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Enhancing sustainable development from oil, gas, and mining

From an 'all of government' approach to Partnerships for Development

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Abstract: This paper outlines how sustainable development in resource-rich countries requires an 'all of government' approach as well as multi-stakeholder dialogue and partnerships between government, companies, and civil society organizations. Effective management and regulation requires many different line agencies of government to work together and in partnership with corporate and other stakeholders to achieve sustainable development. The paper focuses on the need for an agreed set of data and analysis showing the current and potential future contributions of the natural resources sector at the national and local levels. It addresses a regrettable truth that, in some countries, there is a lack of trust between different stakeholder interests, and probes how collaboration between these stakeholders can mitigate the negative impacts of resource development and enhance its potential positive contributions, particularly at the local level and where the governance context is weak. The paper identifies three important steps toward sustainable development: creating an evidence base to facilitate cross-government coordination; building trust through multi-stakeholder dialogue; and building Partnerships for Development.

Keywords: oil, gas, mining, Partnerships for Development
JEL classification: O1, Q3, Q4

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1 Overview

Since 2000, the sustainable development objectives of low- and middle-income countries have been set out in the Millennium Development Goals and, since 2015, in the Sustainable Development Goals. Action to deliver these goals is led by national governments. And the private sector has a key role to play. Why? Over a similar period (1996–2012), more low- and middle-income countries became dependent on the natural resources sector, as measured by export earnings. By 2012, 72 such countries relied on oil, gas and mining for 30 per cent or more of their exports—in some cases up to 90 per cent. And, over the same period, 63 of these 72 countries became more dependent on the resources sector—an average increase of around 18 percentage points.[1] Most of these investments are by international oil, gas, and mining companies, as exploration has moved to Africa, Asia, and Latin America with the depletion of more easily accessible resources in Europe and the US.

Work undertaken since 2000 has shown that dependency on oil, gas, and/or mining does not automatically translate into broader-based economic and social benefits. It requires companies to invest in lower-income countries to design and operate their projects to make a genuine contribution to the sustainable development of their host societies. And such investments need to be supported by appropriate host country policies to catalyse broader economic development. This paper draws on detailed country case studies to identify actions companies and governments can take so that resource-driven countries[2] can realize their full potential.

It begins by focusing on the need for an agreed set of data and analysis showing the current and potential future contributions of the natural resources sector at the national and local levels. Many line agencies of government have roles and responsibilities in addition to the more traditional actors: Ministries of Finance, Economy and Planning, Energy, and Mining. All need to engage, and work together, to facilitate an 'all of government' approach, which is critical to success.[3]

That the evidence base to guide effective policy-making (and advocacy) is not always widely known, shared or indeed even agreed upon, across different line ministries and other players, is the first challenge to overcome. This is especially true of the forward-looking projected data that guide many policies. This sobering fact has been demonstrated in a number of analytical country case studies and assessments, on which the paper will draw.

The paper next addresses a further regrettable truth that, in some countries, there is a lack of trust among stakeholders: for example, between companies and civil society organizations, between companies and government, between government and civil society organizations, and between federal, state, and municipal government. Finding ways to bring all these interests together in various ways is an important dimension of the overall governance challenge associated with the natural resources industries. The paper uses the example of multi-stakeholder workshops (based

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1 https://www.wider.unu.edu/publication/it-or-not-poor-countries-are-increasingly-dependent-mining-and-oil-gas (accessed 16 May 2017).

2 For the definition of 'resource-driven', see McKinsey Global Institute (2013).

3 'All of government' includes all of national government (the Presidency and the various line ministries) as well as all of sub-national government in terms of the agencies and political-administrative arrangements at the regional and local levels (which are particular for any given country). Understanding this arrangement, including where/by whom policy is set and where/by whom it is implemented, is key. In the absence of the full range of agencies and players working together and using an agreed set of facts, sub-optimal policy outcomes can be the result.

on prior in-depth evidence around the industry) to show how a robust evidence base can form the basis for prioritizing common objectives and agreeing actions by each of the stakeholder groups. Results can enhance the natural resources sector's contributions, and at the same time help to build trust.

Lastly, the paper probes related ways to mitigate the negative impacts of resource development and to enhance its potential positive contributions, particularly at the local level and where the governance context is often weak. Although 'good governance' is clearly critical in enhancing the benefits of extractive industries, 'governance' as such is a difficult and complex topic to pin down. Other Working Papers (see e.g. Dietsche 2017) set out this very complex process. Furthermore, the common features of good governance are impacted by the presence of large-scale natural resource investments. Hence, coordination across government must be both horizontal and vertical: necessarily extending to the sub-national level. Partnerships for Development can help to fill the so-called 'governance gaps'.

In conclusion, the paper briefly recaps the three steps outlined—(i) establishing an evidence base to facilitate cross-government coordination; (ii) building trust through multi-stakeholder dialogue; (iii) creating Partnerships for Development—and considers the unfinished agenda.

2 Evidence base to facilitate 'all of government' coordination

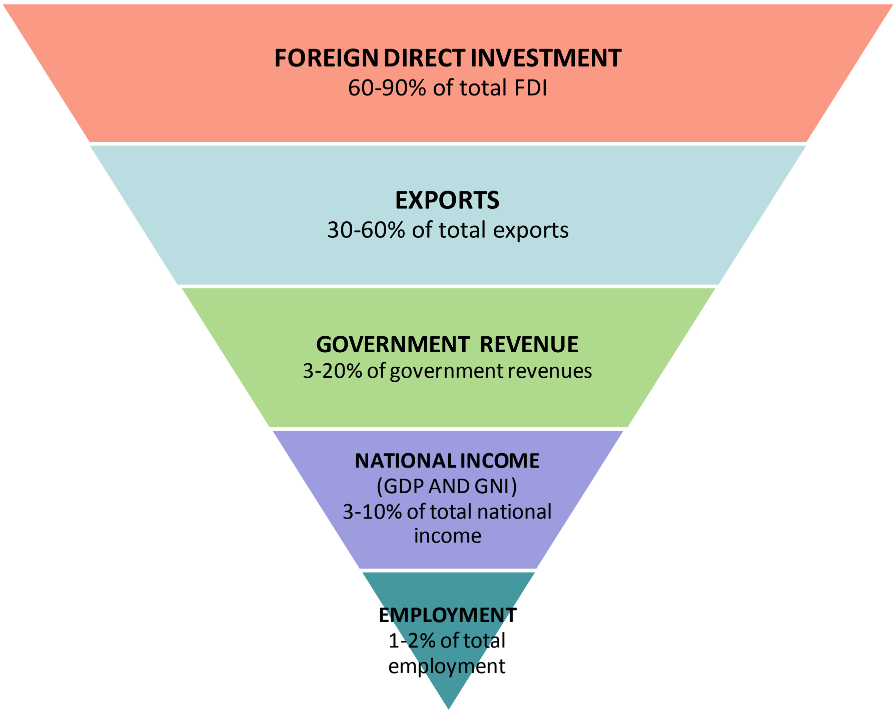
2.1 Context/Issue

Why is it important that the evidence base to guide effective policy making is widely known, shared, and agreed? The potential economic and social contributions of the mining, oil, and gas industries are manifold but poorly understood and not automatic—particularly at the local level.[4] In many countries, policy makers and others do not have access to comprehensive datasets on the resources sector's current contribution, nor are aggregated forward-looking data (projections) available.

The impacts of the oil, gas, and mining industries on the more visible, national-level indicators (such as on foreign direct investment, exports, GDP, and government revenue) are, in a growing number of low- and middle-income countries (see Roe and Dodd 2017), extremely large and significant in macroeconomic terms—see Figure 1 for mining. In parallel, however, there are few direct benefits at the local and community levels given the capital-intensive nature of such investments and their inherent export orientation. Yet it is here that the negative disruptions from resource development are most likely to be felt. It is this disconnect between costs and benefits as between national and local levels that is absolutely central to the controversies surrounding the role of extractive industries: such investments have an impact on local communities and their perceptions that is often compounded by national decisions about how to use the 'national' resource rents.

[4] This is a key finding of a multi-year research project initiated by the International Council on Mining and Metals (ICMM) in collaboration with the United Nations Conference on Trade and Development (UNCTAD) and the World Bank Group, which resulted in the Mining: Partnerships for Development (MPD) Toolkit (ICMM 2011a)—see www.icmm.com/mpd.

Figure 1: Typical macroeconomic contributions of mining to low- and middle-income economies



Source: ICMM (2009: 13).

In 2004, ICMM began the Resource Endowment initiative (REi) in collaboration with UNCTAD and the World Bank Group with the specific objective of identifying good practices in how mining can contribute to sustainable development. The starting point was to first identify and then understand 'success cases' and explanations of 'success' amongst some 33 low- and middle-income countries that in 2004 were dependent on mineral resources. This was done by constructing an analytical framework, which was then used to identify the multifarious factors that seemed to help or hinder mining's contribution to economic and broader social development in any particular country. This was followed by a second phase of its work, which applied the analytical framework to a series of country case studies, in order to collect evidence that was then used to validate the premises on which the more recent 'Mining: Partnerships for Development' (MPD) process is based. The ICMM Toolkit itself has been fully implemented by ICMM in seven countries[5], and by third parties in another five. As part of the initiative, ICMM also undertook the Mapping Partnerships exercise, which covered 19 countries. Both the Resource Endowment initiative and the Mining: Partnerships for Development process as a whole therefore provided in-depth results on 26 countries.

In 2011, the World Economic Forum's (WEF) Responsible Mineral Development Initiative (WEF 2011) conducted a global survey that involved 145 representatives from mining companies, the public sector, NGOs, academia, and civil society in 33 countries. The survey concluded that the priority is to 'conduct rigorous and collaborative socio-economic studies'. Two-thirds of all stakeholders considered rigorous socio-economic studies 'very' or 'extremely' helpful to advancing responsible development. This action is valued across all countries, reflecting the benefits of a solid, reliable fact base, regardless of national development or industry maturity.

[5] All of ICMM's MPD country case studies received the endorsement of host countries before any results were published.

The REi demonstrated that the prospects for positive impacts from mining depend on a number of factors, which necessarily involve many different government agencies. These are set out below:

1. sound national macro-economic management (which is typically the responsibility of the Ministry of Economy, Central Bank)
2. revenue transparency (tax authorities)
3. reasonable standards of national governance (President/Prime Minister's Office, Attorney General)
4. responsible behaviour by natural resource companies (companies, Ministries of Resources/Energy, Environment, and Community Development)
5. the capacity of government to design, implement, and monitor policy provisions (Ministries of Planning, Industry, Education, Health, and Community Development)
6. a sound mineral fiscal regime (Ministry of Finance)
7. implementation of key international initiatives, such as the Extractive Industries Transparency Initiative (EITI)[6] (all of government, all of industry, and all of civil society), and the UN Voluntary Principles on Security and Human Rights (e.g. armed forces, police and public and private security).

These can be further enhanced by:

8. The quality of governance at the sub-national level (regional and local institutions)
9. The quality of collaboration between government, companies, development partners, and civil society organizations to enhance impacts.

Given the large number of government agencies (and others) involved, this necessarily raises the question of how the roles and responsibilities are defined and how coordination is effected to ensure that resource investments create development. As the World Bank has noted:

> The EI sector, more than many others, depends for its efficient functioning on a complex ecosystem of governmental institutions and functions … . The multifaceted character of the sector is reflected by the involvement of a large number of ministries and public entities whose coordination may be highly complex. Efficient extractive-based economic development requires the effective cooperation of these public entities while drawing on the specialized capacity of each. Yet, cooperation often suffers as individual entities seek to maintain control of their share of the extractive portfolio—and revenues (Halland et al. 2015: 3).

Cross-government coordination is also key to realizing greater benefits from oil, gas, and mining industries in some of the functional areas that are priority concerns of large private sector operations (e.g. recruitment and procurement), as well as government priorities—even where these policies are not specifically about resource development (e.g. education policy, industrial policy, improving the enabling environment for private sector investment). On one side, companies may seek to address issues around procurement and recruitment without engagement with corresponding government agencies—just as governments may pursue education and skills development policies that do not take into account the needs of the industry.

[6] See section 2.3.

2.2 Objectives

- To develop a shared understanding of the evidence base of the potential economic and social contribution to support informed decision making
- To facilitate the cross-government coordination required for successful natural resource development.

2.3 Action in support of the objectives

Shared understanding of the evidence base

From the outset, the REi was consultative and inclusive on the basis that developing the relevant knowledge of mining's full social and economic costs and benefits, and how countries can escape the so-called 'resource curse', must be built on a comprehensive understanding of all stakeholder positions. Developing a Toolkit that can be applied in a standardized way across countries, with input from all affected stakeholders, allows the identification of good practice with broader applicability.

The WEF's Responsible Mineral Development Initiative (RMDI) started in 2010, with the objective of identifying the key challenges facing responsible mineral development. In 2011, the Initiative's continuing work led to the identification of six building blocks that together provide a constructive framework for the mining sector and a neutral multi-stakeholder platform for the discussion and development of ideas capable of unlocking the potential socio-economic benefits of mining. During 2012, the RMDI focused on 'Mineral Value Management' (MVM), a perception tool it developed for enhancing the understanding of drivers of value in mining so as to trigger frank and open discussion on the issues that affect, unite, and divide stakeholders in the mining sector. Similarly, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) has surveyed public perceptions of mining on a national scale, building on regional-scale work undertaken between 2008 and 2011.[7]

The Extractive Industries Transparency Initiative (EITI), which began in 2003, is an international standard to promote open and accountable management of natural resources by publishing information on tax payments, licences, contracts, production, and other key elements of resource extraction. It is designed to improve accountability and public trust in the revenues paid and received for a country's resources. It asks companies to publish what they pay for oil, gas, quarrying, and mining, and governments to disclose what they receive from oil, gas, quarrying, and mining. These figures are audited by an independent administrator and published along with contextual information in the EITI report. In each implementing country, the EITI process must be supported by a coalition of government, companies and civil society working together as a multi-stakeholder group and provides a shared understanding across different interests.

Cross-government coordination

In China, government has taken a strategic approach to helping the nation's resource-oriented companies to follow standardized sustainable business practices abroad. The Chinese Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters issued Guidelines for Social Responsibility in Outbound Mining Investments in October 2014. This initiative was supported by the National Development and Reform Commission (NDRC), working with eight government ministries (CCCMC 2014). One year later, in order to promote implementation of the

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[7] See Moffat et al. (2014) for an example for Chile.

Guidelines, the Chamber of Commerce, again supported by the NDRC, published a draft Chinese Outbound Mining Investment Industry Social Responsibility Action Plan (CCCMC 2015).

In Lao PDR, the National Economic Research Institute (part of the Ministry of Planning and Investment) led the MPD Toolkit analysis. All key government agencies attended the workshop, which provided simultaneous translation into Lao, Mandarin, and English, thereby facilitating the engagement of participants. This succeeded in bringing together a larger and broader cross-section of key government stakeholders than had been achieved previously.

2.4 Early results

This section presents case examples of efforts led by ICMM (Peru); by companies, e.g. BG Group (Tanzania) and Antamina (Peru); and by governments and NGOs (China, Brazil, and Myanmar).

Results

In Peru, mining has contributed significant economic benefits at the national level but, unlike in, for example, Ghana, poverty and social inequality remain high both nationally and locally (ICMM 2008c). In both countries, it is evident that companies can manage the impacts of their investments better. And government efforts to reform policies and implementation are incomplete, which in turn has held back trickle-down benefits. Both these factors were the focus of the Peru Natural Resources and Development Forum, held in Lima in April 2008, organized by the Peru National Society for Mining Petroleum and Energy, which attracted high-level political and business involvement. During the Forum, participants prioritized two objectives, revenue management and dispute resolution, as key issues for collaborative action.

Since then, the government of Peru has put much effort into revenue management. Peru was the first country in South America to sign up to the EITI. Companies and government are also working closely with the World Bank's International Finance Corporation (IFC), which has helped to create a series of tools to guide Canon Minero[8] investments. The government has given greater attention to improving development outcomes by:

- strengthening mining policy
- increasing government focus on poverty reduction
- building institutional quality, which is now high on the government agenda.

In Tanzania (ICMM 2009), the national and local debate on mining has become increasingly intense and contentious since large-scale mining began. ICMM took the view that a starting point for dialogue would be to analyse the evidence base regarding mining in Tanzania—for example, its contribution to foreign direct investment, government revenues and exports as a whole. This led to the development of an innovative life-cycle analysis[9] as part of the MPD Toolkit. This

[8] Canon Minero was introduced by the government in 1997 as a way of distributing to sub-national governments a portion of the revenues collected by the central government from mining. It is not an additional tax, rather a way of ensuring that a percentage (20–50 per cent) of corporate income tax collected from mining companies flows to sub-national governments. The purpose is to allow sub-national governments to take more independent expenditure decisions. There are some limitations as to what the Canon Minero can be spent on (ICMM Peru 2007).

[9] See ICMM (2009). This analysis can help 'all of government' understand the choice between a policy regime that favours, for example, high rates of growth vs. an approach consisting of raising revenues in the short term at the risk of lowering sectoral growth in the future. By focusing on production, government revenues, and employment over a 15–20-year timeframe, it provides policy makers with the big picture.

brought companies and government together by providing, on a pooled basis, realistic projections by the companies of their future investment activities, human resources requirements, taxes, and other payments, thereby allowing the government to get an understanding of the full project cycle. A shared understanding of the potential economic and social contribution enabled the government to plan its own role in developing the country's human resource needs, training, income, and expenditures, and contributed to developing a consensus across 'all of government'[10].

This same MPD framework successfully transitioned to the offshore oil and gas industry in 2013. BG—a FTSE 100 exploration and production company specializing in gas—funded a forward-looking life-cycle analysis based on a realistically assessed 10 Tcf of deep-water offshore gas reserves, using the same methodology. The objective was to determine how the development of liquefied natural gas (LNG) could impact the country's economy, in terms of foreign direct investment, exports, government revenues, contribution to GDP, and employment. This provided a comprehensive picture of the potential direct, indirect, and induced risks and benefits associated with LNG development over an extended period of time. This enabled the government to understand better what the future could look like and the implications for planning and immediate action.

Findings were presented to senior government officials at a workshop convened by the Uongozi Institute of African Leadership for Sustainable Development and chaired by the Chief Secretary to the President. One important outcome was the establishment of a 'Government Team of Negotiators for Natural Gas and Oil'. These 'twenty-five carefully picked experts from different backgrounds [are] to ensure that all the relevant issues for building a sustainable oil and gas economy are addressed'.[11] The team were supported by a six-month capacity-building programme organized by the Institute of African Leadership for Sustainable Development[12], supported by the Columbia Center for Sustainable Investment and the International Senior Lawyers Project.

In Brazil, cross-government coordination from the federal to the municipality level was a key factor in reducing deforestation in the Amazon. It included an innovative step, which was to involve the Central Bank of Brazil. In 2007, a cross-ministerial initiative led by the Ministry of Environment was introduced, aimed at cutting financial credit to municipalities that featured on a 'Red List of Deforestation'. The 'Red List' was supported by formal monitoring and enforcement institutions: a federal government law prevented the Central Bank from lending to municipalities registered on the 'Red List'. The Municipality of Paragominas initiated meetings with rural landowners and developed a partnership with the Instituto do Homem e Meio Ambiente da Amazônia (Imazon), an NGO working in Paragominas since the 1990s. Imazon processed NASA's satellite data and, within a few weeks, started publishing maps showing where deforestation was taking place. Since

[10] Previously, the debate had been informed only by a very short period of historical data—beginning with the resumption of large-scale mining investments in the late 1990s. In a May 2009 cross-government workshop supported by the Tanzanian Chamber of Minerals and Energy, the government was able to understand better the interrelationships between decisions made in different ministries and consider introducing a broadened and integrated sector strategy. As one example, the Tanzania Ministry of Power's inaction regarding mining companies' proposal to extend the power grid meant that operating costs remained higher and royalties lower than might otherwise have been the case (the mining companies' operating costs were five times the global average for gold mining because they had to import fuel).

[11] The institutions represented include the Ministries of Mining, Energy & Minerals, Finance, Labour, and Industries & Trade, regional administrations, and local governments, The Attorney General's Chambers, Tanzania Electricity Power Company, Tanzania Petroleum Development Corporation, the Planning Commission, the State-owned Mining Company, Prime Minister's Office, Bank of Tanzania, Tanzania Revenue Authority, and the National Environmental Management Corporation.

[12] See http://www.uongozi.or.tz/news_detail.php?news=1894 (accessed 16 May 2017).

this was linked to the land registry (environmental cadastre), it enabled the municipal government to sanction the owners of the land where deforestation was taking place. As a result, Paragominas reduced deforestation by 92 per cent and was removed from the 'Red List'. On the basis of this success, the State Governor of Pará adopted this same monitoring system in 2011 as part of a 'Green Municipalities' initiative across 89 municipalities, for which performance is now tracked and monitored by Imazon, supported by the Vale Fund—part of Brazil's largest mining company—and other NGOs. Through partnerships, Vale has also supported the protection of about 12,400km^2 of natural areas in Brazil, in the Amazon and in other biomes, including its own reserves and government areas (ICMM 2012c).

Making an agreed-upon dataset and analysis available also facilitates informed policy making. In Lao PDR, the government prioritized the hydropower sector. The application of ICMM's MPD Toolkit (ICMM 2011a) demonstrated that mining was in fact the largest industrial sector—contributing 80 per cent of foreign direct investment, 45 per cent of exports, 12 per cent of government revenues and 10 per cent of national income. Similar evidence has been referenced in the UN Economic Commission for Africa–African Union's 'African Mining Vision', in Natural Resource Charter datasets, and in national government and donor agency communications.[13]

A 2013 independent evaluation[14] found that that majority of stakeholders interviewed had 'very positive views' of the MPD Toolkit (ICMM 2011a). 'Furthermore, there was strong support across all stakeholder groups for ICMM to continue to apply the MPD Toolkit. The Toolkit is widely seen as a unique tool that generates high quality data about mining's contribution to development and also provides concrete steps for how partnerships that increase the opportunity for development can be established'.

Challenges

A common challenge is consistency and availability of data. For example, in Zambia, there are widely divergent perspectives and disputes within and between different arms of government and industry about key datasets. The MPD process in Zambia identified that in 2012, revenue from the mining industry was 5.9 per cent of GDP and 32 per cent of tax revenue, representing a significant increase since 2008. However, much smaller numbers from earlier years were still being used in official communications as recently as 2013. This is now being addressed to some degree by the Zambia-EITI process, which has strengthened transparency on revenues from mining through its credible multi-stakeholder process.

The importance of a national 'champion' to follow up and ensure implementation was a finding of the 2013 evaluation (footnote 11) of the MPD Toolkit: 'ICMM's future MPD work should revisit existing applications, ensure recommendations are properly progressed following a Toolkit application, and step up the delivery of Toolkit applications in new countries'. The evaluation noted that independently commissioned studies have used the MPD Toolkit methodology in a further seven countries and, in order to scale up, regional partners should be considered to deliver additional applications and support in-country implementation.

[13] For example, a Lao PDR government official presenting key findings at the China Mining Congress 2011, Tianjin; and World Bank Sector Policy Reviews (see Schuler and Lokanc 2015).

[14] Independent Evaluation of ICMM Mining: Partnerships for Development Toolkit (CSRM 2013).

3 Building trust through multi-stakeholder dialogue

3.1 Context/Issue

This section will address a further regrettable truth that, in some countries, there is a lack of trust among stakeholders: for example, between companies and CSOs/NGOs (e.g. in Ghana), between companies and government (e.g. in Tanzania and Zambia), between government and CSOs/NGOs (e.g. in Lao PDR and Mongolia) and between federal, state and municipal government (e.g. in Ghana, Brazil, and Peru).

The World Economic Forum noted: 'In 2012, significant resource-related disagreements flared up in almost every significant mining region, from Mongolia to Chile and from South Africa to Indonesia. Some, notably in South Africa, escalated sufficiently to migrate from the financial to the news sections of the national and global media'. This was the genesis of the Responsible Mineral Development Initiative because 'events of the last few years have heightened the need for stakeholders involved in mineral development to find common ground to understand each other's needs, perceptions and priorities' (WEF 2013: 6).

The same WEF report highlighted the importance of national dialogue platforms. It found that these have the potential to 'offer consistent, inclusive dialogue and collaboration among stakeholders on a countrywide sector basis. The aim is to enable responsible development, find synergies and align stakeholders, and devise action plans for longer-term working partnerships. It should mean that every project begins with structures for engagement throughout its life cycle already in place'. Sixty-nine per cent of all stakeholders surveyed considered that a national dialogue platform would be 'very' or 'extremely' helpful. Responses were strongest where it was felt that a platform could significantly enhance dialogue, particularly if there were limitations in existing national infrastructure.

3.2 Objectives

- Create a neutral space to voice different perspectives on the impacts of mining, oil, and gas.
- Identify challenges and opportunities (e.g. conflict management, management of revenues, economic linkages, local development) as input for policy development.
- Develop a shared understanding of, and accountability for, responsible investment.

3.3 Action in support of the objectives

Create a neutral space to voice different perspectives

Dialogue processes are important as a way to convene local stakeholder opinions in the formulation of specific policy recommendations. Such views can best be identified and assessed through an inclusive on-the-ground process. The examples below are drawn from a series of multi-stakeholder workshops held in several countries as part of ICMM's MPD process.

During 2013 and 2014, the process in Zambia convened the industry, supported by the Chamber of Mines, and the government, together with other stakeholders, to investigate the current and potential future economic and social contributions of mining (ICMM 2014). One reason ICMM was invited to steward this process was the atmosphere of misperceptions and mistrust between stakeholder groups, particularly industry and government, in part due to a mismatch in data used for policy making. Draft findings were presented to a multi-stakeholder group at a one-day workshop in November 2013. The 150 participants included the Vice-President of the Republic of Zambia. Among the questions and comments proffered by the audience, the Country Director of a large advocacy NGO said:

> When we first met the ICMM team in March last year, we were reluctant to take part as we thought we would be used by the mining industry. I'm pleased to say this is not the case. We have been fully consulted and our comments have been taken on board by the team. This is just the beginning for government, the industry and civil society to work together; we now have a balanced platform to engage.

Multi-stakeholder dialogue processes at the sub-national level are equally important. In Peru, beginning in 2012, copper and zinc prices fell dramatically and local employment at mine sites dropped, as did the government's local and regional budgets. Consequently, at the sub-national level, a number of mining companies realized that they needed to work with local government in taking the lead on promoting development. Despite significant expenditures in the past, the local populations remain poor, with low Human Development Index rankings. Antamina (a mining company in Peru) developed 'The Multi-Stakeholder Development' approach to focus on building dialogue with local government and other stakeholders. This also reduced the potential for special interests to derail development processes. Within this framework, Antamina, the local governments and stakeholders are addressing:

1. how to obtain a sufficient share of mining taxes and royalties for local governments from the central government
2. how to build capacity for planning and implementing development activities
3. how to respect the rule of law and put in place transparent processes and accountability to end corruption by local governments.

Identify challenges and opportunities

The disconnect mentioned earlier—between costs and benefits as between national and local levels that is absolutely central to the controversies surrounding the role of extractive industries—is evident in a number of countries.

In Ghana, while new mining investment (from the mid-1980s) had helped to turn around the national economy and reduce poverty at national and local levels, local communities did not perceive that they were receiving sufficient economic benefits. Companies also needed to improve their management and delivery of broader economic contribution. A 2008 workshop was explicitly structured to tackle some of the main challenges highlighted by the research (ICMM 2008b). It was informed by a mapping exercise of existing initiatives in Ghana against six priority areas. These had been identified as benefiting from collaboration or partnerships between governments, companies and others that seemed to have the greatest potential for enhancing the social and economic returns from mining. That mapping exercise found that there were a lot of partnerships and initiatives around poverty reduction, but far fewer for regional development planning and revenue management—although both of these activities critically impact the effectiveness of what is done in the other areas. As a result, disputes between communities and companies were more numerous and more confrontational than they needed to be (ICMM 2008b).

The success of the 2008 Ghana workshop was due in part to broad and comprehensive consultations by the research team over a four-month period, with a wide range of stakeholders in Accra (and the localities of Tarkwa), in Ahafo and to a limited extent also in Obuasi (where earlier project field work had been concentrated). These consultations were designed to obtain a wide range of views about the strengths and weaknesses of present arrangements for mining in Ghana.

The number of invitees was intentionally limited and focused in order to ensure the best possible debate on the day. It was the agreed wish of the meeting that workshop minutes be circulated also to organizations and individuals who were likely to play a significant policy-influencing role. The summary notes were posted on the websites of the Chamber of Mines and ICMM.

In Zambia, the issues and opportunity areas identified during ICMM's November 2013 workshop included: (i) the need for reliable data to support a better informed debate; (ii) scope for an improved investment climate in Zambia to support greater local content and job creation; and (iii) scope for more effective social investment by mining companies, through improved coordination between companies and with the priorities of local government.

Develop a shared understanding of, and accountability for, responsible investment

Negative impacts on local communities are often concentrated in the immediate vicinity of a mining or oil and gas operation. In many countries, resources available to communities to seek redress are more limited at the sub-national than at the national level, in part due to weak government capacity and limited fiscal resources. This can lead to growing discontent at the local and community levels, which in turn can percolate up to the national level and undermine support for the industry.

There are many practical tools for understanding and managing community relations around large-scale investments, based on recognized international good practice. IFC's CommDev[15] is focused on enhancing benefits to communities by providing documents, tools, case studies, training materials, presentations, and resources produced by the IFC as well as by others, to guide how benefits from infrastructure can be shared with local communities. The World Bank's Extractive Industries Sourcebook, which identifies key levers for enhancing success in the natural resource industries, also includes links to many other guides and case studies for action at the sub-national level. ICMM's Community Development Toolkit gives practical guidance on how to responsibly address issues of community engagement, develop base-line studies, set up community-level agreements, foster their implementation, and establish dispute resolution mechanisms (ICMM 2012a).

3.4 Early results

Efforts to build trust via multi-stakeholder dialogue processes have been led by NGOs (Mongolia and Myanmar), ICMM (Ghana, Lao PDR, and Brazil) and industry (Peru).

Results

In 2006, a national dialogue platform was established in Mongolia. As the Asia Foundation (2008) noted:

> The country has high expectations for mineral development, but faces multiple challenges related to environmental practice and social investments. There is some distrust between industry and civil society, whose organizations are concerned that mineral development will benefit only government and foreign companies. Stakeholders called for stronger dialogue, cooperation and transparency over mineral development and its impact on the country. They demanded that mining should be connected to the local economy, infrastructure and community

[15] https://commdev.org/.

> development. Leaders from the Mongolian government, companies and NGOs, brought together by the Asia Foundation[16], explored more cooperative approaches to the challenges facing the industry. This dialogue led to the development of a Declaration on Responsible Mining. This was based on eight key principles and a definition of responsible mining. This declaration underpinned the creation of the independent Responsible Mining Initiative for Sustainable Development (RMI).

Similarly, in Lao PDR, a 2010 workshop convened by the National Economic Research Institute and ICMM provided a first-time opportunity to debate the evidence on mining's economic and social contribution to the economy and explore opportunities for multi-stakeholder collaboration to enhance this contribution. In February 2010, 150 participants came together in Vientiane. They included representatives from the National Assembly, provincial and national government agencies, INGOs, Ambassadors, development agencies, and mining companies, including 12 Chinese companies.

In Myanmar, a consultation draft of a pioneering oil and gas Sector-Wide Impact Assessment (SWIA) formed the basis of multi-stakeholder workshop consultations. The dual objective was to:

1. discuss the key draft findings and ensure their relevance and completeness (i.e. have key issues been missed or misunderstood?)
2. allow multi-stakeholder participation in developing recommendations for actions by the government and companies and other stakeholders (local and foreign). The purpose was to improve both the outcomes of oil and gas projects for the benefit of Myanmar society, and the framework for responsible investment.[17]

Following publication[18] in 2014, the Myanmar Centre for Responsible Business (MCRB) held a 'Multi-Stakeholder Workshop on Community Engagement in the Extractive Industries' in Yangon in January 2015 to discuss international best practice in strategic community investment and engagement, including how to handle grievances. The workshop was attended by over 100 representatives from government departments, oil, gas, and mining companies, and civil society organizations from across Myanmar, as well as international NGOs and donor organizations. These workshops were a complement to the multi-stakeholder dialogue on revenue transparency taking place as a result of Myanmar's candidacy for the EITI. On the objective of building trust, the Director of the MCRB said: 'our assessment found that engagement, information and genuine two-way communication by business with stakeholders, particularly local communities and national NGOs, has historically been almost completely absent in Myanmar, leading to mistrust, misunderstanding and occasionally conflict.'

Challenges

In Brazil, an MPD workshop was held in Brasilia in 2012 and attended by 120 people, representing a broad cross-section of government, industry, and civil society (ICMM 2012b). Discussion focused on the ability of public institutions to scale up and replicate company-initiated partnerships. Three challenges were identified:

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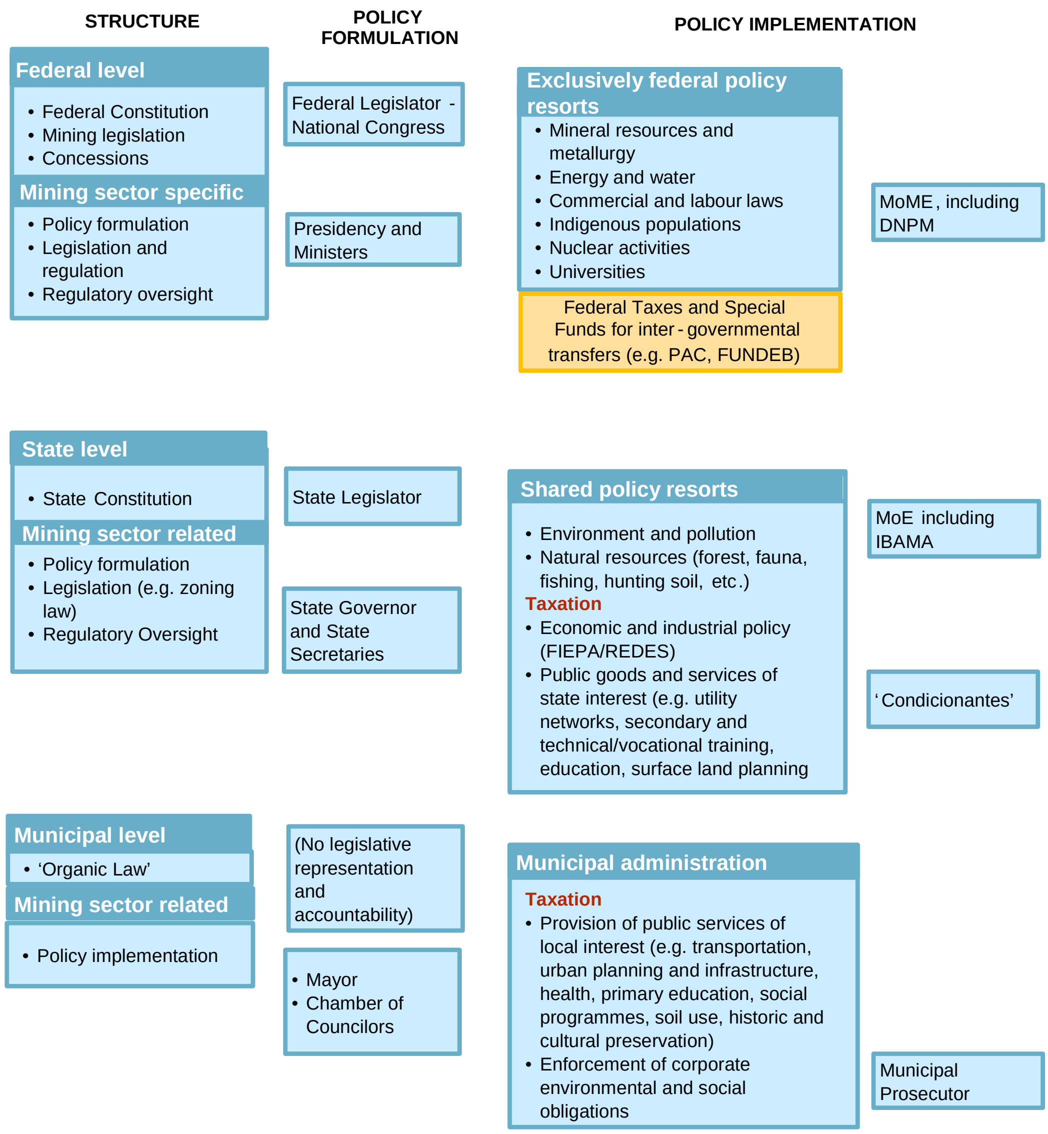
[16] Asia Foundation (2008).

[17] See www.myanmar-responsiblebusiness.org/news/oil-and-gas-swia-draft-for-consultation.html (accessed 16 May 2017).

[18] Institute for Human Rights and Business, Myanmar Centre for Responsible Business, The Danish Institute for Human Rights: Sector Wide Impact Assessment: Myanmar Oil & Gas Sector Wide Impact Assessment, 2014.

1. Brazil has a complex system of public revenue management at all three tiers of government, with overlapping responsibilities between these three tiers (see Figure 2). One consequence of 1988 fiscal decentralization was huge revenue variations across municipalities.
2. Municipal government has limited capacity to allocate and spend funds effectively. Often the challenge is not lack of funds.
3. National government policies often do not seek opportunities to link oil, gas, and mining operations into the region as a whole. This will require thinking through a bigger regional economic integration picture, which in turn requires clearly defined public and private sector roles. For example, the public sector education system's chronic undersupply of scientists and engineers with skills that are useful to industry constrains participation in the opportunities that mining creates. Taxation incentives to encourage companies to invest are only a 'sticking plaster' on a system of education in need of overall reform.

Figure 2: Three-tiered governance framework in Brazil



Source: ICMM Brazil Country Case Study (2012).

Dialogue platforms inviting participatory problem solving around resources development are increasingly common. A recent example is the CSO-led Groupo de Dialogo operating at national level in some Latin American countries.[19] At the global level, the OECD's globally convened Policy Dialogue on Natural Resource-based Development[20] is a multi-interest group that has identified a useful 'Operational Framework on Public–Private Collaboration for Shared Resource-based Value Creation'.[21] This provides a strong framework for progress to the next step: country-specific evidence to be collected and debated in-country as a basis for building trust and consensus around action needed.

4 Partnerships for Development

4.1 Context/Issue

This section explores how to mitigate the negative impacts of resource development and to enhance its positive contributions.

The REi found that there are certain common features of governance structures and institutions across better performing mining countries. Where these institutions are in place, economic development—and, in some cases, the social development of these countries—has been enhanced by new sustainable private sector activities that complement the impacts of mining itself. Some of these features are shown in Figure 3, which depicts, in general terms, the link between natural resource extraction and economic and social development. This simple formulation shows that the minerals or the oil and gas industries cannot be treated in isolation from the rest of a country's institutional and governance structures. Their presence has an impact on these structures and calls for coordination across the different ministries and agencies with companies and others. This illustrates the multifaceted nature of 'good governance'. Where this is missing, Partnerships for Development can help fill the so-called 'governance gaps'.

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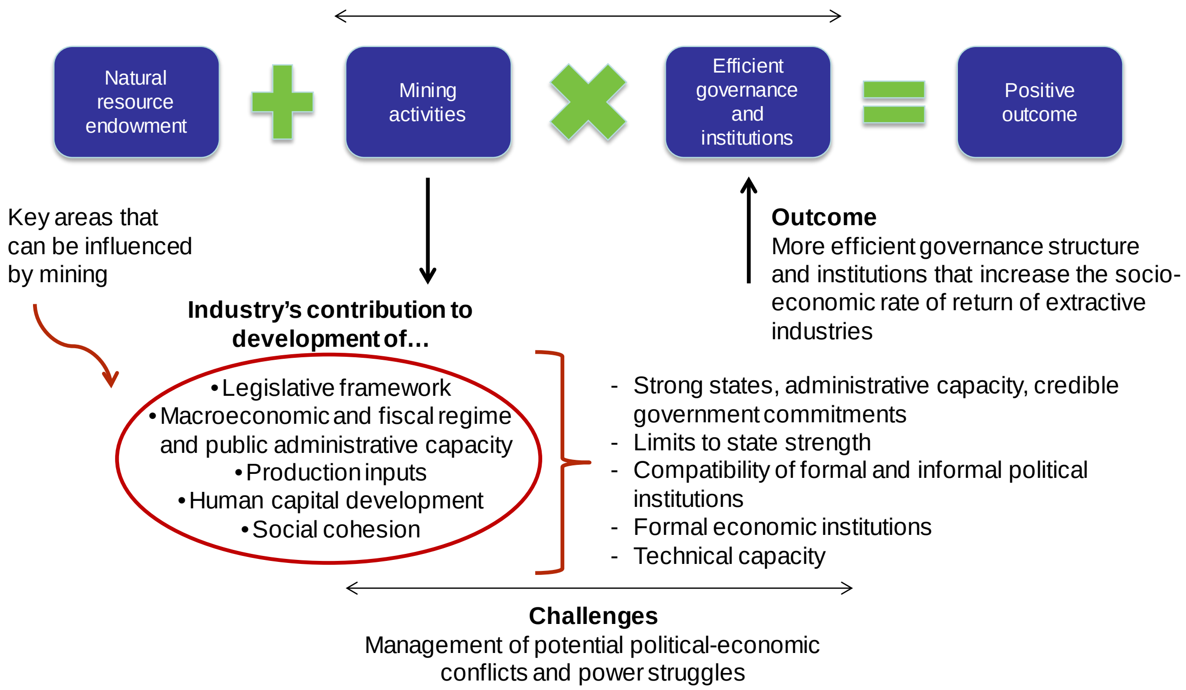
[19] See http://www.dialogolatinoamericano.org (accessed 16 May 2017).

[20] See http://www.oecd.org/dev/natural-resources.htm (accessed 16 May 2017).

[21] See http://www.oecd.org/development/public-consultation-pd-nr.htm (accessed 16 May 2017).

Figure 3: The composition of effective governance



Source: ICMM (2008a, 2015).

Why partnerships? Where the features shown in Figure 3 are weak or missing, in-depth research has shown that resource governance can be strengthened through partnership. For example, there is a role for development partners in supporting developing host countries that embark on prescribed reforms. The private sector has a critical role to play in generating incomes and employment. Civil society organizations can work directly with local communities and can demand accountability. Faith-based groups can communicate costs and benefits of natural resource development to citizens and help manage expectations.

Given these different roles and responsibilities of resource governance between the many actors involved, mainstreaming partnerships will require ongoing engagement and dialogue. Partnerships cannot always provide magic bullets, or be deployed in all situations. They can drive action and enhance accountability. When combined with clear goals, such as the MDGs/SDGs—as represented in top-down policy recommendations—they can enhance development outcomes.

Partnerships can also help to uncover the highly local contextual factors driving the economic and social impacts of resource projects. For example, ICMM research findings confirm the negative impacts around operations, and cover a large number of issues. This suggests the need for better local knowledge and evidence about the impacts of such projects, which will depend on close engagement with local actors (partnerships) (ICMM 2008b, 2008c).

Often much of the failure to capture equitable benefits from resource extraction among developing countries is due not to the absence of top-level policies, but rather to the absence of capacity to effectively implement these policies and hold policy makers to account. This can apply at both national and sub-national levels. For example, where companies provide social investment (e.g. health, education and infrastructure), capturing the full benefits from such investments may be undermined if the regional development planning processes are weak. Experience has shown that partnerships—including those involving industry as well as donors and civil society—complement central government policy in enhancing capacity to deliver benefits.

ICMM's MPD work suggests that there are six recurring themes where partnerships can be used to enhance development outcomes: poverty reduction, revenue management, regional development, local content, social investment, and disputes resolution.

4.2 Objectives

- Enhance economic and social outcomes by filling national and local governance capacity gaps.
- Strengthen accountability.
- Uncover local contextual issues that, if unchecked, can create social tensions and political pressures.

4.3 Action in support of the objectives

Enhance economic and social outcomes by filling governance capacity gaps

With regard to the sub-national level, this partnership challenge has been taken up at the local and regional levels by a number of resources companies, with promising early results.

In Colombia (ICMM draft 2015), the government in La Guajira was responding in only a limited way to the needs of communities. One of the mining companies, Cerrejón, decided that, rather than respond individually to local demands, it would focus on engaging with the local as well as the central government. Through its Institutional Strengthening Foundation, Cerrejón provided technical assistance to the planning committees and local officials to improve planning, management, implementation, and evaluation. This has also helped municipalities to overcome their fiscal deficits. There is now improved accountability due to a focus on improving reports to the central government on the use of financial resources by La Guajira. Progressively, the municipalities have improved their performance, and these mining-affected local administrations are now at the top of national rankings. The La Guajira Department occupies second place in performance.

Strengthen accountability

Between 2008 and 2012, the Revenue Watch Institute (RWI) supported governments and civil society organizations in Ghana, Indonesia, Nigeria, and Peru to improve sub-national mineral revenue management (Pellegrini and Venugopal 2013). Early results that it documented included:

- improved revenue tracking and facilitated investment in sustainable development. In Peru, the Arequipa and Piura regional governments used RWI's forecasting tool to accurately predict their entitlements and formulate multi-year budgets. Overall regional government spending effectiveness (the percentage of the allocated budget that is actually spent) increased from 89.2 per cent in 2009 to 93.7 per cent in 2011 in Arequipa, and from 79.9 per cent in 2009 to 84.5 per cent in 2011 in Piura.
- the development of lasting mechanisms for participation and accountability. Work in Indonesia led to the creation of multi-stakeholder steering committees that promote oil industry transparency in Blora and Bojonegoro. In both districts, these multi-stakeholder groups were formally acknowledged and the government allocated funds from local budgets to support their continued operation. In Nigeria, the RWI-funded Bayelsa Expenditure and Income Transparency Initiative (BEITI) developed a multi-stakeholder platform to track state revenues, transfers and expenditures.

Uncover local contextual issues

In Zambia, an emerging priority for action was improved mining company investment in the social areas. The dialogue process agreed that this is a primary responsibility of companies, which should also collaborate both across the industry and with key stakeholders, including communities and local government. Both civil society organizations and mine managers noted that successful outcomes are contingent on government's contribution: for example, local authorities require improved financial and technical resources to develop stronger local development plans. In the absence of these plans and partnership with other stakeholders, company social investment has no clear framework in which to operate and cannot deliver real local benefits.

4.4 Early results

This section presents case examples of efforts to identify partnerships in several countries and briefly considers where the challenges remain. Efforts highlighted here have been led by the mining industry alongside government and development partners (Brazil, Ghana and Lao PDR).

Results

In Brazil (ICMM 2012c), Vale and other large mining companies (such as Alcoa and Hydro) are working strategically and in partnership to drive positive developmental outcomes in south-east Pará—one of the least developed regions of Brazil. All major mining companies in the state are committed to a broad range of voluntary and mandatory initiatives to help address the challenges of infrastructure, human capacity limitations, and public administration constraints in their areas of operation. Vale's approach to economic development of the regions in which it operates is the most highly formalized and involves all levels of government.[22]

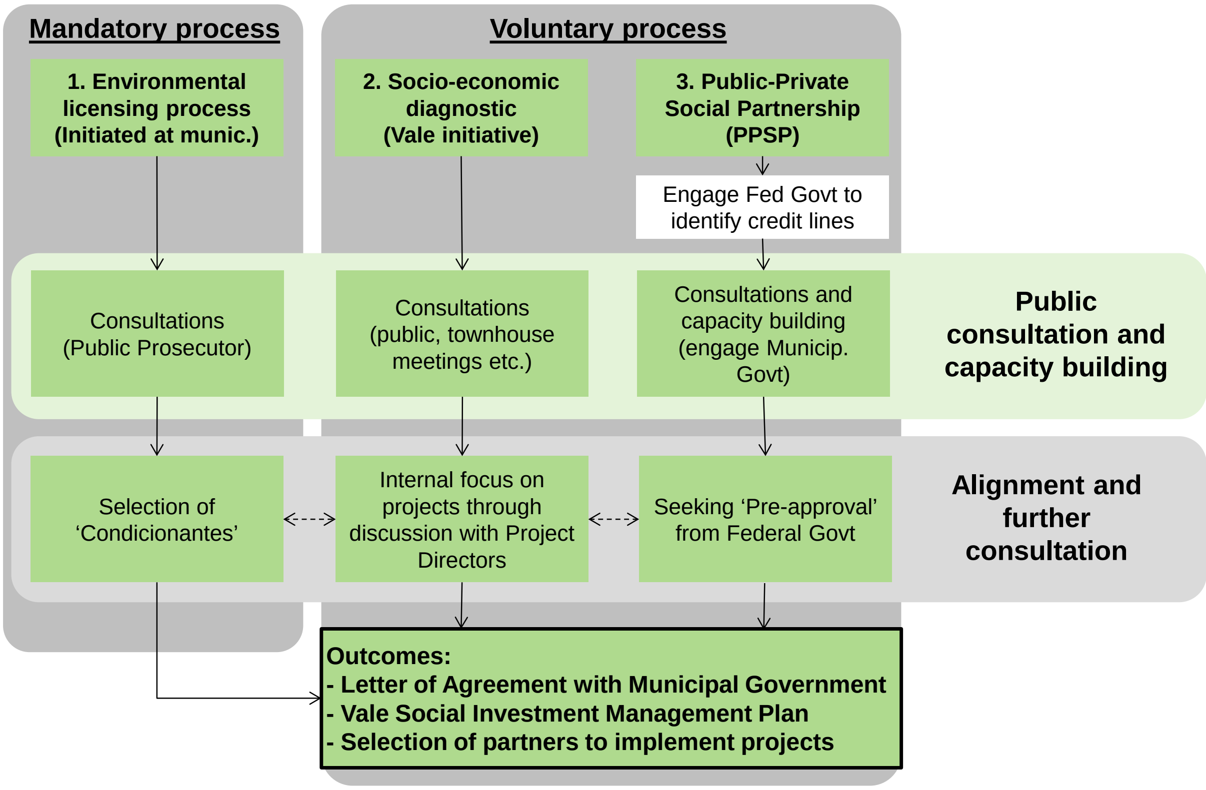
Priorities are set in a matrix of intersecting processes:

- consultation with, and agreement from, the environmental licensing process
- voluntary in-depth socio-economic diagnostic studies conducted to provide regular forward projections of demand (e.g. for schools and other public services) based on expected future mining investment, the induced future demand for public services that may result, and deficits in capacity to meet these demands
- connecting municipalities with federal government agencies through a 'Public–Private Social Partnership' framework (see Figure 4).

This is collated in 'Letters of Agreement' that Vale signs with all municipalities where it operates, setting out the roles and responsibilities of different actors in delivering social projects. These are public documents that enhance both the accountability and the commitment of all partners. Vale's social investment framework illustrates the power of combining mandatory and voluntary processes of stakeholder alignment:

[22] See ICMM (2012b).

Figure 4: Vale Foundation social investment framework (Brazil)



Source: ICMM (2012c: 52).

In Ghana, the Chamber of Mines and the Minerals Commission organized a May 2009 workshop to follow up on a 2008 multi-stakeholder workshop action plan, which had prioritized compensation payments and small-scale mining (ASM).[23] This workshop brought together some 90 participants from ASM and other mining companies, government, local communities, NGOs, and academia. Participants identified a number of actions for government and companies, such as easing the formalization process for ASM miners and providing better access to mining areas. The need to create a task force within the Ghanaian Minerals Commission was also discussed.

Although local content was not prioritized in the 2008 Ghana workshop[24], nevertheless a partnership was formed between the Ghana Minerals Commission, the IFC, and the Ghana Chamber of Mines to assess local supplier development needs and create linkages between mines and the local economy. The objective of the partnership is to build the capacity and productivity of up to 35 suppliers over 3 years. The result is expected to be an increase in the share of items produced and bought in Ghana by identifying 28 new production lines.

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[23] Less progress appears to have been made on engaging companies in the implementation of District Development Funds (DDF)—where there was already good coordination between donors and local governments for budget support to the districts both for project financing and for capacity building; as well as on the transparency agenda. The 2008 workshop noted that this had been developed well in Ghana already but not nearly enough had been done to provide the relevant information down to local levels of society. The initial EITI reports in Ghana highlighted that many payments by companies and distributions by national government were not being made according to the requirements, or not being properly accounted for and used at a local level (GHEITI 2015).

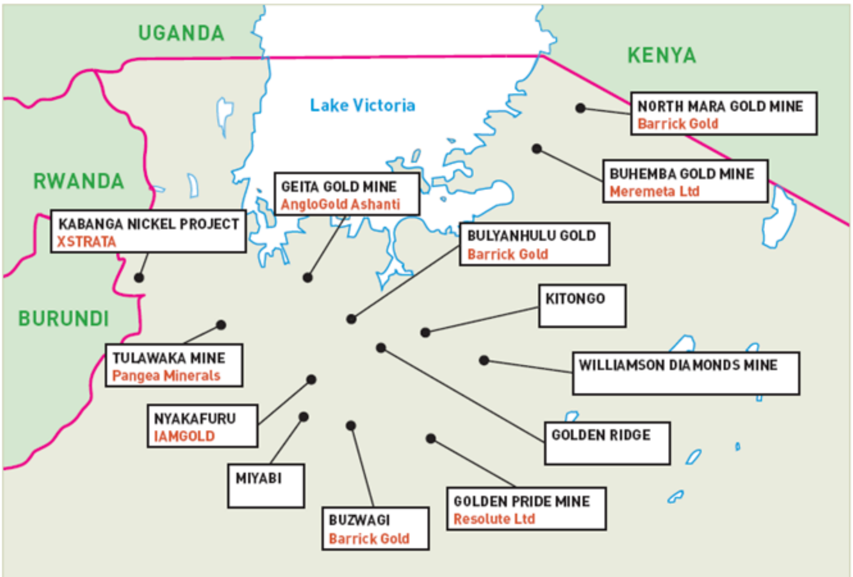
[24] ICMM (2007c) finds that of the US$110 million spent annually by the company on local procurement, 47 per cent was sourced in Ghana, while in Peru, of the total annual spend of US$229 million, almost 78 per cent was sourced in Peru.

Results to date are slow in coming. In 2014, ICMM was invited to return to Ghana and conduct a forward-looking analysis of mining's future contributions. The analysis indicated that, recent efforts to enhance local procurement notwithstanding, there had been little change in the proportion of company procurement spend in Ghana over the decade. The prize is clear. Increasing local procurement by 25 per cent across certain categories would create about US$50 million annually in value added to the economy. Indirect employment would be even further increased. An April 2015 multi-stakeholder workshop again prioritized local content, with calls for a national action plan.

Challenges

No matter how well intentioned (or well funded), no individual stakeholder (including a national government and a company) can 'go it alone' in seeking positive outcomes. For companies, a failure to engage broadly through partnerships clearly increases company risk. In Tanzania[25], while mining has made an impressive contribution to the economy since 2000, yet the role of mining has been underrated and often criticized. One possible explanation is the lack of linkages. Did companies miss the opportunity to seize a vision that mining can be used as a focal point for broader economic development? The location of the major mine investments is in a broadly contiguous area around the southern part of Lake Victoria (Figure 5). This could have supported a significant cluster of new economic activity if the companies had first worked together—and then engaged with the government to ensure that policies supported cluster development.

Figure 5: Major mine locations in Tanzania—2008



Source: ICMM (2009: 10).

Developing a shared objective and maintaining collective action is a huge challenge when different stakeholder interests have markedly different time horizons for decision making. For example: extractive companies in their forward-looking projections can take a 20–100-year time horizon; indigenous peoples take a multi-generational perspective; governments face a 3–5-year electoral cycle; investors look to quarterly results; communities often have an immediate need for jobs. And prices are constantly changing. Measuring and tracking progress and attributing results across

[25] Roe (2016).

different partners (which can be required by investors—whether donors, government agencies, or companies) is difficult both conceptually and methodologically.

Some of the most interesting data on local economic and social impacts in the ICMM Lao PDR study[26] resulted from the innovative use of biannual household surveys by the companies operating the country's two large-scale mines. MMG Sepon undertakes two yearly household surveys of 34 villages around the mine site with a total population of 8,500. Quantitative information includes population growth, food sources, household possessions, and income, and qualitative opinions are sought on land use and operations of the mine. The surveys found that the average annual per capita income in the villages had increased considerably since 2001. Specifically, it grew from US$64 in 2001 to US$436 in 2009/10. Interestingly, per capita income increased despite a rapidly growing population. For example, the number of inhabitants in the immediately affected communities doubled from around 1,100 in 2001 to 2,200 in 2009/10. Moreover, income inequalities declined over the same period. Looking across villages, the Gini coefficient in 2001 was 27 (meaning that 27 per cent of the total income would need to be redistributed to attain perfect equality across villages). By 2009/10 it had fallen to 12 per cent. Looking within villages, in every case the Gini coefficient fell from 2001 to 2009/10 (on average from 50 per cent to 34 per cent). This is a significant fall in the Gini coefficient. The remaining inequality within the villages is largely a function of family structures—where there are elderly couples and young couples with multiple infant children who have not yet benefited as much as families with adults of working age.

5 Conclusion

Work over a decade shows that investments in the natural resources sector do not automatically result in broad-based development, which requires:

- comprehensive understanding of the sector's full economic and social impacts—positive and negative, quantitative and qualitative, national and local—and the existing sector governance framework
- a vehicle for sharing this understanding across government and stakeholders, to (i) recognize the complexity of sector governance and (ii) explore how to diversify their economies from, and citizens' expectations of, dependence on the sector
- a platform for developing collaborative partnerships between government entities, companies, development partners, and civil society organizations to fill gaps in the governance framework.

This is an unfinished agenda. At the national level, for example, coordination within government, industry, or others, and between these players, is often embryonic. The MPD Toolkit provides some tools to achieve this. What are the best coordination models? There are recent examples of ways to improve intra-government coordination, effectiveness and learning in Peru[27] and in China

[26] ICMM (2011b).

[27] For example: In Peru, the Humala government came into office in 2011 and prioritized an approach to improving social cohesion that centres on achieving greater coordination between government entities and horizontal accountability across the public sector. A new Ministry of Development and Social Inclusion was conceptualized to improve the inter-ministerial coordination and the efficiency of existing social and other public policies. In addition, a presidential decree created a National Office and a High Commissioner for Dialogue and Sustainability, situated in the Prime Minister's Office (see ICMM 2013).

(CCCMC 2014). Many Chambers of Mines or Energy can lack technical and outreach capacity and need strong engagement and support from company members.

At the national and regional levels, a key priority of many governments is infrastructure development. However, there are few examples of shared-use infrastructure (roads, railways, power plants, etc.) either within countries or across borders. The World Bank considered the potential and challenges of power–mining integration in the Sub-Saharan Africa context (Banerjee et al. 2014). The challenges highlighted include aligning incentives (regulatory and commercial), commodity price volatility, and political instability.

At the global level, the three steps set out in this paper could support implementation of the Sustainable Development Goals and the Paris Agreement on Climate Change. In December 2015, 195 nations signed an agreement to combat climate change and implement 'nationally determined contributions' towards a low-carbon future. This is to be achieved by keeping the global temperature rise this century to below 2 degrees Celsius and to drive efforts to limit the temperature increase even further to 1.5 degrees Celsius above pre-industrial levels. The Paris Agreement came into force in November 2016 in one of the fastest ratification processes in climate negotiation history. It provides a framework for country-driven action by 'non-state actors', including cities, states, and regions, companies, and investors.

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