WORLD ECONOMIC FORUM

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A Framework for Advancing Responsible Mineral Development

Responsible Mineral Development Initiative 2011

In collaboration with The Boston Consulting Group

Contents

Foreword

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As demand for mineral resources grows ever stronger, and the resource frontier extends further into less developed regions, a responsible, sustainable approach to mineral development has never been more necessary.

It is our great pleasure to introduce this second milestone report as part of the World Economic Forum's Responsible Mineral Development Initiative (RMDI) launched in 2010. In building on the work carried out in 2010 that identified the key challenges facing responsible mineral development, the RMDI continues to provide a neutral, truly multistakeholder platform for the discussion and development of ideas capable of unlocking the potential socio-economic benefits of mining.

During 2011, the RMDI has held workshops spanning all six continents, with the aim of providing a framework with practical solutions to the challenges of responsible mineral development. The result is brought together in this report. It lays out six building blocks that we believe will act as a constructive framework for the next step towards a more responsible, sustainable future for mineral development.

The creation of this report involved extensive outreach and dialogue with members of the private sector, governments, academic community, NGOs and multilateral organizations from around the world. We are extremely grateful to the many stakeholders whose invaluable input and support for this global initiative made this report possible.

In particular we thank:

- The RMDI Advisory Group: Clive A. Armstrong (World Bank Group), Beatriz Boza Dibos (Ciudadanos al Día), Stephen D'Esposito (RESOLVE), R. Anthony Hodge (International Council on Mining and Metals), Antonio A.M. Pedro (United Nations Economic Commission for Africa), Puntsag Tsagaan (Office of the President of Mongolia), David Williams (TechnoServe).
- Our Industry Partners from the Forum's Mining & Metals Industry, and in particular the CEOs who served on the Mining & Metals Steering Board in 2011: Richard O'Brien, also member of the RMDI Advisory Group, Tom Albanese, Cynthia Carroll, Patrice Motsepe, Klaus Kleinfeld and Ivan Glasenberg.
- The Members of the World Economic Forum Global Agenda Council on the Future of Mining & Metals: Anthony Andrews, Joyce Rosalind Aryee, Jorge Bande, Britt D. Banks, Marketa D. Evans, Charmian Gooch, Huguette Labelle, Anna Littleboy, Kathryn McPhail, Maria Ligia Noronha, Paulo Camillo Penna, William Scotting, Shen Lei, Michael H. Solomon and Liliang Teng.

We especially thank and recognize Jan Klawitter, Head of the Forum's Mining & Metals Industry team until end 2011 and Britt D. Banks, Adjunct Professor at the University of Colorado and Vice-Chair of the Global Agenda Council on the Future of Mining & Metals, for their overall leadership of the RMDI in 2011. We are also most grateful to The Boston Consulting Group as our knowledge partner for this year's work and, in particular, to Till Schmid for his dedication and commitment as project manager.

Executive Summary

The development of mineral resources is a key driver of global economic growth. It has the potential to transform economies and societies, including some of the world's poorest nations, but the extent to which it has fulfilled that potential is varied.

The Responsible Mineral Development Initiative (RMDI) explores the views, priorities and concerns of key stakeholders in mineral development. It asks where discontent and frustration most commonly arise, where improvements can occur, and what can be done to foster a more responsible, sustainable mineral development, thus enabling better integration of mining wealth into national economies.

While the first phase of the Initiative focused on identifying the challenges around responsible mineral development, this second phase report summarizes stakeholder views on how to address these challenges.

Stakeholders were clear that there is no single "silver bullet" solution to all problems. Instead, several themes and dimensions need to be addressed in parallel and in relation to their possible applications. A framework of six building blocks was identified to address recognized challenges and provide guidance for next steps:

(1) Progressive capacity building and knowledge sharing among all stakeholders

(2) A shared understanding of the benefits, costs, risks and responsibilities related to mineral development

(3) Collaborative processes for stakeholder engagement throughout the life cycle of mining projects

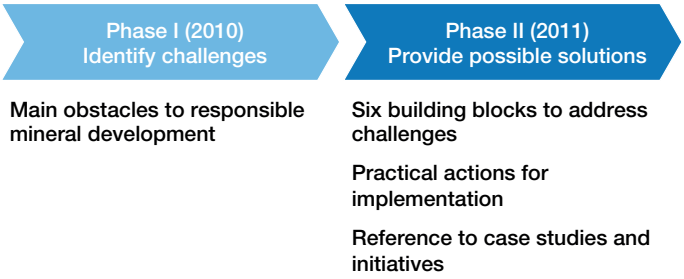
(4) Transparent processes and arrangements

(5) Thorough Compliance, Monitoring and Enforcement of Commitments

(6) Early and comprehensive dispute management

This report highlights and discusses specific actions for each building block. Related case studies and ongoing initiatives show their practical application. Examples include: Alcoa has set up a local development council in Brazil, Rio Tinto publishes its tax and royalty payments for 28 countries, and Mongolia has created a national dialogue platform.

Exhibit 1: The Responsible Mineral Development Initiative in two phases



A global survey[1] shows a majority belief across all countries and categories of stakeholders that the actions advocated in this report are "very" or "extremely" helpful in the development of responsible and sustainable mining. In particular the importance of building training and development programmes, conducting collaborative socio-economic studies and establishing effective dialogue platforms, were highlighted.

This report summarizes the wealth of information and ideas we received. It acknowledges the complexity of the sector, and the huge variety of countries and cultures involved. It does not attempt to define a "recipe" or provide all-encompassing solutions. Instead, we hope it can add valuable insight and guidance to support the considerable body of existing work in this field.

[1]Survey conducted in November 2011 involving 145 representatives from mining companies, public sector, NGOs, academia and civil society from 33 countries.

Chapter 1: The Context

Some of the world's poorest countries are rich in mineral resources. Using these resources effectively offers an unmatched opportunity for social and economic transformation.

Mineral development can help drive socio-economic development in ways that fit with local and national priorities. In particular, it can contribute to the country's development by generating foreign direct investment, export earnings, government revenues (through royalties, taxes, licenses and fees), GDP growth and employment.

Achieving responsible, sustainable development is tough and complicated. Progress is being made along many fronts in many regions, but there are significant barriers to progress. These barriers are often highest in countries where sustainable development is most needed.

The World Economic Forum launched the Responsible Mineral Development Initiative (RMDI) in 2010. It started by asking a global range of stakeholders to identify the key challenges around responsible mineral development. It asked what works, what does not, where discontent and frustration most commonly arise, and where improvements can occur. The report from Phase I outlined what the stakeholders see as the sector's common concerns and challenges.

In its second phase, throughout 2011, the RMDI sought both a deeper understanding of these challenges and constructive, practical responses to them. Further research and consultation was underpinned by workshops across six continents [Exhibit 2]. We asked how mineral development can occur in a way that best considers the full social and economic contributions and costs across the entire life cycle of a mine from the onset of exploration through closure and reclamation, while also fairly addressing the distribution of costs, benefits, risks and responsibilities between stakeholders. This report summarizes the answers received.

The RMDI seeks to facilitate ways to help mineral-rich countries attain socio-economic progress beyond the mining revenues, stimulating broader indirect benefits.

The complexity of the industry, and wide variations in political, economic, regulatory, physical and cultural environments, mean that no solution is universally applicable. As a result, this report does not seek a "recipe" or all-encompassing solutions. We recognize that while much remains to be done, excellent contributions to responsible development already exist. Our aim is to build on this work. Initially focused on the roles and use of Mineral Development Agreements (MDAs), our work broadened in scope, while at the same time considering how to improve MDAs.

The concept of an RMDI "stakeholder" is used frequently throughout this work. This encompasses mining companies or their representatives (both national and international), governments (national, regional and local), NGOs, representatives of local communities, indigenous peoples, civil society, international bodies and multilateral development organizations[3], academic institutions and individuals with interests in mining and its impacts. A multistakeholder consultation or platform includes a broad range of these groups.

Exhibit 2: RMDI stakeholder engagement (phases I and II)

Stakeholders from companies, government and civil society consulted around the world – meetings, workshops and country-specific interview research[2]

[2]See Appendix for further details.

[3]For example, the United Nations, World Bank Group and regional development banks.

Chapter 2: The Challenges

What are the main obstacles to responsible mineral development?

Mining is an expensive, long-term business that has a profound effect on its host societies. Stability and trust are essential underpinnings of any development. Companies making heavy, long-term capital commitments must be sure that they are in a stable legal, political, social and economic environment. Stakeholders in those societies need to have confidence that the economic and social benefits from mining will be distributed equitably, with respect for their culture, their environment and their future economic stability.

Consultations with 250 stakeholders in 13 countries during RMDI Phase I highlighted a broad range of concerns that undermine trust and confidence. An understanding of these concerns was further developed through continued consultation during Phase II. The variety of concerns matched the range of country and company situations, meaning that no two problems identified were entirely equivalent. However, common themes emerged.

Mining companies have found that in some countries the risks of investment can outweigh any potential benefits. Investment is vulnerable if there are unexpected changes to the law that undermine the original terms of agreement, since these terms underpin its economic viability and make investment possible in the first place. So, companies feel threatened by rising resource nationalism and its associated possibility of unexpected dramatic change.

These possibilities will form part of the comprehensive risk analysis that precedes any investment. This will also take in the stability and length of the approvals process, the potential for resistance in the host country, which in extreme cases may extend to issues of human security, and the adequacy of local, regional and national infrastructure.

Governments may suspect that they are not receiving an appropriate share of benefits from a project. Sometimes this is because agreements made under previous administrations were marred by corruption or an imbalance in negotiating capacity. Civil society can feel that communities are suffering damage to their health and environment while missing out on social and economic benefits. All of this may be compounded by poor communication and a lack of transparency, leading to misunderstanding and distrust.

Our stakeholder consultation found the following obstacles to responsible mineral development:

Key obstacles...	... and associated observations
Limited expertise and institutional capacity of government, civil society, and companies	• Lack of common understanding of the nature, scope and timing of the benefits and costs to be derived from mineral development • Weak formulation of mining policy and regulations, ineffective bureaucracy, poor monitoring and enforcement • Civil society struggling to engage constructively in process and with diverse, often unrealistic, expectations • Companies with insufficient understanding of host country and local community priorities, concerns and ambitions • Roles and responsibilities remain unclear • Lengthy and complex negotiation processes, and perceptions of deceit
Inadequate inclusion of stakeholders in decision processes	• Distrust among stakeholders and constraints for constructive participation • Suboptimal programmes for development for infrastructure, employment and local supply chains • Difficulties in building social acceptance for mineral development
Opaque negotiation and development processes, scarce information shared	• Distrust among stakeholders • Missed opportunities for proactive engagement • Unclear accountability
Incomplete compliance, monitoring and dispute resolution components	• Benefits lost through schemes left unfinished and commitments not honoured • Escalation of disputes or cultivated resentment

These obstacles are the common challenges in the view of the consulted stakeholders. The question is, how to address them?

Chapter 3: Six Building Blocks for Responsible Mineral Development

Consultations made it clear that there is no "one-size-fits-all" solution to the multifarious challenges of responsible development. Given the size, length and complexity of most mining developments, their multiple impacts on their host societies and the immense differences within and between those societies, every development is different as are the measures and devices necessary for its sustainable success.

Instead, stakeholders suggested that solutions must be developed along parallel dimensions. A framework of six building blocks was identified to address recognized challenges and provide guidance for next steps. The importance of each depends on its context.

(1) Progressive capacity building and knowledge sharing among all stakeholders

(2) A shared understanding of the benefits, costs, risks and responsibilities related to mineral development

(3) Collaborative processes for stakeholder engagement throughout the life cycle of mining projects

(4) Transparent processes and arrangements

(5) Thorough Compliance, Monitoring and Enforcement of Commitments

(6) Early and comprehensive dispute management

The six building blocks reflect the issues surrounding many developments. They include economic and social aspects, such as issues around taxes and royalties, local suppliers and hiring, environmental questions such as water, waste and land use, as well as health and safety concerns.

Developing programmes and actions based on these building blocks should help provide the stability sought by mining companies and foster the trust demanded by all stakeholders. The building blocks apply throughout the life cycle of the project, supporting all parties through exploration, negotiation, feasibility, development, operation and monitoring through to enforcement, closure and legacy. Finally, they should ensure that while the potential for conflict is minimized, the means for resolving disputes still exists.

Stakeholders raised many worries concerning process. Their needs and priorities related to the "how" rather than the "what". They seek practical actions that underpin tailored solutions for each project.

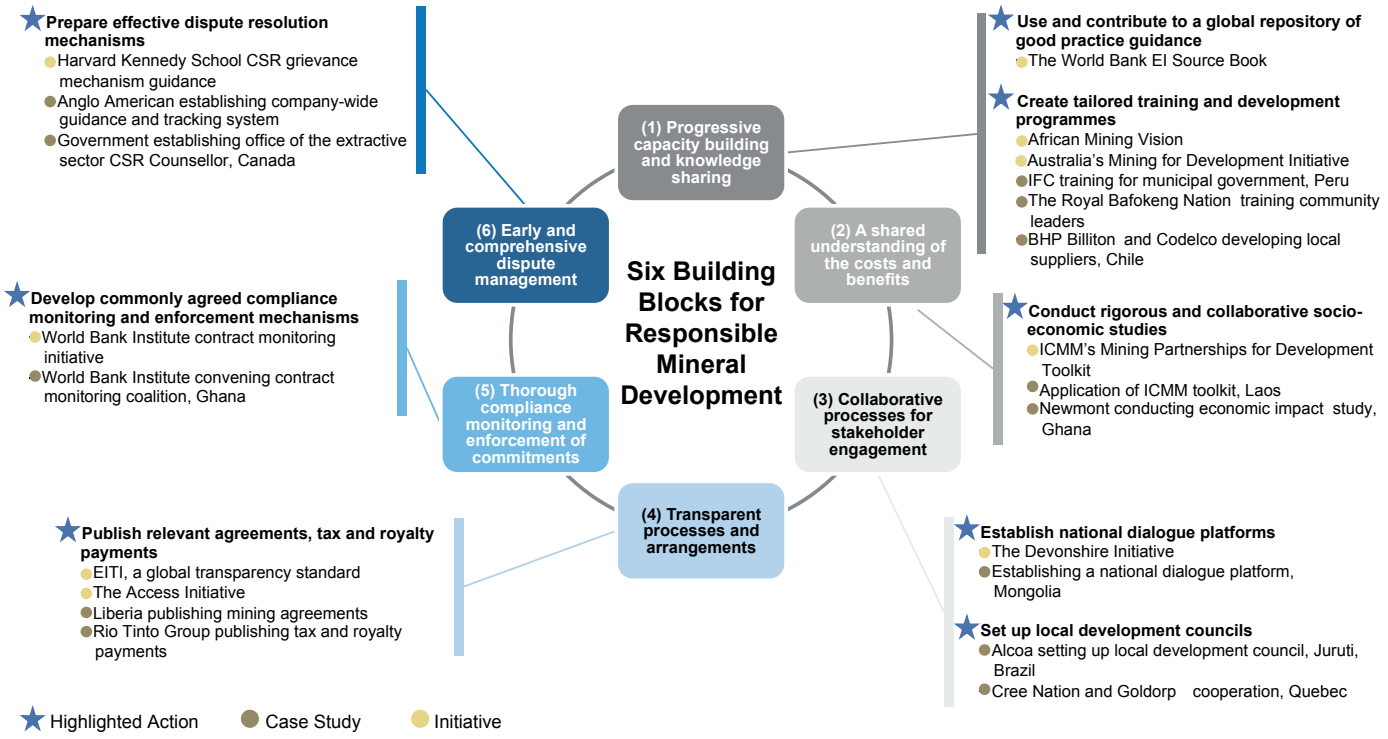
This report highlights a selection of possible actions, case studies and initiatives that emerged from our stakeholder consultation. The case studies show how suggested actions have been put into practice. The initiatives offer existing programmes or toolsets to which stakeholders can look for additional advice or help with implementation [Exhibit 3].

These are not presented as universal solutions, but as practical examples that have helped to advance responsible mineral development in specific circumstances. We acknowledge that there are many other possible actions, case studies and initiatives besides, and each needs to be seen in the context of its application.

Each of the six building blocks – and their corresponding actions, supporting case studies and initiatives – is discussed and explained in sections 3.1 thru 3.6. [Exhibit 3]

The results of a global survey designed to uncover stakeholder views of the eight highlighted actions in this report, in particular, how effective they believe each action can be in different country contexts, is discussed in section 3.7.

Exhibit 3: Overview of the RMDI framework formed out of six building blocks, highlighted actions, referenced case studies and initiatives



Building Block 1: Progressive Capacity Building and Knowledge Sharing Among All Stakeholders

One of the strongest messages from consultation was that the lack of capacity across stakeholder groups could create inefficiencies and distrust from the start of the development process. The stability provided by effective capacity building and knowledge sharing is essential for responsible mineral development.

Capacity must be sustainable in the long term. Stakeholders need to be capable of managing the whole life cycle of the project. Despite much current good practice, there are concerns about the effective tracking and communication of lessons, and their practical application on the ground.

This deficiency points to several connected needs. One is for coordinated sources of knowledge and expertise – where can governments, NGOs and companies quickly and easily find information on good practice? Another is capacity building – giving government and company staff, institutions and civil society the ability to operate in the environment created by mineral projects. In particular, there is a critical need to address gaps in government capacity to manage natural resources effectively. Companies and civil society organizations also have capacity limitations, which may hold them back from taking further steps towards responsible development and can be addressed by better information flows and best practice sharing

Stakeholders suggested practical steps that include building affordable, high-quality training and research facilities for the extractive industries, as well as training companies how to enhance and grow their ongoing efforts to advance regional development. Local employability can be improved by offering basic literacy and numeracy education and mining-specific training. Other participants, such as businesses within the local mining supply chain and regulatory bodies, may lack capacity, and stand to benefit from training. Programmes should be developed with reference to the concerns and ambitions of host regions and their historic and cultural contexts.

Both the creation of a global repository of good practice guidance, and the establishment or enhancement of training and development programmes are examined in greater detail below.

★ Highlighted Action: Use and contribute to a global repository of good practice guidance

There is no shortage of ideas and initiatives on good practice. The challenge is to keep track, understand each example's context and synthesize the best lessons. This becomes much easier if there is a single place where all information is collected, classified and made available in a user-friendly, easy-to-understand format.

Why this is helpful

A global repository could facilitate the dissemination of good practice advice and information to stakeholder and interest groups. It would assist the global exchange and collaboration needed to promote and enable research and dialogue on the most significant and contentious issues facing the sector.

Access would enable all stakeholders to learn from the parallel experiences and good practice of others. It would reduce asymmetry in negotiations, creating greater trust between parties and more stable projects. Investment decisions could be better informed, and faster, more effective action taken on broader socio-economic development.

There are many existing initiatives working towards these aims. However, greater value would be generated by a truly global resource acting as a central hub for these separate sources of information.

Global initiatives include the Natural Resource Charter and The World Bank Extractive Industries Source Book. The Natural Resource Charter summarizes the choices and suggested strategies that governments might pursue to advance sustained economic development from natural resource exploitation into a set of 12 economic principles. The World Bank Extractive Industries Source Book is currently working to create a comprehensive global collection of good practice examples [Initiative 1].

How to overcome potential barriers

Barriers to implementation include the need for a central body or platform to collate information and ensure free access, and the debate inherent in establishing what is good practice. Companies may be wary of opening up material that they feel gives them a competitive advantage, while governments may be handicapped by the limited capacity that this action is intended to help remedy.

Identifying good practice and experience can be most effective if the repository is hosted by an international, well-resourced body capable of maintaining both the collection and the quality of material. Ensuring the independence of the repository, particularly in relation to findings, is essential. This can be achieved by funding via an independent consortium, as seen in the World Bank initiative [Initiative 1].

Best experience and practice can most effectively be established through a rolling programme of advisory groups, workshops and stakeholder consultation. Its activities can be publicized, and participation driven though international organizations, industry bodies and specific country-directed initiatives.

Looking forward

Companies can do most to assist, and gain the greatest benefits themselves, by proactively considering what good practice information can be shared and how best to do it. It should offer an excellent opportunity to both showcase corporate social responsibility (CSR) activities and learn from other companies.

Governments can help by explaining which areas of practice are in most need of information and would be most useful. Governments could consider using guidance and good practice to introduce well considered, principle-based regulations for areas such as risk assessment and due diligence.

NGOs can use their networks to actively engage governments and companies. They can play key roles in comparing critical issues in different regions, and contributing to or orchestrating the development of materials that share good practice. They can also help turn this knowledge into action on the ground and develop practical initiatives with other stakeholders. Close local connections can help them develop a collective voice for communities.

Initiative 1: The World Bank Extractive Industries Source Book

Active in mining issues for more than 60 years, the World Bank Group began a review of its engagement in the extractive industries in 2001 (known as the Extractive Industries Review), to consider its role in the sector and to identify and promote good practices. In the decade since, emphasis has shifted towards sustainability – supporting key initiatives such as the Extractive Industries Transparency Initiative.

The Source Book was launched in 2011 as a resource for stakeholders seeking to develop good practice. It aims particularly at rapid capacity building and diverse, open-sourced collaboration.

It will collect good practice guidance both from external partners and within the World Bank group – many of whose publications focus on the regulatory/good governance agenda; and work in partnership with the International Council on Mining and Metals (ICMM), the World Economic Forum and NGOs, such as Revenue Watch and Publish What You Pay.

Initial concentration is on five "hot spot issues" seen as essential to sustainable development

- Collecting geoscience data
- Resource corridors
- Barriers to diversification
- Using extractive industries to drive infrastructure development
- Transparency and government norms

The independence of the Source Book is enabled through its funding by The Development Grant Facility (DGF), a trust managed by the World Bank. Funding is provided to the University of Dundee, which leads a consortium of policy centres in providing an independent resource and ensuring a wide range of viewpoints. The University of Dundee also leads the assessment process on what qualifies as good practice examples.

★ Highlighted Action: Create tailored training and development programmes

Lack of expertise is a widely discussed and deep-rooted problem. Training and development programmes, tailored to the specific needs of the participants, could particularly benefit governments, which may be going into mining negotiations for the first time and must then take on the demands of developing and managing resources and revenues effectively. Such programmes could also benefit local populations, which stand to gain relevant skills and employment. Companies could be assisted to engage effectively with national governments and local communities, gaining an improved understanding of the cultural context, current situation and worldview of those they will be working alongside.

Why this is helpful

Benefits would be realized across the board. Those for national governments, including enhanced ability to negotiate with experienced mining companies and managing the subsequent development process better, are more obvious. Companies would also be better off.

Contracts negotiated robustly on both sides are likelier to be durable, with less risk of calls for destabilizing renegotiations at a later stage. A better understanding of the industrial and investment side of the mining process would help governments assess the impact of potential policy changes on companies, particularly in relation to capital intensity and time scales. Companies that fully understand the cultural, social and economic background of communities have a much more solid base for long-term engagement and acceptance.

Civil society would see resources better managed by governments and institutions, with skills and expertise enhanced across many bodies. Individuals could gain economic independence and transferable skills through education and professional qualifications. Programmes to build the capacity of the local supply chain, as seen in Chile [Case Study 3], improve not only the regional economy, but also the operational efficiency and technological capacity of the mining operation.

Overcoming potential barriers

Finding sources of funding could be the main problem, while divergences among the training curricula of different countries and regions are sometimes obstacles to common understanding.

There are several ways around this. Funding sources like the World Bank's Technical Assistance Loans can be used, while regional development banks, such as the Inter-American Development Bank, are also showing serious enthusiasm for this action. Mining companies could be encouraged to provide scholarships for industry-related courses, or invest in training centres. Once mining revenues begin to accrue, effective reinvestment in both government and civil society training is vital to ensure sustainability. The Royal Bafokeng Nation invests heavily in tertiary education and training to build skills and confidence among its traditional community leaders, and to empower individuals to enhance economic self-sufficiency beyond mining [Case Study 2].

At a regional level, existing initiatives such as the New Partnership for Africa's Development (NEPAD) Centres for Excellence [Initiative 2] can be leveraged. Regional economic communities can assist by ensuring that mining courses have a common curriculum, offering comparable qualifications across their regions. Courses would be aimed in particular at public officials at national, municipal and local levels, providing knowledge of basic subjects such as contract negotiation and revenue management.

Existing education centres and universities could be used. This would reduce costs by building capacity within establishments that already have infrastructure, staff and experience of applying for funding.

Looking further afield, international organizations like the International Finance Corporation (IFC) can provide additional training and advisory services [Case Study 1]. Developed countries such as Australia [Initiative 3] and Canada, through its International Institute for Extractive Studies and Development, are looking at how to best use their expertise to help other mining countries.

Looking forward

Companies and governments will enjoy greater medium- and long-term project stability if they invest in capacity building at the country and community levels. NGOs have the opportunity to encourage and take advantage of international and regional collaboration. Other highly developed mining countries could follow initiatives taken by Australia and Canada in setting up projects to transfer expertise to emerging economies [Initiative 3] or support regional resource centres such Africa's Mineral Policy Centre [Initiative 2].

As local communities and national populations gain skills, companies will be in a better position to employ their citizens in all aspects of the mining process. With the right training, companies can engage more effectively with communities, avoiding disputes and advancing responsible mineral development.

Stakeholders wanted greater awareness of the work currently carried out by multilateral organizations in this area. In this report we mention examples such as the Africa Mining Vision [Initiative 2] and the International Finance Corporation training programme [Case Study 1]. More exchanges between these organizations, possibly via an existing national-level dialogue platform or a global repository of good practice, would help each learn from the others' experiences. They could also benefit from better coordination, pooling of resources and engaging organizations not yet involved.

Initiative 2: Africa Mining Vision

Adopted at the African Union summit in 2009, the Africa Mining Vision advocates "transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development". It aims to integrate mining in Africa into broader development, increasing added value, linkages to local economies, local content and empowerment, and prudent use of revenues. The Vision includes a preliminary framework for action, identifying roles and responsibilities for key players. It is a collective tool for governments, organizations and civil society in Africa to help move forward within their own countries, while working collaboratively across the continent.

Initial capacity-building priorities already identified include educational reforms, the standardization of mining qualifications, governmental promotion of new technology innovation hubs, and the expansion and extension of the training centre network. The New Partnership for Africa's Development (NEPAD) centres of excellence programme will be promoted, and universities and colleges encouraged to link with other regional and national institutions.

An Action Plan is currently being developed to guide the implementation of the African Mining Vision. It includes the establishment of a Mineral Policy Research Centre, which would coordinate the different ongoing activities, including providing technical support, identifying gaps and areas of need in member states, and developing policy strategies and options.

Initiative 3: Australia's Mining for Development Initiative

Australia, with its mature mineral economy, announced its Mining for Development Initiative in October 2011. It is intended to aid economic growth and social benefit in developing countries by improving resource governance, sustainability and development.

Together with the Australian Agency for International Development (AusAID), it will draw on industry and development expertise from academic institutions, government and NGOs. Its activities will include offering scholarships, capacity building, promoting transparency, developing skills through partnership, engaging with communities and the creation of an International Mining for Development Centre.

Through this centre Australia plans to provide AU$ 31 million for practical advisory, education and training services to developing countries, and expects to include 1,870 training places in Australia and in developing countries and 24 research fellowships.

Case Study 1: International Finance Corporation training programme, Peru

The IFC, a member of the World Bank Group, focuses on providing finance and advisory services to the private sector in developing countries.

The local government in Baños del Inca, Peru, received significant tax revenues from a successful nearby gold mine, but lacked the experience needed to invest it successfully to benefit local communities.

Training key staff through workshops and one-on-one coaching first developed capacity. An investment tracking system, which promotes accountability, and an on-demand, Web-based specialized advice service, were set up. In addition, work with local institutions focused on promoting accountability by disseminating information on tax revenues and tracking local government investments.

Municipal investment quadrupled by 2009, with most devoted to rural areas and basic needs such as water systems and infrastructure. Efforts to inform and account to the population have been reflected in media coverage focused on newspaper and radio, which produced 3,824 separate references to the funds provided. The greater popular understanding of mining generated among the community was reflected in a survey of 364 local citizens. This showed that the proportion with an understanding, measured by a pass score in a multiple-choice test, of basic concepts such as how revenue is generated and distributed and how it gets to local government had increased from an initial score of under 10% to more than 30%.

Case Study 2: Royal Bafokeng Nation training community leaders, South Africa

The Royal Bafokeng Nation consists of 29 villages, ruled by a hereditary king and a Supreme Council, in South Africa's North West Province. The income it draws from its land, where the world's largest platinum reserve is mined, is invested through Royal Bafokeng Holdings, a community-based investment company.

PLAN '35, the community's blueprint for development, includes an ambitious long-term plan to maximize the development of the Royal Bafokeng Nation's communal assets and human capital. The aim is to achieve economic self-sufficiency beyond mining and to empower individuals within the community.

The Personal Leadership Development Initiative focuses on developing the skills of Bafokeng leaders. It provides training designed to give dikgosana (headmen), traditional executive committee members, councillors, school principals, executives and managers, and other local leaders the skills needed to manage the nation's affairs in a responsible manner.

The Tertiary Education Programme funds loans, accommodation and other services for students from the community. It also addresses skills shortages and enhances employability by opening new technical and vocational institutions. In February 2011, five institutions were in operation, with 452 students enrolled.

Case Study 3: BHP Billiton and Codelco developing local suppliers, Chile

BHP Billiton and the Chilean state-owned mining company, Codelco, have adopted the Cluster-Programme for the Development of World-Class Suppliers to enhance engagement with local businesses. At the same time as increasing their own competitiveness, they aim to increase the capacity of domestic suppliers and contribute to national long-term growth and development. Between them they currently back 51 cluster projects.

The Cluster-Programme aims to create a win-win relationship based on the understanding that the challenges facing a mining company can stimulate suppliers to develop greater technological and managerial capabilities. Suppliers capable and willing to meeting these challenges with innovation are identified and pre-evaluated. They then submit tenders and commit to a collaborative process of development that creates long-term value for both the mining industry and Chilean economy.

By 2020, the programme aims to develop more than 250 world-class suppliers – defined by the ability to export technology and knowledge intensive services to other mining countries and sectors of the Chilean economy. Universities and technology centres also participate through collaboration with suppliers. The long-term aim is to create two-way relationships that extend the boundaries of technological research and development.

Building Block 2: A Shared Understanding of the Costs and Benefits, Risks and Responsibilities Related to Mineral Development

Stakeholders need a common view of how mineral development will affect their country, region and local community. The key is that discussions between stakeholders should be based on an agreed understanding of costs, benefits, risks and responsibilities. This understanding should ensure that they avoid the worst possible outcome, under which one party gets all the benefits while another carries the costs and risks, accompanied by a lack of clarity over the assignment of responsibilities. All four aspects need to be addressed and clearly settled.

Mutual understanding helps companies by enabling informed debate about costs and benefits, reducing from the start the risk of inflated expectations or unfounded concerns. A clear perception of these enables governments and civil society to justify their decisions and avoid mistrust, misunderstanding and misconception.

The process should also include identifying issues, policies and practices that maximize benefits for local communities and the country as a whole. This protects them from being undermined by weak links in the overall ecosystem of the wider development process.

Of the possible actions stakeholder discussed as practical steps towards this shared understanding, implementing a rigorous and collaborative socio-economic study was highlighted.

★ Highlighted Action: conduct rigorous and collaborative socio-economic studies to foster collective action

This action involves the evaluation of the full economic and social costs and benefits of mining at national, regional or local level via an agreed, rigorous and collaborative methodology, identifying issues, policies and practices to maximize benefits for all stakeholders. Over the last decades the sophistication of socio-economic impact studies has developed considerably. There are numerous impact studies currently undertaken in many parts of the world. As available tools and methodology further improve, collaborative socio-economic studies will continue to play a vital role in creating a shared understanding of socio-economic impact of mining among shareholders.

Why this is helpful

A collaborative socio-economic study provides an objective evidence base on which to build discussions, negotiations and establish partnerships for further action plans. These evaluations could take place at national, regional or local level.

Rigorous research can prove informative for even the most knowledgeable stakeholders. A socio-economic study conducted in Laos [Case Study 4] showed that mining is more important to the national economy than hydro energy, a fact that came as a surprise to many.

Good data builds trust. Solid research will give all parties a clear understanding of the timing and nature of the benefits, such as jobs and royalties, to come from development.

For government and society, collaborative analysis helps identify ways in which benefits can be maximized for the country and community [Case Study 5]. ICMM's Mining: Partnerships for Development Toolkit [Initiative 4] highlights a rigorous, balanced and objective socio-economic assessment – identifying six potential areas for partnerships and collaborative action and offering guidance on convening multistakeholder workshops to scrutinize evidence and develop action plans. Anglo American's Socio-Economic Assessment Toolkit (SEAT), launched in 2003, is another tool for developing a better understanding, and engaging with the community.

Overcoming potential barriers

Establishing agreed methodology can be problematic. Agreeing what constitutes a benefit, which factors can realistically be included, and then defining the value of impacts is not only complicated but often also subjective. Estimating the value of an effect such as the role of mining in strengthening the rule of law in a region is difficult.

Once methodology has been agreed, ensuring robust implementation and maintaining credibility for the process pose further challenges. Companies may be concerned that studies will delay projects and so be reluctant to invest time and money, while governments are not always convinced of the potential benefits. The necessary buy-in from affected stakeholders may be lost through concerns about politicization or external agendas affecting the assessment.

International organizations can help in two ways: by supplying established methodologies such as the ICMM's Mining: Partnerships for Development Toolkit [Initiative 4]; or helping to raise awareness of the benefits of good research. NGOs could use their contact networks to play an important role here.

Looking forward

Companies should think about how to develop the in-house capacity and expertise needed to deal with assessment to address local needs, and how to best use existing and proven methodologies and toolsets. Collaboration is essential to fully engaging all stakeholders, so companies should aim to work with experts, governments, NGOs and community stakeholders.

Governments need to be open and proactive in their engagement. By thinking ahead how the process could fit into their procedures and legislation and looking for ways to reduce bureaucratic barriers, they can minimize time scales and make the assessment more efficient.

NGOs can play an active and collaborative role in enhancing the methodology and research results, ensuring a neutral and unpoliticized approach, and helping to push the conclusions towards practical next steps.

A rigorous impact assessment could become part of standard global procedure for mineral development, with companies, governments and civil society all regarding it as the norm. A bank of practical experience is already being built, thanks to existing initiatives including the ICMM. They can minimize time frames and make the assessment process more efficient.

Initiative 4: ICMM's Mining: Partnerships for Development Toolkit

ICMM's Mining: Partnerships for Development Toolkit, now in its third version, provides companies, development agencies and other stakeholders in mining countries with an objective analytical framework for objectively assessing the sector's likely economic and social contribution at local, community, regional and national levels and its interaction with existing government structures. It encourages partnerships in six areas: linking mining to poverty reduction, revenue management, regional development planning, local content, social investment and dispute resolution.

This collaborative action can help combat the capacity limitations of stakeholders, while enhancing mining's social and economic contribution. Stakeholders can debate the draft assessment of the positive and negative economic and social effects of mining at in-country workshops that structure discussion and build specific partnership-based action plans. These methods are of particular relevance to the increasing numbers of lower- and middle-income economies that have high levels of mineral dependence.

The toolkit was developed over several years based on in-depth country case studies in Chile, Peru, Ghana, Tanzania, and Lao PDR, and it has evolved through several iterations. This process has secured credibility and rigour by establishing oversight from independent advisory panels, and by collaborating with respected institutions including UNCTAD, the World Bank Group and expert consultants. The common analytical framework it provides helps to ensure that comparisons can be made of mining's contributions and impacts across different countries.

The toolkit consists of eight modules designed to address seven specific topics, with guidance on sources of data, analysis and worked examples (modules one to seven); and guidance on communicating the results found (module eight). There are a number of worksheets and database templates available to download on the ICMM's website to help complete each of the modules in the toolkit. The modules are defined as:

1. Mining and the host country
2. The participating mining operation and its economic and social initiatives and partners
3. Measuring the mining industry's contribution to the host country
4. Identifying the aspects of governance that help or hinder mining's economic and social performance
5. Measuring the participating mine's positive and negative contributions to local communities
6. Analysing the life cycle impact of the participating mine on the host country's macroeconomic aggregates
7. Impact of mining on governance
8. Communicating your findings

Addendum: Guiding principles regarding minerals taxation

The toolkit's collaborative assessment process allows shared findings to be used to develop an improved understanding of the issues, policies and practices that may be helping or preventing host communities, regions or the country from benefiting more fully from mining. The multistakeholder action plans that are developed provide concrete steps for enhancing mining's contribution. Since 2006, the toolkit has been applied in nine countries, and implementation in the 10th country, Brazil, is currently underway.

Case Study 4: Applying the ICMM toolkit in Lao PDR

The ICMM toolkit was used to examine the economic and social contribution of large-scale mining operations to Lao PDR by MMG, PanAust and Rio Tinto. The government, fearful of the "resource curse", challenged companies to seek downstream processing and considered renegotiating mining agreements. Local communities and national assembly members voiced concern about the environmental impacts of mining, while donors worried about government's ability to manage revenues.

Over nine months a core team of consultants and academics worked closely with companies, government and International NGOs. Their economic analysis surprised many by showing that mining was more important to the national economy than hydro energy. Since 2003, it has accounted for 80% of foreign direct investment, 45% of exports and 12% of government revenues. The two mines will contribute 10% to GDP over the next 14 years, mainly through profits made by the two companies. They have raised local incomes by five-fold and nine-fold respectively, and improved living standards. This progress was driven by two key factors: partnerships integrating large-scale mining companies into the host economy and good governance. The national government responded to the additional needs of mining areas by strengthening local government.

Findings were debated at a multistakeholder workshop in Vientiane, with participants including Chinese companies; representatives from the national assembly, national and provincial government; NGOs; and development agencies. Participants ranked the six Mining Partnership for Development themes in order of priority, rating mining and poverty reduction and mining and revenue management as the top two. They also suggested steps their own organizations could take to help enhance mining's contribution across all six themes.

Case Study 5: Newmont conducting economic impact study, Ghana

Global gold producer Newmont Mining Corporation operates the Ahafo mine in the Brong-Ahafo region, through its Newmont Ghana Gold Limited (NGGL) subsidiary. It commissioned the research because, while gold mining is significant and growing in Ghana – contributing 6.3% of GDP and 43 % of exports in 2009, some stakeholders believed that benefits were only reaching a minority. It was argued that mining was an "enclave economy" with most profits going abroad. The aim was to create a common understanding of the costs and benefits of mining by explaining them more fully.

An independent study of NGGL's economic impact was commissioned. It used quantitative publicly available financial data from company operations, applying Ghana's national Social Accounting Matrix to estimate mining's effects on employment, taxes and incomes. Interviews were used to assess relations with communities and other stakeholders, while other data was gathered through collaboration with ministries and government agencies, civil society organizations, District Chief Executive (local government) chiefs and communities.

The report, widely accepted because of this stakeholder involvement, showed mining's impact on Ghana's economy, and improved the knowledge of both the company and stakeholders about its overall social impact. The findings enabled the company to identify further opportunities to enhance positive and minimize negative impacts and form a basis for future company communication, stakeholder engagement and similar studies in other regions.

Building Block 3: Collaborative Processes for Stakeholder Engagement throughout the Life Cycle of Mining Projects

Successful, constructive stakeholder engagement is not about quantity, but rather getting it right – the right people and the right amount, in the right way.

It can be at a local, regional or national level, depending on the structure of governance and the need. In some cases more than one level of engagement may be needed. However, each process should offer consistent and inclusive dialogue between stakeholders throughout the life cycle of a project. Sustainable, responsible development based on trust and stability will only be achieved if there is somewhere for stakeholders to meet for an open, honest, robust dialogue, explaining decisions and debating contentious issues.

Engagement should start at the earliest possible stage and will only be effective if it operates throughout the life cycle of the project.

Consistent collaboration helps to manage and withstand changing circumstances. Inevitably there will be points of initial disagreement and potential dispute. Stakeholders should expect, and be prepared, to address these constructively.

Of the many possible processes for collaboration stakeholders highlighted two: developing national, multistakeholder dialogue platforms and setting up local development councils for life cycle planning and collaboration.

★ Highlighted Action: establish multistakeholder national dialogue platforms

National platforms 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.

Why this is helpful

An effective dialogue platform enables debate at national level, bringing together stakeholders, including critics, for the open discussions needed for long-term trust and stability. Dialogue should start as early as possible, ideally as soon as development is first discussed. However, platforms can also help more mature mining countries by enhancing the robustness and durability of relationships, and agreements among stakeholders.

At their best, platforms will enable the development of trust based on full understanding of other parties' language, priorities and views. They will provide the flexibility to accommodate changing societal values and policy shifts. Through respectful debate, views can be exchanged and mutual understandings formed between stakeholders previously locked into adversarial relationships. Topics for discussion should be defined by the key stakeholders involved and could cover themes such as:

- How mining can be linked to poverty reduction agendas
- Integrating mining projects into the broader national, regional and local economies
- Interacting mining with other economic sectors such as agriculture and tourisms
- Building of local and national supply chains and technical expertise
- Understanding the full contribution of mining, including distribution model for tax and royalty income derived from mineral development
- Environmental standards and reclamation planning
- Role of mining in a country's climate change strategies; community health monitoring

By creating a stable base for discussion platforms make company investments more secure. Governments are helped to build in-house capacity while the skills of stakeholders are coordinated to enable a structured, balanced development process for the country.

Overcoming potential barriers

There are potential pitfalls. The infrastructure necessary for the process may not exist. It can be hard to identify exactly which stakeholders are needed to make the process legitimate, viable and effective, and there is a risk of obstructive politicization. Companies may lack confidence in the process, while governments could fail to engage and NGOs could fear that the platform is biased towards industry.

Commitment from government and support by international bodies and initiatives can help form the necessary infrastructure. Inclusiveness is essential, bringing in policy-makers and high-level representatives from all stakeholder groups, and ensuring that each has equal representation. An independent chair and secretariat are necessary for both capability and credibility. Pilot projects should be used to develop and refine the process, including setting agreed metrics and success criteria.

The early definition of clear objectives for the dialogue platform is vital to ensuring consensus between participants. Commitment from the highest levels of the public sector and relevant companies is required to push the dialogue platform and results forward.

To prevent the platform becoming overwhelmed by the volume of content, smaller expert working groups can deal with specific topics and report back to the main body, as in the Mongolian example [Case Study 6].

Looking forward

Companies and governments need to consider who will best represent them on the platforms. The independent chair, facilitator and secretariat will have key enabling roles, and it is very difficult for those identified with either government or industry to fulfil them. A credible, independent body, such as an academic institution, could play a vital role as facilitator and be supported by NGOs, reconciling different stakeholder views, including those from the affected communities. Schemes such as the Devonshire Initiative, housed at the University of Ottawa in Canada, highlight the impact potential of positive and proactive collaboration between NGOs, government and the private sector on an independent platform [Initiative 5].

Each platform will be unique, and this model may not suit every country, but valuable lessons can be learned as more are established worldwide.

Case Study 6: Establishing a national dialogue platform in Mongolia

Mongolia has more than 7,500 identified mineral deposits, including 15 classified as strategically significant, with an additional 37 that have the potential to be classified as such. The country has high expectations for mineral development, but faces 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. Mining should be connected to the local economy, infrastructure and community development.

Beginning in 2006, leaders from Mongolian government, companies and NGOs, brought together by the Asia Foundation, began to explore 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), which achieved official recognition as an NGO in 2007. More than 60 organizations have declared support for the Declaration on Responsible Mining.

In 2010, the World Economic Forum convened a roundtable multistakeholder discussion in collaboration with the Office of the President and the Government of Mongolia. Meeting again in 2011, the participants identified practical steps including the formation of working groups to focus on individual topics. One group, supported by the Ministry of Mineral Resources and Energy, works with the RMI to develop criteria aimed to measure the progress of responsible mining. These criteria will be made publicly available.

During the second national dialogue organized by the World Economic Forum the Forum's Partnership Against Corruption Initiative (PACI) was launched in Mongolia. Under the joint leadership of the Government of Mongolia and the Mongolia National Chamber of Commerce, over 150 business leaders (as of December 2011) across all industry sectors have pledged to adopt a zero-tolerance policy against corruption.

Initiative 5: The Devonshire Initiative, forum for NGOs, mining companies and government

This initiative was founded at a cross-sector workshop at the University of Toronto in 2007, and moved to the University of Ottawa in 2010. It aims to provide an iterative, long-term venue to bring together NGOs and mining companies, which traditionally had limited contact and were prone to mutual distrust and misunderstanding. Limited contact meant that companies made little use of NGO expertise, while the NGOs missed the chance to steer private sector development onto more socially sensitive and equitable paths. The initiative aims to harness their joint expertise to improve social and community development outcomes in emerging markets.

A part-time director, who reports to a six-member committee equally drawn from industry and NGOs, runs the Initiative. The University of Ottawa provides administrative support. NGO members provide both meeting space and personnel. Industry members pay an annual membership fee that covers operating costs.

More than a dozen formal workshops have been held and an on-the-ground pilot has been launched in Honduras. Company-NGO relations have improved as mutual understanding grows and good practice is shared. The Canadian government regularly participates in workshops with representation from relevant departments and agencies.

Four specific outcomes have been targeted:

- Enhanced in-country capacity to improve understanding of mining investments and produce tangible benefits
- Concrete examples of CSR to improve the industry's image
- More effective cross-sector engagement with an understanding of community development issues
- Using good practice and strategic partnerships to inform policy development

★ Highlighted Action: set up local development councils

In contrast to the suggested national dialogue platforms, a local development council offers a democratic space at local level. It may deal with one project or a small group. It should include representatives of local stakeholders such as indigenous population groups and community leaders, alongside NGOs, local government and the private sector, including the mining company.

It should debate local needs and establish long-term directions for regional development, involving all stakeholders. In collaboration with the local government, the council may take responsibility for the pooling and distribution of available funds for local development. Where this does not happen, it should still focus on ensuring that funds are invested to make the community sustainable over the long term. Development must be planned collaboratively and linked constructively with the mining plans. Finally, and crucially, the council should develop its own metrics and success criteria.

It is essential to maintain communication with other national- or regional-level stakeholder engagement processes such as national dialogue platforms. This ensures a consistent two-way flow of information and effective coordination between levels.

Why this is helpful

A local dimension is indispensable. The communities around developments bear the consequences of mining, both environmental and social, and are left with the impact after its life cycle has ended. They often worry they will receive only limited benefits, while bearing most of the costs, with profits taken often abroad by the mining company, and tax and royalty revenue flowing to central government. These concerns, and the mistrust they bring, should be taken seriously from the start.

Creating trust at local level helps limit the risk of disputes, heading off trouble before it escalates (as seen in the Alcoa project, Juruti [Case Study 7]. Companies, governments and development agencies all need to work together, through long-term participatory development planning, at both regional and local levels to build a supply chain for jobs. Research shows that unless this happens, expanded job opportunities at local level cannot be guaranteed. Companies can build relationships with communities and explain the benefits of mining [Case Study 8]. National government benefits as issues are addressed locally, freeing central capacity. Civil society can use the opportunities of engagement with the company and local government to develop administrative, financial and communication skills. The needs of the local population, such as economic diversification, are considered and built into longer-term planning. Local development councils can offer communities an effective, realistic mechanism for involvement in decisions of great importance to them.

Overcoming potential barriers

Possible hurdles include mistrust compounded by language barriers and differences in worldview. The councils must have credibility with the local community. A lack of confidence will follow if it appears to either have little real power, or be run by the company.

Companies may worry that the creation of councils will slow and add complication to projects, and so might be wary of committing time and resources. Government, both local and national, may be unwilling to devolve powers. At the same time, municipal authorities may find themselves relying too heavily on the council and company to provide governance. Interaction and collaboration between the council and local government is crucial to enable a coordinated approach to development.

There should be public consultation with both government and community representatives over the benefits of the council, while members should be properly trained. The community needs to feel a sense of ownership of the council. A commonly observed mistake by companies in CSR programmes is taking a paternalistic approach. These programmes often fail to achieve their objectives, as communities reject as self-serving programmes designed on the assumption that the company knows best. Giving the community the ability to select council members, proper training in the management of the council, and giving the council responsibility for a local development fund, as in Juruti [Case Study 7] will both empower the community and give it a valuable, credible function. This could also build the type of institutional capacity that is often lacking in poorer, more remote communities.

Initial seed funding and perhaps running costs could either be provided by the local government or company as part of their development contribution, or perhaps more neutrally through a third-party source or pooled development fund, depending on the circumstances of the project.

The initial establishment and running of the council may require external assistance from a neutral third party such as an experienced NGO, either global or local. This should also ensure maximum efficiency in both time and funds, aided by use of global good practice.

Looking forward

Companies can both aid the creation of councils and earn stakeholder trust by acting as arms-length facilitators during formation. In some cases the community will, given arms-length company help, have the know-how and organizing capacity to form an effective council on its own. In others more help is needed and the company may need to arrange this through collaboration with a third party such as a local NGO. Governments need to work with councils to ensure they are given a clear charter, with sufficient space to act while ensuring that municipal support and involvement are maintained. NGOs can constructively engage, using their unmatched local experience to help companies to understand the positions and concerns of the local population.

How might a mining community with an effective local development council look? Local governments and companies work in a genuinely collaborative way, prioritizing involvement with local businesses, community leaders and on-the-ground NGOs. Communities are able to take a proactive approach to mineral development in their local area, feel a sense of ownership in broader development decisions made for their area, and can see the results of their decisions becoming reality in a joined-up, coordinated process.

Case Study 7: Alcoa setting up local development council, Juruti, Brazil

Alcoa, the world's largest bauxite mining company with 10 active projects worldwide, has been mining in the Juruti region of Brazil since 2009. The region, lacking financial resources, was not ready for the impact of a large-scale project. Alcoa sought to engage with the stakeholders to understand how best to maximize the socio-economic benefits of the project for the region.

To do this, Alcoa adopted a three-pronged development strategy. A local development council, with 12 to 15 representatives from industry, government and NGOs was set up as a public area for dialogue, debate and directing development for the region. Eight technical committees were set up to cover issues such as health and environment. Alcoa also created and seeded the Sustainable Juruti Fund (FUNJUS) to finance initiatives identified by the council, and negotiated sustainable development indicators giving the community its own success criteria metrics and means of measuring them.

Brazilian business magazine, Exame, has included Alcoa six times on its annual list of sustainable companies in Brazil, in 2010 choosing it as Sustainable Company of the Year. Stakeholders have engaged actively and 21 projects, including a school and a police station, were chosen for FUNJUS funding in 2010. Community recognition of the benefits mining brings was signalled by the results of opinion polls in 2008 and 2010 conducted by the Brazilian Institute of Public Opinion and Statistics (IBOPE).

Case Study 8: Cree Nation and Goldcorp signing cooperation agreements, Quebec

Mining in Eeyou Istchee, homeland of the Cree Nation, dates back to the 1950s and should, given the variety of minerals and range of claims, continue for many years. The Cree traditionally opposed mining projects as irresponsible and inimical to their cultural heritage and values. At the same time only a small proportion of the Cree population in the relatively isolated communities of Northern Quebec have professional jobs. More than half of the Cree Nation of Wemindji's 1,400 residents are 45 or under, creating growing concerns about employment and future economic independence.

The foundations for collaboration were built in 1975 when the Cree and the Quebec Government signed the James Bay and Northern Quebec Agreement (JBNQA). It initiated rapid advancement and capacity building among the Cree, and began to foster acceptance of resource development in their traditional territory.

On 21 February 2011, Goldcorp and the Cree Nation of Wemindji signed the Opinagow Collaboration Agreement to develop and operate the Éléonore gold property. The two parties were engaged from the earliest stage of exploration, supported by the Cree Government, whose Cree Nation Mining Policy document explicitly encourages "direct and close liaison" between communities and mining companies. It aims to ensure Cree rights, interests and benefits are properly protected and promoted.

Cree Nation employed a legal representative and took a collaborative position in negotiations. Goldcorp organized tours of project sites for young members of the community aimed at improving their understanding of mining process and highlighting employment opportunities. The agreement specifies active Cree community participation and partnership in the life cycle of the mine through collaborations such as the co-writing of its environmental and social impact assessment, and developing projects that benefit both company and community.

The partnership addresses concerns about the economic future by ensuring training, education and employment opportunities for local Cree. Goldcorp has also pledged to invest funds in building a training centre to enable a higher proportion of local employment at the mine

By prioritizing respect for the community's values along with environmental and economic sustainability, the partnership has created a stable base for Goldcorp's investment.

Building Block 4: Transparent Processes and Arrangements

Transparency is more than a theoretical concept. Stakeholders should be able to obtain information quickly and easily. It can help build accountability and improve governance, shedding light on, and hence deterring, inefficiencies or corruption. Broader trust among all stakeholders is possible if companies and governments are open with each other in negotiations, and their agreements are available to civil society. Because communities know who is getting what and when, and how this is expected to happen, misunderstanding is minimized. The risk of opposition to development demands that agreements be renegotiated and other threats to long-term stability are reduced.

If civil society is more informed about the content and progress of negotiations, and has the opportunity to express its views on key issues and trade-offs at some point in the process, all sides may benefit.

The clear trend towards greater transparency is demonstrated by greater adherence to Extractive Industries Transparency Initiative (EITI) standards, the recent Dodd-Frank Act in the United States and transparency requirements established by the European Union. Taking a proactive approach and going beyond minimum standards can help strengthen trust and build a positive reputation.

Trust and accountability can be further underpinned by independent auditing of data and figures, conducted through mechanisms like those provided under EITI, or compliance with the International Monetary Fund (IMF) guide on Resource Revenue Transparency. Broader auditing has been suggested as well in the Federation of Indian Chambers of Commerce and Industry (FICCI) report on Sustainability in Mining.[4] This calls for independent, reputable agencies to help audit mining plans, post-mining closure and rehabilitation plans, and estimations of funds required. This would ensure a clear and well-considered plan for the whole life cycle of the project, ensuring that neither the mine nor the local community is neglected after extraction ceases.

Informed by the current pace of EITI standard take-up, our stakeholder consultation focused particularly on the opportunities for publishing mining agreements and royalty and tax payments included in these standards.

★ Highlighted Action: Publish relevant agreements, tax and royalty payments

This action endorses the publication of mining contracts and associated ancillary documents, and the tax, royalty and revenue data that flows from the operation of these agreements.

A high proportion of mineral development, particularly in the poorest countries, is conducted under Mineral Development Agreements between governments and companies. Governments should ensure that these documents, and those laying out tax and royalty data, are accessible to the public. The Revenue Watch Index requirements for document transparency say they should be accessible to all citizens through the press, Internet, libraries and responsible ministries.

Why this is helpful

Governments and companies can make an immense contribution to transparency and accountability by publishing these documents and figures. Greater transparency will increase trust and reduce the risk of misunderstandings. Local communities and the broader population can easily obtain relevant information; form realistic expectations about the likely impact of development and so contribute more effectively to the development discussion. They also benefit from the incentives to better performance in government provided by transparency, disclosure and the consequent reduction in opportunities for corruption.

Such disclosures promote broader democratic engagement with the community. Companies remove reasons for suspicion about their motives. By improving their reputations, they reduce the risk of resistance to current projects and build trust for future ones. If publication becomes the norm globally, governments can learn from examples and precedents in other countries, while improving their reputations both internationally and with their own civil societies.

Overcoming potential barriers

Governments may be cautious of publication due to political sensitivities or the fear of a "race to the bottom", with standards lowered to match competing countries. They may lack the capacity to implement a publication policy. Parts of civil society may struggle to decode the documents, which are often written in opaque legal and governmental terminology. As a result, they often cannot use information.

Companies may be concerned about the exposure of commercially sensitive information. Small companies in particular may lack the extra capacity to take on additional processes. Even if positive in principle, they may be limited by confidentiality agreements or reluctant to be a first mover.

Concerns over publishing agreements can be overcome via Freedom of Information legislation or by collaborating with NGOs, like Transparency International, as a partner to work with companies on refining confidentiality agreements. Companies may be concerned about losing out by being the first to publish. They could aim to build a consensus on action across their industries to test the issue through pilot projects, and look to the example of countries like Niger and Liberia that already have publication agreements in place [Case Study 9].

Barriers related to tax and revenue can be combated by gathering comprehensive information on whether disclosure will affect competitiveness, compiling a list of willing parties, and seeking a consensus between key industry players to make publication a standard procedure.

The EITI provides a recognized standard and framework to help governments achieve transparency. Signing up to the Publish What You Pay Coalition can also help, as will the introduction of legislation to require compliance. NGOs may use their expertise to press for measures similar to Dodd-Frank, while companies that believe legislation is likely should consider the potential benefits to their reputation of being a voluntary first mover. In 2011, Rio Tinto redesigned and increased the level of its tax payment reporting processes [Case Study 10].

[4] Beyond License to Operate – Indian Mining: Solving the Sustainability Conundrum, jointly developed report on sustainable mining by Federation of Indian Chambers of Commerce and Industry (FICCI) and The Boston Consulting Group [2011]

Looking forward

Governments and companies should evaluate the benefits of publishing information related to their mining projects and how they can make sure that published information is properly understood and interpreted by the audience. Websites and newspapers remain essential channels for disseminating this information. Governments should assess how to become EITI-compliant, leveraging the framework that EITI provides. [Initiative 6]

NGOs can promote more transparency, and implement the best means in their region for monitoring transparency process. To ensure full advantage is taken of the information disclosed, NGOs and civil society can seek assistance from the Access Initiative and other enabling bodies [Initiative 7].

The US Dodd-Frank Act and ever-stricter legislation in the European Union reflect rising expectations for the level, breadth and clarity of publication. The International Financial Corporation (IFC) commits clients to disclosing payments to host governments such as royalties, dividends, taxes, and signature bonuses. IFC further raised the bar at the start of 2012 by requiring that the principal contract for any financed project be made public within two years.

All of this shows growing international recognition that transparency brings far-reaching benefits to society, not least enabling greater accountability.

Initiative 6: EITI – a global transparency standard

The EITI (Extractive Industries Transparency Initiative) is the global standard for transparency in the governance of natural resources. Each of the implementing countries has created its own EITI process, which is overseen by stakeholders from government, companies and civil society.

It provides a standardized, internationally recognized methodology for monitoring and reconciling company payments and government revenues at country level. Countries joining must fulfil five sign-up commitments followed by 15 compliance actions. These include publishing a workplan with measurable targets and a timetable; establishing a multistakeholder steering group; and regular, publicly accessible publication of mining payments and revenues, which are subject to independent audit.

Increasing scrutiny of payments makes revenue collection more efficient. EITI also promotes the accountability of companies and governments and more constructive company engagement with citizens and civil society.

Companies operating in EITI-compliant countries – there are currently 11, with a further 23 at candidate stage – are required to publish what they pay to the government. In Ghana, implementation has gone beyond EITI minimum requirements by supplying tax and royalty payment disclosure on a disaggregated, project-by-project basis.

Initiative 7: The Access Initiative, network of civil society organizations

The Access Initiative (TAI) is a network of civil society organizations – including the World Resources Institute in the United States, Corporation PARTICIPA in Chile, and CODELT in the Democratic Republic of Congo – working to give citizens the ability to influence decisions on natural resources by promoting access to information, participation and justice in environmental decision-making.

TAI partners work to engage governments and assess their performance in providing public access to decisions, participation in decision-making and access to justice when rights are violated. Coalitions of civil society organizations conduct national-level assessments of government policies and practices, performing legal research and case study analysis according to an internationally recognized research method. Partners then perform advocacy work, often in collaboration with champions within their governments, to promote improved access rights in their country. Their detailed assessments and advocacy have contributed to many transparency successes, including the passing of Freedom of Information Acts in Uganda and Indonesia, improved public participation guidelines in Chile and the establishment of a National Green Tribunal in India.

Local development forums will find TAI and its partners a valuable resource for capacity building and access to information. They aim to build local civil society and government capacity, enabling participation in decision-making, in particular by running workshops to highlight information channels and alternatives where channels are lacking. TAI works on a country-by-country basis due to differing governmental and social environments, and priorities.

Case Study 9: Liberia publishing mining agreements and payments

Liberia's decision, as part of the Liberian Extractive Industries Transparency Initiative Act of 2009, to publish all mining agreements and tax payments from 2008 was a response to the uncertain investment climate created by the devastating civil war of the 1990s. The civil war destroyed infrastructure and halted iron ore extraction, a situation compounded by residual political uncertainty, lack of transparency and concerns over corruption.

Modest economic growth since the election of a democratic government in 2005 has included a revival in the mining industry. However, Liberia's deposits of gold, diamonds and iron ore make mining a potential engine for more significant growth.

Liberia became the second country to obtain EITI compliance, passed a Freedom of Information Act and established a Liberian EITI, chaired by the Minister of Finance, which is mandated to systematically publish contracts via a website.

This has created greater accountability for the government, given stakeholders access to the terms of contracts and is a useful resource for other governments, which can compare Liberian contracts to their own, redressing information asymmetry. This should ensure more stable, durable contracts.

Case Study 10: Rio Tinto Group publishing tax and royalty payments

Rio Tinto, a leading international mining group, has expressly supported the EITI since its launch in 2002 and has undertaken some voluntary reporting of tax data for several years.

In 2011, the Group redesigned and increased its level of tax reporting processes with the publication of its Taxes Paid in 2010 report. This laid out the taxes paid to governments in the 28 main countries in which it has revenue-generating operations, also covering the tax and earnings of business units. It included all payments over US$ 1 million, defining tax as any money required to be paid directly to a government – such as corporate income tax, royalties, license fees, permitting fees, property tax, employment tax, sales tax, stamp duties, etc.

For non-controlled joint ventures and associates, the report included shares of payments consistent with Rio Tinto's level of equity, and laid out analysis of payments by tax type, country and business unit.

Combined with countries' revenue data, the tax reporting has been used to promote greater trust and accountability. The move by Rio Tinto has received praise from NGOs, the EITI and Publish What You Pay. The Taxes Paid in 2010 report was awarded a Building Public Trust award for tax reporting by an FTSE 100 company.

Building Block 5: Thorough Compliance, Monitoring and Enforcement of Commitments

The often long and complicated negotiations around mining agreements and contracts can result in less attention being paid to the procurement process, compliance and the enforcement of commitments.

Rigorous, universally understood standards for awarding contracts – not only those between government and companies, but also additional contracts of public interest for development work, mining-related infrastructure improvements, etc. – will ensure accountability and transparency, and reduce opportunities for graft. The work of the World Bank Institute in Ghana has helped to bring the issue of procurement monitoring to the attention of the parliament [Case Study 11].

Beyond this, agreed commitments should be monitored for compliance and performance, and clear guidelines set for establishing whether all parties are living up to their promises. Where development occurs efficiently and the results of commitments are visible, positive attitudes towards mineral development are fostered and stakeholder relationships strengthened.

Government can help by improving coordination between state bodies, separating the contract awarding and monitoring processes, and enhancing budget allocations. Stakeholders discussed in particular the merits of establishing commonly agreed compliance, monitoring and enforcement mechanisms.

★ Highlighted Action: develop commonly agreed compliance monitoring and enforcement mechanisms

Clarity should be established from an early stage, with stakeholder discussion and agreement on mechanisms for compliance, monitoring and enforcement. Who has agreed to what, which parties have which roles, what are the processes, and how will this be enforced?

The greatest impact can be made by putting in place mechanisms agreed by all parties to tackle areas vulnerable to limited capacity, misuse or corruption.

Why this is helpful

If the agreed terms of contracts are being met, companies, governments and civil society all benefit from this being known. If they are not, there have to be means for enforcement and redress.

The expectations of all parties should be clearly laid out by explicit agreements. Efficiencies will occur and all will benefit when roles and mandates are commonly understood and agreed.

Governments can both track and account for company commitments more effectively and make more efficient use of revenues. Community expectations will be realistic, based on clarity of information, and involvement in discussions. Accountability of governments and companies will be increased and opportunities for corruption minimized.

Overcoming potential barriers

One possible barrier for companies may be reluctance to take on additional processes and discussions. Government may have a number of potential handicaps – reluctance to reform, inadequate capacity for full monitoring or for better procurement procedures, and poor access to information. The latter can also act as a barrier for civil society.

Companies can include this dialogue in a wider stakeholder engagement programme, while the stakeholders can use initiatives such as the World Bank Institute's contract monitoring programme [Initiative 8] to help coordinate engagement. A lack of regulatory capacity can be compensated for by partnerships engaging civil society to help monitor compliance, and the incorporation of compliance monitoring mechanisms into the mandate of national and local dialogue platforms.

Looking forward

Better, more comprehensive monitoring can raise community understanding of the benefits of mining, so it is in the interest of companies to look for ways to strengthen their monitoring capacity. Governments need to identify the weaknesses in their systems for awarding, implementing and monitoring contracts. They should seek support and information on good practice from international organizations. NGOs and communities should think about their possible roles in monitoring compliance.

Formal government processes for awarding contracts, including requests for tender, should leave no room for bribery or favouritism. While government institutions should be capable of full monitoring compliance, they may initially lack capacity. While capacity is developing, civil society and organizations can help to monitor contracts, aided by contract transparency and communication.

Initiative 8: World Bank Institute contract monitoring initiative

Sponsored by the World Bank Institute (WBI), which aims to develop capacity through the exchange of knowledge, and the bank's Africa region, this initiative encourages collaboration among stakeholders to oversee the awarding and implementation of contracts.

Already active in Ghana, Liberia, Sierra Leone, Tanzania, Uganda and Zambia, the programme is expanding into Francophone Africa and looking to work with initiatives in other regions, particularly East Asia.

It is driven by underlying concerns, including the inability of governments to monitor or enforce contracts, opaque systems for awarding and monitoring, and negative views towards development resulting from unrealistic expectations about the pace or scope of expected benefits.

WBI operates through regional workshops involving stakeholders from different countries. They form coalitions for each country that identify priorities, and then create action plans for more effective and transparent procurement and monitoring. The WBI also provides sustained support for the coalitions.

The activities it supports include the analysis of new oil contracts, training civil society organizations to monitor social and environmental compliance, monitoring the impact of artisanal mines in specific sub-regions, and building the understanding of oil contracts among stakeholders in potential new producer countries.

Case Study 11: World Bank Institute convening contract-monitoring coalition, Ghana

This coalition was stimulated by doubts concerning the contribution made by the mineral sector, which employs around 15,000 in the formal large-scale mining industry and around 500,000 in informal small-scale mining and quarrying. In 2005, export revenues from the mineral sector totalled US$ 1 billion. Parliament had yet to address compliance issues, the government lacked the funds and capacity to monitor compliance or track impacts, and civil society did not have the necessary access to information and training.

The World Bank Institute drew together stakeholders to fill gaps in government capacity, encouraging them to collaborate in overseeing the awarding and implementation of contracts. It convened a multistakeholder coalition, capable of setting its own priorities, and with assistance from Revenue Watch, monitoring implementation. The coalition also campaigned for parliament to add contract monitoring to the remit of its Public Accounts Committee.

The coalition has succeeded in getting procurement monitoring on to the agenda of the Public Accounts Committee and the Auditor General, who will be reporting to parliament on the issue. The coalition will respond to this report, while parliament offers recommendations to government on improving the system. That the report will open up otherwise unobtainable information to the wider population is part of the coalition's contribution to strengthening ties and the sharing of information between parliament and civil society.

The coalition is focusing on artisanal mining and will monitor gold production in one sub-region, with the aim of making local communities and national government aware of findings and their implications.

Building Block 6: Early and Comprehensive Dispute Management

Even with full transparency and the best possible compliance monitoring, there will inevitably be disagreements among stakeholders. All parties need pre-agreed means of preventing disagreements from escalating.

Discussion about how to manage potential disputes can help drive the collaborative process forward. It acts as a door opener, creating a safe place for finding common ground among stakeholders, identifying and addressing concerns early on, thereby averting potential disputes.

While there is much available guidance on managing disputes effectively, the struggle is to put this into practice. Good communication, leading to a clear understanding of the process on all sides and thorough implementation are vital to ensuring the associated benefits of stability, collaboration and improved trust.

Which of the many models for dispute management is best depends on the circumstances of the project, the company, the legal regime and the community. From the use of country ombudsmen and counsellors [Case Study 13], to local community dispute resolution groups, the key is to establish and communicate them early in the process. The means of establishing effective stakeholder dispute resolution mechanisms are discussed in more detail below.

★ Highlighted Action: prepare effective dispute resolution mechanisms

A serious grievance and dispute resolution procedure, capable of dealing with any potential disagreement, should be set up in partnership with all stakeholders. The procedures should be published as widely as possible at the beginning of the development process, so that they are clearly understood before any grievances arise. The mechanisms should take into account national and international human rights legislation and codes of conduct. They need to ensure all stakeholders have meaningful access to agreed grievance and dispute resolution procedures.

Why this is helpful

In the complex, contested environment of mineral development, differences in interests and priorities will inevitably result in disagreements between stakeholders. When they occur, it is essential to stop them escalating into a serious conflict that can endanger the stability of a project.

Establishing an effective dispute resolution mechanism sets out a clear process from the beginning. It can help companies to avoid costly, time-consuming disputes and the reputation damage that can come from litigation or campaigns against them. Governments will have a more equitable relationship with companies, and the grievances of civil society can be dealt with rapidly and fairly. In addition, as discussed above, engagement among stakeholders to establish the mechanism can help greater understanding and learning.

Overcoming potential barriers

Creating effective mechanisms can be hampered by an overall lack of experience and capacity. Companies may find it difficult to raise awareness of their importance, and to ensure that high standards are maintained across their whole range of operations. Civil society can be handicapped by lack of information about the existence of schemes and how to best access them.

These problems can be countered by seeking guidance from international organizations, industry groups or academic studies and publications such as the Harvard Kennedy School's Rights-Compatible Grievance Mechanisms [Initiative 9]. Mining companies should set company-wide standards, assign responsibility at each site, consider using electronic tools to track, evaluate and ensure minimum standards and work with local community groups to raise awareness of the mechanism. [Case Study 12]

Looking Forward

All stakeholder groups, from companies, government and civil society, should play an active role in aiming for commonly agreed dispute resolution mechanisms. Adequate, internal processes to deal initially with issues within each stakeholder group should complement these mechanisms. Both internally and externally agreed mechanisms should be established before any dispute occurs. These mechanisms could also be linked to established dialogue platforms. NGOs may find that their skills and expertise give them an important role in communicating information and providing both early warnings and mediation.

The concept of social risk, and finding methods to mitigate it, have been gaining traction within businesses – particularly those operating in developing countries – for some years. There is growing recognition that substantive grievance mechanisms are not only essential to ensure compliance with human rights standards, but also have a considerable role in protecting investments and making large capital expenditures less risky. This understanding will continue to grow, and companies looking to implement grievance mechanisms will need proper guidance. Good practice already exists and can only improve with time and experience.

Initiative 9: Harvard Kennedy School grievance mechanism guidance

Developed by the Corporate Social Responsibility Initiative at the Kennedy School of Government, Harvard University, the "rights-compatible grievance mechanism" is not focused solely on mining, but aims to offer companies a flexible toolkit for grievance mechanisms.

It is based on seven key principles. The mechanism should be legitimate and trusted, published and accessible, transparent, based on engagement and dialogue, predictable in terms of process, fair and empowering, and a source of continuous learning.

It offers 24 practical guidance points, such as creating an oversight stakeholder body and agreeing to a time frame in which dialogue takes precedence; 14 key indicators are suggested as a starting point for monitoring the performance of the mechanism.

The seven key principles were piloted by the Corporate Social Responsibility Initiative, enabling further learning for the extractive industries and the fine-tuning of the guidance points, explained in the pilot project report – Piloting Principles for Effective Company-Stakeholder Grievance Mechanisms: A Report of Lessons Learned. They have been included in the UN Guiding Principles on Business and Human Rights.

Case Study 12: Anglo American launching company-wide guidance and tracking system

In 2010, Anglo American, a global mining company with 107,000 employees at 70 to 80 project sites worldwide, launched a mandatory standardized complaints and grievance procedure, including an electronic tracking and monitoring system with data analysis capacities.

Complaints can be made anonymously and free of charge. Each operation is required to nominate a complaints coordinator responsible for processing complaints and further investigation. The company-wide system records and tracks complaints, and classifies them according to type and severity. It then allocates tasks, gives timelines and reminders and refers the issue to either a review committee or mediation. The system also includes evaluation and monitoring capabilities for senior business unit and corporate management to follow the steps of investigations, while each site must offer grievance mechanisms that meet company minimum requirements laid down in its Socio-Economic Assessment Toolbox.

The aim is to embed the system in company culture and procedures, raising awareness on a site-by-site basis, training, generating reports and auditing internally. Further guidance will be developed on the management of social incidents and amicable dispute resolution.

Early indications are that it is contributing positively to a company culture of integrity, openness and accountability.

Case Study 13: Canadian government establishes Office of the Extractive Sector CSR counsellor

In March 2010, the Office of the Extractive Sector CSR Counsellor was opened as part of Canada's broader CSR strategy for mining, oil and gas. Its role is to actively promote responsible practices for Canadian mining, oil and gas companies abroad and to resolve disputes connected with the strategy's endorsed performance guidelines. The Office is unique as a home-based service designed exclusively for extractive projects operating overseas. A public consultation process involving more than 300 individuals and organizations established its rules of procedures. Participants in the consultation included representatives from industry, civil society and government in Canada, Mexico, Mali and Senegal.

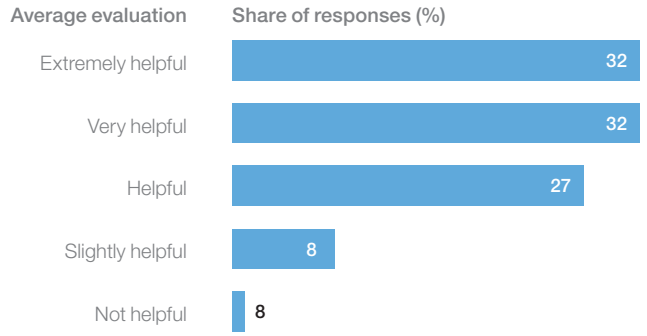
Stakeholder Views of the Value of Highlighted Actions

Eight actions have been highlighted as practical applications of the six building blocks. This section presents the key findings from a survey of stakeholder views of the likely value of the eight actions outlined above to mining in their countries of interest. It covers the responses of 145 stakeholder representatives (from companies, government, civil society) from 33 countries.

The survey showed a strong consensus that the proposed actions would be useful: 64% said that the eight actions were "very" or "extremely helpful" in advancing responsible mineral development in their countries of interest [Exhibit 4].

Exhibit 4: Survey responses on view of overall helpfulness of actions

How helpful do you consider each action could be, to advance responsible mineral development in the country you are most interested in?



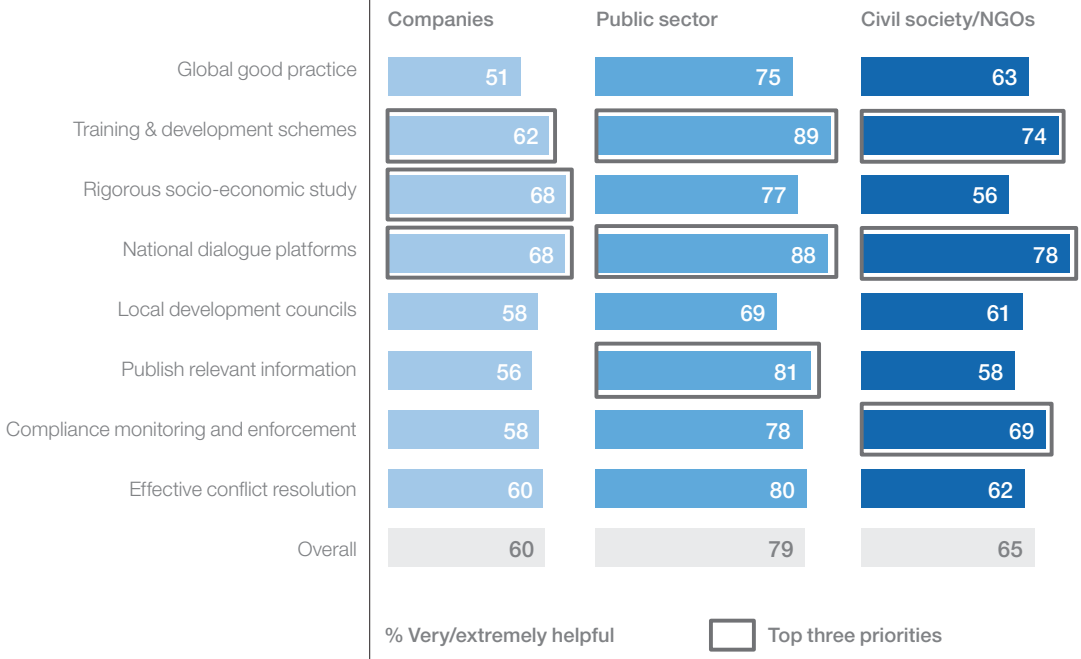
Rated among the most helpful actions by all stakeholder groups were training and development programmes and the creation of a national dialogue platform [Exhibit 5].

Additionally, the results indicate:

- Company representatives were most positive about conducting a rigorous socio-economic study and establishing a national dialogue platform. This suggests that creating a common understanding of the costs and benefits of the mining operations is the basis for an effective dialogue process.
- Public sector respondents were the most enthusiastic about the actions as a whole, showing a strong desire to push them forward. They were most strongly in favour of training and development programmes and setting up a national dialogue platform.
- Civil society and NGOs agree with the public sector on the most important two actions, but also highlight the need for effective compliance monitoring to ensure that commitments are met.

Exhibit 5: Survey results per action and stakeholder group

How helpful do you consider each action could be, to advance responsible mineral development in the country you are most interested in?



Source: World Economic Forum Survey, November 2011

Note: % responses Very/Extremely helpful for each action; "Companies" includes respondents from mining associations, "Public sector" includes respondents from local and national government

How are the eight suggested actions seen on a country level?

The relevance of any action depends on the national and regional context. Thus, we examined the extent to which each of the eight actions could address the challenges of mineral development in different countries.

Perceptions of relevance for each action on a country level are discussed below and detailed in Exhibit 6.

Use and contribute to a global repository of good practice guidance

Given its global nature, this action is relevant to all countries, but is regarded as particularly important by respondents from less developed nations such as Papua New Guinea, Kazakhstan and the Democratic Republic of Congo. These countries are still relatively inexperienced in mining and wish to learn from the experience and good practice of others. Respondents see this action also highly relevant for Canada, which is seeking both to promote good practice and to learn further from other experiences.

Create tailored training and development programmes

There is great demand for this action. Its overall rating as “very” or “extremely” helpful by 70% of stakeholders is the highest for any of the eight actions. Demand appears strongest where the lack of human capacity is most problematic and enhanced expertise at all layers of government and in civil society could have immense impact. Papua New Guinea, Tanzania, India and Botswana produced ratings of more than 80% while there is less demand in developed countries like Australia and the United States.

Conduct rigorous and collaborative socio-economic studies

Two-thirds of all stakeholders consider 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. Nor are benefits confined to companies or countries new to mining. Studies are valuable anywhere the costs and benefits of existing operations have not been sufficiently examined, or when considering projects involving a new mineral or in a different region. This action is seen as most relevant for Tanzania, China and Colombia.

Establish multistakeholder national dialogue platform

We found that 69% of all stakeholders consider a national dialogue platform would be “very” or “extremely” helpful. Responses are strongest where it is felt that a platform could significantly enhance dialogue, particularly if there are limitations in existing national infrastructure. Papua New Guinea, Tanzania and Russia are seen as likely to benefit the most, while it is rated among the three most valuable actions for Argentina and Peru.

Set up local development councils

Support for local development platforms and councils is seen across all national development levels, with particular strength in countries such as China, India, the United States and Canada where mining regions have strong local communities. For Canada and the United States, it is seen as the most valuable of the eight actions. Even when national infrastructure and dialogue are in place, engagement and stakeholder inclusion can be limited at community level. Mining projects are often situated in isolated, less-developed regions of large countries or where development may conflict with indigenous people’s traditions and livelihoods. These councils offer a means of working constructively and respectfully to advance responsible mineral development and benefit the local community.

Publish relevant agreements, tax and royalty payments

Countries with opaque negotiation processes, limited stakeholder inclusion or histories of corruption are likeliest to benefit from transparency. This action inspired the most enthusiasm from Guinea, Mongolia, Tanzania, Russia and the Democratic Republic of Congo, where more than 70% rated it “very” or “extremely” helpful, but will work best if implemented on a global scale.

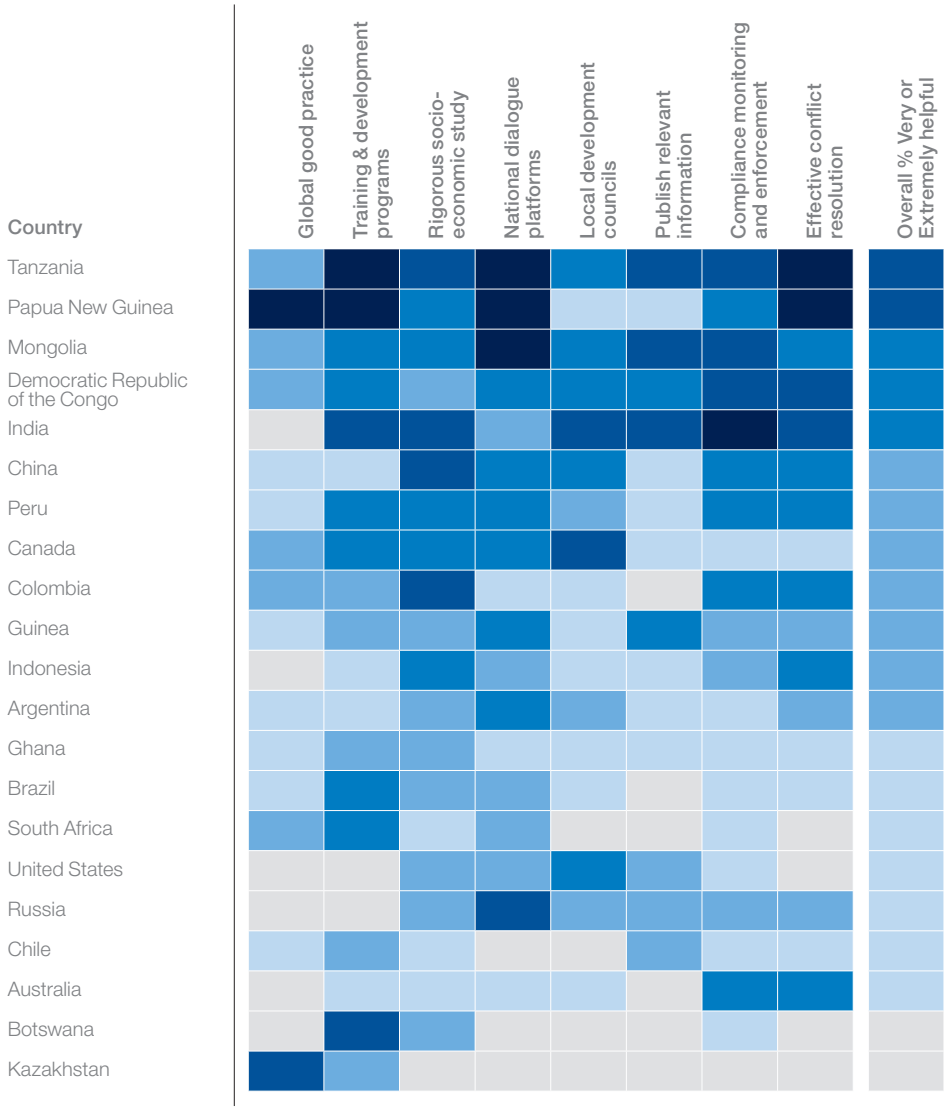
Develop commonly agreed compliance monitoring and enforcement mechanisms

This action was rated as a significant priority, and reckoned helpful by more than 70% of respondents for India, the Democratic Republic of Congo, Mongolia, China, Colombia and Peru. There was a positive reaction across all levels, with no country rating it below 40%.

Prepare effective dispute resolution mechanisms

Demand for effective dispute resolution mechanisms often reflects prior experience and is likeliest in countries where legal systems may not be as well developed and distrust between stakeholders more prevalent. Respondents see this action as particularly beneficial for Papua New Guinea, Tanzania, Democratic Republic of Congo and Peru. Effective dispute resolution mechanisms reduce the risk of escalating disagreements and help maintain constructive relationships through the whole life cycle of a mining project.

Exhibit 6: Stakeholder responses of perceived relevance of suggested actions per country



Legend

Percentage of respondents stating that discussed action is very or extremely helpful to advance responsible mineral development in their country of interest

<50	50-60	60-70	70-80	80-90	>90

Chapter 4: The Use of Mineral Development Agreements

The Responsible Mineral Development Initiative began with an emphasis on the Mineral Development Agreements (MDAs) often used in developing countries, but quickly broadened its scope to address conditions in all countries. It was recognized that the issues and challenges identified in Phase I of the RMDI occur in all sorts of countries and under a variety of legal and regulatory regimes. These different regimes, as well as differences in cultural and historical traditions, can play an important part in defining both challenges and the most appropriate response.

MDAs present unique challenges. The need to use them arises most where significant constraints exist on the ability of host country governments to manage their mining sectors in an efficient and accountable way. Many stakeholders thought that the use of MDAs could be better, and should where possible give way to generally applicable legal and regulatory structures.

A good, stable, well-developed legal and regulatory system is a significant step in the direction of an attractive, sustainable investment and development environment. But even the best mining legislation has to be backed by honest, efficient policing and an effective court system if its intentions are to be fulfilled. Factors that can lead to an investor demanding the use of an MDA before making a significant investment in a county can include:

- An underdeveloped or highly volatile legal and regulatory regime governing mineral development, taxes and royalties, capital flows, employment, imports and exports, and other relevant issues
- Inadequate capacity and experience of government officials at the national, regional and local levels
- Widespread corruption and the absence of the rule of law
- An underdeveloped or corrupt judicial system that cannot be relied upon to fairly and effectively resolve disputes

Because of these concerns, MDAs are used in many countries. Our research shows they are in use in 23 out of 30 major mining countries [Exhibit 7].

We can differentiate MDAs in terms of their scope:

- Simple: focus on financial and fiscal terms only
- More complex: in addition to financial and fiscal terms, encompassing broader development aspects, such as local community obligations, environmental provisions, and health and safety provisions

Exhibit 7: Use of Mineral Development Agreements in major mining economies[5]

MDAs not used	MDAs in use	
	Simple versions	More complex versions
Australia	Argentina	Angola
Brazil	Azerbaijan	Democratic Republic of the Congo
Canada	Bolivia	Ghana
Indonesia[6]	Botswana	Guinea
Russian Federation	Chile	Kazakhstan
South Africa	China	Laos
United States	Colombia	Mongolia
	India	Pakistan
	Kyrgyz Republic	Papua New Guinea
	Mexico	Philippines
	Namibia	Tanzania
	Peru	

Phase I of the RMDI identified a number of limitations in current agreements. Many stakeholders, including industry representatives, expressed concerns about asymmetrical bargaining power. Others cited an absence of transparency and the risk that some groups might feel excluded, with both negotiation processes and final agreements difficult to access. This in turn creates the worry expressed by stakeholders at sub-national and community levels who felt excluded from the negotiation of key provisions that affect them directly.

Representatives of both industry and civil society also commented that many MDAs attempt to address too many complex topics too early in the process, before there is a sufficient and shared understanding of potential benefits, costs, impacts and issues. Industry representatives expressed frustration over attempts to reopen or axe agreements occurring after companies had already invested heavily in a project.

At the same time, many stakeholders believe that MDAs have untapped potential. They can clearly define the rights, roles and responsibilities of all stakeholders, thereby promoting constructive long-term relationships and consensus on a project's contributions to local social and economic development. They could also be vehicles for implementing the types of processes outlined in this report.

There is a case for keeping MDAs simple. They can supply the stability guarantees that companies need before making a major capital investment, and define the roles and responsibilities of the key stakeholders. Partnerships and agreements between smaller groups of actors can complement formal MDA structures. There is no single ideal model MDA. The best structure is likely to vary from country to country, and community to community, responding to individual circumstances according to domestic legislation, public sector capacity, the population affected and other local conditions.

We hope that the framework in this report can help provide a stable platform on which to build an MDA where needed. The highlighted actions can help make the entire negotiation and development process more collaborative and effective, thereby creating the trust necessary to build lasting relationships. They can be applied in a variety of national and local contexts, facilitate finding common ground among affected stakeholders, and help parties to react effectively and constructively to changing circumstances and an evolving world.

In time, the aim must be to create national environments that are transparent, inclusive and trusting. Given this context, a country can hope to develop a stable, well-developed legal and regulatory system and investment climate. Where this applies, investors may be less likely to see MDAs as necessary to securing their interests. Our hope is that the recommendations and actions highlighted in this report can help to advance countries and communities towards that transparent, inclusive and trusting environment.

[5]Based on publicly available information and stakeholder consultation.

[6]Before the new law in 2009, a Contract of Work (CoW) system was used. Historically signed CoWs are still recognized until expiry. The new mining system does not use the old system of contracts; instead mining business licenses are issued.

Chapter 5: Considerations Going Forward

Following extensive stakeholder consultations, research, our survey, and further analysis, we believe that consideration of our six building blocks can create a basis for advancing responsible mineral development.

The complexity of the sector and huge variety of contexts in which it operates mean that not all ideas are applicable in all cases. But we hope that our building blocks and their corresponding actions, cases studies and initiatives will help those looking to further unlock the potential of mineral development.

Partnership, collaboration and the mutual trust that underpins them are at the heart of any responsible mineral development. Upfront, open and informed discussions among stakeholders will clear the path for a smoother, more stable development process, resulting in lower risk for mining companies and greater socio-economic benefits for countries and local communities.

Each stakeholder group inevitably has different needs and priorities. But the importance and value of building trust applies across the board. Trust is essential from the start of the process. It is difficult to build retrospectively, and once lost it is very hard to recapture.

Companies should ensure that sufficient resources are focused on stakeholder engagement and developing a proper understanding of host communities. They should also use their experience and capacity to identify and tackle possible obstacles to progress early in the process. Effective early engagement with communities, addressing concerns and providing support to governments where appropriate, will yield considerable stability benefits.

Company performance on responsible development varies considerably. Some are taking part in worthwhile experimental "on the ground" projects. Others are lagging behind. One lesson all can learn is the value of exchanging good practice and experience – distant or apparently very different regions may offer parallel challenges and innovative answers to them. Companies as a whole can raise their game. Those with a strong commitment to, and track record in, responsibility need to push forward. Others who are lagging should learn from the examples of the leaders and seek to close the gap. This can be demanding for small companies with limited resources – often those involved in the early stages of development, which may mean that projects start poorly – but problems are certainly not confined to them.

What every company, irrespective of size, should remember is that a reputation for responsible development is an increasingly valuable asset, and can be an investment for future development.

Policy-makers should aim for the robust regulation that establishes stability, encourages investment and ensures responsible development. They need to identify gaps in their capacity and seek expert advice on how to close them. They have to make the best possible use of the tools and partnerships available to them at local, regional and international levels to build capacity and improve their understanding of the mining process. Particularly where regulation is lacking, governments should consider the immense benefits that come from improving transparency, both for their own populations and internationally.

NGOs can grasp the opportunity to play a full and active part in the partnerships and forums that will direct local development. Their expertise can be essential to the success of the process, and is deployed most effectively in partnership with other stakeholders. By engaging constructively, they can connect companies and communities. Their unmatched local knowledge can be used to ensure that companies and governments fully understand and respond to the needs and concerns of affected regions and their people. Where needed, they can also play a facilitator role between local communities, industry and government.

Mining can transform the lives of millions of the world's poorest people. But this will only be achieved through stable, responsible developments. Hopefully this report will provide a useful source for those who wish to turn the challenges and conflicts that so often beset large-scale mineral developments, into unmatched opportunities for social and economic growth.

Appendix

A) Country Segmentation: Taking a Differentiated Look at Mining Countries

To assist stakeholders in understanding the potential of responsible mineral development in different countries, and to reduce the broad generalizations inevitable when discussing these countries as a whole, 30 mining economies were examined in terms of both unexploited mineral resources and current socio-economic development. The analysis identifies the countries with the greatest potential for transformation through a more responsible approach to unlocking their mineral development potential and socio-economic development opportunities.

Our analysis defined three broad categories of countries [Exhibit 8] and [Exhibit 9].

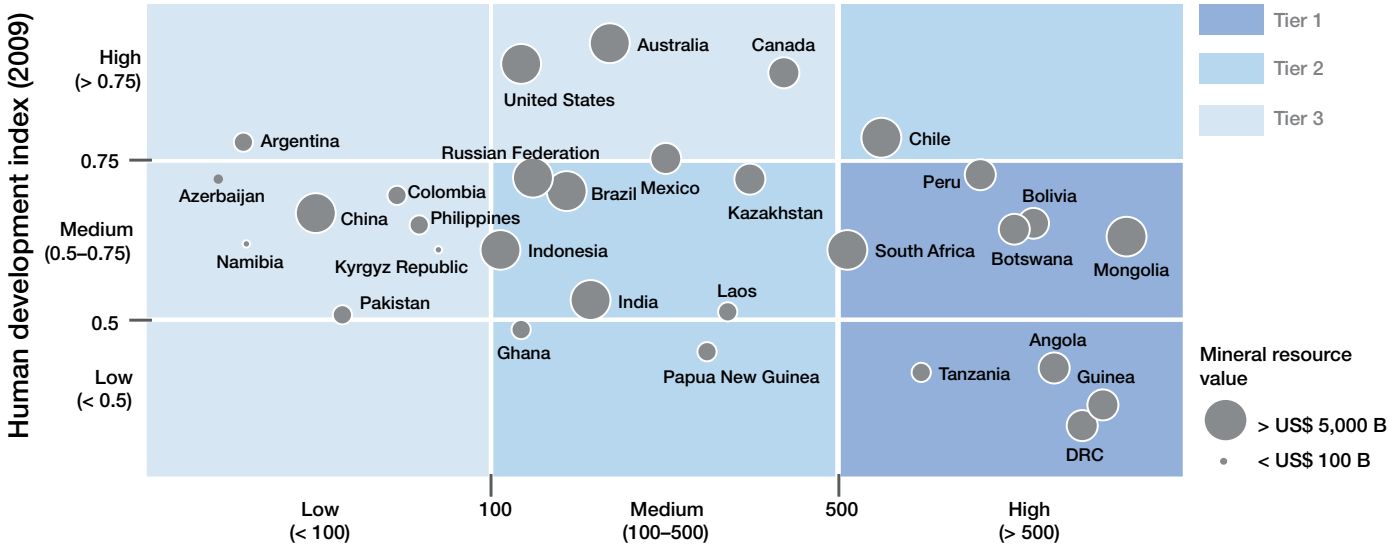
Eleven countries classified as Tier 3 have only moderate potential for transformation, for example Argentina, Australia, Canada and the United States. This is because they have limited mineral growth potential, already advanced socio-economic development or both.

Ten countries classified as Tier 2 have high potential for transformation, for example Brazil, Chile and Indonesia. They have high or medium mineral growth potential and may yet go through significant socio-economic development.

The highest potential for transformation is found in a group of nine countries, classified as Tier 1, for example Angola, Botswana, Guinea, Mongolia and Peru. Mining is present to varying degrees in these countries, but the current level of extraction is low compared to the potential indicated by the resource value in the ground.

Exhibit 8: Country segmentation

Country segmentation clustered by potential for mining sector growth and potential for socio-economic development



1. United Nation's Human Development Index is a composite index including per capita GDP, life expectancy, adult literacy rates and enrollment in educational institutions.
2. Resource value of estimated resources in the ground at current market prices (five-year average commodity price between 2006-2010) divided mining industry contribution to the country's GDP in 2009. See also methodology below.
Source: RMG, USGS, EIU, UNDP
Note 1: Only considered top 30 mining countries in terms of mining revenues in 2009.
Note 2: For calculations of the multiplier the resources considered were bauxite, copper, diamond, gold, iron ore, nickel, PGMs, silver, tin, zinc and coal.

Exhibit 9 : List of Country Tiers

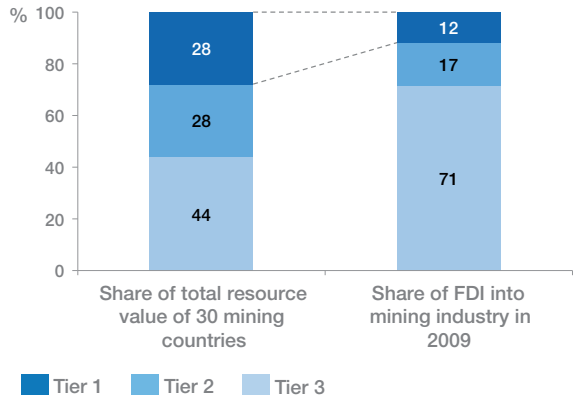
Tier 1 countries	Tier 2 countries	Tier 3 countries
Angola	Brazil	Argentina
Bolivia	Chile	Australia
Botswana	Ghana	Azerbaijan
Democratic Republic of the Congo	India	Canada
Guinea	Indonesia	China
Mongolia	Kazakhstan	Colombia
Peru	Laos	Kyrgyz Republic
South Africa	Mexico	Namibia
Tanzania	Papua New Guinea	Pakistan
	Russian Federation	Philippines
		Russia
		United States

Note: Only the top 30 mining countries in terms of mining revenues in 2009 were considered.

We estimated that these nine Tier 1 countries hold 28% of the total value of resources of the 30 leading mining countries. Yet they attracted only 12% of mining-related foreign direct investment (FDI) in 2009 [Exhibit 10].

This disproportionately low investment may reflect reluctance either from governments or civil society to welcome companies into their country, or from investors deterred by high-perceived risk and severe challenges in these countries.

Exhibit 10: Mining related FDI



Source: UNCTAD; Investment Trade Centre
Note: Based on FDI flow data in 2009 or nearest available year

We hope that our proposed framework of six building blocks and suggested actions, by enhancing trust among stakeholders and promoting a stable basis for sustainable mineral development, may unlock potential for growth, particularly in Tier 1 countries.

Segmentation Methodology

The analysis leading to our country segmentation was based on two axes: future mining potential and current socio-economic development. We detail our approach below.

Axis 1: Approach to analysing a country's mining potential

There are a variety of ways to consider or define the mining potential of a country. Many factors influence the exploration interest for a company, including geology and resources, existing infrastructure, political stability, mineral policies, technical feasibility and past experience. These factors are fluid and subject to both gradual development and sudden change resulting from new geological data or discoveries, political changes, improvements in technology or commodity price fluctuations.

We looked at the most fundamental factor, geological data, specifically the estimated available resource value in the ground. By comparing this resource value with the existing size of the country's mining industry, measured by the current mining contribution to GDP, we built a multiplier indicating a country's future mining potential.

The countries with the highest multiplier – and thus the greatest potential benefits – have large unexploited resources and, as yet, a relatively small mining industry. Those with limited resources or a mature industry have a lower multiplier and less potential. The multiplier helps to distinguish:

- Countries with large resources, already under considerable development
- Countries with large resources but comparatively less-developed, or with high potential to extend mining operations

Resource value data compilation

We acknowledge the limits of comprehensive resource data on a country-by-country basis. Our analysis aims to provide an interesting and helpful fresh view of the industry, rather than a conclusive, categorical segmentation. Furthermore, we have limited our approach on looking at the gross value of mineral resources only. A more comprehensive analysis could incorporate other influential factors, such as production costs or available infrastructure.

Available geological data is often linked to current or planned mining projects, which can lead to the full potential of some countries being underestimated. This is most likely where the industry has still to fully emerge. New geological data would therefore increase the mining potential of those countries.

Our approach to estimating a country's mining potential:

- We limited our analysis on the following main minerals: bauxite, copper, diamond, gold, iron ore, nickel, platinum, palladium and other precious metals (PGMs), silver, tin, zinc and coal.
- We used a variety of complementary data sources to estimate the available volume of ore resource in the ground. The main sources were: Raw Minerals Group, Geoscience Australia, Indian Bureau of Mines, Brazilian Mining Institute, United States Geological Survey (USGS) and United States Department of State.
- In some cases where data was limited or absent, we estimated the missing figures – partly based on available reserve data, partly on available global resource estimates from USGS, combined with sources stating country percentages of global reserves.
- The ore resource volume was then multiplied by an ore-to-commodity ratio for each resource type to obtain the overall commodity volume in the ground.
- Finally, the commodity tonnage was multiplied by an average commodity spot price (2006-2010), resulting in an approximated value for each country's resource base.

Mining contribution to GDP data compilation

The percentage contribution of mining to GDP was calculated using World Bank 2009 GDP figures for each country, and a combination of 2009 USGS and African Economic Outlook data for the percentage relating to mining (excluding oil and gas).

Axis 2: Approach to analysing a country's socio-economic development

Mineral development has the greatest potential to transform those countries that are still less well developed. To differentiate among the countries' development levels we sought an indicator with a sufficiently complete data set expressing a broader socio-economic development.

The United Nations' Human Development Index (HDI) is a composite indicator including not only the economic indicator GDP, but also measures such as life expectancy, adult literacy and enrolment in educational institutions.

- In countries with a low current HDI rating there is real potential to unlock not only mineral resources, but also socio-economic development.
- In these countries, mining could make a substantial and meaningful impact on social/human development.

For our analysis, we consider countries that score below 0.5 to have relatively low development. Those between 0.5 and 0.75 are rated medium and those above 0.75 as highly developed.

The data and key sources used for the country segmentation analysis are summarized in Exhibit 11.

Exhibit 11: Data and main sources used for country segmentation

Data (year)	Main Sources
Gross Domestic Product (current US$) by country (2009)	• The World Bank
Contribution of mining and quarrying industry to country's GDP (2009)	• USGS • African Economic Outlook (for African countries)
Country's resource value • Identified ore resources in the ground (2009) • Ore to commodity ratio (2009) • Commodity prices (average 2006-2010)	• Resource volume: Raw Materials Group, AME Iron Ore Resource Data, USGS, US Library of Congress, Government data • Ore to commodity ratio: Raw Materials Group • Prices: Datastream, Platts, SBB Steel Prices
Human Development Index (2009)	• United Nations Development Programme (UNDP)

B) Overview of Stakeholder Consultations

This research is the culmination of Phase II of the World Economic Forum's Responsible Mineral Development Initiative, launched in 2009. The work conducted for this report in 2011, with the support of The Boston Consulting Group (BCG), has involved extensive consultation with mining industry stakeholders across the world to understand the challenges faced in the pursuit of responsible mining, and to propose practical actions to overcome them.

Our approach has involved the sourcing of ideas from an extensive range of stakeholder groups, expert interviews, workshops, and using BCG resources.

Through continued stakeholder discussion six building blocks were judged to be most relevant, and reviewed by the RMDI Advisory Group. Eight actions were identified as practical and effective examples of how these building blocks could be implemented.

Stakeholder consultations (meetings, workshops and country-specific interviews) throughout the last two years are grouped by region:

Africa

- Liberia, country-specific interviews, 2010
- Ghana, country-specific interviews, 2010
- South Africa, country-specific interviews, 2010
- Tanzania, country-specific interviews, 2010
- South Africa, RMDI workshop, February 2011
- South Africa, World Economic Forum on Africa, May 2011

Asia

- Mongolia, RMDI roundtable, June 2010
- India, India Economic Summit, November 2010
- United Arab Emirates, World Economic Forum Annual Global Agenda Council meeting, November 2010
- Mongolia, country-specific interviews, 2010
- Lao PDR, country-specific interviews, 2010
- Mongolia, RMDI workshop, March 2011
- Indonesia, World Economic Forum on East Asia, June 2011
- United Arab Emirates, World Economic Forum Annual Global Agenda Council meeting, October 2011
- Indonesia, EITI Board meeting, November 2011
- Indonesia, World Bank on Transparency Norms, November 2011

Australasia

- Australia, country-specific interviews, 2010
- Papua New Guinea, country-specific interviews, 2010
- Australia, Sustainable Development Conference, October 2011

Europe

- United Kingdom, International Council on Mining and Metals meetings, March and October 2011
- United Kingdom, World Economic Forum Mining & Metals Strategy Meeting, November 2011
- Switzerland, RMDI workshop at Intergovernmental Forum on Mining/Minerals/Metals and Sustainable Development (IGF), November 2011

North America

- United States, RMDI workshop in collaboration with the World Bank, December 2011

South America

- Columbia, country-specific interviews, 2010
- Peru, country-specific interviews, 2010
- Chile, country-specific interviews, 2010
- Brazil, country-specific interviews, 2010
- Brazil, World Economic Forum on Latin America, April 2011
- Peru, RMDI workshop on Peru, December 2011

C) Acknowledgements

The World Economic Forum thanks the members of the Mining and Metals Steering Board, the RMDI Advisory Group and the Global Agenda Council on the Future of Mining & Metals for their contributions:

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In addition the project team expresses its gratitude to the following colleagues from the World Economic Forum for their support throughout the project:

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E) Acronyms, Overview of Exhibits and Sources

List of Acronyms

AusAID	Australian Agency for International Development
BCG	The Boston Consulting Group
CSR	Corporate social responsibility
DGF	Development grant facility
EI	Extractive industries
EITI	Extractive Industries Transparency Initiative
FDI	Foreign Direct Investment
FICCI	Federation of Indian Chambers of Commerce and Industry
FUNJUS	Sustainable Juruti Fund
GDP	Gross Domestic Product
GNI	Gross National Income
HDI	Human Development Index
ICMM	International Council on Mining and Metals
IBOPE	Brazilian Institute of Public Opinion and Statistics
IFC	International Finance Corporation, World Bank Group
IMF	International Monetary Fund
LEITI	Liberian Extractive Industries Transparency Initiative
MDA	Mineral Development Agreement
NEPAD	New Partnership for Africa's Development
NGGL	Newmont Ghana Gold Ltd
NGO	Non-governmental organization
PGMs	Platinum group metals
PWYP	PublishWhatYouPay
RBN	The Royal Bafokeng Nation
REC	Regional economic communities
RMD	Responsible mineral development
RMDI	Responsible Mineral Development Initiative, World Economic Forum
RMI	Responsible Mining Initiative
WBG	World Bank Group

List of Exhibits

List of Case Studies and Initiatives

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