, transparency has emerged as a key tool for the sector policy-makers, with the Extractive Industries Transparency Initiative (EITI)[1] becoming the global standard for transparency and reporting in the extractive industry, in particular as a means of building community trust and countering corruption.

MEASURING POLICY EFFECTIVENESS

As indicated, an essential ingredient of sector development is sufficient, substantial capital investment. Given the recent sustained commodity price downturn and the parlous state of the financial affairs of many resource sector investors/operators, the pool of available capital is at its lowest in some time. Given that increasing numbers of resource projects are chasing limited and diminishing investment, the effectiveness of policy and the perceptions of investors in this respect have become critical. One of the more prominent measures of policy-making and the perception of the investment community towards the resultant policy is that carried out by Canada's Fraser Institute in its Survey of Mining Companies.[2] This survey assesses the mining policy of 109 jurisdictions worldwide through its Policy Perception Index, a composite index that measures the effects of government policy on attitudes

CHART 1 POLICY PERCEPTION INDEX FOR EXTRACTIVE SECTOR (SELECTED COUNTRIES)



Derived from data collected by the Fraser Institute Annual Survey of Mining Companies – 2015, Policy Perceptions Index and used with permission.
The Policy Perception Index (PPI) is a composite index, measuring the overall policy attractiveness of the 109 jurisdictions in the survey. Above is a chart drawn from the data collected by the Fraser Institute for their survey, listing the EBRD countries of operations that feature in the survey (marked in blue) plus a number of other jurisdictions for comparison. The index is composed of survey responses to policy factors that affect investment decisions. Policy factors examined include uncertainty concerning the administration of current regulations, environmental regulations, regulatory duplication, the legal system, the taxation regime, uncertainty concerning protected areas and disputed land claims, infrastructure, socioeconomic and community development conditions, trade barriers, political stability, labour regulations, quality of the geological database, security, and labour and skills availability. The PPI is normalised to a maximum score of 100, with 100 representing high policy attractiveness.
*Refer footnote 20 on page 90

towards exploration investment. In looking at the top performers of that index one can distil a number of key recurring characteristics and principles that appear in the policies of jurisdictions globally that "get it right". Set out below are a number of the key principles and characteristics that can be found in these sector policies of better-performing jurisdictions.

IMPORTANCE OF CLEAR AND PRECISE POLICY-MAKING

Sector policy is the key vehicle for setting out a government's objectives, intentions and methodology for the development of the sector. To attract maximum attention from potential investors a government should try its best to send clear signals as to its intentions with respect to the development of the sector, applicable rules and the envisaged role of the various stakeholders.

FORM OF POLICY AND BASIC CONTENT

While policy can have many manifestations, such as a specific policy document or interrelated documents, or can be inferred from legal instruments and/or administrative practices and/or government officers' statements, ideally effective policy should be set out in a clear and easily identifiable form.[3] Experience from successful jurisdictions indicates that policy should follow a clear set of principles which contain precise and concrete aims and objectives; specify rules and procedures for developing those objectives; identify the means and guiding principles by which the objectives will be achieved (for example, restricted or open market); and, identify and aim to reconcile dominant and conflicting interests of stakeholders. Policy should further identify the specific parties responsible for the implementation of particular objectives and provide a timetable within which the objectives should be achieved. Ideally, where the policy initiates significant reform or significant deviation from a prior approach, the policy should also be accompanied by an action plan specifying individual elements of policy and identifying specific steps and an appropriate timeline preparation and implementation of individual elements of policy.

KEY POLICY OBJECTIVES

The key objectives of an effective sector policy will be to attract investment; ensure development at a national, regional, local and community level; provide for development in a sustainable manner through the integration of environmental, social and economic impacts; and ensuring, insofar as possible, a positive social, economic and environmental legacy.

KEY POLICY CHARACTERISTICS

Modern and effective policy should be forward looking and, given the length of sector cycles, take a longer-term view; clearly define specific expected outcomes from the application of the policy; and, where appropriate, draw on the successful experiences of other jurisdictions, while recognising the relative uniqueness of a country's circumstances and the need to adapt the experience for it to be of true value. In setting out principles, objectives, actions and drawing on experience, the policy should provide clear, substantive and available evidence, commissioned by the policy-maker for the purposes of the policy or drawn from robust sources of international experience.

Given the extensive actual or potential linkages of the minerals sector to the broader economy and society, effective policy should seek to be broad and encompassing, ideally taking an integrated and holistic view, identifying how best the sector can be developed in a sustainable and environmentally friendly way, while providing maximum benefit to the widest range of citizens, both directly from the sector itself as well as from the backward and forward linkages that the policy should strive to promote and facilitate.

As policies can be time and place specific, there should be adequate provision and mechanisms for their review, the evaluation of impact and success, and the facility to revisit aspects where necessary.

REFLECTIVITY OF INTERNATIONAL STANDARDS

Effective policy will often reflect international standards and recognised best practice. Among the influences in this respect are:

- the Extractive Industries Transparency Initiative (EITI) is a high-level global initiative launched at the World Summit for Sustainable Development in 2002. The initiative was soon after endorsed by the G-7,

the international financial institutions (including the EBRD), civil society organisations (CSOs) and major Western oil, gas and mineral companies. The EITI is a policy, legal and regulatory framework which aims to contribute to ensuring the proceeds of mining and energy industries are used for broader economic development. The EITI Standard[4] provides an agreed framework for regular publication of all material oil, gas and mining payments by companies to governments and all material revenues received from oil, gas and mining companies to a wide audience in a publicly accessible, comprehensive and comprehensible manner. Once a host government chooses to endorse the initiative, then all revenue flows from oil, gas and mining companies to governments (such as royalties, bonus payments and general taxes) are disclosed to the public. Payments by companies and receipts by the government are reconciled by an independent third party and civil society is actively involved in the EITI process in each country, thereby enhancing wider accountability

- Publish What You Pay (PWYP) is a global coalition of CSOs united in their call for an open and accountable extractive sector, so that oil, gas and mining revenues improve the lives of citizens of resource-rich countries and extraction is carried out in a responsible manner that benefits countries and their citizens. PWYP advocacy and activities are guided and informed by their Principles and Standards[5] in the belief that coordinating the collective actions, skills and interests of a diverse coalition of CSOs is the most effective way to influence key stakeholders and drive policy and practise change in the extractive industries and the governmental sector

- International Labour Organization Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries,[6] which provides for recognition of the rights of ownership and possession over the lands that they traditionally occupy; prior consultation and participation in the benefits and fair compensation for any damages, with regard to the exploration and exploitation of mineral or subsurface resources; and, due respect to their customs or customary laws

- International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (also known as the "Equator Principles"),[7] which have become globally recognised good practice in dealing with environmental and social risk management.

BOX 1 EBRD SUPPORT TO THE OUTREACH OF THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI) – MONGOLIA:

The EBRD, through its Legal Transition Team (LTT) has been supporting the deepening and broadening of the implementation of EITI in Mongolia since 2010. Among the areas where EBRD support has been targeted are: the preparation of a standalone EITI law mandating compliance with EITI on the part of government and mining companies and specifying the regulatory and institutional framework that will govern that compliance; preparation of a communications strategy and implementation plan; training of key EITI stakeholders; and implementation of an online reporting platform (e-Reporting). The current EITI Standard requires, among other things, regional and project-level disaggregation of revenues, and therefore, a strong implementation capacity at the regional and local levels. In view of the start of the second validation of Mongolia's EITI status in 2016 and the continuation of the EBRD's work in the Mongolian mining sector with this loan, LTT will, in 2016-17, examine scope to provide support for the outreach of EITI at the local community level, as an accompaniment to the Bank's ongoing support for EITI in Mongolia. Along with EITI Mongolia, among the key partners LTT will look to support will be the mining and transparency focused CSOs. These play a critical role in the implementation of EITI in Mongolia (EITIM), particularly in spreading awareness among local communities. However, CSOs also face significant challenges in fulfilling their EITI role at a country level and there is limited outreach to the extractive industry-affected communities. Through any such support LTT would aim to strengthen both EITIM's presence in the communities as well as working with local and regional CSOs to ensure a balanced engagement in EITI outside the capital.

KEY POLICY CONTENT

(a) Policy actions: Effective policy should set out the actions which the government intends to take in order to achieve the policy objectives. Among the key actions in this respect will be those aimed at creating an enabling and investor-friendly environment by:

- establishing clear and predictable "rules of the game" consisting of an appropriate legal framework, a framework which should comprise a series of laws or legal instruments (regulations, licences, procedures, guidelines, contracts) to cover matters such as the specifics of the sector (for example, a mining law), as well as provisions for the protection of investment (for example, investment and stabilisation laws), and laws to ensure environmental protection and sustainable development (for example, environmental and monitoring laws)

- elaborating on technical, financial, environmental, social and administrative requirements

- providing for a clear assignment of specific responsibilities of the provincial and national government

- establishing that enforceability of legal and regulatory provisions and contracts must be practical and affordable

- elaborating on an appropriate institutional framework, including:

  > cadastral-based institutions which will be responsible for broader regulation, including registration, licensing, mapping, and so on

  > an inspectorate which will be responsible for technical oversight, enforcement, health and safety

  > a geological survey, responsible for geoscience data and survey work

  > fiscal oversight authorities at a national and, where appropriate, provincial level responsible for tax, royalties and duties

  > environmental authorities, responsible for environmental enforcement, with sufficient capacity at both a national and sub-national level, given the localised nature of most environmental issues

  > labour and social protection authorities

- providing a framework for adequate and appropriate re-distribution of resource rents among central authorities, provincial levels and local communities

- providing a framework for adequate and sufficiently inclusive community participation in both implementation of the policy and its ongoing review and evaluation

- setting out the actions intended for national, regional and local development, for example, the government may pursue a policy on localised beneficiation whereby additional value accrues to the state by the processing of raw minerals before their export, or perhaps a policy to support local firms to provide goods and services needed in the mining production process

- elaborating on the steps that will be taken to manage the impact of mining operations, for example, provision for reclamation and reinstatement of land at the end of mine life and closure.

(b) A fiscal and commercial framework: Effective policy should elaborate on a fiscal and commercial framework that will comprise a combination of policies, laws and regulations and institutional arrangements. This framework should aim to give investors clear and definite guidance on the intended mining fiscal regime (that is, profits tax, royalties, dividend taxes, import duties, VAT, depreciation and amortisation schedules), as well as highlighting mitigants to various risks to investment, for example, a stabilisation agreement preventing or lessening the need for changes to tax and audit requirements.

(c) An environmental framework: Effective policy should set out clear provisions for environmental protection, elaborating on specific governance provisions through law, regulations, certifications, and so on. Good governance in this respect will be achieved through an appropriate balance between mining and environmental aspects. To provide sufficient force and effectiveness for the environmental provisions there should

be an adequate financial regime to provide support funds in case of environmental damage. Given the extensive international experience in environmental protection in the context of the extractive sector, the policy should strive to apply international practice for environmental compliance standards and rules on involuntary relocation and compensation.

(d) Stakeholder consultation framework: Critically, to earn the respect, trust and confidence of stakeholders from investors to the local communities, policy should not be developed in isolation and must be inclusive, created following genuine and good-faith consultation with all relevant stakeholders. Effective practices in this respect should comprise a Stakeholder Participation Framework which will identify stakeholders; elaborate on formal and informal mechanisms to build stakeholder support; provide for open communication with identified stakeholders as a means of facilitating good governance; allow for public hearings, regular meetings, publication of relevant reports; and, crucially, compliance with the EITI.

THE SCOPE OF POLICY

Policy should be clear in its scope and identify the range of minerals that it extends to. For example, some governments may choose to exclude specific minerals from general sector policy because of an actual or perceived additional strategic value (for example, uranium or other minerals used in nuclear energy processing). In addition, the government may seek to apply different rules (and therewith different policies) to the likes of artisanal mining. Some policies may seek to include provisions relating to both exploration and exploitation of minerals.

THE ROLE OF THE STATE

Effective policy should also be clear on the role of the dominant sector actor in many jurisdictions, that is, the state. In addition, the policy should clarify how that role will be defined and implemented (for example, in law). In providing clarity on this point, the policy should be clear on the state's role as regulator and whether the state will intervene in the sector as an operator. Where there is such an intention, the policy should articulate the attitude to foreign investment and what the role of the investor will be.

BOX 2 LESSONS IN TRANSPARENCY FROM GHANA

Building on the foundations created through the EITI, Ghana has emerged as a regional leader in natural resource transparency. Reformers in government and civil society used the EITI as a platform for policy dialogue and transparency. At a time when legislative oversight was weak, the country's EITI reports represented the most comprehensive source of information on mining revenues and included production volumes, the value of mineral exports, the names of companies operating in the country, production data by company, production stream values, royalties, special taxes, dividends, and licence and acreage fees. Reporting has now been extended from the mining sector to the oil and gas sector, which started production in December 2010. The Ministry of Energy has put Ghana's most important petroleum agreements online. Apart from sharing information, legislation has created mechanisms that institutionalise transparency in revenue management. Having become EITI compliant in the petroleum and mineral sector, in 2011 Ghana enacted the Petroleum Revenue Management Act (PRMA). The legislation exceeds EITI standards. Apart from establishing rigorous rules for reporting on oil fund assets and investments, the PRMA created an independent regulatory body, the Public Interest and Accountability Committee (PIAC), to monitor compliance with the law, provide a platform for public debate and assess the management and use of petroleum revenues. While the PIAC is an advisory body with no formal powers, it has significant leverage. The committee comprises 13 representatives of religious, traditional and professional bodies; civil society and community-based groups; trade unions; and the Ghana Extractives Industries Transparency Initiative. The committee publishes bi-annual reports that have forced the government to explain its performance; its first report highlighted a 50 per cent shortfall between forecast and actual government revenues – which was due to uncollected corporate taxes. Greater accountability in the natural resources sector has helped to increase budget transparency. In 2012, Ghana scored 50/100 on the Open Budget Index (OBI) – the highest in West Africa and well above the regional average.

Drawn from the Africa Progress Panel's *Equity in Extractives Stewarding Africa's natural resources for all Africa Progress Report 2013*. See http://www.africaprogresspanel.org/wp-content/uploads/2013/08/2013_APR_Equity_in_Extractives_25062013_ENG_HR.pdf, page 74.

OBLIGATION OF GOVERNMENT

Policy should be structured so as to obligate the government in some way. While sector policy documents are not necessarily legally binding in most countries they can, once in the public domain, impose certain obligations on government to act in accordance with their declared intentions with respect to particular issues. Where properly constructed and published, sector policy documents can add political pressure to pursue the development of a particular sector.

CORRUPTION AND TRANSPARENCY

Keeping citizens ignorant of resource deals facilitates corruption, theft from public funds, misallocation of revenues and waste. Restricted access to key information is increasingly said to be at the heart of the gap between wealth creation and human development. One of the major aspects that policy is increasingly being called to address is the prevalence and impact of corruption on the sector, with the expectation that an effective policy will identify scope, potential incidence of corruption and highlight methods to be used to tackle it. Mining agreements can be particularly vulnerable to corruption because of discretionary powers that have traditionally tended to apply to their conclusion and operation. Bearing this in mind, transparency has emerged as a primary policy means of combating corrupt practice.

With its emergence as a key policy to counter corruption, there is also an expectation that effective transparency may go beyond the mere disclosure of information, to encompass the verification that the information made available is complete and accurate, to ensure that is presented in a format that can be understood by the wider public, and that will facilitate national dialogue on the issues at stake. Although many countries have made impressive progress; far more has to be done to unlock the transformative power of transparency.

The EITI can play a key role in the transparency process. Although launched as a technical, financial reporting process it has grown in its ambition to be a platform whereupon government, non-government organisations and companies are brought together and the national reports that are produced provide a focal point for national dialogue. The experience of Ghana (see Box 2) is illustrative in this respect.

Having put in place a clear, precise and certain policy the challenge then becomes to establish an equally clear, precise and certain supportive legal framework and a sufficiently robust institutional framework to support implementation of the policy.

SUPPORTIVE LEGAL FRAMEWORK

A supportive legal framework should reflect the following best practice principles:

Entrenchment of core principles and fundamental rights and obligations in primary legislation: Once sector policy has been decided on, the intentions contained in the policy document need to be translated into concrete actions and a legislative framework within which these intentions can be given life. This legislative framework should ideally be underpinned by a framework mining law which is itself necessary to entrench the core principles attaching to the sector, for example, transparency, non-discrimination, objectivity, promotion of sustainability and environmental protection, and so on. Generally speaking, framework legislation will be prepared by the responsible ministry (in consultation with the sector regulator and all affected stakeholders) and presented to parliament who will debate and pass this primary legislation as a law of parliament. Such primary legislation should be reflective of the following:

Statement of rights and obligations: Primary legislation should provide a clear and concise statement of the rights and obligations of all sector stakeholders.

Fundamental sector principles: Fundamental incontrovertible sector principles should be contained in primary legislation. Detailed procedures applicable to individual elements of the sector should then be contained in secondary legislation. Such practice allows entrenchment of fundamental principles that will be unlikely to change in primary legislation, while allowing the practical day-to-day operational and implementation issues that may be affected by changes in technology or operation of the marketplace to be included in regulations which can be more easily altered to reflect changing technology or marketplace.

Quality of entrenchment and permanence to critical elements: Once enacted as primary legislation by parliament, amendment is generally seen as a lengthy and cumbersome exercise in the majority of countries. Thus, although primary legislation does not cast principles in stone, the quasi-permanence allowed by the characteristics of primary legislation can protect it from political tinkering or short-term alteration. Even where the democratic credentials of parliaments in certain countries may not be as solid as they could be, the process attached to the amendment of parliamentary legislation nonetheless acts as a solidification of basic principles.

Actual content of primary legislation will vary: Actual content and level of detail of primary legislation will vary from country to country. In this respect, much will depend on the level of development of the marketplace, the strength of the surrounding administrative structure and the effectiveness of the underlying legal environment. Where these elements are sufficiently advanced, the amount of specificity required in primary legislation is reduced. Where sector reform has yet to begin or where the application of modern regulatory standards is in its infancy, more specific guidance of the law will be necessary. Similarly, where the legal environment, in particular the court administration, is not yet used to dealing with complex econo-legal matters, more detail will be necessary.

Restricted access to key information is increasingly said to be at the heart of the gap between wealth creation and human development.

CREATION OF A SOLID INSTITUTIONAL FOUNDATION

To implement the policy initiatives contained in primary legislation a strong institutional foundation should be established based on the clear separation of the following functions:

Separation of state ownership from regulation:
A key element of a stable environment for resources is the establishment of a sector-specific regulatory authority. With the onset of modern regulatory practices where the state maintains a role in resource extraction operations, regulation by a government ministry making decisions about policy formulation, implementation and operation is clearly inappropriate, and could give rise to an actual or perceived conflict of interest. Given the competing objectives of those three roles it is highly unlikely that such conflicts could be resolved effectively within one authority. International experience has shown that a sector-specific regulatory authority, independent of both political and operational influence, has emerged as a central part of sector development. Such separation of ownership and regulatory functions increases perceived neutrality and insulation of the regulator from political pressure and investors will generally have greater confidence that such a regulatory authority will regulate in a transparent and objective manner. Accordingly, where the government retains any shareholding in an operator the regulatory function should be clearly separated from the control function of the operator as the shareholder. A common model for addressing this issue of operational control is to transfer the state shareholding from the ministry responsible for the resources sector to the ministry for finance or a state property/privatisation agency.

Separation of policy-making from regulation:
The government functions as policy-maker to design the rules of play and format of operation of the resources sector. Implementation of these rules and policies more appropriately lies with an independent regulatory agency, separate from the ministry. Such separation generally allows efficient, objective and transparent implementation of sector regulation, free from most of the political pressures that dictate policy formulation.

As with the regulatory regime itself, clear rules and processes must also apply to the regulatory function and the regulatory authority, and, in addition, the basic procedures that will govern its interaction with the sector operators must be defined, preferably in primary legislation. Crucial also for any reform endeavour in this respect is the ability to develop a flexible regulatory capacity that can adapt to an evolving marketplace and that will take every opportunity to promote and facilitate both social and commercial objectives.

1. See http://www.eiti.org (last accessed 3 February 2016)
2. See Fraser Institute Annual Survey of Mining Companies – 2014, by Taylor Jackson and Kenneth P. Green, available at https://www.fraserinstitute.org/studies/annual-survey-of-mining-companies-2014 (last accessed 3 February 2016)
3. For its 2015 policy survey, the Fraser Institute awarded Ireland the top spot in their policy perceptions index. While not a major contributor to the economy, Ireland's clear, identifiable and comprehensive approach to sector development scores highly with investors. It can be viewed here: www.mineralsireland.ie (last accessed 3 February 2016)
4. See https://eiti.org/document/standard (last accessed 3 February 2016) (last accessed 3 February 2016)
5. See http://extractingthetruth.org/extractingthetruth.html (last accessed 3 February 2016)
6. See http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169 (last accessed 3 February 2016)]
7. See http://www.equator-principles.com/ (last accessed 3 February 2016)

CONCLUSION

Critical to the sustainable development of the minerals sector in resource-rich, developing and transition economies is the attraction of substantial quality investment. The ability of an economy to attract such investment in an era of weakening availability of capital investment and increasing global competition for that investment will depend on what a country has to offer an investor. Clear and precise sector policy, legal certainty and robust institutions have proven fundamental to attracting and sustaining investor interest and attention. There is rich, worldwide experience, both positive and negative, for developing and transition economies to draw on the form, characteristics and essential content of effective sector policy.

Eric Rasmussen

THE EBRD AS A PROBLEM-SOLVING PARTNERSHIP FOR RESPONSIBLE NATURAL RESOURCE INVESTORS

Through its practical involvement in the natural resources sector, the EBRD implements its institutional mandate of promoting sustainable investments and dispersing best practices of resource development.

The long-term rationale for investing in oil, gas and mining remains strong. Natural resources will remain at the core of the world's industrial production and supply chains feeding demand buoyed by growth in populations, incomes and urbanisation. Natural resources also significantly contribute to economic growth and social development in a number of the EBRD's countries of operations, with local communities often benefiting significantly from oil, gas and mining activities. The potential benefits of resource dependence are however contingent on whether the natural resources and associated revenues are developed and managed responsibly over time. Past experience shows that the extraction of mineral resources may have negative economic, environmental and social consequences, and can result in increased macroeconomic volatility, reduced incentives to invest in physical and human capital, and weaken institutions and governance. The resource-rich countries are often plagued by inequality, corruption and strong vested interests.

Environmental, health, safety and social standards are currently being applied to varying degrees in the EBRD region. Through its practical involvement in the natural resources sector, the EBRD implements its institutional mandate of promoting sustainable investments and dispersing best practices of resource development. The Bank is also involved at the macro level and pursues a policy dialogue in the countries that either lack sufficient legislation or do not have proper procedures to enforce it. The institutional policy dialogue focuses on improving environmental and social standards, governance and transparency principles, stakeholder engagement, as well as enhancing energy security and reducing the carbon footprint by pursuing energy efficiency (for example, by reducing gas-flaring) and switching to cleaner fuels.

Natural resources are commonly associated with anything that is extracted or collected in raw form. Natural resources in the context of this article mean oil, gas and metals mining. The EBRD has invested about €7 billion (90 per cent disbursed) in 165 oil, gas and metals mining operations to date. The current operating portfolio assets stand at about €2 billion, of which about 10 per cent is invested in equities.

AUTHOR

ERIC RASMUSSEN
DIRECTOR,
NATURAL RESOURCES
EBRD
Email: RasmussE@ebrd.com

The EBRD also works alongside responsible investors, who apply good corporate governance and best practices to their operations which are summarised in environmental, social, health and safety action plans (ESAPs) and are disclosed to affected stakeholders. The Bank also supports constructive institutional relations and good economic management. In particular, the EBRD assisted several countries in creating frameworks for the implementation of the Extractive Industries Transparency Initiative (EITI) that has become the global standard for transparency and reporting in the extractive industries. The Bank also insists on high levels of public disclosure of fiscal payments from the projects it finances (the so-called "Publish-What-You-Pay" principle).

The EBRD is mindful that investors in the natural resources sector face significant challenges. Already the capital intensity, cyclicality and climate change pressures in the industry demand strong balance sheets and organisational capacity for long-term survival. Moreover, natural resources investors have a substantial share of their portfolio of extractive and supply chain assets in remote places and emerging markets. Emerging markets, of which many are located in the EBRD region, however also increase the risk exposure to, among many other factors, weak legal and institutional frameworks.

Discussion on how investors handle the risks of weak legal and institutional frameworks is the focus in this brief article. The question is at the core of the ongoing tension between investors' needs for objective, neutral and fair rule-based institutions on the one hand, and vested interests of the host countries on the other. Even where the rule of law has triumphed after centuries of familial favoritism by clan leaders, some degree of threat often lingers that elected leaders may seize an

EXAMPLE OF EBRD LEGAL TRANSITION WORK WITH AN EITI FOCUS

The revised EITI standards were launched in May 2013 and Mongolia, together with Kazakhstan and Albania, were among the first countries to produce an annual report on the basis of the new EITI standards. The new standards require, among other things, regional- and project-level separation of revenues, which require considerable administrative implementation capacity at regional administrations. EITI representatives plan to validate Mongolia's compliance with the EITI standards in 2016. In response the EBRD is offering technical assistance to the Mongolian mining sector with the aim of publicising the EITI to local communities. Technical cooperation will specifically support mining- and transparency-focused civil society organisations (CSOs). Such CSOs play a critical role in spreading awareness among local communities of EITI and mining activities. The need to assist CSOs is recognised in the 2014 EITI Annual Report for Mongolia, which recommends more effort and funds for organising trainings for civil society organisations, for training of companies' accountants and to generally promote EITI within local communities in a more understandable way.

opportunity to reverse the democratic transition. Furthermore, the economic and financial downturn with its pressure on budget revenues often triggers debates about re-nationalising key natural resources or increasing tax collection. The question for the natural resource investor in places with weak institutional and legal frameworks is therefore to which degree the host country (or region) is "ruled by law" where the legal system creates a level playing field for everyone except the host country's leadership – and what can be done to ensure that the rules for an investment will be guided by the "rule of law" so the host leadership will have a strong incentive not to exempt themselves from the rules governing everyone else – including the natural resources investors.

In jurisdictions with weak legal and institutional frameworks the natural resources investor can face a variety of interference disrupting the rights and ability to control and operate assets in the supply chain. The key threat is actions of state institutions (for example, regional administrations, federal ministries, agencies and state-owned enterprises). Interference often concerns the access to public infrastructure and services. The severity can range from a local official's inability to handle a required technical certification to unlawfully revoked permits and attempted extortion. The list of incidents "goes on and on" as risk insurers say.

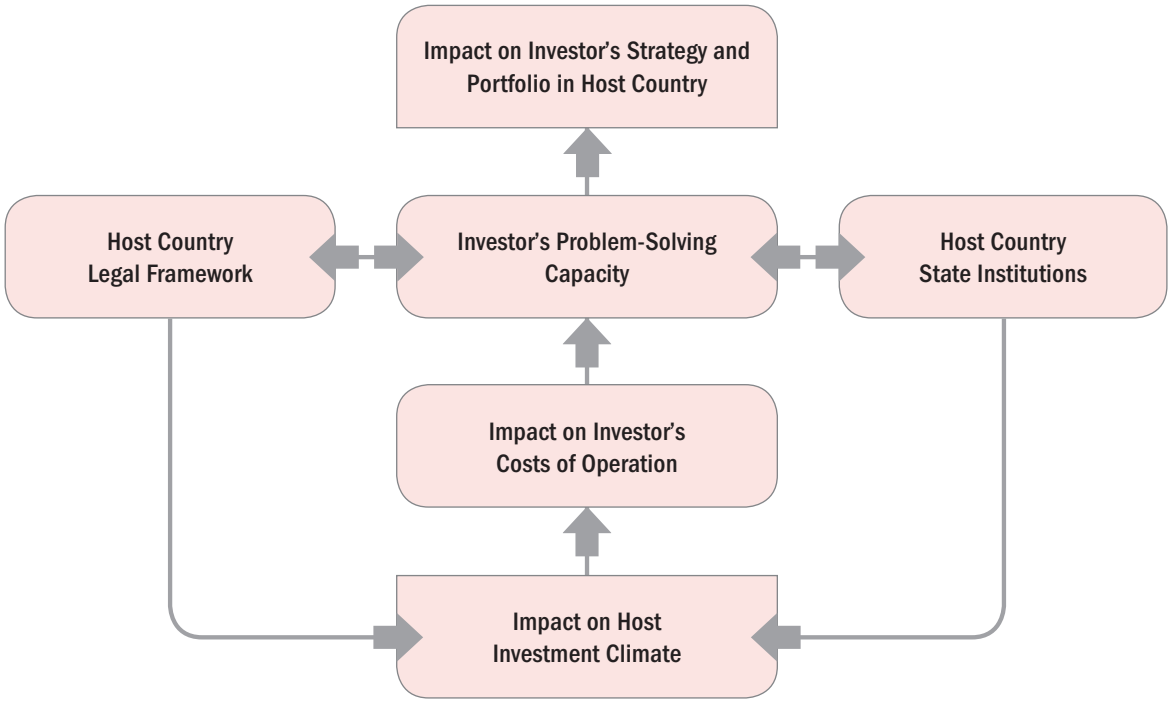
In order to mitigate interference investors seek to protect themselves through extensive project documentation and increased capacity and efforts to solve problems. The *responsible and law-abiding* natural resources investor's problem-solving capacity is mainly a function of available resources and leverage.

(i) *The resources* will include skilled manpower, management information systems, contingency budget, external supportive stakeholders and nurturing local relationships.

(ii) *The negotiation leverage*, which mainly stems from the value of the host government take (for example, economic benefit) from the asset and to what degree the investor is a fair, transparent and resilient counterparty, who ultimately has the strength to suspend local operations. An investor's negotiation leverage can be very high, when the investment asset is critical for the host country's reputation, budget income or energy security.

The investor's problem-solving capacity is a critical success factor for operations in places with difficult investment climates. Complex project documentation requires continued monitoring and maintenance, which in itself demands a minimum level of problem-solving capacity from financial controllers, lawyers and compliance officers. However many more resources must be mobilised, when a legal and institutional framework deteriorates and becomes a deterrent to the investment process. As state interference increases, the investor's required problem-solving capacity will need more resources until the costs undermine the return on investment and trigger the investor to reassess the strategy in the host country. The issue may be exacerbated if the investor relies on capital markets to provide a substantial part of the funding. The deterioration in the host country business climate or allegations of wrongdoing may weigh heavily on the investor's share price and hence reduce the ability to attract funding. The outcome could be suspended operations or selling all or part of the investment to adjust the asset portfolio, as illustrated in Chart 1.

CHART 1 INVESTOR'S PROBLEM-SOLVING CAPACITY



Problem-solving capacity is a critical success factor for a responsible investor, who bets on a long-term investment of strategic importance in investment climates rooted in an autocracy. The investor would typically face high political risk and ambiguity relative to the pace and direction of the leadership, legal and institutional transition. The investor would therefore need to design an investment structure, which would have very strong and lawful incentives for the local leadership to remain a supportive counterparty and continue to embrace an agreed government take as well as the standards and processes encompassed in the ESAP and EITI. As political risks are high, the investor would typically aim to share risks on the investment and insure risks to the extent feasible. This is where the EBRD may assist the investor's project company by diversifying its funding sources, providing financing for the tenor that matches asset life and therefore supports building a stronger balance sheet with a leverage fit for purpose. Having a Resident Office and investment portfolio in the host country (or region), the EBRD is well positioned to assist the investor in dialogue with the local government and, if needed, provide technical assistance to help the country adopt the EITI and best-practice standards for environmental, health, safety, social and stakeholder engagement. Autocracy-rooted government institutions usually have limited capacity in implementing clear, objective and predictable regulation as the basis for attracting investors, who are committed to good corporate governance, EITI, best-practice ESAP and reliable enforcement.

Problem-solving capacity is a critical success factor for a responsible investor, who bets on a long-term investment of strategic importance in investment climates rooted in an autocracy.

TABLE 1 SIMPLIFIED ILLUSTRATIVE EXAMPLES OF INVESTMENT SITUATIONS AND SOME POSSIBLE EBRD SUPPORT

Host leadership's general attitude to regulation

	AUTOCRACY	SEMI-DEMOCRACY
Rule of law	• A significant part of the natural resources business is serving patriarchy clans, who often inherit seats in government and institutions. • Elections are weak and at times only ceremonial. State institutions are entangled with the business interests of clans. Institutions interfere and tend to subvert NGOs. • A reactive dialogue with investors is anchored by inexperienced and uninterested officials. • A ***key deterrent*** in the investment climate is the high political and counterparty integrity risks. Leadership succession may cause a flare-up in clan feuds, violence and asset seizure.	• The natural resources business is micromanaged by an elected government from a dominant political party. Local and international NGOs are tolerated if they project political neutrality. • The government effectively reaches out to investors on behalf of its remote natural resources regions, which lack significant investment. • Infrastructure and service markets exist but suffer limited capacity due to the lack of investment. • A ***key deterrent*** in the investment climate is the risk of state institutions interfering to force fatal renegotiation of deals seen to be too attractive.
	The EBRD may share risks, help design an ESAP, support policy dialogue and be part of an early warning network on integrity and state actions.	*The EBRD* may share risks, mobilise capital, support SMEs, help design the ESAP and act as a "burglar alarm" and broker in case of state interference.
Rule by law	ADHOCRACY	DEMOCRACY
	• The government, freely elected, pursues bold industrial reform to develop a significant potential in natural resources. • Resource licence tenders and investment incentives are transparent. • The government's dialogue with investors is often "tit for tat" deal-making. Investors face pressure to develop local content and make non-core business promises, which can enhance the government's image. • A ***key deterrent*** in the investment climate is the risk of a xenophobic backlash, if the economic transformation fails to meet expectations. Investors could face instructions to maintain high employment and pay more taxes in a downturn.	• The government is a coalition of moderate politicians aiming to improve citizens' living standards in regions with natural resources and to boost the tax revenues from natural resources. • The policy dialogue with investors is well advised and systemic in adopting best practice. • Entrepreneurship in the service markets and public-private partnerships (PPPs) are encouraged to enhance capacity and efficiency. • Resource licence tenders and investment incentives are transparent. Arbitration and enforcement is proven and respected. • A ***key deterrent*** in the investment climate is the intensifying competition and increasing asset acquisition prices and the government take. Very high fixed costs will impair assets in a downturn.
	The EBRD may share risks, mobilise capital, help design the ESAP, support policy dialogue, invest in SMEs and help assess political changes.	*The EBRD* may mobilise equity capital, help design the ESAP, support local partners and infrastructure.
	Lower	**Higher**

Host government institutions' capacity to Implement (that is, design, supervise and enforce) **legislation**, which support best practice ESAP and EITI standards

In investment climates rooted in democracy the investors will often operate several parallel and complex joint venture structures with the aim to leverage partnership alliances to expand and diversify their global asset portfolios. The EBRD would often be one of the few financiers available to provide long-term limited-recourse project finance with equity, mezzanine finance and/or syndicated debt. At the same time the EBRD may complement the investor's problem-solving capacity by its country presence, expertise and outreach to local companies. A local presence enables the EBRD to support the development of transport, energy, water infrastructure and waste management and other value-added facilities and services, which are key to the development of projects. Moreover, in those countries which are significant energy producers, the EBRD will also help diversify the local economies by attracting investors to other sectors.

For the sake of illustration only Table 1 shows various simplified highlights of investment situations and the possible EBRD support to responsible investors' problem-solving capacities.

In conclusion, the EBRD has gained the trust of its partners and is recognised for its experience and pragmatic attitude in helping natural resources investors to coordinate and resolve a variety of issues associated with a project's diverse and multiple stakeholders (that is, equity partners, banks, suppliers, competitors, unions, NGOs, courts, media, and so on) as well as devise the means to shape the behaviour of host countries' leadership and government institutions. The EBRD is therefore well positioned to offer a problem-solving partnership for responsible investors operating in the EBRD region.

Peter D. Cameron

THE NATURAL RESOURCES SECTOR AS AN ANCHOR FOR SUSTAINABLE DEVELOPMENT

LINKING SUSTAINABILITY TO DEVELOPMENT IN THE EXTRACTIVE SECTOR

This article identifies four key sustainability challenges facing governments in the extractive industries (EI) sector today and examines the development challenge in particular.[1] The four main challenges are as follows:

1. How does a government meet the challenge of identifying and implementing policies to ensure that EI sector investments lead to positive and sustainable impacts on growth and development? (The "development" question)

2. How can policies be developed to minimise and mitigate the environmental costs and/or risks that accompany a decision to develop a mining and/or hydrocarbons industry? (The "environment" question)

AUTHOR

PETER D. CAMERON
DIRECTOR
CENTRE FOR ENERGY, PETROLEUM AND MINERAL LAW AND POLICY
UNIVERSITY OF DUNDEE
Email: p.d.cameron@dundee.ac.uk

3. How are the social costs and risks of developing a mining and/or hydrocarbons industry to be managed? (The "social" question)

4. How are the sustainability benefits accrued, leveraged and distributed? (The "accountability" or "governance" question).

THE DEVELOPMENT QUESTION

EI sector development can generate further benefits to the economy beyond the direct contribution of revenues, through its links to other sectors. It can act as a catalyst for job creation, poverty reduction, an end to aid dependence and the establishment of forward and backward linkages.[2] The former can entail support for local or national small and medium-sized enterprises (SMEs) in building a role in the investors' supply chains and developing non-resource dependent clusters of industrial activity. The latter entail measures to process the resources or to use the resources to build local industry. In particular, as a lever for infrastructure development (such as roads, railways, water and power) in settings where it is seriously deficient, the EI sector can open up opportunities in new industries, including agricultural exports and tourism. If one were to seek a single justification for supporting the EI sector in low- and middle-income countries, this would be the most highly persuasive. It is arguably the question that has attracted the most attention from commentators today.

In most cases a strengthening of governance, institutions, laws and regulatory policies will be critical if sustainable development policies are to be effective.

THE ENVIRONMENT QUESTION

The development of either the mining or hydrocarbons industries entails risks but also benefits to the environment and there are invariably some costs. The importance of planning ahead to maximise the benefits, mitigate these risks and manage the impact of EI activity on the environment is much better understood in the 21st century. The abundance of toolkits, guidance and standards shows both an appreciation of the problems and a confidence that pre-project preparation can bring benefits. Poverty reduction, for example, can have positive environmental implications. However, in spite of greater knowledge, the environment question remains an enormously challenging subject, particularly when extractive activity occurs in sensitive or protected environments such as the rainforest or coral reefs (or ecologically vulnerable environments, such as regions increasingly affected by climate change, prone to drought and flood, or already depleted from previous exploration or extraction). Evidence of oil spills from tankers, pipelines or wells, of gas leaks and mineral excavation is all too abundant, even with important advances in technology and significant efforts by the respective industries. Damage may be long term and possibly irreversible.

THE SOCIAL QUESTION

The impacts of EI development on local communities, indigenous peoples and on women and children are much better understood than before, but still require determined action by policy-makers – and enforcers – to be translated into preventive and remedial measures. There is a risk that EI policies will work against vulnerable and disadvantaged groups in society who, by definition, are likely to have little impact on the design of the policies themselves. There is a growing body of research into the above issues. In these areas companies and investors generally often take the lead through the promulgation of guidelines, toolkits and standards through industry associations or other groupings. They may not have the force of law but will tend to be adopted as best practice.

THE GOVERNANCE QUESTION

In most cases a strengthening of governance, institutions, laws and regulatory policies will be critical if sustainable development policies are to be effective. Management and oversight are critical activities without which policies and plans will have no real meaning. Securing the consent of communities in this process requires the establishment of mechanisms for consultation and cooperation. This is where a "social licence to operate" is likely to be most acute.

For an ambitious government then, extractive industries sector activities can be leveraged to generate economic development that may be wider and longer lasting than the extractive industries sector activities themselves.

DISTINCTIONS WITHIN EXTRACTIVE INDUSTRIES

Within the EI sector, distinctions need to be made to understand how sustainable development issues arise and how they can be addressed. The three main distinctions are: between hydrocarbons and mining activities; between social and environmental impacts; and, where appropriate, between the stages in the lifecycle of the particular activity. Oil, gas and mining can be vastly different in terms of their potential social and environmental impacts and in terms of their management processes. With respect to the former, pollution from oil spills can be important, while for mining the issues associated with artisanal and small-scale mining are equally important but are without parallel in the oil and gas sector. Environmental and social issues arising from EI development can also differ, sometimes very significantly. On some issues they involve a different set of actors, tools, regulations, guidelines and analyses. These and other differences also arise according to the lifecycle of the extractive project.

WHY THE DEVELOPMENT QUESTION HAS BECOME IMPORTANT

There is increasing appreciation among established and prospective resource-rich countries, civil society and donors, that EI sector development can generate further benefits to the economy beyond the direct contribution of revenues, through its links to other sectors. Although the idea that governments should intervene to support broad-based economic growth is not new, the extent and type of intervention has evolved into policies designed to establish these linkages. The guiding idea is that, in the long run, a diversified economy can do better than one locked into resources exports.

There are *three kinds of initiative* for harnessing a growing EI sector to development goals that are important in current debates on law and policy:

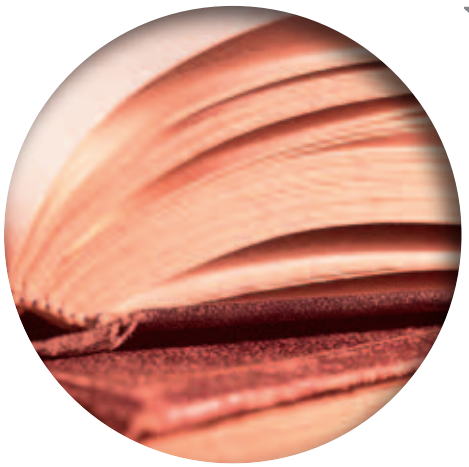
LOCAL CONTENT

These policies and the use of law to implement them are now seen as one way to create favourable linkages and build economic capital at the national and sub-national levels.[3] Large EI companies with millions of dollars of annual procurement can provide a significant business opportunity to stimulate the local economy if they are prepared or encouraged to include local SMEs in their supply chain. In many respects, the EI sector is a very small contributor to employment creation but through indirect and induced employment in the supply chain and through the provision of support services, a specialised labour force may be built up. This is a window of opportunity which nonetheless requires attention in terms of its long-term sustainability (for example, when facilities close down).

HOW?

In principle it is possible for governments to use primary legislation to implement local content policies. In practice, this is done in the oil and gas industry but much less so in mining, where the contract instrument is preferred. An example in the oil and gas industry is the Nigerian Oil and Gas Industry Content Development Act 2010 which applies to all transactions or operations carried out in Nigeria's oil and gas sector, and to all operators in it. There are four main objectives in Nigeria's legislation:

- development of indigenous skills across the oil and gas value chain
- promotion of indigenous ownership of assets and use of indigenous assets in oil and gas operations
- enhancement of the multiplier effect to promote the establishment of support industries
- creation of customised training and sustainable employment opportunities.



Countries that have broad local content provisions for mining set out in their national legislation are Indonesia, South Africa and Zimbabwe. Under Indonesia's Mining Law (2009) companies are required to give priority to local employees and to domestic goods and services, and to divestment of foreign shareholdings in local companies after five years of production. Regulations clarify the provisions in the Law. Further, there are provisions to encourage the development of processing and refining of mining products in Indonesia, with the promise that "the extent of the required local processing and refining are to be specified in the implementing regulations" (Articles 95-112 and 128-133).

By leveraging investments as well as developing new initiatives, the extractive industries large infrastructure projects can create or expand critical infrastructure and unlock regional development potential.

RESOURCES FOR INFRASTRUCTURE

In seeking multiplier effects in the local economy from EI development, infrastructure development plays a key role. It can open up opportunities in other industries, including agricultural exports and tourism. Yet gaps in infrastructure – from Mongolia to Mozambique – are one of the main bottlenecks to growth in developing countries and emerging markets. By leveraging investments as well as developing new initiatives, the EI large infrastructure projects can create or expand critical infrastructure and unlock regional development potential.[4] This can include power, roads, rail, ports and information and communication grids. In practical terms, financing is a key issue. In Africa this has been a particularly acute problem with a shortage of infrastructure and a lack of financing. Some new investors have been willing to finance infrastructure (mostly hydropower projects, railways) in return for rights to natural resource exploitation and contracts in "resource for infrastructure" transactions, and for diplomatic ties with the host government concerned. Some of the major transactions have been government-to-government ones between the China Export-Import Bank and countries in Africa such as the Democratic Republic of the Congo (DRC) that are unable to provide adequate financial guarantees to back their loan commitments. The thrust of such transactions is that the country's resources act as collateral to expand production, to rationalise transport and to make exports more efficient through finance.

1 The article draws on research done as part of the EI Source Book project (www.eisourcebook.org) managed by the Centre for Energy, Petroleum and Mineral Law and Policy at the University of Dundee, with a grant from the World Bank. The hard copy, book-length version of that project, authored by Peter Cameron, will become available in mid-2016.

2 A. Liebenthal et al. (2005), Extractive Industries and Sustainable Development: An Evaluation of the World Bank Group Experience, Washington, DC, World Bank Publications, page 1.

3 "Local Content in the Oil and Gas Sector" (2013), World Bank, Washington, DC; "A Practical Guide to Increasing Mining Local Procurement in West Africa" (2015), World Bank, Washington, DC; A.M. Esteves, B. Coyne, A. Moreno, "Local Content Initiatives: Enhancing the Subnational Benefits of the Oil, Gas and Mining Sectors" (2013), Natural Resource Governance Institute, New York: http://www.resourcegovernance.org/publications/fact_sheets/local-content-initiatives-enhancing-subnational-benefits-oil-gas-and-mining

RESOURCE CORRIDORS

The catalytic effect of investment opportunities in infrastructure can be both long term and regional in character, creating multi-state zones and so-called "resource corridors". The idea behind this spatial development initiative is to counter the enclave (small-scale, local, geographically limited) impact that is typical of hydrocarbons and mining projects by using large, commercial oil, gas and mineral investments (and their need for infrastructure and goods and services) to anchor opportunities for broader economic growth and diversification within the immediately impacted communities. The policy goal is a viable and diversified economic space, *which would not occur through market forces alone*.[5] This involves two key elements: the establishment of a viable financial framework based on the expected increase of government revenues as a result of EI activity; and capacity-building among the government, private sector and civil society to develop and implement agreed development plans. This approach would be inclusive with respect to the impacted communities.

The core of the "resource corridor" concept is that port, rail and road investments can catalyse supporting and ancillary economic activity, creating "resource corridors", alongside mining- or hydrocarbons-related infrastructure.[6] Linked to this is a requirement that third-party access to such infrastructure be facilitated. Such shared infrastructure can benefit sustainable economic growth.[7]

It is important to note the differences in opportunity between various minerals. For example, a bulk commodity such as coal or iron ore will require the development of railways, while gold extraction will require only roads but correspondingly more access to water resources. Similar differences will arise with respect to energy demands. This will impact on demand patterns for third-party access to infrastructure.

CONCLUSION

For an ambitious government then, EI sector activities can be leveraged to generate economic development that may be wider and longer lasting than the EI sector activities themselves. This includes beneficial impacts that may well be regional as well as national in character. In combination, they provide an important justification for supporting the EI sector in spite of the challenges which this presents to many governments.

Grounds for optimism about the likely success of these linkages to development policy are provided by the changing attitudes of investors. There has been growing participation of private and other corporate investors in promoting integrated sustainable development at local, regional levels, placing their transformative investments within a development context. An early lead role was taken by Chinese companies in Africa. However, industry associations in the oil, gas and mining sectors remain very active in developing guidelines, toolkits and manuals for (and with) their members to raise the level of best practice in their operations, especially in terms of their social and environmental impacts.

4 Initiatives have been undertaken to foster infrastructure development such as the African Union Commission and United Nations Commission for Africa joint initiative: "Exploiting Natural Resources for Financing Infrastructure Development"; the OECD Development Centre's "Perspectives on Global Development" and the "Guiding Principles" issued by the World Bank, which touch on the subject of mine-related infrastructure. A contribution has also been made by the International Finance Corporation and Public-Private Infrastructure Advisory Facility: "Fostering the Development of Greenfield Mining-Related Transport Infrastructure through Project Financing" (2013), Washington, DC, World Bank, PPIAF.

5 This subject is considered in an Extractives Industry Source Book paper: H. Mtegha, P. Leeuw, S. Naicker and M. Molepo (2012), "Resources Corridors: Experiences, Economics and Engagement: A Typology of Sub-Saharan African Corridors", http://www.eisourcebook.org/cms/files/EISB%20Resources%20Corridors.pdf". It considers in depth the cases of resource corridors in Mozambique, Tanzania and the DRC.

6 For a discussion of the resource corridor concept and analysis of several case studies, see H. Mtegha, P. Leeuw, S. Naicker and M Molepo (2012), "Resources Corridors: Experiences, Economics and Engagement: A Typology of Sub-Saharan African Corridors", http://www.eisourcebook.org/cms/files/EISB%20Resources%20Corridors.pdf

A failure to engage is increasingly perceived by investors as creating a risk to their "social licence to operate". The synergies between public and private investment lie in ensuring that EI projects in poor regions contribute to optimising the development potential of the affected local, national and regional communities. This requires industry as well as government to engage in avoidance, mitigation and amelioration of environmental and social damage, and community consultations at the very least.[8] Oil, gas and mining companies can also demonstrate good corporate citizenship through policies of local sourcing and other pro-development initiatives.

The synergies between public and private investment lie in ensuring that extractive industries projects in poor regions contribute to optimising the development potential of the affected local, national and regional communities.

7 For a discussion of this see the paper by Columbia Center on Sustainable Investment, Columbia University: P. Toledano, S. Thomashausen, N. Maenning and A. Shah (2014), "A Framework to Approach Shared Use of Mining-Related Infrastructure": http://www.eisourcebook.org/cms/A%20Framework%20for%20Shared%20use_March%202014_with%20CCSI%20logo.pdf

8 An example of this is the dialogue involving the World Gold Council and the World Bank and civil society partners: 'Gold for Development' (2012), conference proceedings. The focus was on the contribution of large-scale gold mining to economic and social development, with case studies from Tanzania, Peru and Ghana; the ICMM has produced a number of reports summarizing its activities in this respect such as the Minerals and Metals Management 2020 Report (2012).

Andrew Michelmore

GETTING RESULTS FROM RESOURCES

HOW DEVELOPING COUNTRIES CAN OVERCOME THE "RESOURCE CURSE" THROUGH IMPROVED GOVERNANCE AND INCREASED TRANSPARENCY

This article draws from the experiences of the International Council on Mining and Metals (ICMM) in many of the countries it works with in an effort to identify lessons that could be applied to resource-rich countries in transition in the EBRD region.

A prospering resource extraction industry is often seen as a blessing for developing countries, offering a springboard for economic and social development. However, many of the countries that possess enviable natural resource bases are not successful in translating this advantage into social and economic progress. This issue, broadly referred to as the "resource curse" can be due to a range of factors, but has increasingly been correlated with the quality of host-country governance. In other words: for countries to translate resource revenue generation to improvements in social and economic conditions requires carefully designed governance reforms and increased capability.[1]

In 2013, the Natural Resource Governance Institute launched a Resource Governance Index (RGI), with an initial coverage of 58 resource-rich countries internationally. The Index was designed to highlight that good governance of natural resources is necessary for the successful development of countries with abundant oil, gas and minerals. The RGI covers 15 natural resource-dependent countries in Africa, only three of which had partially satisfactory governance (Ghana, Liberia and Zambia). The rest exhibited either poor or failing levels of resource governance. ICMM also examined the eight countries in Africa that are mineral-dependent to see whether the relative position of these countries on the RGI mattered in terms of development outcomes. A clear connection became apparent when comparing these countries, indicating that weak governance was strongly correlated with lower human development outcomes, greater vulnerability to state failure and increased perceptions of corruption.

The Resource Governance Index (RGI) has an initial coverage of 58 resource-rich countries internationally. The Index was designed to highlight that good governance of natural resources is necessary for the successful development of countries with abundant oil, gas and minerals.

AUTHOR

ANDREW MICHELMORE
CHAIR
INTERNATIONAL COUNCIL
ON MINING AND METALS (ICMM)

One of the greatest risks associated with economic development in resource-rich countries is overdependence on resource revenues. Mining investment can trigger economic growth and poverty reduction in developing countries, but comes with a plethora of governance and economic management challenges. Further research by ICMM in partnership with the United Nations Conference on Trade and Development (UNCTAD) and the World Bank Group indicated that mining investment is most effective when accompanied by appropriate policy and institutional reforms, indicating that carefully designed governance reforms can enhance the impact of mining investment at both the national and local development levels.

A study[2] completed by the McKinsey Global Institute in 2013 indicated that the number of countries where minerals are the main driver of economic activity has increased dramatically over the last 20 years and is now dominated by low- and middle-income countries. In response to this growing challenge, donor agencies have emphasised improving governance through building capacity and robust institutions, as well as encouraging transparency and accountability.

The taxation of natural resources is a particular challenge in developing economies. Governments of developing countries urgently require tax revenues in order to pay for basic goods, services and infrastructure for their citizenry. However, mining is a capital-intensive industry and it can take over a decade for a mining project to evolve from exploration to operation. Even once a mine is operational it can take a number of years for it to become profitable and for the company to start paying corporate income tax. It is difficult for a government to make long-term plans when short-term needs are so acute. This problem is exacerbated by the fundamental time horizon disconnect between a mining company, which sees its mine as a 30- to 100-year investment and a government, which may be up for re-election in three to five years, by which time it needs to be able to point to improved social and economic outcomes in order to be re-elected.

While mining companies typically contribute as much as 20 per cent of government revenue in low and middle income mineral-driven economies, that figure is just one element of mining's contribution to social and economic development. Based on research undertaken by ICMM, in mineral-driven countries mining can typically account for 30 to 60 per cent of export earnings and 60 to 90 per cent of foreign direct investment. In addition, the returns to investors and to host governments (in the form of taxes and royalties) are broadly similar – at 15 to 20 per cent of total earnings. However, capital and operating expenditures typically account for 50 to 65 per cent of a mining company's total earnings, in the form of wages, infrastructure and procurement. When the opportunities provided by these investments are properly harnessed and supported by an appropriate fiscal regime, the multiplier effects can have a transformative effect on social and economic development outcomes. However, too often mining's economic contribution is reduced to a narrow focus on effective tax rates which are liable to change when commodity prices fall or when an election looms.

ICMM INITIATIVES

ICMM's Resource Endowment initiative was a multi-year research project, overseen by an independent international advisory group that started in 2004 in collaboration with UNCTAD and the World Bank. The initiative assessed the performance of 33 mineral-driven countries across a range of socio-economic indicators. It then developed an analytical framework that was applied to Peru, Chile, Ghana and Tanzania to identify the critical success factors that have enabled some countries to benefit from substantial resource endowments and avoid the "resource curse". The initiative demonstrated that the resource curse is not an inevitable consequence of mineral investment: mining investments can and do drive economic growth and reduce poverty nationally and locally.

The three critical success factors were found to include:

- the presence of a favourable investment climate
- reasonable standards of governance nationally
- sound national macro-economic management.

However, the quality of governance at the sub-national (regional and local) level was also identified as an important factor. The research also found that

companies alone cannot unlock the development benefits from mining – governance is key and multi-stakeholder partnerships to address issues such as revenue management or enhancing economic opportunity can help fill capacity gaps.

This project led to ICMM's publication of the *Mining: Partnerships for Development (MPD) Toolkit*.[3] The application of the toolkit in a given country enhances our understanding of mining's overall contribution to sustainable development and poverty reduction through: foreign direct investment; exports; revenues and royalties; gross domestic product; direct, indirect and induced employment; local enterprise development; economic diversification; and enhanced revenue management.

ICMM's MPD work focuses on enhancing mining's economic and social contribution as a concrete and pragmatic way of avoiding the resource curse. It is based on the premise that mining's contribution to broad-based social and economic development can be enhanced through collaboration among companies, government, local communities and development agencies – particularly at the local level.

RISKS AND CHALLENGES IN DEVELOPING ECONOMIES

An array of challenging conditions associated with governance and company behaviour can be the obstacle in translating resource wealth into lasting prosperity and improved livelihoods for a resource-rich country's citizens. A commitment by companies and government to transparency is a powerful means of preventing the misappropriation of revenues and the economic distortions caused by corruption.

As a consequence all ICMM members are required to support the Extractive Industries Transparency Initiative (EITI),[4] a global standard to promote open and accountable management of natural resources. Through an innovative multi-stakeholder approach, the initiative seeks to strengthen government and company systems, inform public debate and enhance trust. At its core is a simple but effective process: companies disclose the payments that they have made to the government of the country in which they operate and the government discloses the payments that it has received. The two sets of figures are then independently reconciled and publicly disclosed. While EITI is not a "silver bullet" to reverse the resource curse, the information contained in an EITI report and the public debate that it spurs, can provide a timely boost for governance reforms and ultimately, development effectiveness.

Another key transparency pillar for resource-rich countries is the disclosure of an extractive company's beneficial owner. This mitigates the risk of corruption, particularly in the licence allocation stage of the value chain. Without beneficial ownership information companies could unwittingly partner or enter into contract with a company or supplier owned by a corrupt individual. Non-disclosure of beneficial ownership is also thought to have enabled the use of shell companies by government officials or their associates to misappropriate public funds. Consequently, mining and metals company representatives on the EITI International Board have encouraged the disclosure of beneficial information to become part of the EITI Standard.

Misunderstandings around the content of contracts and mistrust among stakeholders can often lead to tensions. As a result, the disclosure of contracts, licences and agreements that govern the exploration and exploitation of natural resources should be encouraged wherever possible. This allows for commitments between governments and companies to be transparent, highlighting how resource-rich countries and companies agree to share the risk and rewards of a project over its lifetime.

A commitment by companies and government to transparency is a powerful means of preventing the misappropriation of revenues and the economic distortions caused by corruption.

Responsible governments are obligated to commit to high standards of transparency related to the extractives sector

OPPORTUNITIES FOR PROGRESS

Enhanced governance and transparency can address the risks and challenges associated with resource-dependent developing countries. This reinforces the potential opportunity for capital-scarce countries to finance their development efforts, stimulate public investment and promote economic growth and social development.

As mentioned earlier, ICMM's own research has demonstrated that the factors that help national-level benefits trickle down to the local level include: sound national macro-economic management and mineral fiscal regime; revenue transparency; engagement in and implementation of key international initiatives; and quality of governance at the sub-national levels, such as regional and local institutions.

Success also depends on the quality of collaboration among the government, companies, development partners and civil society organisations to enhance benefits. At the sub-national level, for example, the promise of greater economic opportunity and equitable social development depends on institutional capacity to drive change through effective planning and implementation of programmes and projects.

Some governance reforms result in policy changes that, if inappropriately applied, can have a detrimental effect on the performance of the industry and returns to all stakeholders, including host governments and communities. For example, dramatic fiscal regime changes, which may be motivated by a government's desire to ensure mineral resources generate the maximum economic and social benefit for the population, can lead to companies reducing investment and, in some cases, placing their mine under care and maintenance if a mine's profitability is threatened.

1 See http://www.resourcegovernance.org/sites/default/files/rgi_2013_Eng.pdf

2 http://www.mckinsey.com/insights/energy_resources_materials/reverse_the_curse_maximizing_the_potential_of_resource_driven_economies (last accessed 15 January 2016)

3 See http://www.icmm.com/mpd (last accessed 15 January 2016)

4 See https://eiti.org/ (last accessed 15 January 2016)

The methods by which the changes are introduced can also have unintended adverse consequences. For example, the application of policy changes could be viewed as inappropriate if changes are imposed by the host government without adequate consultation and/or are enforced over too short a timeframe for industry to adjust. Governance reforms should be designed in light of the constraints and opportunities facing individual countries, taking into consideration the factors that influence competitiveness.

ACTIONS TO ENHANCE GOOD GOVERNANCE AND TRANSPARENCY

It is the responsibility of governments, mining and metals companies and civil society organisations to push for enhanced governance and transparency.

Responsible governments are obligated to commit to high standards of transparency related to the extractives sector, and this should be linked to a forum where debate can take place on the information disclosed. It is important that all stakeholders, including the general public, are involved in this process, ensuring government accountability for both the revenues and expenditures.

Governments also need to ensure that they avoid a narrow focus on fiscal terms, incorporating other elements that influence competitiveness, such as the political risk environment and the quality of infrastructure in support of mineral investments.

Leading mining and metals companies are responsible for engaging in governance reforms, balancing the legitimate desire of host governments to ensure that mineral resources generate the maximum benefit for the country, with the legitimate need of companies to profitably invest for the long term. Mining companies also need to engage constructively in appropriate forums to improve the transparency of mineral revenues – including their management, distribution and spending – or of contractual provisions on a level playing field basis, either individually or collectively.

Lastly, civil society organisations should continue to advocate for governance reforms and improved transparency to enhance the benefits of mining developments to host countries. For their efforts to be successful, they should work collaboratively with governments, development agencies and companies to support capacity building at the national and sub-national levels.

Ch. Otgochuluu

MONGOLIA'S STATE POLICY ON THE MINERALS SECTOR AND ITS APPLICATION IN THE PROMOTION OF SUSTAINABLE DEVELOPMENT

OVERVIEW

Recent advances in policy-making in the minerals sector in Mongolia are ensuring the government's policy orientation better serves sustainable investment through balancing the need to remain attractive to private investment in the short to medium term with the desire to ensure medium- to longer-term sustainability in economic growth and prosperity for all citizens. This article takes a look at the government initiatives and their impact, as well as identifying some lingering challenges.

In 2014, the Mongolian parliament adopted a new State Policy on the Minerals Sector. The Policy is intended to serve as a framework for further amendments to the existing Mining Law and other laws relating to natural resources.

AUTHOR

CH. OTGOCHULUU
MANAGING DIRECTOR
AND CHIEF ECONOMIST
ERDENES MONGOL LLC
ULAANBAATAR
MONGOLIA

THE NEW STATE POLICY ON THE MINERALS SECTOR

In 2014, the Mongolian parliament adopted a new State Policy on the Minerals Sector (the "Minerals Policy" or "the Policy"). The Policy is intended to serve as a framework for further amendments to the existing Mining Law and other laws relating to natural resources. The stated aims of the Minerals Policy are to:

- strengthen private sector development
- establish a stable investment environment
- improve innovation in mineral exploration, mining and processing
- encourage the use of modern, environmentally friendly technologies
- strengthen the international competitiveness of Mongolia's mining industry.

The Policy acknowledges that the minerals sector should be the main driver of Mongolia's broader economic development. Accordingly, the Policy outlines general principles aimed at encouraging the long-term sustainable development of the country's mining industry, and provides for equal treatment of domestic and foreign investors under the law. In addition, it seeks to foster greater openness and transparency among government agencies and state-owned enterprises (SOEs). The Policy also calls for the gradual privatisation of minerals-sector SOEs.

The Minerals Policy also seeks to improve existing laws and regulations regarding occupational safety; artisanal mining; the issuance and transfer of mining and exploration licences; mineral deposit evaluation; gold mining; and dispute resolution through the implementation of international standards in these areas.

The government of Mongolia (GoM) also intends to enact separate legislation with regard to the exploration and mining of deposits of industrial and common minerals (for example, sand). Were such legislation to be ratified, local governments would be allowed to issue mining licences for industrial and common minerals. This would help support infrastructure construction in rural areas, and reduce the need for local companies to make the long journey to Ulaanbaatar simply to navigate state bureaucracy.

ROLE OF THE MINERALS SECTOR AND CHALLENGES TO INCLUSIVE GROWTH

Mongolia's minerals sector has been the main driver of the country's rapid economic growth: it currently accounts for 18.6 per cent of GDP and approximately 80 per cent of exports. In recent years, the sector has been responsible for over 70 per cent of new foreign direct investment (FDI) into Mongolia. It is also increasingly important to the state budget, accounting for approximately 30 per cent of government revenues.

Mongolia's minerals sector has been the main driver of the country's rapid economic growth: it currently accounts for 18.6 per cent of GDP and approximately 80 per cent of exports.

KEY POINTS OF THE STATE POLICY ON THE MINERALS SECTOR

Respect and protect stakeholders' rights (security of tenure)
Support modern techniques, technology and innovations
Open, transparent and responsible government and private entrepreneurs
Support and encourage corporate governance
Non-discrimination on type of ownership (state versus private and domestic versus foreign)
Geological and industry related database should be open to the public to enable easier access to information
Adopt the best international practices and standards on occupational safety and health

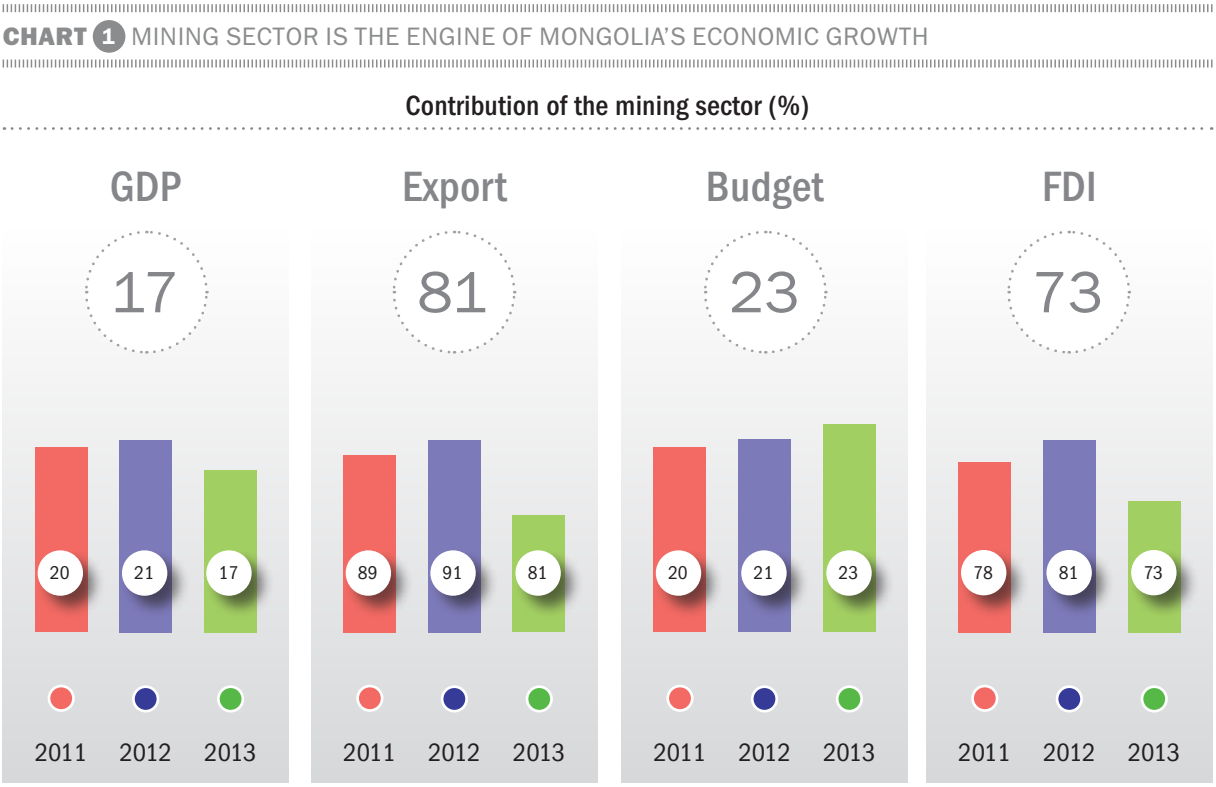
Economically, Mongolia has become a mining nation, with significant ramifications for the country's socio-cultural fabric. And while the country ranks among the top 10 countries in various mineral resources, policy-makers have yet to determine how best to leverage this wealth to advance national prosperity in a balanced and ultimately sustainable way. Although there are many solutions and diverse suggestions drawn from international experience and covering a range of outstanding issues, from institutional capacity to the management of resource rents, there is strength in the argument that Mongolia needs a more tailored approach which takes sufficient account of its unique location and developmental trajectory.

An approach that is tailored to Mongolia's unique situation may be in order: since 2009, the Mongolian economy has tripled in size, largely due to tremendous investment in its copper and coal industries. Unfortunately, there is scant evidence to show that this staggering economic growth has been accompanied by the institutional reform that is essential to underpin the sustainability of that growth. Key indices, among them economic competitiveness rankings, governance indices and studies of corruption during a similar period have not improved to the extent that was hoped for.

In fact, the boom-and-bust nature of mining, coupled with Mongolia's vibrant democracy, has created a number of new challenges for the country. Mongolia's parliamentary elections of 2008 and 2012 were accompanied by protectionist undertones, as well as promises of cash handouts designed to win over voters who felt they had not sufficiently benefited from mining-led economic growth. This behaviour served to exacerbate state budget deficits and further damage the country's balance of payments. This in turn fuelled inflation and put increased pressure on the national currency, the togrog. Ultimately, this worsened macroeconomic imbalances and served to hinder genuine efforts to diversify Mongolia's economy and build inclusive growth.

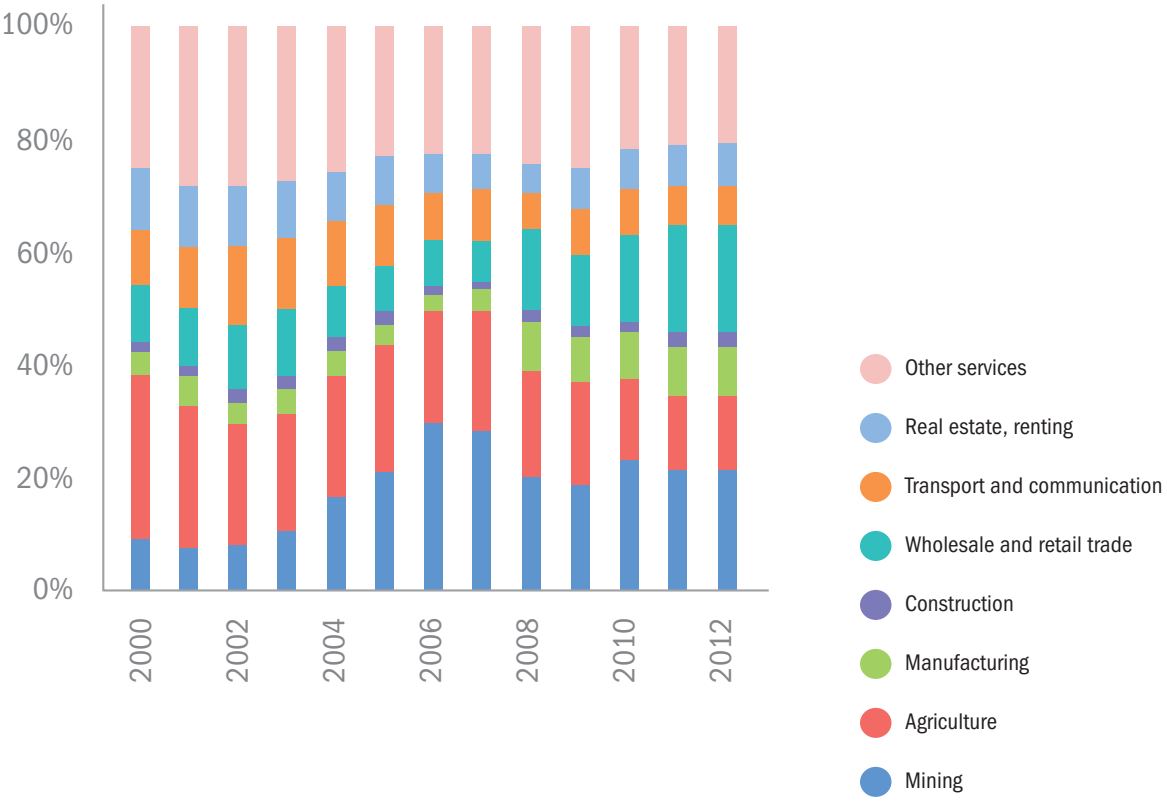
For the Mongolian minerals sector to function efficiently and promote sustainable development, reforms should be founded on three pillars: (i) enhancing institutional capacity; (ii) building public support; and (iii) improving government support for investment. What follows is a discussion of each of these pillars individually.

CHART 1 MINING SECTOR IS THE ENGINE OF MONGOLIA'S ECONOMIC GROWTH



Note: GDP = Gross domestic product. FDI = Foreign direct investment

CHART 2 COMPOSITION OF MONGOLIA'S GROSS DOMESTIC PRODUCT BY SECTORS



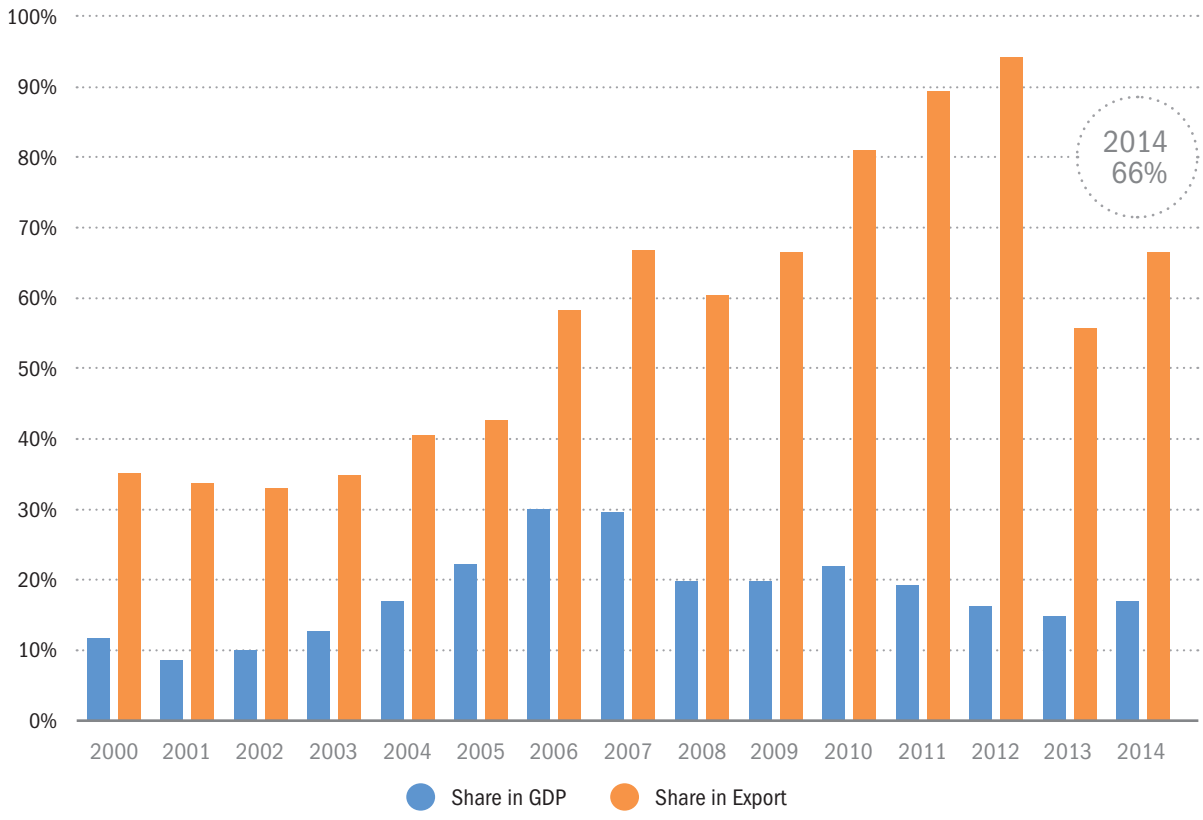
ENHANCING INSTITUTIONAL CAPACITY

After nearly seven decades of one-party socialist rule, Mongolia peacefully transitioned to a semi-presidential parliamentary democracy in 1990. At present, the parliament is the main policy-making body for the minerals sector and therefore exerts the greatest influence over its direction. It is not the only decision-making body, however: the government is able to enact regulations and also exercises control over the determination of areas which are open for exploration. The Ministry of Mining, meanwhile, is in charge of drafting policy and managing its two regulatory agencies: the Mineral Resource Authority of Mongolia (MRAM) and the Petroleum Agency of Mongolia (PAM). In addition to their respective regulatory duties, MRAM is responsible for the issuance of exploration and mining licences, and PAM is responsible for the issuance of oil and gas exploration licences and the execution of production-sharing agreements.

In 2014, the government initiated the amendment of several existing laws with the aim of liberalising the minerals sector and reducing bureaucracy related to permitting and contract negotiation. While both domestic and foreign investors have welcomed these improvements, low international price levels for Mongolia's major commodities have meant that the country will have to wait for capital investment to return.

Among the goals of the latest Minerals Policy is an increase in the volume and quality of information in the state geological database, which the government plans to accomplish through the implementation of standard international surveying methods and mineral classifications. In late 2014, Mongolia joined the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) and, as a result, adopted the Australasian Joint Ore Reserves Committee (JORC) Code. The JORC Code governs the classification of exploration results, mineral resources and ore reserves. (Mongolia had previously used an old classification system developed by Soviet-era geologists.) Experts hope that bringing

CHART 3 MONGOLIA'S DEPENDENCE ON MINERAL RESOURCES



the country's geological database in line with international standards and updating it annually will encourage increased exploration by private companies.

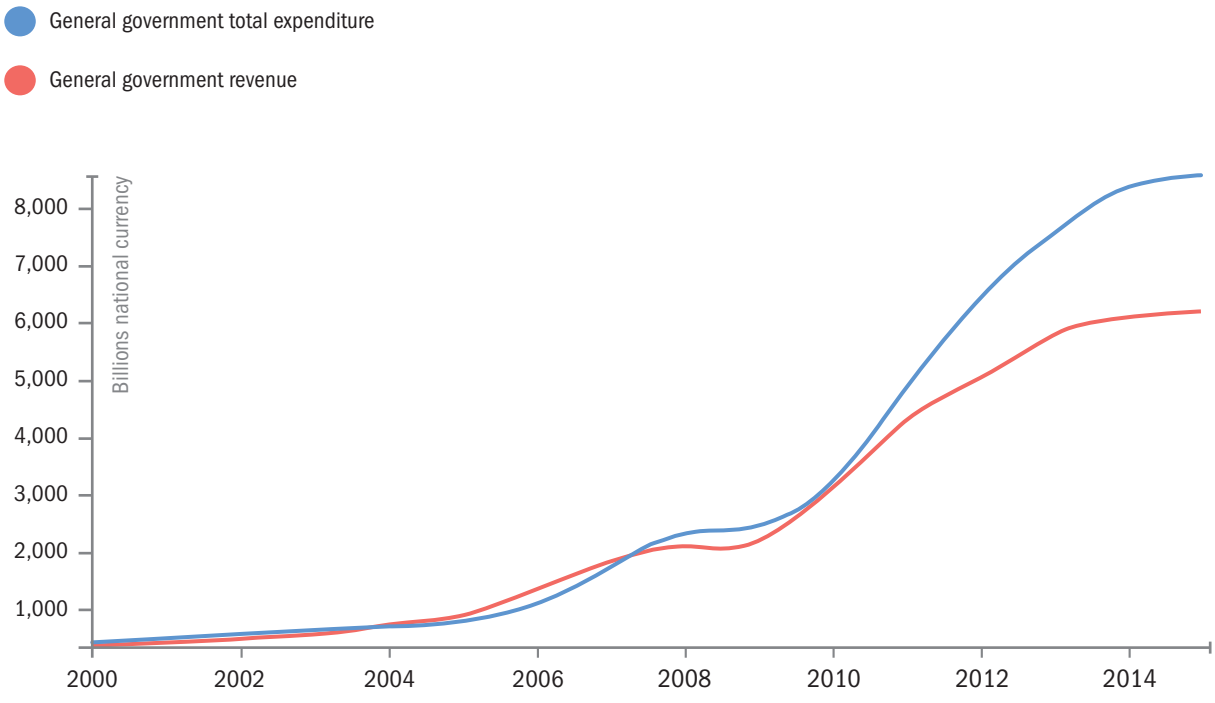
While there has not yet been any comprehensive study of the institutional capacity in Mongolia's minerals sector, sources such as the World Justice Project's Rule of Law Index; the World Bank's Worldwide Governance Indicators; the World Economic Forum (WEF) Global Competitiveness Report; and consulting firm Behre Dolbear's rankings of top countries for mining investment all suggest that Mongolian government institutions perform poorly in supporting business and enabling sustainable investment. While the government has taken steps with the Minerals Policy to improve its ability to work with the private sector, currently available data indicates that it still has a long way to go.

BUILDING PUBLIC SUPPORT

Further complicating matters is the fact that Mongolia's mining industry is facing an identity crisis. The country is home to such world-class projects as the Oyu Tolgoi (OT) and Erdenet copper mines, as well as numerous medium- and small-scale mines, including some that are illegally operated by artisanal miners. These three mine classes are currently in contention in the public imagination for the defining image of the sector.

Large mines such as OT – often termed "mega projects" – are generally foreign-invested and employ world-class safety standards and environmental practices. Their performance has a huge impact on the Mongolian economy. As a result, they are often featured in international news stories, which in turn greatly influence the outside perception of the Mongolian government and the state of the country's minerals sector as a whole.

CHART 4 MONGOLIA'S GROWTH IN GOVERNMENT EXPENDITURE AND REVENUE



Source: Citation Text

Medium-scale mines, meanwhile, are generally not covered in international news stories nor do they meet international standards – although they are improving in this regard. This is in contrast to illegal, small-scale mines operated by artisanal or so-called "ninja" miners. Although artisanal mining is seasonal and not closely monitored by the government, estimates place the number of workers employed by these small mines somewhere between 17,000 and 40,000. Despite government efforts, these mines are generally beyond the reach of workplace-safety and environmental regulatory authorities.

Because of the environmental damage caused by irresponsible miners – particularly artisanal miners – and because resource rents often do not trickle down to the local level, many small communities are reluctant to support mining. Public polls by the Ministry of Mining have shown that respondents generally do not believe that the minerals sector is benefiting the country.

However, surveys by the non-governmental organisation Sant Maral Foundation suggest that there has been a shift in national thinking about resource rents: an increasing number of respondents have stated they prefer long-term investment to direct transfers in allocation of resource rents. According to these surveys, the Mongolian public also largely continues to support significant state participation in the development of mineral deposits deemed strategically important by the state, as they see this as a way to ensure that the Mongolian people benefit from mining.

The opportunistic rhetoric of populist politicians, coupled with the occasional misconduct of foreign and domestic mining companies alike, has in recent years had a chilling effect on the development of Mongolia's minerals sector. Ultimately, only educated voters can assist in creating a political environment that enables the formulation of government policy geared towards effective regulation and sustainable development. To do this, policy-makers must acknowledge the degree to which the country's socialist past and semi-nomadic traditions shape policy debates, and adopt a communication strategy that allows for a constructive national discussion of the role of mining in Mongolia's new economy.

IMPROVING GOVERNMENT SUPPORT FOR INVESTMENT

At the core of the Minerals Policy's numerous objectives is the need to foster the development of a responsible, transparent mineral extraction and processing industry that is sustainable, export-oriented and compliant with modern international standards.

With regard to the development of strategically important mineral deposits, the state's current objective is to develop better cooperation with the private sector, while also improving control and oversight of these deposits. While the Minerals Policy does not state how this will be achieved, it does seek to ensure efficient monitoring of mining operations by state and local authorities. This includes monitoring the levying of appropriate fees and charges, and ensuring that charges are not duplicated by different levels of government.

The Minerals Policy additionally aims to increase Mongolia's ability to conduct secondary processing of minerals and engage in other value-added activities. The government hopes to accomplish this through the introduction of tax and other financial incentives for projects such as coal-concentrate, coking-coal and chemical plants. Coal-fired power plants and plants that extract liquid fuel or gas from brown coal and fuel from oil shale are also eligible.

The Minerals Policy also seeks to create conditions that will allow both investors and local communities to better understand the social and economic impact of a mining project through public presentations *before* the commencement of mining operations. This is in line with the current Minerals Law, which states that a transparent, inclusive local development agreement should be formed between the investor and the local community before project development.

Despite its adherence to the Extractive Industries Transparency Initiative (EITI), Mongolia continues to struggle in Transparency International's Corruption Perceptions Index, ranking 80th out of 175 countries in 2014. (However, this was an improvement from 2012, when it ranked 95th.) One of the challenges for the country in the coming years will be to create greater openness in agreements between public-sector agencies and officials and private companies.

Human capital development is also crucial to ensuring that Mongolia is an attractive jurisdiction for mining companies. Despite the country's high

adult literacy rates, private companies surveyed by the World Economic Forum (WEF) frequently cite an inadequately educated workforce as the main barrier to doing business in Mongolia. Ensuring that workers are sufficiently skilled is particularly critical for the success of the minerals sector, which requires highly qualified specialists capable of carrying out exploration or production operations in the country's often-harsh climate. To this end, the Mongolian parliament recently ratified the International Labor Organization's Safety and Health in Mines Convention, as prescribed by the Minerals Policy.

The Minerals Policy also calls for the establishment of a Policy Council in which the views of the government, investors, professional associations and the public are represented. Conceivably, the Policy Council would support the implementation of the Minerals Policy and make recommendations as to how it might be refined. (This would be similar to the Policy Council created by the Ministry of Mining in 2014, which has worked to improve dialogue between the government and private sector stakeholders.) Were it to be created, the Policy Council would also be tasked with safeguarding the legal stability of the Minerals Policy during the 2016 parliamentary elections.

RECOMMENDED NEXT STEPS

Today, Mongolia's economy is heavily dependent on the extraction of minerals and their export to China. Continued volatility in the demand for (and therefore in the prices of) these minerals means that in order to build sustainable long-term growth, Mongolia must diversify its economy and move on to higher value-added industries. This will require not only the development of such activities as minerals processing, but also support for other sectors of the economy such as agriculture and textiles (for example, cashmere), as well as a diversification of export destinations away from China.

There has been considerable progress towards this goal. In 2007, Mongolia announced that it would begin adhering to EITI protocols in order to encourage FDI, which has been the leading source of capital for the mining industry over the past decade. However, disputes in recent years over investment agreements have led some investors to increasingly view Mongolia with caution. Symptomatic of this, FDI has declined from its 2011 peak of US$ 4.6 billion to just US$ 542 million in 2014. (Although, this was also due in no small part to the decline in commodity prices.)

To jump-start growth in its minerals sector, Mongolia needs policies that:

- assess and enhance the climate for foreign investment in mining, with a special focus on human capital, corporate governance, business ethics and rule of law
- adequately direct policy-makers and those charged with implementation on mineral-sector reforms that facilitate both FDI and exports – including the development of clusters between multinational enterprises, local mining companies and small and medium-sized enterprises (SMEs) to encourage knowledge transfer
- enable the minerals sector to move up the mining value chain
- identify opportunities for technology transfer in the minerals sector.

In addition, strengthening the capacity of the government to engage in dialogue with the private sector and to manage contracts would help to increase the confidence of foreign investors and help pave the way for further reform. To judge its progress with respect to economic competitiveness, transparency and stability of policy, Mongolian policy-makers should pay closer attention to benchmark surveys conducted by international organisations such as the Organisation for Economic Co-operation and Development (OECD), the World Bank and the WEF. The OECD in particular has provided a number of recommendations to the government regarding how mining SOEs might improve their management and governance.

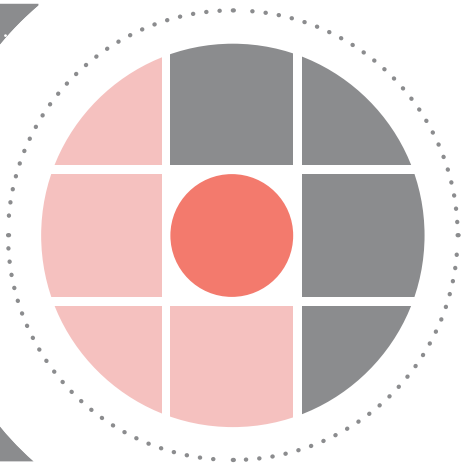
Mongolia has made notable progress with the creation of its National Council for Vocational Education, which has encouraged public-private dialogue geared towards helping the labour market supply the sort of skilled workers demanded by the private sector. The Council can be seen as a model for the private sector's provision of guidance to the government (and the Ministry of Mining in particular) with the aim of increasing the sophistication of Mongolia's minerals sector and should be further emulated. Public-private dialogue is also vital for enhancing the country's system for dispute resolution.

As previously mentioned, reliable geological information is essential for the country's attraction of investment into the minerals sector. However, enhancing Mongolia's capacity in geology will require both investment and focus on the part of public decision-makers. Nevertheless, a national geological survey – created with the coordination of all relevant government agencies (that is, those dealing with water, industrial minerals, oil and gas and hard minerals) – should be developed under the guidance of the Ministry of Mining. The Ministry should in turn seek technical assistance from donor organisations for this project.

CONCLUSION

Mongolia has the potential to achieve national prosperity through the development of its vast natural resources. While it is too early to assess the effectiveness of this new Minerals Policy, the government should be credited for the steps it has taken in liberalising the minerals sector and encouraging the adoption of international best practices.

The impact of these reforms will only be felt in time, as the current economic slow-down in China has created unfavourable near-term conditions for Mongolia's minerals sector. However, the country's successful development of world-class megaprojects, such as the Oyu Tolgoi copper mine, suggests that Mongolia's future is bright. However, political instability and poor institutional capacity remain as obstacles to Mongolia's ability to attract foreign investment and improve its international competitiveness. It is well within the nation's power to overcome these challenges, but doing so will require a firm resolve and a willingness among all stakeholders to work together towards a shared vision of prosperity.



Jonas Moberg • Victor Ponsford

THE ROLE OF THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE IN DELIVERING SUSTAINABLE DEVELOPMENT IN THE EXTRACTIVE SECTOR

Transparency in the extractive industries is no longer an exception. It is becoming the norm. This is a relatively recent development and the Extractive Industries Transparency Initiative (EITI)[1] has played a leading role in assisting governments, industry and civil society in making this happen. The EITI has evolved from a reconciliation exercise to contributing to the improvement of governance and management of the extractive industries along the entire value chain from the award of licences, to production, to where the money goes. This is of particular relevance in a time of relatively low commodity prices.

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AUTHORS

1 JONAS MOBERG
HEAD OF INTERNATIONAL
EITI SECRETARIAT
RUSELØKKVEIEN 26,
0251 OSLO. NORWAY
Email: secretariat@eiti.org

2 VICTOR PONSFORD
INFORMATION OFFICER
RUSELØKKVEIEN 26, 0251
OSLO. NORWAY

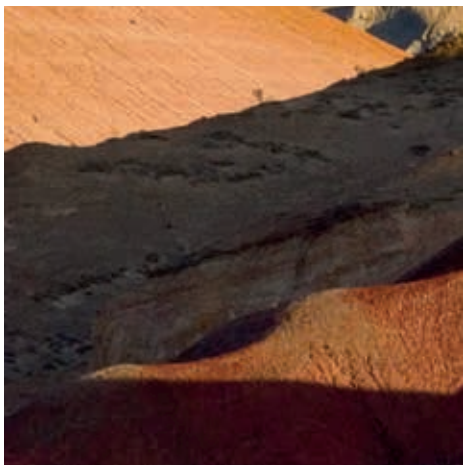
As of December 2015, 49 countries around the world implement the EITI. These countries commit to follow the EITI Standard, a 30-page document with seven requirements. At the core of this global transparency standard is the disclosure of payments made by oil, gas and mining companies and the corresponding disclosure of government receipts. The revision to the Standard in 2013 increased the scope of EITI reporting to include further information about contracts and licences, the roles of state-owned enterprises and contextual information about how the sector is governed including any applicable laws. Over 250 national EITI reports have been published, making more than US$ 1.7 trillion of tax and royalty payments available to the public. In each of the EITI countries, there is a national commission, or multi-stakeholder group, overseeing implementation and turning the global minimum standard into a nationally owned process. Some 1,200 persons from governments, companies and civil society serve on these 49 national bodies.

THE DEVELOPMENT OF THE EITI

In the late 1990s and early 2000s, the "resource curse" captured international attention. Academics, journalists and civil society campaigners highlighted that the potential wealth of natural resources was not being realised and paradoxically was routinely associated with increased poverty, conflict and corruption. This led to a campaign aimed at extractive companies to make the contracts they had signed with governments of resource-rich countries publicly available. British Petroleum responded to the campaign by releasing the information and in turn received a backlash from governments displeased with this unilateral move.

The fledgling movement towards greater transparency in the extractive sector could have ground to a halt at this point. Companies wanted a united effort to level the playing field that would require all companies operating in a country to disclose, so that companies that embraced transparency would not be at a competitive disadvantage.

A coalition of governments, companies and civil society organisations started to take shape around the notion of equal transparency from both governments and companies. There was an agreement that it would benefit all parties if some kind of standard of



LEGAL REFORMS AND THE EITI IN EBRD COUNTRIES

Albania joined the EITI in 2009 as a way to grow its relatively underdeveloped extractive sector. The EITI has been used for wider reforms in the sector, by developing a revenue management plan to address informality in the mining sector, reviewing the existing policy on royalty transfers to local governments, and including hydropower in future EITI reports. The laws on mining (2010) and hydrocarbons (2015) both mandate EITI implementation. Albania's EITI report for 2013-14 was the first EITI report from any country to include hydropower, which together with other extractive resources sectors, formed 7 per cent of the country's GDP.

Azerbaijan was one of the first countries to commit to implementing the EITI, back in 2003. The EITI is managed by the State Oil Fund of Azerbaijan and has been a core part of the Fund's effort to adhere to high governance standards and provide information that was not available previously.

Kazakhstan became compliant with the EITI in 2013 and is now taking steps to address new issues such as integrating transparency in government agencies and reporting on environmental aspects. EITI implementation has been included in the 2010 subsoil use law. The social investment obligation for companies operating in the country has also been amended as a result of EITI reporting, ensuring that these revenues are now centralised.

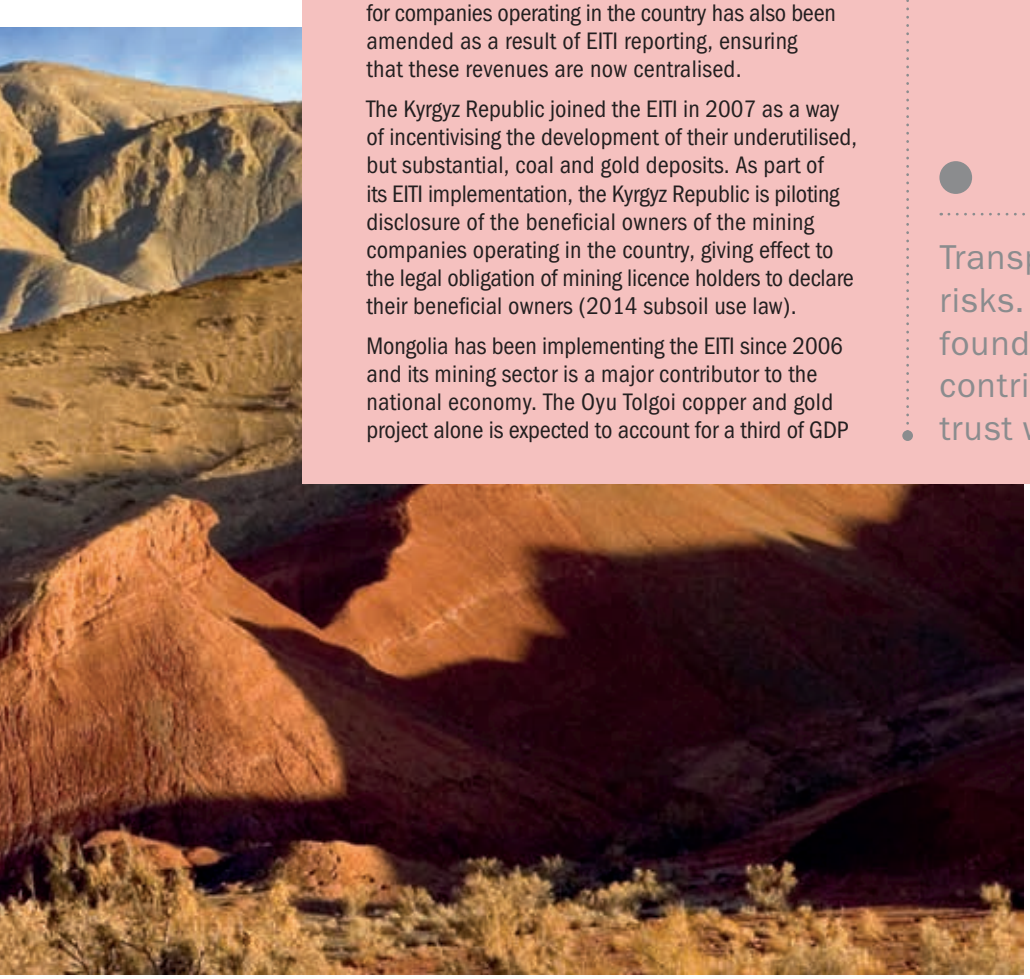
The Kyrgyz Republic joined the EITI in 2007 as a way of incentivising the development of their underutilised, but substantial, coal and gold deposits. As part of its EITI implementation, the Kyrgyz Republic is piloting disclosure of the beneficial owners of the mining companies operating in the country, giving effect to the legal obligation of mining licence holders to declare their beneficial owners (2014 subsoil use law).

Mongolia has been implementing the EITI since 2006 and its mining sector is a major contributor to the national economy. The Oyu Tolgoi copper and gold project alone is expected to account for a third of GDP by 2020. Mongolia has established subnational EITI councils in all of its provinces and some of its districts, which draw on data made accessible through the Mongolia EITI eReporting system to discuss local governance of extractive industries.

Although Tajikistan has significant natural resources, the sector remains underdeveloped and attracting investment was a key reason for committing to the EITI in 2013. In 2015 Tajikistan produced its first EITI report, which resulted in administrative reform, with the establishment of a directory of mining companies. Tajikistan also took part in the EITI's beneficial ownership pilot project.

Ukraine joined the EITI in 2012 as a way to tackle corruption in the extractive sector and create trust among citizens. Despite instability caused by the military conflict in the east of the country, Ukraine has continued to prioritise the EITI process and produced its first EITI report in 2015. As part of the anti-corruption agenda a law was passed in early 2015, compelling companies to publish their "beneficial owners", that is, the persons who own the companies.

Transparency reduces business risks. Companies have also found that EITI implementation contributes towards building trust with citizens.



reporting were jointly developed. At a conference in June 2003 a Statement of Principles to increase the transparency of payments and revenues in the extractive sector was agreed and the EITI was born.

The EITI is voluntary in that it is sovereign nations that commit to implementing the EITI Standard. Public international law does not mandate the EITI. Once a country decides to implement the EITI, it must meet a set of requirements to become EITI compliant. Most of the 49 implementing countries have either passed legislation ensuring implementation or adopted government regulations to the same effect.

The EITI is not unique in being a multi-stakeholder initiative; in 2007 in his report to the UN Human Rights Council, John Ruggie documented several cases of "a new multi-stakeholder form of soft law initiatives" which he saw as emerging: "These initiatives may be seen as still largely experimental expressions of an emerging practice of voluntary global administrative rulemaking and implementation, which exist in a number of areas where the intergovernmental system has not kept pace with rapid changes in social expectations… The standard-setting role of soft law remains as important as ever to crystallize emerging norms in the international community."

It has been recognised from the outset that the EITI will not, on its own, be sufficient to drive the necessary reforms. In recent years, a growing number of countries have passed regulations requiring publicly listed extractive companies to report payments to governments. Most notably, the United States adopted the Dodd Frank Wall Street Reform and Consumer Protection Act which, in its 1,504th amendment, contains provisions requiring companies listed under the rules of the Securities and Exchange Commission to report these payments. The European Union and Canada are among other jurisdictions that have adopted similar rules. Although these provisions complement EITI implementation, reliable information on government revenues from the extractive sector is necessary to give the full picture to the citizens of the producing country. In addition, the EITI offers an in-country oversight process through the national commission. Listings requirements in, for example, London and New York, do not by themselves lead to practically meaningful transparency for citizens in resource-rich countries.

IMPACT

Each of the three EITI stakeholder groups has different views of the EITI's impact and benefits. Countries implement the EITI for a variety of reasons including to fight corruption, attract foreign direct investment, improve taxation collection and build trust with citizens. The EITI has been used in many ways, depending on the specific circumstances of the countries and their level of commitment to reform. In Nigeria for example, the EITI has been used to identify and recover missing payments worth US$ 4 billion owed to the government. As highlighted above, in a number of countries where the EBRD operates, the EITI has contributed to reforms in the extractive sector and making a traditionally opaque sector open and more accountable.

Extractive companies, of which 90 of the largest oil, gas and mining companies support the EITI, also do so for a variety of reasons. As long-term investors, they are interested in contributing towards an enabling investment climate, characterised by openness. Transparency reduces business risks. Companies have also found that EITI implementation contributes towards building trust with citizens. Banks and institutional investors support the EITI as it helps to promote open markets and economic development. EITI implementation can help uncover financial irregularities and inefficiencies, strengthen public financial management, and promote wider institutional reforms.

Civil society organisations, often brought together by the umbrella organisation Publish What You Pay, demand transparency as a means to hold governments to account. Transparency and participation in the EITI becomes a means to the ultimate goal of ensuring greater societal benefits from natural resources.

Each constituency sits on the EITI board and supports the strategic development and growth of the organisation. The EITI is also supported by major international financial institutions which are key suppliers of technical and financial support in many implementing countries. The EBRD, for example, has for several years provided political, financial and technical support to the EITI. The EBRD has assisted a number of countries with EITI implementation. For example, in Mongolia, the EBRD's technical and financial support helped strengthen EITI Mongolia by

incorporating the EITI into national legislation. The EBRD also supported the development of online reporting, enabling better public access to data and embedding a transparency mechanism in government systems. More broadly, the EBRD has supported Mongolia's extractive industry through direct investments and loans. This is especially significant given the downturn in commodity prices. Mongolia's commitment to the EITI and transparency has helped to attract investment from extractive companies.

CONCLUSION: EITI NECESSARY BUT NOT SUFFICIENT

The EITI has come a long way in just over a decade and governance of the sector has improved. Bringing the diverse stakeholders together around the table was an accomplishment; producing the EITI Standard now implemented by 49 countries is an achievement. Transparency in the sector is increasingly a reality. All stakeholders must now work together to ensure that access to information is put to use, that transparency really leads to accountability. Information about laws, contracts and tax and royalty payments must form the basis for discussions about further reforms and improvements. The EITI must move from reports to results. Embedding the EITI into government legislation and systems is another challenge.

In recent years, within the EITI and elsewhere, there has been growing interest in the actual owners of operating companies. In too many countries this information is not available. A number of EITI-implementing countries, including Ukraine, have piloted ownership reporting. In a landmark decision in 2015, the EITI Board decided that disclosing the beneficial owners of companies would be mandatory. However, requiring the timely disclosure of beneficial ownership information also brings challenges. In many countries this will require legislative changes and cooperation between multiple government agencies. Some countries are focusing their efforts on the extractive industries, whereas others are considering broader changes to corporation law covering all industries.

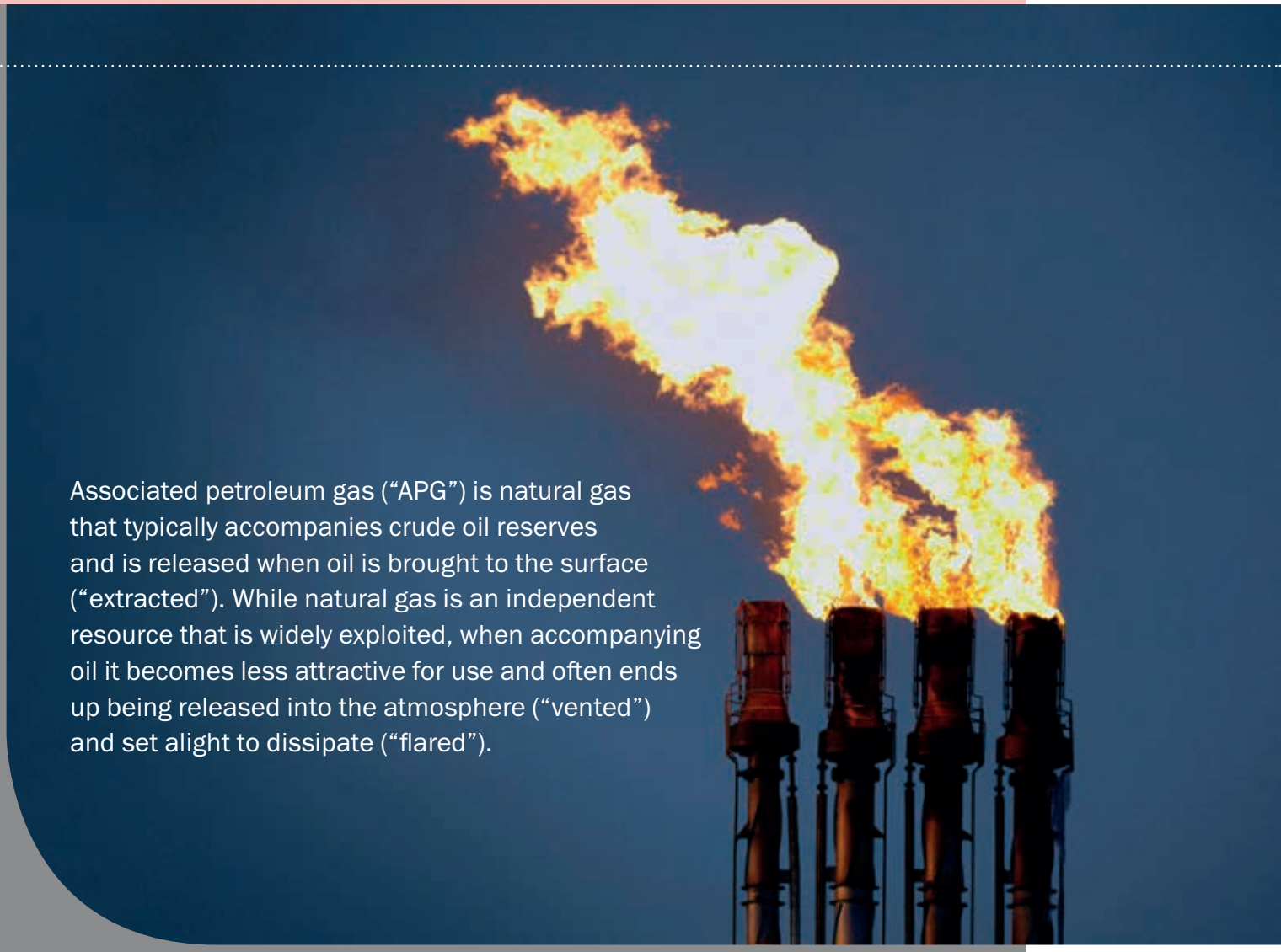
With the recent fluctuations in commodity prices, and the uncertain outlook for investment, employment and government revenues, transparency in the extractive industries is more important than ever, so that governments and citizens can make informed choices about the development of these industries.

The EITI is voluntary in that it is sovereign nations that commit to implementing the EITI Standard. Public international law does not mandate the EITI. Once a country decides to implement the EITI, it must meet a set of requirements to become EITI compliant.

1 www.eiti.org

Anastasia Rodina

BURNING THROUGH: REDUCING ASSOCIATED PETROLEUM GAS FLARING TO ENHANCE NATURAL RESOURCES GOVERNANCE



Associated petroleum gas (“APG”) is natural gas that typically accompanies crude oil reserves and is released when oil is brought to the surface (“extracted”). While natural gas is an independent resource that is widely exploited, when accompanying oil it becomes less attractive for use and often ends up being released into the atmosphere (“vented”) and set alight to dissipate (“flared”).

Venting and, particularly, flaring of APG is commonly seen as a substantive resource waste.[1] While the percentage of gas flared compared with the total volume of gas produced has been estimated at 4 per cent, it has been estimated that annually that amounts to about 110 billion cubic metres – enough to provide for the annual natural gas consumption of Germany and France together,[2] or of the entire African continent.[3] While increases in gas prices in recent years should make APG particularly attractive, only a small number of oil-producing countries have made meaningful efforts to reduce APG flaring, with the majority of oil-producing countries allowing increases in oil volume production to be accompanied by increased APG flaring.[4]

APG venting is also a source of significant greenhouse gas ("GHG") emissions, contributing to climate change and other substantive negative environmental effects. According to estimates reported by the Global Gas Flaring Reduction Partnership ("GGFR"), a World Bank-led international initiative to reduce APG flaring (discussed in more detail below), the emissions resulting from global APG flaring in 2012 were 400 million tonnes of CO_2.[5] Thus, given the volumes involved, utilisation of APG (for example, processing and selling at the gas market or using as an onsite fuel; see Chart 1 for a more comprehensive overview) where possible[6] could meet a substantive energy consumption need and thereby contribute to the enhancement of a country's energy security, while also helping minimise the negative effect of natural resources extraction on the environment. Further, efficient mechanisms for APG flaring reduction could encourage more considerate exploration of natural resources, becoming a potential instrument of good governance for extractive development.

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AUTHOR

ANASTASIA RODINA
PRINCIPAL COUNSELLOR
INVESTMENT CLIMATE AND GOVERNANCE INITIATIVE
EBRD
Email: rodinaA@ebrd.com

Unfortunately, although there are many advantages to harnessing and positively exploiting APG, there are a number of obstacles to effectively reducing APG flaring. That said, there are initiatives under way to address some of these impediments. There follows an overview of the impediments and the initiatives being undertaken by governments and international participants to address the issue.

KEY IMPEDIMENTS TO APG FLARING REDUCTION

There is a common understanding that it is cheaper to save one kilowatt of energy than to produce the same amount. While economic evidence as to whether the same calculation applies to APG flaring is scant, the fact that in practice APG is being flared rather than used suggests that at least in some instances letting it flare is easier for the oil producers than using it.[7] With this in mind it is clear that there are a number of impediments to reducing APG flaring. In particular, recent studies and reviews, including the GGFR Regulatory Overview and the Four Countries Study, have identified a number of such barriers including:

TECHNOLOGICAL AND GEOGRAPHICAL FACTORS

While economic considerations are typically the primary factor for a commercially driven oil producer to decide whether to flare APG or put it to commercial utilisation, a large part of the economic factors appears to derive from the technological specifics of APG production.

Despite their natural co-existence, crude oil and natural gas require separate technologies and equipment for production and processing, as well as connection to separate transmission and distribution networks. In addition, APG needs specialised processing into natural gas before it can be transmitted and distributed through gas networks. In fact, each type of APG utilisation calls for a separate type of technology or equipment, be it processing for sale along with "regular" natural gas, reinjection into oil fields to increase the oil production rate, or use as fuel on the production site. Associated costs – purchase, installation and maintenance of equipment, hiring or training staff, not to mention investigation of which method of APG utilisation is most appropriate – are often substantively disproportionate to the annual recovery rates for APG. This is becoming an increasingly acute problem for smaller and medium production sites. The latter, in fact, are becoming more and more popular.[9] Obviously, employing two or more types of APG utilisation simultaneously increases costs accordingly. These factors can turn a potential investment in APG flaring reduction into a costly and low-return undertaking, which would rarely be attractive, particularly compared with the higher rates of return on crude oil production.

One recent initiative to counter what is seen as excessive cost in commercialising APG has been to cluster medium and smaller sites, using economies of scale to justify investment in expensive technology and build up network connections. Here geographical considerations, relevant to APG reduction mechanisms in general, have a significant impact, as the remoteness of APG processing sites from each other and from gas infrastructure reduces the attractiveness of the clustering mechanisms. Partnering investors specialising in APG investments could build synergies regarding selection of the right investment model and often the equipment issues, as well as help overcome competition of business streams.[10] Related to this, location-wise landscape characteristics are particularly relevant – a flat terrain can be expected to make it easier to build the connections.

While economic considerations are typically the primary factor for a commercially driven oil producer to decide whether to flare APG or put it to commercial utilisation, a large part of the economic factors appears to derive from the technological specifics of APG production.

STRUCTURAL AND MARKET FACTORS

Gas market structure (for example, the degree of liberalisation) has a direct impact on APG flaring in that it determines the commercial viability of the end-product aimed for sale on the gas markets. Existence of a natural monopoly in the gas market, for instance, can hinder the marketability of the gas produced as a result of APG processing. Inefficient regulation of gas prices, for example, setting them below market values, makes selling gas less commercially attractive despite an increase in gas prices world-wide.

Furthermore, different owners of oil production sites, operation of networks, processing facilities and transportation infrastructure will create varying incentives for all the participants regarding employment of efficient technologies for APG reduction, which might hinder bringing APG to market. Lack of gas transmission and distribution networks across the country, or as the case may be, export routes, can also serve to disincentivise effective reduction in APG flaring. Moreover, the strategic role of the extractive industries for the economies of many countries often results in the main oil site operators being at least partially state-owned or operating with a state partner. This creates a duality of state interests as a partner in production, on the one hand, and the regulator, on the other. This duality is enhanced if the network operator also has state participation. The methods used to address these issues will differ from country to country, depending on the sector, market and regulatory structure.

Another ownership issue, related to legal and regulatory factors, deals with the ownership rights to APG. It is usually important that the oil site operator has full and unencumbered ownership rights to APG, thus allowing its commercial value to be passed on to the market. A review of the legal and regulatory regime and licensing and contractual arrangements will be useful in identifying and highlighting particular factors at work in a given country in this respect.

ECONOMIC FACTORS

As indicated above, economic considerations are the main determinant for the oil producer in their decision to flare APG or find a way to use it. The fact that a large portion of APG is now being flared[11] indicates that the current environment is not providing enough economic incentives for the operators to invest in APG reduction. Technological, geographical and structural factors identified above all translate into high costs for such investments.

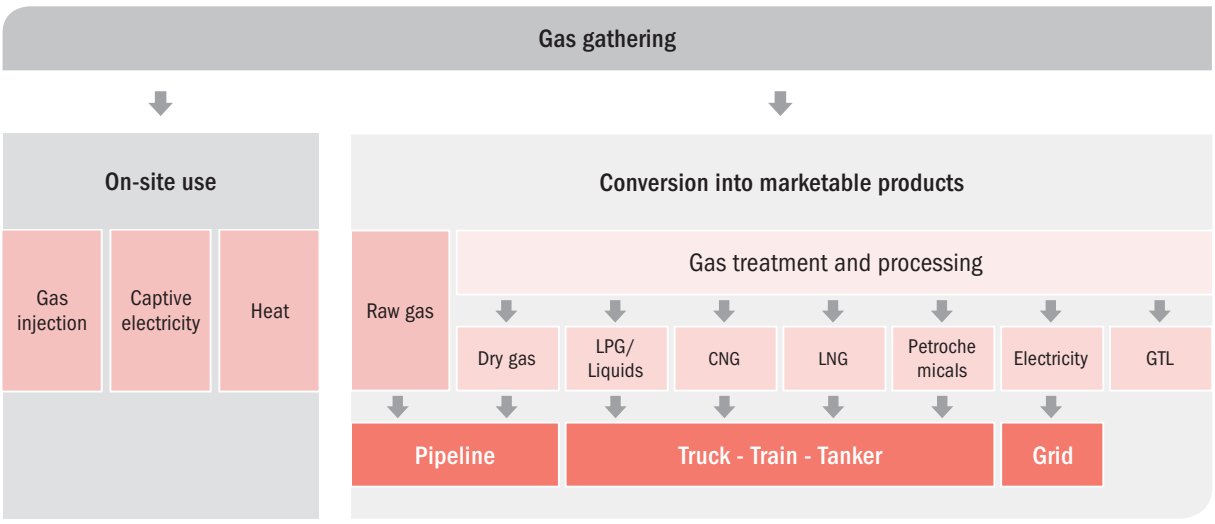
Apart from these considerations, the lack of proper incentives and the absence of appropriate investment mechanisms requires parties to spend even more time and resources on navigating significant barriers before finding a viable investment opportunity. Accordingly, making information on successfully employed investment models more readily available to a wide circle of potential investors is one area that could help to enhance the sector's investment potential. That said, interest in promoting investments and disseminating information must be balanced against the protection of the current investment, including by giving due consideration to confidentiality provisions of investment models and data. Disseminating best practices and lessons learned is a further step in this respect, and substantive work is already being undertaken in this respect by international initiatives such as GGFR,[12] discussed below.

LEGAL AND REGULATORY ENVIRONMENT

One could argue that making APG exploitation commercially attractive should create the necessary incentives and resolve the issue of APG flaring reduction. However, investment opportunities do not turn into actual investments automatically – many hurdles and externalities occur on the way. This underscores the role of additional – such as legal and regulatory – incentives in creating an enabling environment for investment in APG flaring.[13] A legal and regulatory framework plays an overarching supporting role to all other incentives in that in order for mechanisms to be transparent, effective and fully enforceable, they need to be endorsed in a legal or regulatory act.

An overview of international experience in the regulation of APG flaring recently published under the auspices of GGFR and based on the analysis of regulation in 44 oil-producing jurisdictions in both developed and developing countries distinguishes between policies, on the one hand, and legal and regulatory measures, on the other, among commonly used types of instruments aimed at reducing APG flaring.[14] The report further separates between generic policies aimed at a more efficient use of resources and specific policies aimed at reducing APG flaring. Of policy measures, targets, such as those for reduction in APG flaring, are most common. It is acknowledged that while setting a target helps visualise the long-term goal, in order to be effective,

CHART 1 OVERVIEW OF ASSOCIATED PETROLEUM GAS UTILISATION OPTIONS



LPG = Liquefied Petroleum Gas; CNG = Compressed Natural Gas; LNG = Liquefied Natural Gas; GTL = Gas To Liquids

Source: Carbon Limits. From: The Four Countries Study, page 65.

any target needs to be supported by legal and regulatory measures identifying mechanisms, responsible parties and enforcement arrangements that will translate targets into measurable results.

Among legal and regulatory instruments, levels or caps on APG flaring are the most commonly used instruments.[15] The GGFR's overview of regulatory practices in APG flaring reduction separates technical regulation of the oil industry from economic regulation of network industries. While technical regulation is concerned with setting standards for performance of the industry in order to achieve relevant – environmental, health and safety – objectives, economic regulation of network industries is primarily conducted through setting tariffs for natural monopolies and requires an independent regulator (economic regulation of upstream oil production is not required due to substantive competition in the market).[16] Both streams have an impact on the regulation of APG flaring. Being part of upstream oil production, APG flaring is often subjected to the same technical regulation as the oil industry. However, when it comes to giving companies incentives to reduce gas-flaring, then economic incentives might need to come into play.

There is no clear evidence of whether primary or secondary regulation is more appropriate for APG regulation. According to the GGFR's overview, the majority of the few countries that have regulation prefer to have generic laws, mainly identifying which institutional capacity is to deal with APG flaring, and then some detailed gas flaring regulation in secondary legislation, and sometimes, also soft legislation in the form of guidance or recommendations.[17]

Despite their natural co-existence, crude oil and natural gas require separate technologies and equipment for production and processing, as well as connection to separate transmission and distribution networks.

In terms of regulatory method, two types of regulation in the APG industry are common: prescriptive and performance-based. The prescriptive approach involves detailed and specific rules set by the regulator for the operators, both in terms of what is required and how it is to be achieved. While having the benefit of clarity and relative ease of tracking the performance, this approach requires a lot of upfront work without certainty as to the results, lacks flexibility in adjusting to any unforeseen challenges and requires strong enforcement capacity. With a performance-based approach, targets are developed in cooperation between the industry and the operator, with the industry then defining methods for achieving the targets while still having to submit a proof that its members comply with the agreed arrangements. Enforcement capacity is still needed, although it might be not as resourceful as in the prescriptive approach.

The available studies of the regulatory frameworks of APG flaring, including the GGFR Regulatory Overview and the Four Countries Study, reveal that a blueprint for an efficient legal and regulatory framework governing APG flaring reduction[18] remains elusive. There are no internationally accepted standards and, given the relative youth of the sector, it may be too early to talk about established, best standards. However, an overview of the practices in various jurisdictions could be viewed as revealing an emerging set of best practices. Recommendations identified by the GGFR include, among others: (i) development of a policy framework identifying the role that APG flaring reductions should play to achieve a country's environmental objectives; (ii) establishment of relevant primary and secondary legislation empowering regulators to deal effectively with APG flaring; (iii) independence, specialised mandate and proper staffing of regulators; (iv) the need for clear and efficient operational processes concerning APG flaring; (v) the need for clearly defined circumstances when operators can flare APG without prior regulatory approval, along with transparent application and approval procedures; and (vi) effective measurement and reporting procedures along with proper enforcement powers.[19]

As discussed above, having proper ownership rights to APG is crucial to the commercial viability of such APG. While APG flaring is commonly done under the agreements governing crude oil production – most often concession contracts and production-sharing agreements (PSAs) – ownership rights to APG in such contracts are not always clear, which creates issues for the title down the transmission chain. Without the proper rights to own and dispose of the APG the producer lacks an opportunity to pass on the title.

1 Hereinafter, this article focuses on APG flaring as presenting the greatest resource waste and source of negative environmental impact.

2 Regulation of Associated Gas Flaring and Venting: A Global Overview and Lessons, The World Bank Group, (the "GGFR Regulatory Overview") (at: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/07/16/000012009_20040716133951/Rendered PDF/295540Regulati1aring0no10301public1.pdf) (last accessed 13 January 2016), page 1.

3 See: http://www.worldbank.org/en/programs/zero-routine-flaring-by-2030#7 (last accessed 13 January 2016).

4 See the GGFR Regulatory Overview, page 1.

5 "Associated Petroleum Gas Flaring Study for Russia, Kazakhstan, Turkmenistan and Azerbaijan" prepared under the auspices of the European Bank for Reconstruction and Development and the GGFR (the "Four Countries Study"), available at: http://www.ebrd.com/downloads/sector/sei/ap-gas-flaring-study-final-report.pdf (last accessed 13 January 2016) or at: http://siteresources.worldbank.org/INTGGFR/Resources/Associated_Petroleum_Gas_Flaring_Study_Russia_Kazakhstan_Turkmenistan_and_Azerbaijan_Final_Report_Carbon_Limits.pdf?resourceurlname=Associated_Petroleum_Gas_Flaring_Study_Russia_Kazakhstan_Turkmenistan_and_Azerbaijan_Final_Report_Carbon_Limits.pdf (last accessed 13 January 2016).

RECENT INITIATIVES TO REDUCE APG FLARING

While petroleum exploration dates back centuries, the reduction of APG flaring has been attracting the attention of governments and other stakeholders only relatively recently. The most prominent of the international initiatives is the GGFR, a public-private partnership platform combining the efforts of the governments of oil-producing countries, state-owned companies, major international oil producers, international organisations and donor countries to facilitate the overcoming of barriers to reduce APG flaring through exchanging practices and promoting better standards. The GGFR was launched in 2002 and, led by the World Bank, is now endorsed by 18 countries (including major oil producers of the EBRD countries of operations – Azerbaijan, Kazakhstan, Russia[20] and Uzbekistan, as well as the world's other major oil producers such as Iraq, Kuwait and Qatar); 13 major oil producers (for example: BP, Chevron, ExxonMobil, Kuwait Oil Company and Total); as well as three international organisations helping to steer efforts – the EBRD, the European Union and the World Bank.

One of the first initiatives in sharing experiences and shaping better standards is the Voluntary Standard for Global Gas Flaring and Venting Reduction prepared by the GGFR in 2004. This standard provides guidance on reduction of APG flaring and steps towards implementation, including preparation by operators of Associate Gas Recovery Plans and development by the relevant government of Country Implementation Plans, with the subsequent monitoring and reporting on progress.[21]

International efforts in reduction of APG flaring have been stepped up since 2005, with the launch, under the auspices of GGFR and championed by the World Bank, of the "Zero Routine Flaring by 2030"[22] initiative. Supported by an even-greater number of governments, oil companies and development organisations than GGFR partners, the initiative presents to the oil-producing countries an ambitious goal of eliminating routine APG flaring by 2030.[22] Importantly, the Organization of the Petroleum Exporting Countries (OPEC), bringing together major oil-producing countries, is an active supporter of the gas-flaring reduction initiatives.[23]

A number of individual countries have been trying to reduce APG flaring, including through reform of their legal and regulatory frameworks; however, the effectiveness of their efforts varies. Only very few countries have managed to achieve significant reductions, as a result of their own initiative, with Canadian province Alberta, the United Kingdom and Norway being top performers.[24]

RELEVANCE OF APG FLARING REDUCTION AND EBRD COUNTRIES OF OPERATIONS

Of the world's top 20 countries with the largest volumes of APG flaring, three (Russia, Kazakhstan and Egypt) are EBRD countries of operations (see Chart 2). Thus, supporting the reduction of APG flaring is one of the priorities for the EBRD's investment operations in the energy sector as well as a priority acknowledged under strategic policy documents such as the EBRD's Energy Strategy.[25] The EBRD is a key partner with GGFR and promotes APG flaring reduction both under the auspices of GGFR and as part of its independent activities. In 2012, the EBRD hosted the GGFR

6 Selling processed APG on downstream gas markets is only one potential method of commercial recovery of APG, with the other common ones including re-injection into the oil field for increased oil production, using as a fuel onsite. Emergency flare is non-avoidable and hereinafter, we will speak only about reduction in APG routine (that is, non-emergency) flaring.

7 There are different ways to using APG – processing it and using it just as regular natural gas, or re-injection into the oil field for an increased production rate. See, for instance, the GGFR Regulatory Overview, page 13.

8 See Footnote 5.

9 See, for example, the Four Countries Study, pages 10, 11.

10 See, for example, the Four Countries Study, page 7.

11 According to GGFR, 15 per cent of APG production was flared in 2012. See: http://www.worldbank.org/en/programs/zero-routine-flaring-by-2030#7 (last accessed 13 January 2016).

12 http://www.worldbank.org/en/programs/gasflaringreduction (last accessed 13 January 2016).

13 See, for example, the Four Countries Study, page 7.

14 See, for example, the GGFR Regulatory Overview, pages 4, 6.

15 For example, recent licensing agreements in Russia have a mandatory 95 per cent utilisation rate. In Turkmenistan, the limitation has been set by prohibiting the operator to flare gas for more than 48 continuous hours and more than 144 hours per any calendar month, except as required in emergency or as is otherwise approved by the competent body. See the Four Countries Study, pages 14, 35.

Forum, which reflected on the progress made in the GGFR's efforts over the previous decade, since its establishment in 2002. The forum also emphasised the need for a coordinated approach among governments, the private sector and the international community for a substantive impact in reducing APG flaring, particularly in light of the global climate change agenda. As noted earlier, together with the GGFR, the EBRD commissioned a review of investment barriers in four of its countries of operations – Azerbaijan, Kazakhstan, Russia and Turkmenistan (the Four Countries Study). The latter provided an overview of the APG flaring situation as well as policy and regulatory frameworks in the four countries and identified areas where gas-flaring reduction efforts are needed, both through policy dialogue with the authorities as well as through investment opportunities. In particular, it was acknowledged that while many flare reduction projects are economic, due to competition in resources with the main business of oil production, they do not translate into actual investments. Partnering with specialised external parties to properly align the incentives with resources is a solution to be explored. Another key outcome of the Four Countries Study is that economies of scale is the key driver for investments in the covered countries, reflecting the global trend. Meanwhile small and medium sites cannot offer sustainable gas production streams, the clustering of such sites provides for viable APG recovery solutions.

Most recently, the EBRD has begun working to identify the scale of APG flaring and commercial opportunities to use APG in Egypt and intends to undertake a review of regulatory barriers to APG flaring in that country.[26] The EBRD's preliminary work has indicated that regulatory barriers to be explored include the structure of production-sharing agreements (PSAs) which preclude operators from having full ownership over APG produced and otherwise provide poor incentives to companies to reduce APG. Regulated gas prices are another issue – below-market gas prices are not incentivising the companies to invest in APG recovery. A review of barriers to APG investment is being undertaken in parallel with investment operations to stimulate the market and provide incentives for the oil operators to examine the reduction of APG flaring – as a recent example, in November 2015, the EBRD provided a US$ 40 million loan to Merlon Petroleum El Fayum, an independent oil and gas producer operating in Egypt, to support the development of the company's oil and gas concession in the El Fayum area. In addition to a contribution to Merlon's capital investment programme to develop producing fields, increase reserves and upgrade existing facilities, the proceeds of the loan will also be used to invest in the commercial recovery of APG.[27]

CONCLUSION

While gas flaring remains an issue on the global resources and climate change agenda, recent experience shows some progress in the reduction of APG flaring. Efforts need to be stepped up, however, to overcome barriers which include: high costs of investment in technology solutions, lack of developed infrastructure, regulated gas prices, as well as weak legal and regulatory frameworks and insufficient monitoring and enforcement mechanisms. Continuous support for efforts to reduce APG flaring on both policy, including economic and legal/regulatory, and operational

16 See, for example, the GGFR Regulatory Overview, page 6.

17 The GGFR Regulatory Overview, pages 6-7.

18 See, for example, the Four Countries Study, page 69.

19 See, for example, the GGFR Regulatory Overview, pages 2-3.

20 The Bank is currently making no new investments in Russia. This follows guidance from a majority of shareholders in July 2014 that for the time being they would not consider new projects in the country.

21 See: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/07/16/000012009_20040716140208/Rendered/PDF/295550GGF0a0pu1ship10no10401public1.pdf (last accessed 13 January 2016).

22 See http://www.worldbank.org/en/programs/zero-routine-flaring-by-2030 (last accessed 13 January 2016).

23 See, for example: http://www.opec.org/opec_web/static_files_project/media/downloads/publications/OB052015.pdf (last accessed 13 January 2016), pp. 30-38.

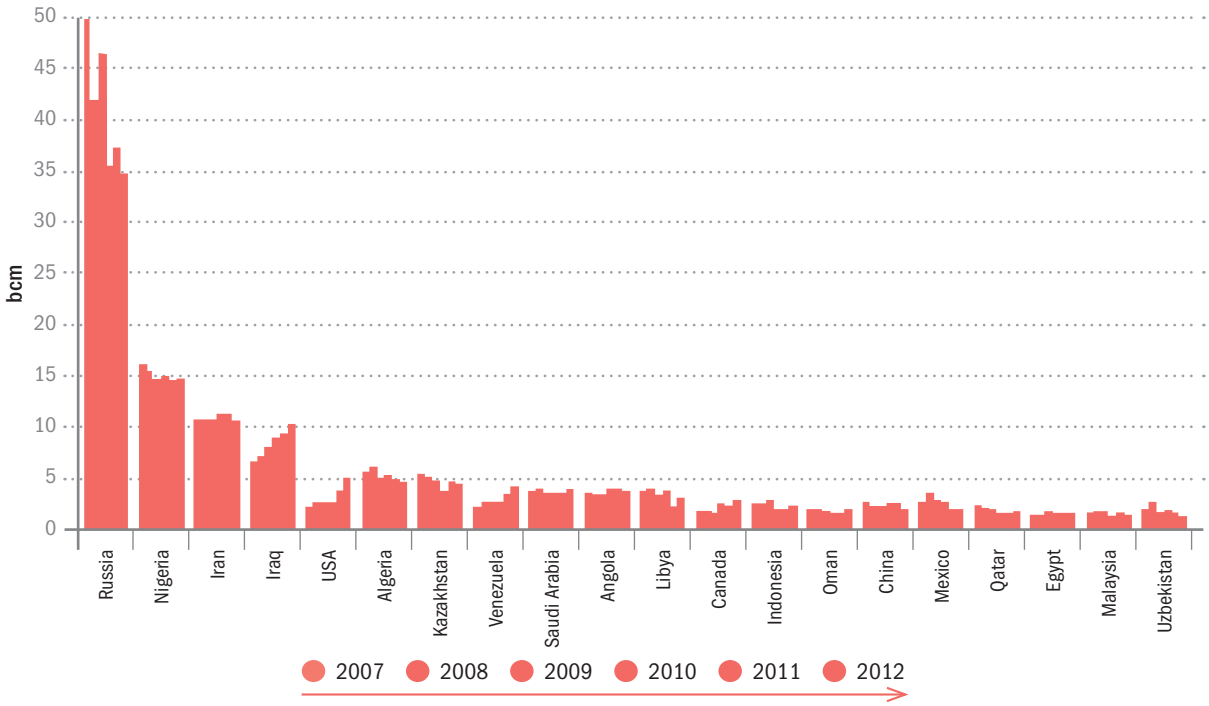
24 See GGFR Regulatory Overview, pages 2, 28-56.

25 See, for example, Energy Sector Strategy, Document of the European Bank for Reconstruction and Development, as approved by the Board of Directors at its Meeting on 10 December 2013, available at: http://www.ebrd.com/downloads/policies/sector/energy-sector-strategy.pdf (last accessed 13 January 2016), page 7.

levels by all the relevant participants – governments, oil producers and international partners, is key to a sustainable improvement in APG flaring. Information sharing and dissemination of best practices from both reform efforts as well as investment operations will be instrumental in achieving visible results.

While gas flaring remains an issue on the global resources and climate change agenda, recent experience shows some progress in the reduction of associated petroleum gas flaring.

CHART 2 TOP 20 GAS FLARING COUNTRIES



Source: http://www.worldbank.org/content/dam/Worldbank/Programs/Top%2020%20gas%20flaring%20countries.pdf

26 See procurement notice at: http://www.ebrd.com/work-with-us/procurement/pn-49812.html (last accessed 13 January 2016).

27 http://www.ebrd.com/news/2015/ebrd-supports-gas-flaring-reduction-in-egypt-.html (last accessed 13 January 2016).

Glossary

APG	associated petroleum gas
CSO	civil society organisation
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Development
EI	extractive industries
EITI	Extractive Industries Transparency Initiative
ESAP	environmental and social action plan
EU	European Union
GGFR	Global Gas Flaring Reduction Partnership
GHG	greenhouse gas
ICMM	International Council on Mining and Minerals
IMF	International Monetary Fund
LTT	Legal Transition team
LTV	loan-to-value (ratio)
NPL	non-performing loan
OC	over-collateralisation
PPP	public-private partnership
PWYP	Publish What You Pay
RGI	Resource Governance Index
SEMED	southern and eastern Mediterranean
SME	small and medium-sized enterprise
SOE	state-owned enterprise
SPV	special-purpose vehicle
UNCTAD	United Nations Conference on Trade and Development
WEF	World Economic Forum