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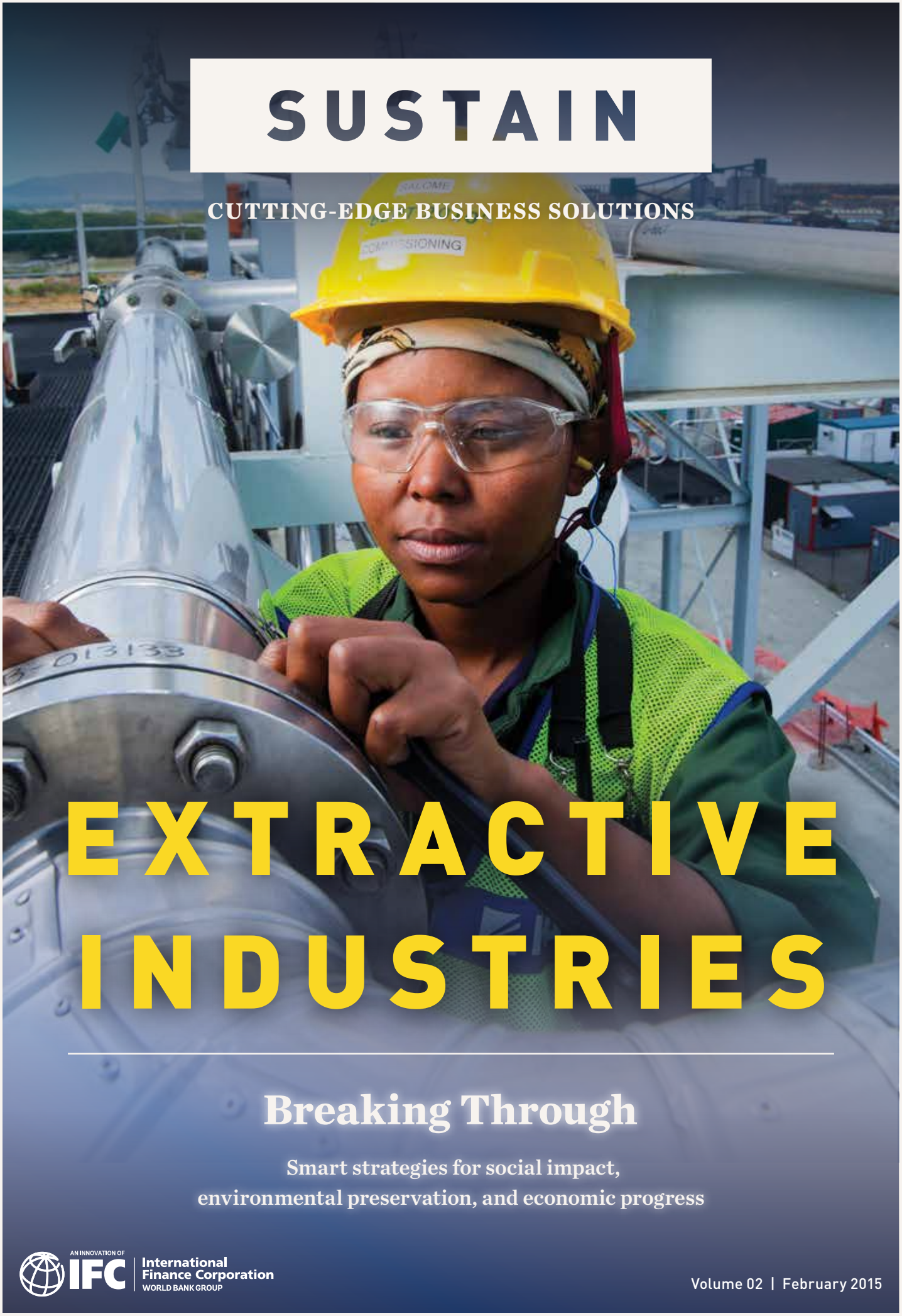

SUSTAIN

CUTTING-EDGE BUSINESS SOLUTIONS

EXTRACTIVE INDUSTRIES

Breaking Through

Smart strategies for social impact,
environmental preservation, and economic progress

AN INNOVATION OF IFC | International Finance Corporation
WORLD BANK GROUP

Volume 02 | February 2015

Why SUSTAIN?

How can businesses achieve and SUSTAIN stronger performance? How can they maximize profitability while contributing to positive long-term impact on society and the environment? How do companies across the world, large and small, tackle sustainability challenges and how can they learn from each other?

Moreover, how can IFC leverage its unique vantage point at the intersection of business and development to highlight fresh perspectives from pioneers and thought leaders from the private sector, as well as from governments, international organizations, and academia?

These are some of the questions that have guided the creation of SUSTAIN, IFC's print and electronic platform for sharing cutting-edge business solutions with companies and partners across the world.

↗
Ahafo mine – Ghana.

© Newmont Mining Corporation

About IFC

IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector. Working with private enterprises in about 100 countries, we use our capital, expertise, and influence to help eliminate extreme poverty and boost shared prosperity. In FY14, we provided more than $22 billion in financing to improve lives in developing countries and tackle the most urgent challenges of development. For more information, visit **www.ifc.org**.

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Why EXTRACTIVES?

BY

Mary Porter Peschka
Acting Director, Cross-Cutting Advisory Solutions , IFC

Bernard Sheahan
Director, Infrastructure and Natural Resources, IFC

Extractive industries supply more than 80% of the world's energy needs. They provide raw materials for everything from food products to medical equipment, to sunscreens, to smart phones. They also have great transformative potential: a further 540 million people could be lifted out of poverty if oil, gas, and mineral reserves are developed effectively.

Yet the challenges to delivering on the industry's great promise are tremendous. Technical risks are growing significantly as exploration for deposits moves deeper and higher. Non-technical risks are equally daunting. Companies must manage what are often large-scale, long-lasting changes to communities and ecosystems. Meanwhile, in places where conflict and corruption prevail, governments must find ways to effectively deploy the wealth created by the activities of oil, gas, and mining companies.

New forces raise the bar for extractive company success. Market conditions are weakening as the prices of commodities and oil fall sharply, something that affects smaller companies in particular. Meanwhile, public expectations are rising for the industry to play a strong development role and to generate societal benefits. Companies are also under increasing pressure – from both investors and campaigners – to help the world move to a low-carbon economy.

©istock

How are oil, gas, and mining companies responding to these forces? That is the central question we explore in this edition of the magazine. We hear how major companies such as Anglo American and Rio Tinto are reshaping their strategies (and, indeed, mindsets) to move in a much more inclusive direction, seeking to benefit from a multitude of new partnerships, even with industry critics.

In meeting societal expectations, being open and proactive in engaging with local communities is critical, as the experience of Aureus in Liberia has demonstrated. Targeted support to women also helps, as ExxonMobil's work in Papua New Guinea shows. In Sierra Leone, Sierra Rutile's effective response to the deadly Ebola outbreak has highlighted the benefits of acting quickly and collaboratively in a crisis.

When it comes to environmental leadership, readers can learn much from the experience of companies such as Peru LNG, which is promoting ecosystem preservation and restoration, or from Total as it becomes a leading player in solar power. New insights are also emerging from the International Council of Mining and Metals' approach to water stewardship, and the World Economic Forum's work to promote sustainable mining.

Transparent governance is also fundamental for extractive industries, particularly to maximize opportunities to develop critical infrastructure. As the article on Guinea shows, changing the course of the economy will depend on good governance and strengthening local capability. In Peru, progressive governance – and sensitive approaches by companies such as Newmont – also remains central to the country's efforts to achieve robust and inclusive growth.

Without trying to be exhaustive, the stories presented here offer concrete examples of how extractive companies can address what, in many senses, are existential pressures. The cutting-edge solutions and perspectives shared here are also useful for companies in other sectors looking to succeed in addressing complex social, environmental, and governance challenges while securing financial sustainability.

IFC and Extractives
IFC has invested in extractives sector projects for over 50 years. As of June 2014, our active investment portfolio in extractives totaled $2.6 billion. We also work with clients to further enhance the development impact of our projects through advisory programs on community investment, local sourcing, public private partnerships, revenue management, water stewardship, communications, and stakeholder engagement

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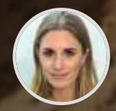

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ON THE COVER

Carrying out maintenance at the Rustenburg Base Metals Refiners
© Geoff Brown

FACTS & FIGURES

82%

of primary **energy supply** came from oil, gas, and coal in 2012. [1]

A **36%** INCREASE

in **energy demand** is expected by 2035. [2]

An average **smartphone** contains **40** different minerals. [3]

Africa's GDP included **$382 BILLION** in **oil, gas, and mineral exports** in 2011. [4]

A FURTHER **540 MILLION PEOPLE**

could be lifted out of **poverty** by the effective development of natural resources. [5]

$17 TRILLION

of **investment** in natural resources will be needed by 2030 to meet demand – more than twice the rate of past investment. [5]

OVER **50%**

of large mining and metals projects report schedule **delays** and/or **cost overruns**. [2]

$20 MILLION

is the estimated weekly cost of **company-community conflicts.** [6]

A **42%** DROP

in CO_2 emissions is needed by 2035 to ensure **global temperatures** rise less than 2°C. [1]

LESS THAN **20%**

of countries relying on oil, gas, and minerals have satisfactory standards of **transparency** and **accountability**. [7]

[1] *International Energy Agency – Key Energy World Statistics 2014*

[2] *EY report on "Business risks facing mining and metals 2014–2015"*

[3] *Fairphone.com*

[4] *Environment and Mining Journal*

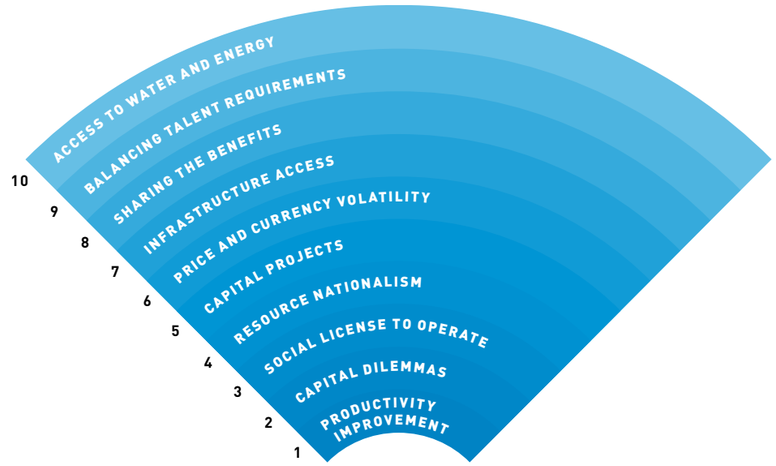
[5] *McKinsey Global Institute report "Reverse the curse"*

[6] *Franks et al., "Conflict Translates Environment and Social Risk into Business Costs"*

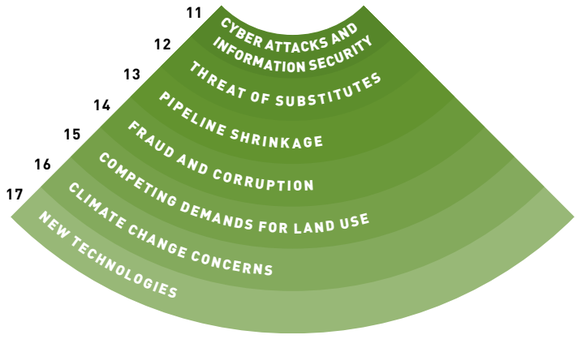
[7] *Natural Resource Governance Institute "Resource Governance Index 2013"*

RISK RADAR FOR MINING AND METALS

TOP 10 BUSINESS RISKS



2014 – 2015



UNDER THE RADAR RISKS

Source: EY report on "Business risks facing mining and metals 2014–2015"

REINVENTING MINING

Anglo American on how a diverse and unlikely coalition is seeking to transform the industry

INTERVIEW WITH

Mark Cutifani
*Chief Executive, **Anglo American***

BY

Liane Asta Lohde
*Senior Economist, **IFC***

Mantoverde plant in Chile at dusk

©Anglo American

The mining industry is at a critical point as stakeholder pressures multiply. In response, an unlikely coalition of players – from companies and academia to civil society and governments – is helping shape the "mining company of the future." Their initiative, known as the Development Partner Framework, is coled by Anglo American and the Kellogg Innovation Network, and is designed to ensure benefits for communities, companies, and the environment. It has prompted the industry to do some serious soul-searching, including listening to some of its harshest critics. This interview with one of the architects of the initiative explores how this new approach could transform the industry and drive shared economic, environmental, and social value.

LIANE ASTA LOHDE: How did the Development Partner Framework (DPF) get started?

MARK CUTIFANI: In 2009, during a presentation to Kellogg on safety for AngloGold Ashanti, I heard Nike, GE, and others talking about their sustainability experiences. That was really useful. Too often, in the mining industry we just talk to mining people. Then in 2012, at a Kellogg event in Belo Horizonte, Brazil – covering innovation, improved productivity, and cost cutting – we talked about innovation in sustainable mining practices. That's what started this conversation.

What are you trying to solve with the DPF?

On our side, we need access to land. Developing a healthy relationship with local communities is a more sensible and cost-effective way of operating than fighting each other. If you have a local community fighting you, you might add 20% to your costs – when you could have pursued a 1% solution.

The game has changed. Yet we are 10-20 years behind other industries. I see great work being done, but we are missing opportunities that could make a difference for us, for our shareholders, and for the communities where we operate. To be sustainable for the long term, we have to do things differently. And we should reflect on what we did when we were growing successfully and had more community support – if you go back 100-200 years, we were literally building essential infrastructure across continents.

Working across government, civil society, and corporations, how do you make shared purpose a reality?

As industry leaders, we must be accountable and facilitate conversations with key stakeholders. So we are providing a framework that companies can use to develop business models that engage employees, communities, local, regional, and federal governments, and NGOs – with each having a view on how we're running our businesses.

I would hope that 90% of the time we could agree. And when we cannot, at least we can have respectful discussions and get objective feedback. If we want broad based community support, we must have constructive conversations.

How are you mobilizing fellow mining companies?

This industry is a quick adopter of things that work. But it really does not have a major brand leading the way on sustainability, like Unilever for consumer goods. So we decided to get out there and shine a light on what we think is the right way forward for the industry. This also allows us to deepen relationships, increase productivity, and harness innovative approaches. And in 5-10 years, this could position us as the industry leader.

"If you have a local community fighting you, you might add **20%** to your costs – when you could have pursued a **1%** solution."

Mark Cutifani

Cutting-edge business solution:
Developing a comprehensive blueprint for how mining can reshape itself through creative collaboration and dialogue with industry critics.

"I come from a working class family. Living around mines, seeing the good, the bad, and the ugly, I knew there was a better way. I have also worked on the shop floor, so I have a sense of what's fair in the workplace. It doesn't stop me from making the hard calls. In the end, that works best for everyone."

Mark Cutifani

What are the challenges you still face?

In Botswana, the president recently said publicly that Anglo American was its preferred development partner. Yet in South Africa, a five-month platinum industry strike showed us we need to engage very differently with employees. We have learned a lot from the field as we developed the DPF. For example, in Cerrejón, Colombia, we have been through relocations, and the vast majority of the community has signed up. Of course, the conversation with the last few families is really difficult. How do you tell someone they must move from their home? It is a tough industry from that perspective. But as long as we are open, honest, supportive, and constructive, most of the time we will be in the right place in that conversation.

Do shareholders support the DPF?

We have good support for cleaning up bad practices and capital discipline. And our ethical investors are happy to see last year's 30% reduction in safety incidents and 40% reduction in environmental incidents. But 80% of shareholders are probably wondering what to make of this approach. So it is critical to demonstrate that this is about more than ticking sustainability boxes. Getting this right is mission critical. And when you explain that getting it wrong means a five-month strike or delays in obtaining licenses, the penny drops. It is a bit like safety – at some point, it will just be the way we do business.

You recently sought the Vatican's advice on relations with communities affected by mining. How do such unusual partnerships help you navigate big challenges?

This is a dialogue. All you can do is engage and judge whether that engagement helps you do things in a different way, then decide whether to continue the dialogue. And if community leaders feel they can influence industry behavior, they will engage. That is the success they are looking for.

What are your key performance indicators?

We track the number of protests and projects held up because we did not secure a license or reach an agreement with the community. Those measures demonstrate whether or not we have good relationships with communities and governments. Some companies just build walls to keep everyone out. We do not. We build relationships with the local community – they are our front line.

On a personal note, what drives your enlightened perspective?

When I first entered the industry, the guy who mentored me was killed on a shift. So safety has always been front and center for me. And I come from a working class family. Living around mines, seeing the good, the bad, and the ugly, I knew there was a better way. I have also worked on the shop floor, so I have a sense of what is fair in the workplace. It does not stop me from making the hard calls – you have to make the hard calls and be transparent and honest. In the end, that works best for everyone. ■

About Anglo American and IFC

Anglo American and IFC have collaborated in several projects in Latin America and Africa. Anglo American is also a key partner in IFC's water and mining roundtable in Mongolia, which aims to develop a shared approach for water stewardship by discussing how to best share water resources and secure water supply to local communities.

LEADERSHIP CHALLENGES IN THE EXTRACTIVE INDUSTRIES

COMMODITY PRICE VOLATILITY

GEOPOLITICAL UNCERTAINTY AND RESOURCE NATIONALISM

HIGH COMMUNITY AND STAKEHOLDER EXPECTATIONS

NATURAL RESOURCE SCARCITY AND COSTS

© World Bank

DELIVERING SHARED PROSPERITY

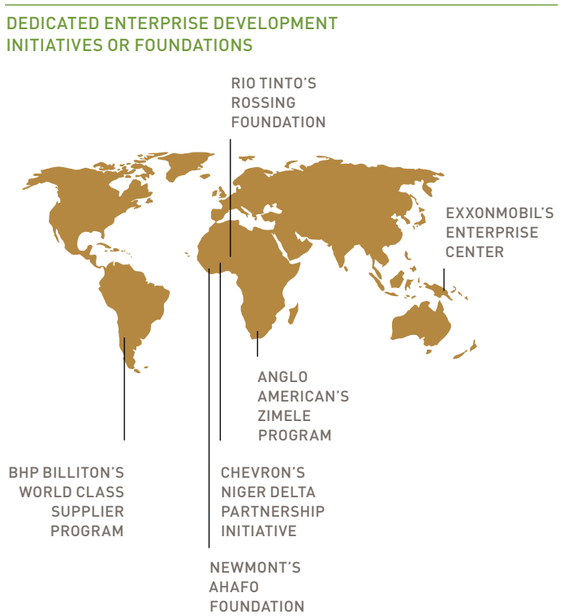
Three key steps leading extractive companies are taking to address a complex array of sustainability challenges

BY

Jane Nelson
Director, Corporate Social Responsibility Initiative, Harvard Kennedy School

Extractive companies face a wide range of leadership challenges. In a time of increased geopolitical uncertainty and commodity-price volatility, these companies need to deliver stronger cost controls, greater operational efficiencies and productivity, and disciplined capital allocation. They must also tackle growing resource nationalism, threats to natural ecosystems, higher community expectations, more sophisticated activist campaigns, and increasingly vocal investors. These challenges must often be addressed while operating in places where governance frameworks are weak and the delivery of public services is inadequate.

To address these complex and at times conflicting pressures, leading companies are taking three key steps:



1. ENSURING SUSTAINABILITY EXCELLENCE IN CORE OPERATIONS

In the face of high political and market uncertainty, senior executives are focused on controlling what they can control within their own business operations and value chains. For the leading companies, this includes an ongoing commitment to strengthening their risk management processes and creating shared value through the achievement of better sustainability performance.

Over the past decade, most major extractive companies have implemented comprehensive policies, standards, and management systems to handle safety, environmental, social, and governance risks. These company-level efforts have been complemented by global frameworks such as IFC's Performance Standards, the UN Guiding Principles on Business and Human Rights, ICMM's Sustainable Development Framework, and issue specific industry-led guidelines, which have created common platforms for impact assessment, implementation, and accountability.

Likewise, many leading extractive companies now have local and national content strategies, focused on building skills, creating direct and indirect jobs and supporting enterprise development. Some companies have established dedicated enterprise development initiatives, such as Anglo American's Zimele program in South Africa, ExxonMobil's Enterprise Center in Papua New Guinea, and BHP Billiton's World Class Supplier program in Chile.

Others have created local or national foundations with a primary focus on enterprise development, agriculture, and vocational skills, such as Chevron's Niger Delta Partnership Initiative in Nigeria, Newmont's Ahafo Foundation in Ghana, and Rio Tinto's Rossing Foundation in Namibia. Several companies have made women's economic empowerment a key part of their employment and enterprise development goals, including Anglo American, Rio Tinto, Newmont, ExxonMobil, and Odebrecht.

Despite this progress, even leading companies find it hard to translate corporate-level commitments into operations on the ground. Challenges include lack of alignment between internal commercial incentives and sustainability performance, inadequate focus on corporate culture and behavior change, and insufficient investment in hiring or developing the right skills and capabilities.

A key solution is requiring all senior executives and heads of projects and operating units to be accountable for their performance on safety, people, sustainability, and external relations, in addition to their functional or operational responsibilities. Corporate culture and behavior can be hard to shift, but cross-functional working groups, communities of practice, leadership training programs, and mentoring and champion roles can be valuable. Rio Tinto, for example, has established a Stakeholder University in partnership with Georgetown University for its managers, and many companies have created internal train-the-trainer programs and networks of safety champions.

Cutting-edge business solution:
Defining clearly what companies must focus on – in core operations, partnerships, and stakeholder engagement – to foster sustainable development.

2. BUILDING PARTNERSHIPS TO ADDRESS SYSTEMIC CHALLENGES

No matter how rigorously a company manages its own business operations, many challenges are systemic. They can only be tackled through partnerships and by strengthening the capacity of external institutions.

Cooperation is most crucial in improving the transparency, integrity, and quality of resource revenue management. The taxes and royalties paid by oil, gas, and mining projects dwarf what they can spend on local content and community investment programs. In that context, fiscal contributions need to be:

- **PAID AND RECEIVED TRANSPARENTLY;**
- **WELL-MANAGED FROM A MACROECONOMIC PERSPECTIVE; AND,**
- **SPENT SO AS TO ENHANCE NATIONAL DEVELOPMENT GOALS AND BENEFIT ALL CITIZENS, INCLUDING BUT NOT ONLY THOSE IN RESOURCE-RICH AREAS.**

Yet this requires strong governance and public sector capacity, which is often missing. Multi-stakeholder initiatives such as the Extractives Industries Transparency Initiative (EITI) can provide useful platforms for strengthening shared responsibility and capacity. There is a particular need for joint efforts to improve regional and municipal government capacity to manage revenues effectively, and models such as IFC's public sector capacity building program in Peru are worth strengthening and replicating elsewhere. Another helpful step is to establish independent oversight or advisory groups consisting of donors, extractive companies, other business leaders, and civic leaders who can work with governments to ensure resource revenues are allocated to key development priorities.

Cross-sector partnerships also offer great potential with respect to shared infrastructure, which often requires multi-billion dollar investments. Opportunities exist to explore ways that project-related infrastructure could benefit other sectors, such as agriculture, tourism, and manufacturing, and to identify potential donors and co-investors needed to make this happen. Companies operating in contexts as diverse as the Simandou project in Guinea and the Papua New Guinea LNG project are taking a more proactive leadership role in developing or strengthening shared infrastructure with their host governments and other partners.

There are also opportunities for cross-sector partnerships to preserve environmental ecosystems – in particular joint programs for watershed management, regional biodiversity, and technology innovation. Examples include the work of the 2030 Water Resources Group and Canada's Oil Sands Innovation Alliance.

3. ENGAGING TRANSPARENTLY AND EFFECTIVELY WITH STAKEHOLDERS

Most critically, promoting shared prosperity means oil, gas, and mining companies must build trust and credibility with key stakeholders. Creating transparency on fiscal payments is one of the most important steps that a company can take. Rio Tinto and Tullow Oil have been pioneers in reporting voluntarily on their tax payments.

Leading companies are placing greater emphasis on becoming more transparent and accountable in their community engagement. A few companies are negotiating formal community agreements, such as Chevron's Global Memoranda of Understanding with communities in the Niger Delta, Newmont's community agreements in Ghana and Suriname, and Rio Tinto's agreements with local communities in Mongolia. A growing number of companies are also establishing community grievance mechanisms and supporting local governance institutions and independent conflict resolution structures.
Some oil, gas, and mining companies have established third party or independent advisory groups to strengthen the quality of their stakeholder relationships and the transparency and integrity of their reporting. Some of these are at the corporate level, such as ExxonMobil's External Citizenship Advisory Panel, Shell's Sustainability External Review Committee, BHP Billiton's Forum on Corporate Responsibility, and Barrick's Corporate Social Responsibility Advisory Board. Others are at a country-level or even project-level, with latter examples including independent monitoring mechanisms established during the construction of the Baku-Tibilisi-Ceyhan pipeline and Peru LNG projects. While these are often challenging to manage, they can offer an additional level of oversight and insight to help improve project performance and credibility.

Learning from past mistakes, impressive progress has been made in understanding the shared risks and benefits of large-scale oil, gas, and mining projects. Useful frameworks for creating shared prosperity have been developed by a variety of multi-stakeholder initiatives, consultants, and industry-led bodies. Yet they require full commitment and healthy critique from all sides – companies, governments, donor agencies, and nongovernmental organizations – to ensure effective, sustained implementation. ■

PARTNERSHIPS MATTER, IN GOOD TIMES AND BAD

© Rio Tinto

How **Rio Tinto** relies on partnerships to manage risk, share benefits, and create successful business outcomes

Partnerships are among the most valuable tools for global businesses. That might sound odd coming from the CEO of a company many perceive as independent, but Rio Tinto's Sam Walsh argues that dynamic partnerships underpin business success. Partnerships, he says, are especially important during times of stress – such as downturns in the economy or commodities cycles – when the tendency is to become self-focused and fearful. It is exactly at these moments when partnerships prove their worth.

BY

Sam Walsh AO
Chief Executive,
Rio Tinto

As the global economy struggles to reach full recovery, we continue to focus on cultivating innovative partnerships between industry, government, suppliers, communities, individuals, multilateral organizations, and civil society. In our 141 years of experience, we have seen that such partnerships help us to maximize shared benefits.

Community partnerships

At Rio Tinto's Weipa bauxite operations in Australia, we have strengthened partnerships with local indigenous groups by investing in education and employment programs in collaboration with local communities. While some may view this as simply standard practice in Corporate Social Responsibility (CSR), investing in people and relationships has real business benefits. In fact, in 2002, we signed an agreement with 11 local tribal groups to support aboriginal employment, training, and business enterprise development. This partnership has led to local economic development and underpinned our operational performance – a mutually beneficial sustainable outcome.

← Working together on biodiversity at the Oyu Tolgoi mine in Mongolia.

Cutting-edge business solution: Investing in a wide range of long-term partnerships to continuously improve operational performance and generate local benefits.

$10 BILLION

INVESTED BY RIO TINTO IN INFRASTRUCTURE PROJECTS IN 2014, PROVIDING LONG-TERM DEVELOPMENT OPPORTUNITIES AND BENEFITS

We have also strengthened our business through collaboration with local suppliers and contractors. At our Pilbara iron ore operations in Western Australia we began an eight-week skills training program for indigenous peoples in partnership with one of our scaffolding suppliers. Trainees become full-time employees of the supplier, where they can utilize their new skills and develop careers. This program ensures that our suppliers mirror Rio Tinto's values by facilitating local employment and that our operations have broadly shared economic benefit.

Rio Tinto is one of the largest employers of Aboriginal people. We purchased $1.2 billion in goods and services last year from companies owned and operated by Aboriginal institutions and we have numerous mutual benefit agreements in place with Aboriginal community groups.

Technical partnerships

Partners can bring new expertise to the table. Take our Oyu Tolgoi copper mine in Mongolia, which is consistently recognized as a leading biodiversity conservation project in the mining sector. Rio Tinto is working with the Global Biodiversity Conservation to develop a long-term management plan, along with a monitoring system and an offset program, which are expected to have a particularly positive biodiversity impact. Alone, neither Rio Tinto nor the Government of Mongolia had the expertise to bring these required components to the project – it was through our partnership with the Global Biodiversity Conservation that we were able to meet our common biodiversity goals.

Commercial partnerships

When it comes to commercial partnerships, strengthening relations with suppliers and customers benefits all parties. For example, in 2013, Rio Tinto and Mitsui signed a 20-year shipping deal that insulates both companies from market volatility.

Partnerships are especially valuable during tough times. A good example is Rio Tinto's work in Guinea, where we are working with IFC, Chinalco, and the Government of Guinea to advance the Simandou iron ore project. We recently signed a historic investment agreement that will pave the way for Africa's largest ever infrastructure project: a mine, rail and port that can create an unprecedented development opportunity for Guinea and the broader region. In addition, despite the rapidly spreading Ebola virus, through our partnerships we have been able to commence a feasibility study and initiate a global tendering process for Simandou.

Best practices

Our broad experience points to a few shared best practices that keep partnerships healthy:

- **CLARITY**
  All parties must be transparent about their objectives. Business partners must be clear about the realities of economic constraints.
- **CERTAINTY**
  Partners must assure outcomes based on performance. Accountability for each partner's role ensures there is a regular means of measuring shared benefit.
- **INVESTING FOR THE LONG-TERM**
  Mutual understanding that long-term success means investing in partnerships through all economic cycles. All parties need to avoid being perceived as moving the goal posts on their partner or only performing when times are good. In periods of economic downturn, tough choices must be made. However, these provide an opportunity to strengthen partnerships, rather than turn inward or do it alone. Tough times are exactly when businesses, governments, communities, and civil society should redouble efforts to pursue shared growth and prosperity. Strong partnerships, based on shared benefits, transparency, and trust are the foundation of sustainable success through good times and bad. ■

About Rio Tinto and IFC

Rio Tinto is a long-standing IFC partner in several projects including the Escondida copper mine in Chile and the Simandou iron ore project in Guinea. IFC is also working with Rio on financing the Oyu Tolgoi project in Mongolia and has collaborated on advisory programs including local sourcing, water stewardship, revenue management, and the financial valuation of sustainability.

FACE-TO-FACE WITH CIVIL SOCIETY

WWF, Natural Resources Governance Institute, and Fund for Peace offer reflections on how to succeed in sharing the gains of oil, gas, and mining investments

© Ted Pollett

"Successful engagement depends on respect and authentic community representation combined with a focus on evidence and not rumors."

Heydi Isales
President, Asociación de Monitoreo y Protección Ambiental Regional, Guatemala

INTERVIEWS CONVENED BY

Veronica Nyhan Jones
Advisory Services Head, Infrastructure & Natural Resources, IFC

Amid serious concerns over the distribution of economic benefits and the environmental and social impacts associated with oil, gas, and mining operations, leading NGOs provide advice on how extractive companies can share the benefits generated by their activities and how to best engage with key stakeholders.

DANIEL KAUFMANN

President, Natural Resources Governance Institute (NRGI)

It is not in a company's longer-term interest to see citizens denied benefits from oil, gas, or mining extraction. Enlightened companies know it does not pay off to secure a lopsided deal from a government. Companies may derive short-term rents pleasing some shareholders, but the likelihood of the deal unraveling over time is high, eventually harming the company's bottom line. There are multiple instances of deal renegotiation or cancellation.

Transparency at the contracting stage promotes deals that are more balanced. Contract transparency helps manage local expectations regarding the flow of benefits. Without transparency, expectations can become inflated, undermining commitments made by government officials and companies. Being proactive in communicating benefits, especially with today's lower commodity prices, is in a company's interest.

But transparency alone will not suffice; we risk having "zombie" transparency – transparency that exists only on paper. Translating disclosure into accountability requires an enabling environment in which civil society can operate, including freedom of expression. An autocratic regime releasing information on oil revenues while censoring the media and civic leaders cannot be made accountable. When there is no rule of law, there are no sanctions for mismanagement and corruption.

STUART ORR

Head of Water Stewardship, WWF

A lot of the benefit sharing discussion has focused on how a company protects its social license to operate, without considering the company's long-run business strategy. It is easy to dig wells for communities. But if we are to look at long-term risks in terms of scarcity of resources – especially water – then we need to reframe this into a broader debate about what is good for everybody.

Companies are getting better at identifying environmental risks. More are disclosing such risks through CDP (formerly named the Carbon Disclosure Project) and the Global Reporting Initiative. This kind of reporting increasingly affects how investors are viewing assets, enabling responsible, forward-thinking companies to reap some competitive advantage.

But within many companies, risk discussions are still limited. They realize that resource risk is one of their biggest problems but are focusing on driving efficiency only. The shift in mind-set needed to view risk reduction and benefit sharing in more strategic terms is still lacking.

Many NGOs are nervous about working with companies and have legitimate concerns about the access and power companies wield. Meanwhile, governments have simply not kept pace with the debates on business risk, often because they do not know how to engage companies. Some of the most exciting new opportunities involve aligning these agendas and seeking more pragmatic approaches to environmental management.

J.J. MESSNER

Executive Director, Fund for Peace

In order to be truly successful over the long-term, companies implementing large-scale extractive and infrastructure programs need to behave as responsible citizens. Recognizing local conflicts affects operating costs, there is a clear business case for approaching human and economic development challenges holistically, going beyond "check the box" community engagement efforts.

The extractive industries must operate where minerals are located, which presents challenges to the company (both operational and reputational) as well as to the host communities affected by mining activities. In conflict-affected areas, a benefit-sharing approach is all the more critical. Some companies are investing in multi-stakeholder coalitions, such as the Partnership Initiative in the Niger Delta, an independent foundation funded by Chevron. This initiative has been instrumental in facilitating the work of organizations like the Fund for Peace to catalyze the creation of locally-owned peacebuilding networks that bring together traditional rulers, state and local government, youth leaders, women's leaders, local businesses, and civil society.

All stakeholders must have ownership, from security services contributing to the design of their own human rights training to women empowered to participate in peace and reconciliation practices. Benefit sharing cannot be implemented through a top-down approach – all voices must be included to ensure comprehensive buy-in and long-term effectiveness. ■

SMALL COMPANY, BIG IMPACT

How **Aureus** is paving the way for long-term benefits through smart community investments in Liberia

BY

David Reading
CEO, Aureus

Aureus' mining site in Liberia, in its early stages of development in mid 2014.

© Aureus

As a junior company operating in Liberia, Aureus faces many pressing challenges – from skill shortages to a fragile investment environment to the devastation wrought by the Ebola outbreak. Yet the company has remained resolute in emphasizing sustainability in its work. Aureus understands that building public support is just as important as obtaining a mining license or a mineral development agreement. Without the support of the community, argues CEO David Reading, the chances of establishing a thriving business are low to zero.

Cutting-edge business solution:
Involving the community in village relocation, creating agricultural co-operatives and developing local skills to build trust and establish a sustainable mining enterprise.

How do we translate the idea of sustainability into something meaningful? Well, without the kind of funds available to larger corporations, we need practical, cost-effective sustainability projects. To identify those, it is essential to work with the community to understand what they actually want.

That is why we initiated a Community Development Plan through which we consulted those affected by the resettlement. We did this in the construction phase before the mine was active. This is important because once you are operational, it is too late to build the right relationships and consensus.

"I love watching the changes take place. This village once had no source of income and relied on illegal gold mining and logging activities. Today, hundreds of people have been trained in brick making, carpentry and construction and are working in our agricultural cooperative."

Empowering the local community

One unusual feature of our plan is that we have purchased land for the relocation and created deeds so everyone eligible for relocation gets a new property along with land rights. And rather than bring in outside contractors, we involved the community in all aspects of the design and construction of the new village.

We know we cannot provide jobs for everyone. So we have also developed small enterprises to help people create sustainable sources of income. There is a woodworking co-operative (run by a local youth leader), as well as sewing and agricultural co-operatives. We have also set up a marketplace for local products and produce.

I love watching the changes take place. This village once had no source of income and relied on illegal gold mining and logging activities. Today, hundreds of people have been trained in brick making, carpentry and construction and are working in our agricultural cooperative. And when the community made me an honorary chief and gave me the local name Borkai Dablo, which means "Strong One," I knew it was a reflection of how they increasingly felt about themselves.

Improving our business

At the same time, the company wins, too. The co-operatives will produce supplies such as food and clothing for mining workers, while using local labor and materials lowers construction costs. Building skills allows us to identify potential employees, which means we do not have to keep importing skills. And we are going to use high-tech simulators to train women to operate heavy mining equipment like dump trucks, dozers and excavators (it turns out having women drivers is safer, more cost effective, and empowers the women themselves).

One thing to remember, however, is that it is critical not to bite off more than you can chew. Doing what you say you will do goes a long way towards building trust – and that means breaking projects up into small, concrete stages you can actually deliver on.

True, this approach is not always easy and can take longer than conventional mine development and village relocation. But we know what we are doing costs less than bringing in external contractors to undertake construction and relocation.

Most importantly, when you establish trust, give the community a stake in the project, and help people develop new sources of income, they start to take on responsibility and ownership. The benefits are clear: we minimize our risks and, ultimately, establish a business that is much more sustainable. ■

About Aureus and IFC

Aureus is a relatively new investment client for IFC, through IFC's investment of $11 million in equity in July 2014. IFC also plans to support some of the company's community initiatives on entrepreneurship training.

THE GENDER CONTRACT

How **ExxonMobil** is promoting economic opportunities for women in Papua New Guinea

BY

Peter M. Graham, CBE
*Managing Director, **ExxonMobil PNG***

Cutting-edge business solution: Tackling gender inequality through targeted programs to increase the productivity and incomes of women.

© ExxonMobil

Gender violence and inequality are among the most pressing of the many development challenges that confront Papua New Guinea. When ExxonMobil began to assess the resource potential that led to the construction of the multi-billion dollar Papua New Guinea Liquefied Natural Gas (PNG LNG) Project, it quickly recognized that supporting women's economic empowerment would be critical to the project's success and to drive broad-based economic growth.

The participation of women in a nation's economy is vital. Papua New Guinea's future will be – in no small part – dependent upon the increasing role that women play in the country's workforce and economic leadership. Papua New Guinean women can, and must, be part of the development solution. As highlighted in the UNDP's recently released Papua New Guinea Human Development Report (2014), as well as in a Harvard case study published in 2014, ExxonMobil PNG (EMPNG) has implemented a number of successful programs to empower women and built community resiliency.

Sustaining agriculture

We recognize that even seemingly small interventions to support women can have significant impact. The agriculture sector is the largest employer of Papua New Guineans and is the lifeblood of many communities. EMPNG's food and agriculture program provides women with the opportunity to learn how to produce and market different products that generate income for these women and their families. Since 2010, the project has provided training courses across 26 locations serving 113 active women's groups. This training has included baking skills, nutrition and household health, and hygiene.

So far, more than 650 women – and a handful of men working to change traditional stereotypes – have graduated from this program. EMPNG has extended this program with a "train-the-trainer" course, so that women from other areas can be taught vital skills in food security, food hygiene and income generation, and to promote long-term program sustainability.

Supporting leaders, entrepreneurs and employees

Over the past eight years EMPNG has also supported 49 Papua New Guinean women in the Global Women in Management (GWIM) program, which helps them manage and expand their organizations. The skills and networking opportunities offered through GWIM provides participants with the capacity to expand their impact in their communities.

Other steps the company has taken to promote women's economic opportunities include joining the Board of the PNG Business Coalition for Women (BCFW) – an organization supported by IFC and the Australian Department of Foreign Affairs and Trade – and partnering with the World Bank and the PNG Chamber of Mines and Petroleum to deliver entrepreneurial training to 160 women in rural areas.

Underpinning our corporate citizenship and social investment are the many talented and dedicated women working for EMPNG across the entire project. This includes Papa New Guinean women working in our Land and Community Affairs team, female operations and maintenance trainees along with engineers, planning and safety staff.

Development challenges require ongoing collaboration between the public sector, industry and civil society. Together we can, and are, creating positive change. ■

About ExxonMobil in Papua New Guinea

ExxonMobil has been in Papua New Guinea since the 1920s. It currently has interests in fuels marketing, and oil production and is responsible for constructing the $19 billion PNG LNG Project. The PNG LNG Project is an integrated development that includes gas production and processing facilities, onshore and offshore pipelines, and liquefaction facilities.

FIGHTING EBOLA

How **Sierra Rutile**, a mid-cap mining company, is coping with a national health crisis in Sierra Leone

BY

John Bonoh Sisay
CEO, Sierra Rutile Limited

© Sierra Rutile

Cutting-edge business solution: Developing a rapid crisis response through simple but effective steps, including collaboration with the community and other businesses.

A decade on from a protracted civil war, Sierra Leone's economy had been growing impressively, recording double digit GDP growth in 2012 and 2013. But the rapid spread of Ebola in West Africa since early 2014 has added a completely new and dynamic business risk – and it could cost the region more than $30 billion by 2015.

As one of Sierra Leone's largest employers, responsible for the direct and indirect employment of nearly 2,000 people, Sierra Rutile (a leading producer of mineral sands) quickly recognized Ebola's potential for business disruption.

What was immediately apparent was the need to keep our workforce safe. Our initial strategy was very simple and had three main elements:

1. **Awareness building**
   Regularly providing staff with information about Ebola so they can recognize the disease and protect themselves;
2. **Screening**
   Checking the temperature of all employees and visitors to the mine site to keep potentially infected people out; and
3. **Improved hygiene**
   Providing increased facilities for hand washing.

We also had to think beyond the mine. Mining operations of companies such as Sierra Rutile are based in remote rural areas and are closely linked with local communities. Around 60% of our workforce is from and/or lives in surrounding villages and we use many local suppliers and contractors. This tight interdependence between the company and the community meant our approach to managing Ebola had to extend beyond the mine itself and into the communities.

Working with traditional local rulers and community representatives such as Paramount Chiefs, women's groups, youth groups, district councils, and local parliamentarians, we initiated a daily house-to-house temperature-screening program targeting an estimated 11,000 people. We also collaborated with the local security forces to set up screening check points, supplying them with thermometers and chlorine. Equally important has been to circulate accurate and accessible information from Sierra Leone's Ministry of Health, the World Health Organization, and the US Centers for Disease Control.

Perhaps the most visible sign of our response is the newly constructed quarantine and isolation unit in the grounds of our health clinic. Ebola's disproportionate impact on health workers has been well documented and dedicated training for them, as well as protective equipment and clothing, has been a crucially important investment.

A successful response to Ebola is critical for national economic growth. The GDP of Sierra Leone, which had been projected to grow by over 11% in 2014, has since been revised down to 4%. While the facts do not support the fear, the stigmatization of Ebola-affected countries has manifested itself in suspended flights, visa bans, an "Ebola tax" (freight surcharge) being added to transportation costs, and misinformation, making travel in and out of the country difficult. This has hurt the Ebola response, as well as the Sierra Leonean business community, and has generated anxiety among international investors.

Notwithstanding these challenges, we have managed to keep our operations going with minimal disruption. Nearly one year on, our workforce remains Ebola free. Sierra Rutile's Ebola response has been pivotal in maintaining a robust operational performance. We have sustained improvements in cost efficiency and completed on budget the upgrade of our mineral separation plant. We have also continued with our expansion projects and have maintained a strong balance sheet.

In terms of rebuilding investor confidence in Sierra Leone, our participation in the Ebola Private Sector Mobilization Group, an 80-strong business group set up by ArcelorMittal to facilitate a coordinated response to Ebola in West Africa, has been critical. This group lobbies governments, contributes to the humanitarian response, and liaises internationally on issues such as insurance, flights, and shipping restrictions.

Ebola will inevitably test our resolve, as a company, and also that of the country. What our experience clearly shows us, though, is that to come through to the other side of this, we must face such tests head on, including engaging widely with the local community and the rest of the private sector. ■

A SPIRITUAL PERSPECTIVE

The **International Interfaith Investment Group (3iG)** on how the Church is engaging (and actually investing) in extractives

INTERVIEW WITH

Revered Seamus P. Finn
Executive Committee, 3iG,
Director of Faith-Based Investing,
Oblate International Pastoral (OIP) Investment Trust

When both the Vatican and the Church of England hold "days of reflection" on mining, the equivalent of a tectonic shift has occurred. While this marriage of religion and industry may be surprising, it is not new. Indeed faith-based groups have been not only engaging but actually investing in the extractive sectors. One of those groups describes the rationale, and what impact it is hoping to achieve by driving engagement through investment.

Why should the church care about extractives? And why your group in particular?

Extraction of natural resources has been part of human development for thousands of years. People have always looked to the faith traditions for some kind of guiding principles. And the church is keenly interested in the impact of extractive sectors, notably how people's lives are affected.

There is also a fairly large coterie of faith-based investors who own and manage funds and endowments. They want to manage the money in a way that is consistent with their beliefs and teachings. For example: Are they transparent? Are they honest? Do they pay their workers fairly? Are they concerned about human rights and the environment?

Why social justice through investment?

The social justice and investment worlds often do not interact. There is typically not much nuance in a social justice campaign, where clear slogans such as "no mining!" are needed. This may be right for a certain community. But it does not work in every circumstance.

Why is it worth investing in extractives, when some have chosen to opt out?

It is a balancing act. If you take fossil fuels off the table, it significantly narrows down the investment universe. For example, this smartphone I am holding has over 60 minerals in it, and mining contributes in some way to over 40% of economic activity. Nobody is perfect, and we believe through engagement, you can change some minds.

Cutting-edge business solution: Advancing social justice in the extractive industries through carefully weighed investment choices.

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What is your view on the Development Partner Framework (DPF), initiated by the Kellogg Innovation Network and Anglo American? Is it different? Will it have traction?

We have always argued for a multi-stakeholder engagement process. What I like about the DPF is that it is inclusive. The industry is willing to come to the table, then invite in academics (Kellogg) and NGOs, and create a safe space where we could discuss some of the prickly issues challenging the industry. The DPF offers a practical and objective sustainability framework that companies can pursue.

The industry seems to be at an inflection point, how can it come through it and be successful?

The industry does not have an unlimited horizon. Customers will start looking for alternatives. If companies cannot guarantee a conflict- and child labor-free supply chain, then customers will vote with their feet. With the right leadership though, the industry can change.

How can extractive companies have a "moral compass" to drive this new agenda forward?

There are parallels with our conversations with pharmaceutical companies about reaching the underserved. And about ethical conduct of banks in the financial crisis. The extractive sectors are a little different, in that they involve common resources. But we can offer moral guidance, for example encouraging companies to consider indigenous traditions looking seven generations ahead – at least 100 years – about the choices they make today. This goes beyond a life or mine and mine closure policy and includes restoring the land.

Is there a way to secure societal fairness? Is it always a dynamic or is there a sweet spot?

Every sovereign territory in which a mining company operates is different, so it is a dynamic. Companies have had mixed success with local development projects. Some companies are seriously looking at equity stakes for local communities, which can be challenging for federal governments that hold the land and sign the exploration contract. In this way, they can give communities vehicles through which to exercise responsibility and push them to determine who are their best leaders and who will manage the investment for shared community benefit. This is a big step forward from giving money to central governments and hoping for fair disbursement.

What one piece of advice would you give to extractive companies that are trying to stay ahead and thrive?

My advice would be to engage communities proactively and very early on in the process. When companies know from satellite technology they want a plot of land, prior to bidding, that is when some engagement with the local communities needs to start. This includes close oversight over subcontractors who might do the initial drilling – and who leave the first impression on a community. ■

About the OIP Trust and IFC

The OIP Trust is a co-investor with IFC and the ADB in 8 Miles Fund, a pan-African private equity fund founded by Bob Geldof and focused exclusively on investing in Africa.

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ENVIRONMENT & ENGINEERING

a powerful marriage

How **Peru LNG** is addressing biodiversity challenges through monitoring, restorations and innovative partnerships

INTERVIEW WITH

Scott Rolseth
*General Manager, Hunt LNG Operating Company, **Peru LNG***

BY

Raymi Craig Beltran
*Senior Environmental Specialist, Oil, Gas, and Mining Group, **IFC***

Ask any climate scientist and they will tell you: biodiversity matters! Ecosystem protection has also become a core concern for extractive companies – and not just because of concerns over global warming. Local communities quickly pass judgment on whether they believe a company is doing enough, a judgment that can make or break a company's reputation. As this interview highlights, it is critical for oil, gas, and mining companies to develop proactive strategies for ecosystem preservation and restoration.

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Cutting-edge business solution:
Starting early, seeking objective, real-time feedback, and engaging all levels of the company as well as contractors – in a way everybody understands.

↖ "Since the beginning of the project, we are systematically monitoring indicator species of flora and fauna to ensure their environmental preservation, tapping into our knowledge and resources on biodiversity conservation."

RAYMI CRAIG BELTRAN: Many companies think of biodiversity as an expense. Why is it a good investment?

SCOTT ROLSETH: We have spent a significant amount of time and money to avoid sensitive environmental, social, and archeological issues – roughly a quarter of our environmental budget goes toward protecting and monitoring biodiversity. But, that way, we have directly benefited by avoiding impacts and potential conflicts with communities that would cost us more money or even block the project. In addition, biodiversity also means opportunity: to do things well, to create net positive value, and to demonstrate that conservation and development are interchangeable.

Have you received any pressure from civil society to address biodiversity issues?

Our project is in the Andes rather than the rainforest, so it did not attract much attention from government, NGOs and other stakeholders. However, the Andes represent a diverse, rich, and fragile environment that needs protection. It is a remote location where people rely on the land to survive, so any impact on biodiversity can have a major effect on their lives.

What kind of mitigation efforts have you pursued?

We began by selecting routes for the pipeline that minimize environmental disruption. Then we sought to mitigate our impact during the construction phase, before moving on to restoration. Where we are not able to establish 100% native conditions, we offset our impacts with improvements in other areas. And we use "adaptive management feedback" (including walking every foot of the pipeline to give us the information we need) to modify our plans in real time.

What kind of results has that delivered?

One specific example is the Pati tree (Eriotheca sp.), an endangered species we encountered during pipeline construction. We brought in specialists to learn what we can do to help this endemic species proliferate. This is outside our core expertise, but we can tap into our knowledge and resources for conservation projects – which is exciting.

How do you ensure your biodiversity program is implemented fully?

We have an Integrated Management System (IMS) which includes our Sustainability Policy, the Environmental Impact assessment process, and a series of business and management practices. But we work with thousands of contractors and subcontractors, so it is critical that our plans are communicated in a way everybody understands. We create a recipe that is very specific when it comes to digging a trench or what to do if you come into contact with a tree. Then we incorporate that into the contract so the contractor has to not just build the project on time and to budget – but also meet biodiversity requirements.

Are international standards on biodiversity helpful to you and if yes, how?

Our approach followed the guidelines of the global oil and gas industry association for environmental and social issues (IPIECA) on how to set a Biodiversity Action Plan (BAP). This involved utilizing a phased approach beginning during project planning, continuing through assessment, construction, and now operations. The BAP evolved through an adaptive management approach and is aligned with IFC's Performance Standards and industry Best Practices.

How important are partnerships like your collaboration with the Smithsonian Conservation Biology Institute?

A broad base of experts participates in this program, giving us real-time feedback. Our partnership approach – working with third party institutions like the Smithsonian – provides transparency and gives us the confidence that we're getting objective feedback.

What makes your efforts unique and innovative?

We created a model through which environmental and social specialists work hand in hand with project engineers and construction staff to make sure all environmental standards are met and that a mitigation hierarchy is adopted. This model comes with tough challenges:

- **TRANSLATION**
  Making sure engineers and biologists speak the same language;
- **ALIGNMENT**
  Matching timeframes, deadlines, and deliverables (i.e. monitoring reports with business timeframes); and
- **SPREADING THE WORD**
  Adequately communicating the findings of the monitoring to locals.

Tens of thousands of people come together to construct this megaproject and our ability to make biodiversity a priority for them is key to our success. How you define and reward success in a contract is key.

What advice would you give to other extractives companies addressing similar environmental/biodiversity challenges?

The earlier, the better. This gives you a business advantage when operating in complex environments like ours (our projects span four macro regions, 14 ecological landscape units, 13 rivers and a wide range of areas from 0 to over 4,700 meters above sea level). Biodiversity monitoring from the outset is key to obtaining data in a timely manner to feed decision making.

Having support from senior leadership within the company also promotes a proactive approach. That sounds easy, but when you are talking about major projects like this one, there are many stops and starts, so it is easy to drop biodiversity off the priority list. To be successful, you must maintain awareness across the different ranks of the company and make sure biodiversity considerations are embedded in every aspect of the business. ■

About Peru LNG and IFC

IFC provided a $300 million loan to PLNG in 2008. Since then, PLNG and IFC have jointly implemented several advisory programs: (a) to strengthen SMEs that provide goods and services to PLNG through trainings, (b) to increase the ability of municipalities to better manage revenues received from PLNG's project and benefit local communities, and (c) to provide local stakeholders with an opportunity to evaluate PLNG's environmental and social performance.

THE ROAD TO CLEANER POWER

How **Total**, a leading oil and gas company, is making climate solutions a core business

Cutting-edge business solution:
Positioning the company for the future through diversification into gas and solar and by establishing strong global partnerships.

INTERVIEW WITH

Jérôme Schmitt
Senior Vice President,
Sustainable Development & Environment, ***Total***

Some argue extractive companies are dinosaurs that will soon become extinct because climate change will force them out of business. This view clearly misses some important nuances. Oil, gas, and coal are likely to remain critical energy sources for years to come. Plus, a growing number of extractive companies are radically transforming their businesses so that they can not only survive but thrive in the coming decades. Total is one such company.

Can an oil company have a credible voice in climate change debates?

Some say oil companies are the problem, but we know from our experience that we can be a central part of the solution – and our executive team is committed to this. Being a major means we have the global understanding and the technological expertise needed to develop solutions that not only mitigate climate change but that also make economic sense.

How important are Total's investments into climate efficient sources of energy?

Supporting the direction of the energy transition is a clear focus. Natural gas – which emits half as much carbon as coal when used for power generation – now accounts for half our production, compared to a third a decade ago. So we are as much a gas company as an oil company.

We are also making major solar investments, in countries from South Africa to Chile. In 2011, we became the majority shareholder of SunPower, a leading solar company based in the USA which develops technology, builds facilities, and operates high-tech solar projects. Beyond this significant solar positioning, a quarter of our $1 billion plus annual R&D budget is earmarked for clean tech, including carbon capture and storage.

What is Total doing to reduce its carbon footprint?

In 2008, we set a public objective to reduce greenhouse gas emissions by 15% by 2015. We are ahead of schedule, achieving a 20% reduction last year.

Between 2005 and 2013, we cut routine gas flaring – a significant source of greenhouse gas emissions – by 40%, with a goal of eliminating it by 2030. At the same time, we are increasing energy efficiency in our facilities.

"The gas flared every year equates to more than Africa's annual electricity consumption. The World Bank is working with governments, oil companies, and development partners to stop wasting this gas and put it to productive use. Total has been an exemplary ally in this effort from the very start."

Anita George
Senior Director, Energy & Extractives Global Practice, World Bank Group

Do you consider the emissions generated outside your operations?

Absolutely. To put it into perspective, while we emit 50 million tons of carbon a year, emissions related to the use of our products amount to 500 million tons. So we have developed a special label to highlight products such as lubricants and fuels that are more efficient than the market average. We are also invested in consumer education, which is critical, so we're running information campaigns in retail stations, helping consumers learn how driving practices can promote fuel efficiency.

We partner with innovators such as car-sharing start-ups OuiCar and BlaBlaCar in France. We are also involved in the BioTfueL, an important R&D project, which is seeking to convert biomass, such as straw, forest waste, and dedicated energy crops, into biofuels.

Is the company collaborating with others in climate initiatives?

Recognizing that we cannot solve climate change alone, Total's ambition is to promote change throughout the industry. We are part of three major global initiatives: we support the United Nations Global Compact's call for companies to factor an internal carbon price into investment decisions; we were the first company to sign up to the World Bank's planned Zero Routine Flaring by 2030 Initiative; and we are joining the Climate and Clean Air Coalition, which works to measure, manage, and mitigate methane emissions.

We are also a founding member of the Oil & Gas Climate Initiative, working with Saudi Aramco, Pemex, ENI, BG Group, and Sinopec to share industry best practices, advance technological solutions and catalyze meaningful action and coordination on climate change.

This may sound counterintuitive, but would a carbon tax be good for your business?

Actually, given our strategy on climate change, it is not contradictory. Since 2008, we have factored a long-term carbon price of €25 per ton into all investment decisions. We have long supported a price for carbon, as long as whatever instrument is used – whether carbon trading or a tax – is global, progressive and non-distortive. We believe that for the industry to be an effective contributor to the climate change solution, global, simple, and stable regulatory clarity is essential.

Do you worry about the possibility of stranded assets?

We do not see a "carbon bubble." The energy sector has to contribute to the fight against climate change, while meeting increased energy demand. The International Energy Agency expects fossil fuels to meet 75% of this demand in 20 years from now. Even in its 2°C scenario, oil consumption in 2035 will be close to today's, with gas consumption around 20% higher while existing oil and gas production capacity will have dropped by about 50% due to the natural fields decline. So we need new oil and gas production capacity. Markets understand this and are rationally pricing future risks.

As an oil and gas company, what is unique about Total's approach to climate change?

Firstly, CSR, and by extension climate change, is fully integrated into our business strategy. When we develop our upstream projects we fully integrate this dimension, looking for shared value. We have developed one of the world's largest access-to-energy programs, designed to deliver affordable, replicable energy solutions to 50 million people in the next decade. We also work more and more with global institutions and associations to optimize the benefits of our programs. This cooperation is necessary. The world is changing and we are changing with it. ▪

FULL CIRCLE

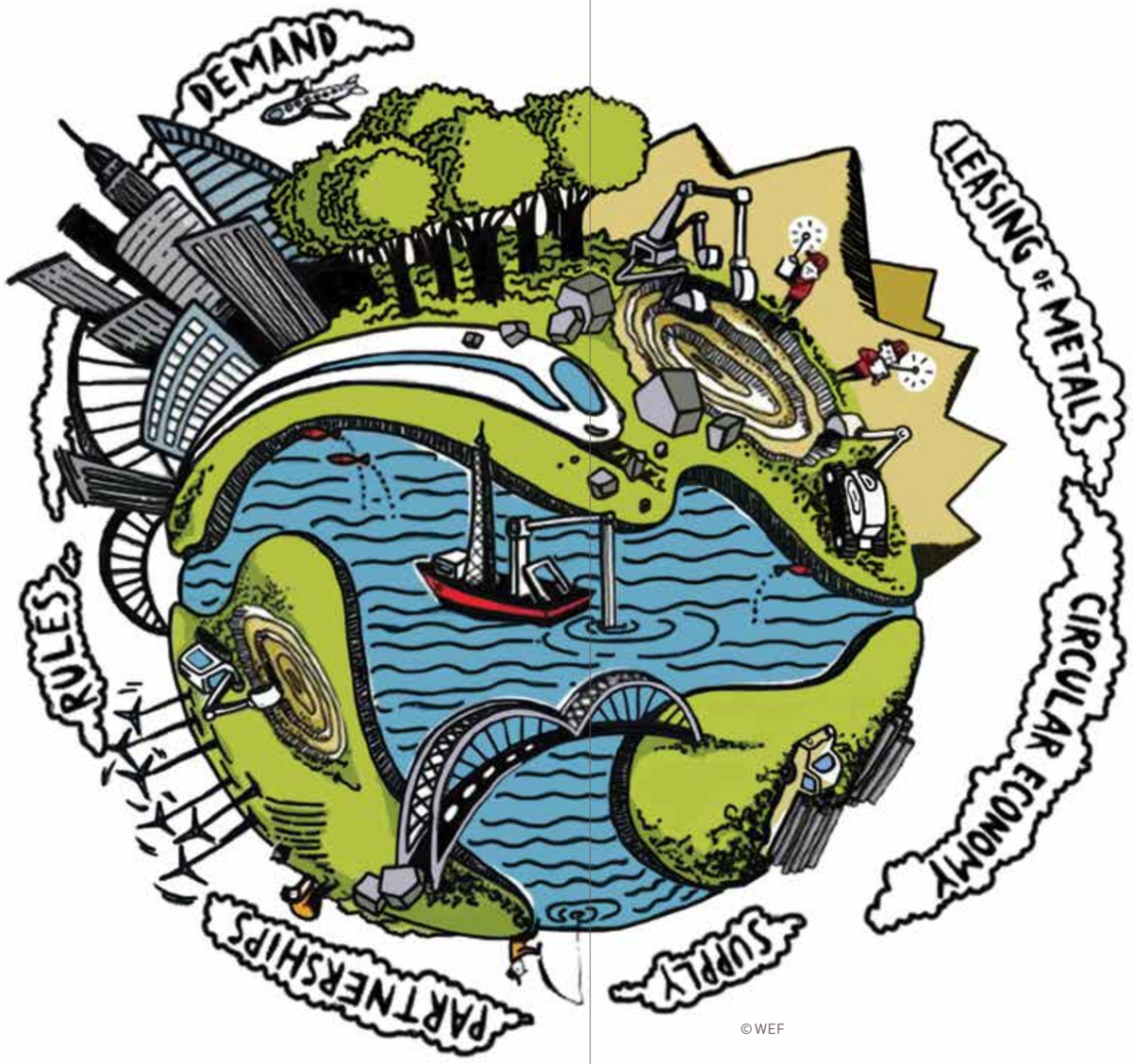
The **World Economic Forum** on why mining and metals companies need to reduce, reuse, and recycle

BY

Gillian Davidson
Director, Head of Mining & Metals, World Economic Forum

As we push our planetary boundaries to the limit, and resources become scarce, it is essential for businesses to shift to more self-sustaining means of production.

Customers and suppliers increasingly expect mining and metals companies to align their strategies and operations with an emerging "circular economy" in which products or parts are repaired, reused, returned, and recycled rather than simply discarded.



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Against this backdrop, the World Economic Forum launched Mining and Metals in a Sustainable World 2050, a multi-year initiative to explore how the sector can be a leader on sustainability. What is clear already from this work is that mining and metals companies can take a number of important steps to promote circular business models:

Cutting-edge business solution: Providing a clear roadmap through which the extractive sectors can promote a self-sustaining, circular economy, making full use of all products and parts.

- **REDUCE** Limit the use of virgin raw materials and more closely align supply with demand; improve efficiency of resource exploitation (the yield rate) by mechanization, automation and optimization; enhance the recovery rate of mineral processing and smelting; limit pollutant emissions such as tailings, gangue, and mine wastewater; and develop applications for lower grade ore;

- **REUSE** Extend the longevity of a resource, material, product, or service by anticipating and planning for future applications; install cyclic wastewater, waste, and tailings systems in mining operations, and improve mineral processing technology; maximize the use of waste and byproducts; collaborate downstream to design adaptable and easy-to-repair products; use of marking materials and alloys to aid identification at end-of-life and accelerate subsequent resource application; and

- **RECYCLE** Reduce waste by processing resources and metal products so that they become newly available resources; treat waste water before discharge; develop processing capabilities to accommodate higher rates of scrap.

To make this happen, mining and metals companies will need to address three key areas: develop a workforce with the right set of skills and capabilities (particularly for lifecycle assessments); be more actively involved in scrap markets; and focus on customer and consumer relationships.

The scale of the journey required by the industry is substantial. As such, our initial attention has focused on the challenge of reducing extraction of virgin resources, while meeting the demands of a global population expected to grow to 9 billion by 2030, including 3 billion new middle-class consumers. Addressing this conundrum is critical for the sector. But we have yet to engage deeply in this conversation.

The global shift towards a more "closed loop" economy is one that needs to be embraced by the mining and metals sector. The industry can be shaped by this change – or it can choose to shape the change.

Opportunities exist across the value chain from waste and tailings restatement and scrap treatment to recycling, redesign, and development and new ownership models such as leasing. Developing a clearer understanding of the opportunities and the key disruptors that enable them is essential. In particular, technology and innovation around treatment and design is critical but so is the role of regulation and the emergence of bold new business and ownership models.

Despite the near-term challenges for the mining and metals sector, including the commodities downturn, now is a time to a find a voice in these critical debates and to seek opportunities across the value chain to close the loop. ■

INVESTOR PRESSURE

Why the **Rockefeller Brothers Fund**, a foundation built upon oil, is divesting from fossil fuels, and its potential impacts

INTERVIEW WITH

Stephen Heintz
*President, **Rockefeller Brothers Fund***

Rockefeller and oil go together like Starbucks and coffee. So it took most people by surprise when the Rockefeller Brothers Fund (RBF) announced recently that it would divest from fossil fuels and invest in cleaner alternatives.

Can you explain what led to your decision to divest from fossil fuels?

Combatting climate change with grant dollars alone is no longer sufficient. Since 2010, the RBF has been working to invest a portion of our endowment (10%) in companies that are advancing sustainable practices and clean energy technologies. During Climate Week in September 2014, we announced that the RBF has launched a two-step process of fossil fuel divestment.

Can you describe how you are divesting?

Our first step was to exit from investments in coal and tar sands oil, two of the most carbon-intensive fossil fuels. The second step of our process has been to undertake a detailed analysis of our remaining fossil fuel exposure (oil and gas) and to develop a plan for further divestment.

We are working to balance our deep concern over fossil fuels with the Fund's longstanding mandate that our assets be invested with the goal of achieving financial returns that will maintain the purchasing power of our endowment, so that future generations will also benefit from the foundation's charitable giving.

Do you think other investors will follow your lead?

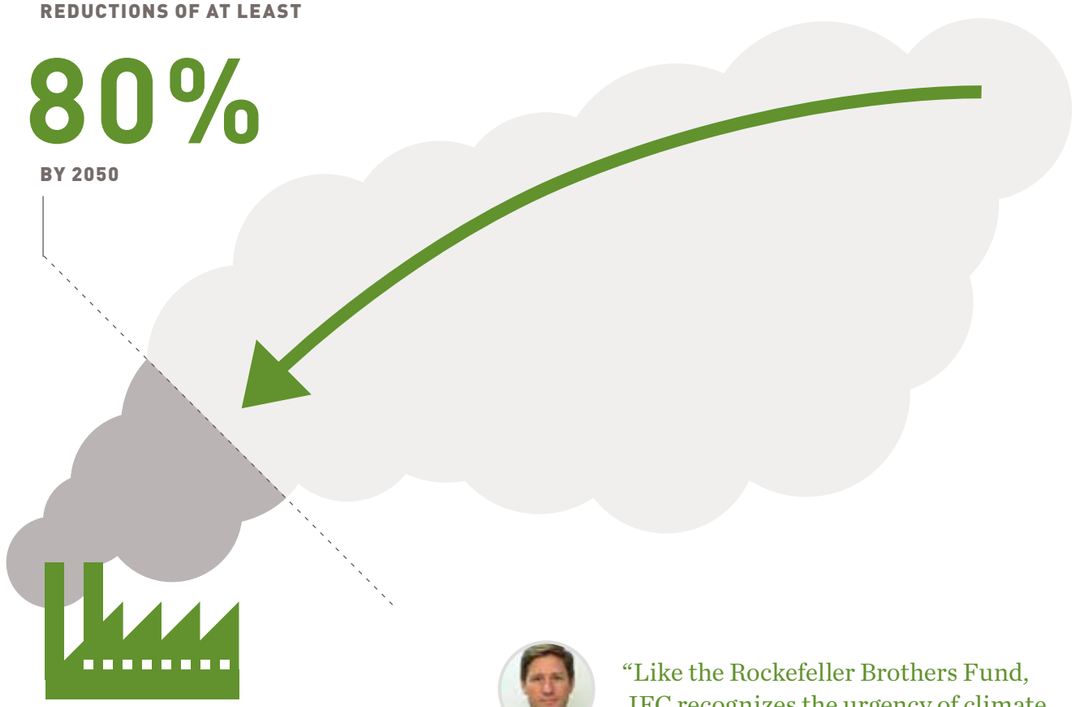
Yes, we are very confident others will join this effort. Globally, we need greenhouse gas emissions reductions of at least 80% by 2050. We can only get there by leaving the bulk of coal, oil, and gas in the ground and by transitioning to clean energy without delay. Yet, the stock price of a fossil fuel company is linked to its reserves. These are stranded and unburnable assets whose economic value is diminished – a reality that investors now understand and are starting to consider in their investment decisions.

Clear evidence of the increasing number of investors recognizing the urgency of this issue and acting on it can be seen in the growing numbers of institutions and individuals who have signed onto the Divest/Invest Philanthropy pledge.

How do you think this pressure from investors will affect extractive companies?

The pressure from this movement of investors is, we feel, adding weight to the critical conversation about policy – national, international, and corporate – on addressing climate change with an urgency that is proportionate to the challenge. Capital market and regulatory conditions are uniquely material to the viability of extractive businesses. Investor pressure on companies is a part of a larger discussion that will increasingly influence commodity prices, the cost of capital, and global regulatory agendas, which will have an impact on the operations of these companies.

By putting our money where our mouth is, we have been part of an effort that has taken the question of stranded assets from a hypothesis of activists to a mainstream consideration within capital markets and even central banks (see for example recent Bank of England statement).



"Like the Rockefeller Brothers Fund, IFC recognizes the urgency of climate change and is a major investor in alternative energy sources such as solar and wind. At the same time, since fossil fuels are essential drivers of economic activity, we support sustainable investment in oil, gas, and mining – by promoting environmental preservation, maximizing societal benefits, and ensuring good governance of revenues."

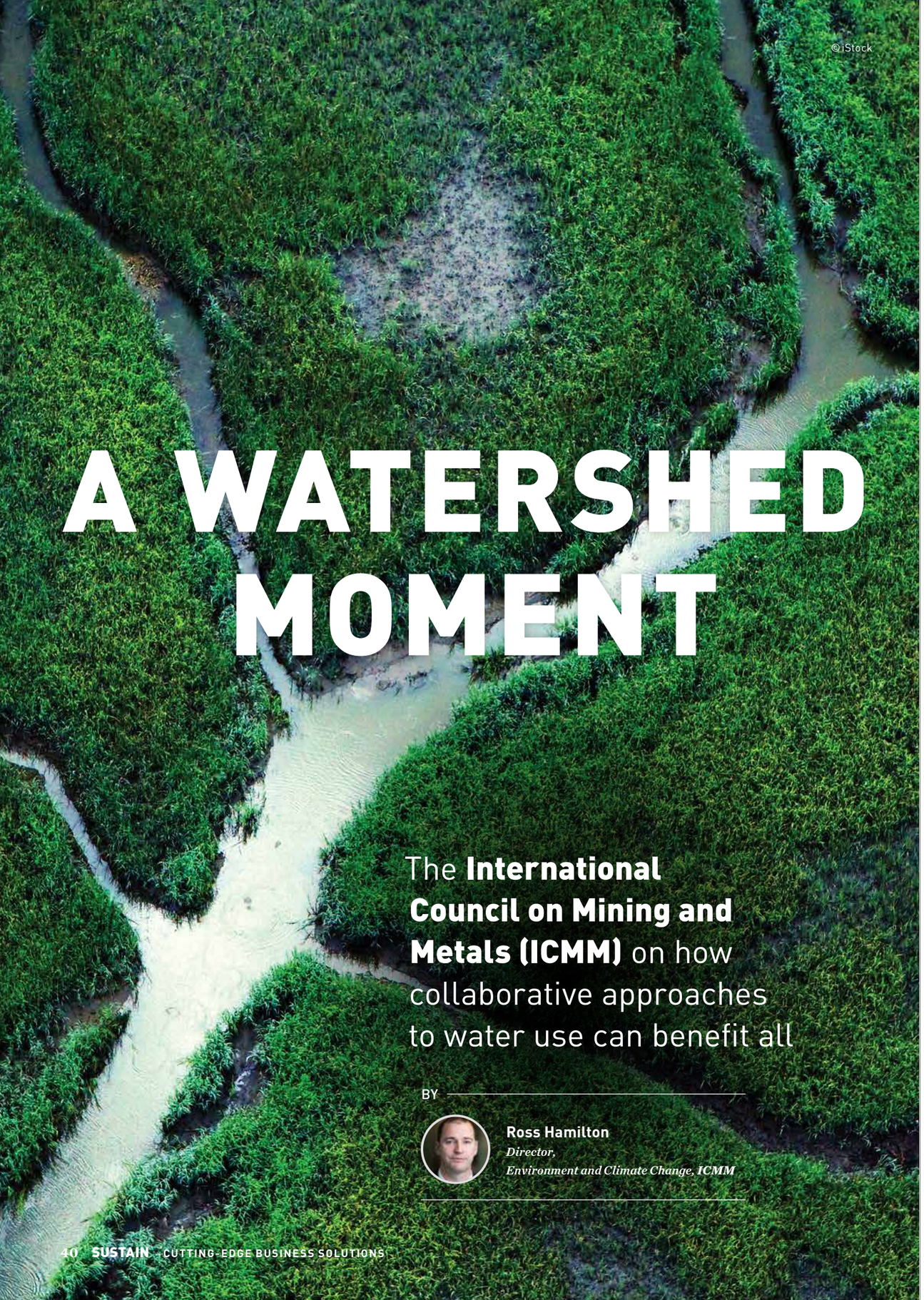
Lance Crist
Global Industry Head, Extractive Industries
IFC

What specific changes can extractive companies reasonably make to address climate change and continue to attract investors?

Concretely, companies can look at how to be good stewards of shareholder capital and commit to a candid assessment of how to best use their resources. Borrowing to invest in long-term risky projects that require $140 per barrel of oil to break even is difficult to justify. Responsive companies will focus on returning capital to shareholders instead and migrate from a growth-at-all-costs (regardless of future profits) mindset. Extractive companies can begin to redeploy CAPEX from searching for more reserves to diversifying their businesses by investing more aggressively in renewable energy.

Looking into the future, how do you think your energy investment portfolio will evolve?

The window of opportunity to avoid catastrophic climate change narrows with each day. Clean energy technologies and other business strategies that advance energy efficiency, decrease dependence on fossil fuels, and mitigate the effects of climate change are the way forward. Our investments in these sectors will continue to grow as more and more economically attractive opportunities open up. ■



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A WATERSHED MOMENT

The **International Council on Mining and Metals (ICMM)** on how collaborative approaches to water use can benefit all

BY

Ross Hamilton
Director,
Environment and Climate Change, ICMM

Cutting-edge business solution: Creating a holistic approach to water stewardship that takes into consideration the needs of all users drawing on the same water source.

Water is fundamental to life. It has tremendous social, ecological, and economic value. It is also a critical resource for mining and metals operations, which typically require a secure, good quality supply of water for several decades.

Historically, the industry has thought about water use as an operational issue – largely managed from "inside the fence" with a focus on efficiency and control over effluent discharges to demonstrate good practice and minimize risk. But this approach to water management has had to shift, as the industry has learned first-hand that inadequate consideration of other water users can result in costly delays to projects, cancellation of licences, community conflicts, and reputational damage.

ICMM has developed a Water Stewardship Framework designed to promote a common understanding of key water challenges in the industry and how they can be addressed. Central to this framework is a "catchment-based" approach to water management – one that considers the needs, concerns and priorities of other water users including local communities across the entire river basin. The framework promotes transparency and accountability as well as inclusive engagement.

Effective water management demands collective action underpinned by mutual understanding of local water issues. That means appreciating the impact of water use on all the communities and interests within a water catchment area so that the risks can be mitigated. This can only be achieved through ongoing and inclusive engagement, collaboration, and by partnering with others.

The concept may sound simple. The challenge is to deliver it in practice – but we already have examples of successful shared-use approaches to water stewardship.

In South Africa, for example, the eMalahleni water reclamation plant is a project jointly undertaken by Anglo American Thermal Coal, BHP Billiton Energy Coal South Africa (BECSA) and the eMalahleni Local Municipality. The desalinization plant treats 30 million litres of water recycled from mining operations each day. Over half of the clean water is piped directly to the eMalahleni local municipality reservoirs. The rest is sent to Anglo American and BHP Billiton operations, which are now self-sufficient in terms of their water requirements. This broad collaboration has resulted in a triple win: securing access to water for mining, delivering as much as 12% of the community's potable water and strengthening the municipality's capacity to provide services. We have seen other similarly successful catchment-based approaches at the Escondida mine in Chile and in Cerro Verde, Peru.

To accelerate these kinds of catchment-based, collaborative water management practices, ICMM has been working closely with its members, external experts, and even other sectors, to develop practical guidance on water stewardship. We plan to soon publish this guidance, which we consider a fundamental step towards mining and metals companies becoming effective stewards of the shared and precious resource that water is. ■

About ICMM

The International Council on Mining and Metals (ICMM) was founded in 2001 to improve sustainable development performance in the mining and metals industry. Today, it brings together 21 mining and metals companies as well as 35 national and regional mining associations and global commodity associations to address core sustainable development challenges. For further details, go to **www.icmm.com** and **www.icmm/water.**

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TRUST IN DISCLOSURE

Tullow Oil on the business – and development – case for transparency

BY

Simon Thompson
Chairman, Tullow Oil

Tullow is Africa's leading independent oil company. It is currently active in 22 countries globally, including 13 in Africa. Over the past eight years it has discovered four new oil basins in Africa: in Uganda (2006), Ghana (2007 and 2010) and, most recently, in Kenya (2012).

These discoveries offer significant business and development opportunities, which can only be unlocked through transparent and open partnerships with stakeholders.

TULLOW'S NEW OIL ASSETS IN AFRICA

Value beyond compliance

In 2012, in the context of the increasing international debate about the management of resource revenues, we took the decision to voluntarily publish the payments that we make to governments. In 2013, we expanded our disclosure to show payments on a project-by-project basis, in accordance with our understanding at that time of the proposed EU Accounting and Transparency Directives. While we were not the first company in the extractive industry to disclose payments, Tullow was first major private sector oil company to voluntarily disclose this level of detail. Our corporate responsibility report, Creating Shared Prosperity, also goes beyond the requirements of the EU Directives by reporting other payments to government, such as VAT and payroll taxes.

Our corporate responsibility report, Creating Shared Prosperity, also goes beyond the requirements of the EU Directives by reporting other payments to government, such as VAT and payroll taxes.

Why did we take these steps? Firstly, because of our core values as a responsible business, but also because it makes business sense. We are proud of the economic contribution that we make across Africa and it is clear that disclosure builds trust – with central and local government and also in the communities where we work. Transparency also builds investor confidence, which is vital if Africa is to compete successfully with the oil shale industry in the USA.

Partnering for development

The development of projects in frontier regions like Africa demands the creation of a network of partnerships and working relationships – with government, regulators, civil society, and communities – to manage the often complex social, cultural, environmental, and economic impacts of the industry. Such partnerships will only succeed if they are built on mutual understanding and respect. Transparency on the economic contribution of oil helps demystify the industry, build trust among stakeholders and creates a strong foundation for shared prosperity.

Oil is not a renewable resource, but it can be an extraordinary source of wealth creation. Transparency is a vital first step in helping countries use the window of opportunity created by the discovery of oil to use the wealth it generates to drive inclusive and sustainable economic growth. However, this is just the first step. The real challenge is to enable citizens to track how resource revenues are being converted into investments that make a difference.

"Tullow has provided industry leadership by walking the talk on transparency. This is critically important in frontier markets."

Jonas Moberg
Head of EITI

Our experience in Ghana

Like many emerging countries, Ghana faces numerous challenges. However, its approach to revenue transparency since Tullow produced first oil in 2010 has been exemplary. Ghana applied to join the Extractive Industries Transparency Initiative (EITI) in 2003 and became fully compliant in 2010. With the government's approval, Tullow published details of its Production Agreements in 2009 and an independently-appointed Public Interest & Accountability Committee reports twice yearly on how petroleum revenues are being managed. Ghana also provides comprehensive reporting to the EITI. While the EITI is not a panacea, it does provide a consistent set of rules and a mechanism for checking payments declared against receipts, as well as being a forum where government, business and civil society can build mutual understanding and resolve differences. ■

About Tullow and IFC

Tullow has been an IFC client since 2009 when IFC helped anchor the company's funding for its landmark Jubilee project in Ghana with a $115 million investment. IFC subsequently increased its financing to $165 million and is working with Tullow to support a number of its projects across Africa, including major developments in Uganda and Kenya.

Cutting-edge business solution:
Going beyond compliance in disclosure of payments to generate stakeholder trust and investor confidence and to drive development.

EITI Extractive Industries Transparency Initiative

A Trillion-Dollar Coalition for Openness

For just over a decade, a global partnership of governments, companies, and civil society has been working together to improve openness and accountability in the management of natural resource revenues. The EITI partnership began as a set of principles, that have since evolved into THE global benchmark in natural resource revenue transparency.

The EITI crucially established a standard for transparency in the governance of a country's oil, gas, and mining resources. The standard covers issues such as contracts, licenses, and the tax regime governing the sector. It requires separate reporting from governments on revenues received and from companies on the payments made.

National implementation is key. An independent administrator – usually an accounting firm – reconciles these figures under the guidance of a multi-stakeholder committee with representatives from government, industry, and civil society. Information on the sector and its impact on the economy are widely published. In addition, the World Bank is advising countries on how to comply with the transparency standard. "Ensuring countries implement EITI is critical for embedding openness in an often opaque industry," says Paulo de Sa, World Bank Group Practice Manager, Energy and Extractives.

The footprint of EITI is considerable. The 48-member countries have collectively reported over $1.3 trillion in payments by oil, gas, and mining companies. The EITI is supported by 90 of the world's largest oil gas, and mining companies and by institutional investors with more than $19 trillion of funds under management.

IFC International Finance Corporation WORLD BANK GROUP

Requiring Transparency

Recognizing the critical importance of transparency in natural resource projects, as well as our capacity to influence company and government behavior, we have strict disclosure requirements for our investments in extractives. Under the IFC Sustainability Framework, clients must publicly disclose their material project payments to the host government (such as royalties, taxes, and profit sharing).

We also require that the principal contract with government, which sets out the key terms and conditions under which a resource will be exploited, be made public. In lieu of contract disclosure, IFC may accept the publication by the client of a summary of the key terms and conditions under which the resource is being developed (including the life of the contract; any material payments due to government made under it; other material fiscal terms and conditions; and a summary of any significant stabilization clauses).

SHARING THE INFRASTRUCTURE OPPORTUNITY

Aurizon, on delivering mixed-use infrastructure, from Australia to Africa

INTERVIEW WITH

Stephen Baines
*Advisor to the Chairman and CEO, **Aurizon***

Steve Mann
*Vice President, Market Development, **Aurizon***

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Oil, gas, iron ore, and other natural resources can go nowhere without the requisite road, rail, and port infrastructure. Equally, infrastructure ambitions do not progress far, or can prove seriously unsustainable, without careful, strategic planning. A critical component of this planning is to optimize infrastructure useage. For a mining company, partnering with other companies that have a shared interest in a road, rail, or port is often essential, not least to ensure costs do not spiral out of control.

Here, Aurizon, which operates one of the world's largest coal rail networks, discusses its experiences of owning and operating shared infrastructure. The company offers astute insights for those seeking to develop new shared infrastructure projects in developing countries.

Why is shared use infrastructure important?

It can allow critical rail and port infrastructure to actually be built. Costs can be spread across stakeholders, including different mining companies, general freight, and the public sector.

Shared infrastructure can relieve the strain on the roads. In developing countries where road infrastructure tends to be of poor quality there are genuine safety and community benefits to moving freight off roads and onto rail.

What are the biggest challenges in delivering shared infrastructure?

Striking the balance in access and operating protocols that deliver optimum performance while meeting individual customer and stakeholder needs. This also requires alignment with regulatory bodies to minimize regulatory costs and administrative burden.

Cutting-edge business solution:
Delivering a complex web of shared rail and port infrastructure at relatively low cost, through a mixture of technologies.

AURIZON'S RAIL NETWORK IN 2014

2,700 KM
IN LENGTH

OVER
200 MILLION TONS
IN CAPACITY

What are your biggest innovations?

In developing and implementing inspection, maintenance and construction techniques which maximize the available capacity. The increasing use of technology is an exciting opportunity for productivity and safety enhancement, for example the use of drones to inspect track infrastructure in remote locations.

What is Aurizon doing that others are not?

First, some historic context: Queensland was one of the first rail networks in the world to adopt narrow gauge technology and it remains one of the largest narrow gauge railway networks in the world. Since narrow gauge railways are usually built with smaller radius curves and smaller gauge structures, they can be a lot cheaper to build, equip, and operate than standard or broad gauge railways, especially in more challenging terrains. They often serve industries and communities where the traffic potential may not justify the cost of building a standard or broad gauge line, in particular those associated with mining.

As a result, Aurizon has especially valuable expertise in developing and operating narrow gauge railways. For instance, Aurizon has entered into a joint venture with GVK Hancock on a proposed integrated rail and port infrastructure project that will service high-volume coal mines in the Galilee Basin. This includes a 300km narrow gauge rail line that would carry trains of up to 25,000 tons.

We also carry freight on standard gauge railtrack, so we have a unique combination of expertise across the different technologies. Moreover, Aurizon owns and operates integrated, bulk supply chains for multiple mining customers. The operational and commercial success of these multi-user supply chains can provide useful insights for those seeking to sustainably establish relatively complex, shared use infrastructure.

How do you translate your experiences in Australia into tackling shared infrastructure needs in Africa?

Aurizon's experience with both narrow and standard gauge technology, in complex bulk supply chains, and in transitions from government to private sector ownership, provides an excellent template for others. New approaches in technology and commercial practices can also be of great value in an African context.

What one piece of advice would you have for developing country governments looking to develop shared infrastructure?

Develop policy that encourages a tier one rail and port developer/operator to invest and hold them to account for providing supply chain planning and coordination. Core priorities for government/s should be to provide a clear policy framework to promote multi-customer infrastructure and to ensure regulatory and tax requirements promote investment and development.

What one piece of advice would you have for mining companies in developing countries looking to benefit from shared infrastructure?

Shared infrastructure can accelerate the development timeframe and reduce the investment burden for mining companies. It involves active engagement to bring the needs of the various parties together into a common user solution with benefits for all. ■

About Aurizon

Aurizon operates some 2,700 kilometres of heavy haul rail network connecting more than 50 mines with three major ports in Queensland, Australia. In 2014, this network delivered a record 214 million tons and a significant investment program that will complete in 2015 will lift capacity to more than 300 million tons per annum.

PRICING THE PROMISE

IFC on how the vast development potential of the Trans-Gabon railroad can finally be realized

BY

Pierre A. Pozzo di Borgo
Principal Investment Officer, IFC

©Antonin Borgeaud, Interlinks

If you build it, they will come. At least that was the idea when in the early 1970s Omar Bongo Ondmiba, Gabon's president, outlined his vision of Gabon becoming an "African Rome" – driven in large part by the construction of a 400-mile railway, the Transgabonais, from the coastal capital Libreville through the country's jungle interior to Franceville.

It hasn't quite turned out that way. While economic growth has been strong in recent years, lifting the country above most of its African peers, Gabon's economic potential is far from realized. The economy remains heavily dependent on oil (which poses significant risk given recent oil price declines), and a third of the population remain in poverty. Moreover, the Transgabonais railway has required subsidies from both the public and private sector over the years, and is still running at less than half capacity.

Oversupply

As a result, Gabon faces the opposite challenge posed by most shared use infrastructure: abundance rather than scarcity. With most shared infrastructure, the central question is how to divide up limited track capacity among users (while keeping it in good condition). In Gabon's case, more than 90% of volume is mining traffic, and one company, Comilog, carries most of that. This company operates its own trains and pays an access fee to SETRAG, a subsidiary of Comilog that has a 30 year concession to operate the railway.

With the Transgabonais being under-utilized, the fees paid by Comilog mining and other users amount to less than what is needed to catch up on decades of deferred renewals and upgrades.

For the railroad to be financially sustainable, a revised pricing structure that involves the mining sector and Gabonese state paying the appropriate share for infrastructure maintenance and renewal costs is essential. This action must be accompanied, however, by a significant lowering of SETRAG operational costs so as to not deter the feasibility of other mining projects in Gabon that will require rail services.

Cutting-edge business solution:
Linking rail access fees directly to track maintenance and upgrade costs, through more precise asset accounting.

Reliable cost data

Consequently, SETRAG's concession contract is the subject of ongoing discussions with the government. A critical aspect will be obtaining reliable data on track maintenance costs through the establishment of relevant business units within SETRAG. This information will be then used to develop a new access fee formula which will be linked directly to the cost of track maintenance and upgrades, excluding what will be in effect a subsidy in the form of government financing of the rehabilitation of the rail platform and bridges.

This new tariff formula should ultimately be based on existing user volume agreements, producing a single ton kilometer access fee that will be applied to any third party user, with the caveat that it will establish a minimum payment for each reserved train slot (that is, the license allowing the holder to run a train on a specific section of track at a specific time). This approach should incentivize smaller mining companies to run joint trains in order to maximize load per slot.

Finally, the rights of any mining company that will participate in the financing of the track should be recognized, not through tariff discounts, but rather through the same rights usually afforded to other debt holders (i.e. commercial repayment of their financing).

In short, the envisioned overhauling the pricing regime for the Transgabonais should enable this majestic railroad, one of the largest in the world, to run at higher capacity and further drive Gabon's growth. ■

About IFC and SETRAG

In October 2013, SETRAG, a Comilog subsidiary whose parent group is ERAMET, mandated IFC as the lead arranger for raising the commercial debt needed for the company's reform/investment plan. The mandate is underway and is expected to be completed before the end of 2015.

Country-in-Focus

GUINEA

A Transformational Opportunity

All photography © Rio Tinto

The $20 billion Simandou project offers Guinea a real opportunity to transform its economy, making a $5.6 billion contribution that will effectively double the country's gross domestic product. The project also has the potential to ensure that the benefits of big mining are widely distributed through shared infrastructure development and capacity building for local businesses.

Hampered by long delays and the Ebola outbreak, few would suggest that making progress on Africa's largest combined iron ore and infrastructure project has been easy. However, once at full production, annual payments to the government are forecast to reach up to $1.5 billion.

"When fully operational, the project has the potential to double the country's current GDP," says Ismael Diakité, Managing Director Guinea at Rio Tinto, one of the partners in the project.

"At full production, the project will provide direct, indirect, and related employment for about 45,000 people," says Dr Yansane Kerfalla, Guinea's Minister of Mining and Geology.

Yet the project is not just a large mining operation producing 100 million tons per annum at full production that can deliver sizeable government revenues and create jobs. It also represents an integrated approach to economic development.

Growth corridor

Crucially, it includes a 650km railway linking southeast Guinea with the coast along what is known as the Southern Growth Corridor; new and upgraded roads and fiber and wireless communications; and a new deepwater port at Morebaya river near Forecariah.

This new infrastructure opens up tremendous opportunities. For example, the port will for the first time allow large cargo ships access to Guinea. This dramatically increases the country's export prospects, reducing transportation costs significantly and increasing trade capacity.

Meanwhile, it is estimated that economic activity of at least $3 billion per year could be generated in the Southern Growth Corridor, along with up to 100,000 jobs in a wide range of sectors. In Guinea's 2013 Poverty Reduction Strategy Paper, the corridor has been identified as a key policy tool in promoting economic growth.

Local supplier development

However, to reap these economic rewards, the government and the private sector need to work closely together to build capabilities among a very broad set of stakeholders. Importantly, this includes local suppliers. "The state is prioritizing maximization of local content among its objectives," says Kerfalla. "SMEs will have access to opportunities and will improve their capacities."

These local suppliers could benefit from providing goods and services during both construction and the operation of the mine.

"That's where we and our partners come in – in trying to prepare Guineans for those opportunities," says Christian Mulamula, IFC Principal Investment Officer, Infrastructure and Natural Resources – Mining.

Part of the task ahead is to help local suppliers meet international mining companies' standards on things such as health and safety and to assist them in making contact with international companies that are looking to become suppliers to the project and may need commercial partners on the ground.

Since 2008, IFC has worked with the project's partners – the Republic of Guinea, Rio Tinto, and Aluminium Corporation of China (Chinalco) – to establish a training platform for small and medium-sized businesses. About 2,000 participants from roughly 500 SMEs have so far benefited.

"We work in partnership with our stakeholders, such as local communities, business leaders, and authorities," explains Diakité. "This collaborative approach helps us increase our understanding of the expectations and also the local capacities."

One critical aspect of the Local Supplier Development Program, in terms of long-term sustainability, is a 'training-of-trainers' program. This program ensures that capacity will endure after the initial project is over.

"That's been really well received," says Stephanie Sines, IFC Operations Officer based in Guinea. "Because when the project kicks off, there will be so much demand, it could create a bottleneck in terms of capacity building. This way, our reach is much broader." ■

PERU

Progress Through Listening

All photography © Minsur S.A.

↖ Helping local governments invest money from mines can lead to great infrastructure development including schools and hospitals.

IN 2013

$10 BILLION

INVESTED IN PERU'S MINING SECTOR

Peru's extractive-industry challenges are far from over. Public memories linger of poor mining practices, billions of dollars in royalties left unspent rather than invested in better infrastructure and unfulfilled promises of jobs and growth. But improved revenue management and concerted efforts by companies to engage local communities have generated valuable lessons about how investments in extractives can be harnessed for inclusive growth.

BY 2020

$60 BILLION

EXPECTED TO BE INVESTED IN PERU'S MINING SECTOR

Take-off growth

Peru's rich mineral deposits – putting it in the world's top five producers of copper (with 13% of the world's reserves), silver (22% of global reserves), tin, and zinc – have powered economic expansion. Over the past five years, real GDP growth has taken off, at an astonishing 7% a year.

"Mining has been the driving force behind Peru's growth in recent years," says Alvaro Quijandria, IFC Practice Manager. "And it has brought enormous resources both to regional and national governments." In 2013 alone, $10 billion was invested in Peru's mining sector. By 2020, another $60 billion is expected.

Progressive policies

To harness the development potential of Peru's resources, the government has introduced a number of progressive policy measures. For example, mining companies must obtain water and land rights. And through the Indigenous People's Consultation Law, passed in 2011, the government must consult with indigenous people on projects that may affect them.

Meanwhile, since 2011, local governments in mining areas now receive 20% of the royalties companies paid to the state, with 50% of this going to the communities located around the mine.

Challenges and criticism

Delivering on potential, however, does present tremendous challenges.

Firstly, large sums of money are flowing to local administrations that often lack the capacity and skills needed to make appropriate infrastructure investments.

Resentment at the failure to turn royalty dollars into roads, schools, or hospitals is not only directed at local governments. Even though companies cannot control this spending, communities often blame them for the absence of improvements.

"They're looking at resources coming in and mines being built. So a pretty big challenge is unmet expectations," explains Quijandria.

Secondly, extractives sector companies in Peru face hostility arising from past incidents. In 2000, for example, conflicts between local communities and Minera Yanacocha (a joint venture between Newmont and Minas Buenaventura in which IFC has a small equity stake) arose after a mercury spill along a section of road that passed through three villages.

While the company cleaned up after the spill and compensated those affected, such incidents have undermined trust between communities and mining companies.

Moreover, despite the passing of the People's Consultation Law, how the Peruvian government will implement the law is still unclear.

"By 2015, law will be applied in the mining sector," says Antonio Bernales, Executive Director of Futuro Sostenible, a Peruvian non-profit supporting environmental negotiation, consensus building, and mediation. "It remains to be seen how the government will do that."

James Anaya, Professor of Human Rights Law and Policy at the University of Arizona, agrees. "If it's implemented adequately, the law could help these communities enormously," says Anaya, Former UN Special Rapporteur on the Rights of Indigenous Peoples. "If not, it's business as usual."

↖ Yanacocha gold mine.

Moreover, debates have arisen over which communities can be considered indigenous under the law, particularly in the mining areas of the Andes, where communities are less isolated than those in the Amazon, where oil and gas companies operate.

Further lack of clarity surrounds private sector participation. While companies must report on indigenous communities in their environmental impact assessments, the consultation law does not cover companies.

Anaya argues that indigenous communities should be able to engage with companies, too. "They need to be involved in critical decision that determine the character of the projects," he says.

Capacity building

Despite all the challenges, progress has been made in improving relations between companies and communities and in ensuring mining investments create shared prosperity.

"The first thing we had to do was to help local governments to invest the money," says Javier Velarde, Vice President, General Manager (Peru) and Corporate Affairs at Newmont.

He explains that royalty management programs, which IFC has supported, have helped local authorities to identify priorities and plan infrastructure projects more efficiently.

Meanwhile, some companies are working to address the needs of indigenous communities. For Minsur, one of the world's largest tin mining companies, this involved conducting a study to identify the communities living around its operations.

Part of this was driven by legal requirements. But the company also sees this as a way to help communities access better services. "We cannot be the government," says Juan Luis Kruger, CEO of Minsur. "But at least our presence can be a way to ensure some of the social services provided by the government reach these communities."

Listening and learning

One unique approach to community engagement has been the efforts made by Newmont. After moving the Yanacocha corporate office from Lima to Cajamarca, the city nearest its operations, it commissioned the Centre for Social Responsibility in Mining (CSRM) and CCPM Grupo Consultor to conduct research into local needs.

The study, "Listening to the city of Cajamarca," produced insights from which the company could learn. "What came out loud and clear was that they resented the fact that we were not providing enough opportunities for local communities," says Velarde.

As a result, the company worked with the Chamber of Commerce to create opportunities for local contractors and to establish transparency in selection processes. "In less than two years, we increased the level of local contractors more than 120%," says Velarde.

Another critical lesson to emerge from the study was the need to communicate more effectively with local communities. "And not only through one or two people," says Velarde. "Having the whole regional team engaging with communities makes a big difference. It sends a message that we want to be part of Cajamarca and to listen to what they have to say." ■

THE COSTS OF CONFLICT

The **University of Queensland & Shift / Harvard Kennedy School** on how disputes with communities harm profitability (and how to avoid them)

BY

Daniel M. Franks
Deputy Director, Centre for Social Responsibility in Mining, The University of Queensland

Rachel Davis
Managing Director, Shift (an independent, non-profit center for business and human rights practice)

© REUTERS, Pilar Olivares

A new study by researchers from The University of Queensland and Shift (an independent, non-profit center for business and human rights practice)/Harvard Kennedy School has uncovered the true scale of the costs companies incur when they come into conflict with local communities.

ESTIMATED COST OF DELAYS TO MINING PROJECTS DUE TO CONFLICT (PER DAY)

up to
$10,000
during initial exploration

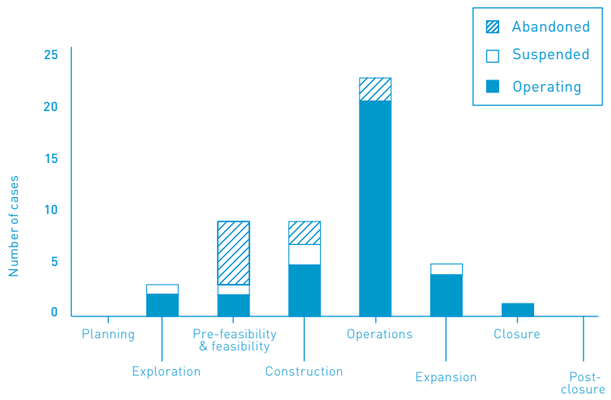
up to
$50,000
during advanced exploration

up to
$2.9 million
during operation

There is a popular misconception that local communities are powerless in the face of large corporations and governments. On the contrary, as our research findings clearly show, community mobilization can be very effective in waking companies up to the need to address community interests. Indeed, a number of the industries' flagship projects have been abandoned or delayed in the face of community opposition.

The risk of community conflict (and project abandonment or suspension) is especially high during the feasibility and construction phases of extractives projects. These periods can represent dramatic changes for local communities, when they are likely to experience large-scale transformations in land use, an influx of workers, and uncertainty about the future. At the same time, the promised project benefits have yet to materialize. Our findings suggest it is not just important, but essential, that companies invest heavily in community relations capability during this period.

Cases of company-community conflict: operating stage

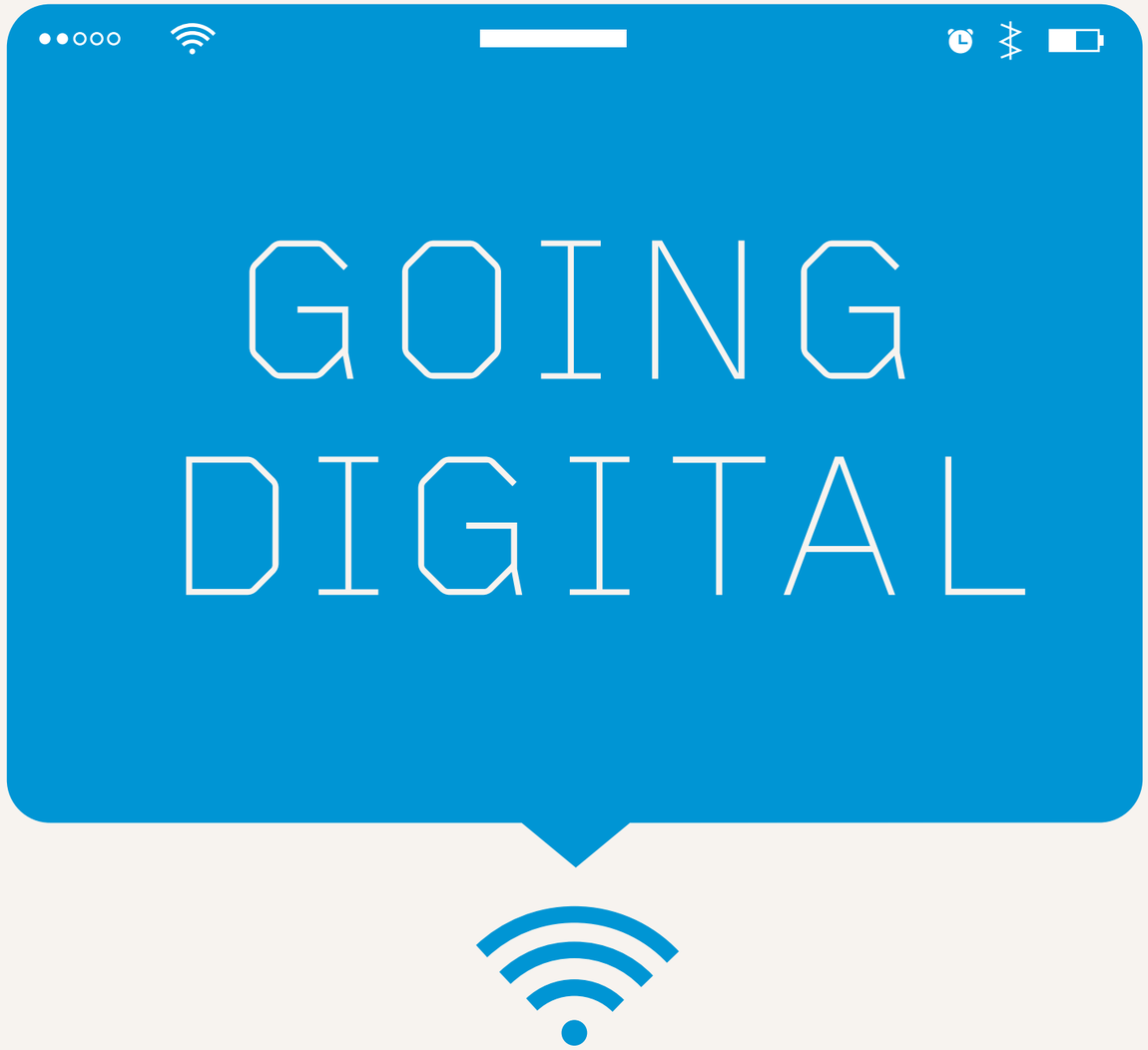


Conflict with local communities can be highly damaging to the bottom line. Our research reveals that delays caused by conflict with communities can lead to costs of roughly $20 million per week for mining projects valued between $3 and $5 billion. Analysis by one energy major of the exposure to non-technical, "above ground" risks revealed $6 billion in costs over a two-year period, representing a double-digit percentage of the company's annual operating profits. At the extreme, projects are abandoned and become expensive write-offs.

Since the release of our research, we have been asked to brief senior management teams and boards on our findings. One common question we are asked is how should companies approach community relations as the extractive industries adjust to lower commodity prices. Like other parts of the business, environment and community relations teams have been rationalized in many companies. Our research suggests that even in these more challenging market conditions there is a clear business case for investment in capability and systems to manage community concerns about the environmental, social, and economic effects of extractives projects.

An important point of reflection is that relationships with communities cannot be "retro-fitted." Once they have broken down they are often irretrievable. "Front-loading" investment in community relationships can be a particularly useful, and underused, strategy for overall cost reduction. Here, we are not necessarily referring to increased investment in social programs. What is most important is that a company has capable and well-resourced community relations and environmental teams, robust processes for assessing social impacts, effective management systems, and rights-compatible (that is, in line with internationally recognized human rights standards) grievance handling processes to address issues before they escalate. The investments made in these core areas are likely to lead to better outcomes for both communities and the business. ■

For more info visit
www.csrm.uq.edu.au/news/conflict-costs



Newmont's new communications chief on how social media is transforming the way companies communicate

INTERVIEW WITH

Ricardo Adame
Group Executive, Global Communications, Newmont Mining

BY

Aaron Rosenberg
Chief for Public Affairs, IFC

With 20 years of experience working in corporate communications for technology companies such as Microsoft, Ricardo Adame took a bold step last summer by becoming the new head of communications for one of the world's biggest mining companies: Newmont. With the enthusiasm of a newcomer to the mining industry and the long-standing experience of a veteran in the communications field, Adame explains how extractive companies can stay on top of their game as the communications landscape evolves.

You have been working in corporate communications for 20 years now. What has changed in how companies handle communications today?

Social media has completely changed the rules of the game. The evolution of the digital world allows you to tell your story on your own terms in real time. You also have the opportunity to engage in constructive dialogues with key stakeholders. That way, you can drive communications instead of simply reacting to events.

We have moved from traditional public relations to more sophisticated and integrated approaches. Take press releases for example. They may still be an important tool, but for many industries they have become irrelevant. Big announcements today primarily come through blog posts from CEOs and CFOs. At the same time, some of the most influential journalists are leaving their jobs and starting to play an important role as leading bloggers.

New digital communications platforms also allow you to track and analyze where you stand scientifically. You can no longer rely solely on only tracking media articles. You must monitor the conversations that are trending across all social media. You have to clarify misunderstandings and address reputational risks quickly.

How is Newmont adjusting its communications approach to the new world order?

The mining industry has traditionally been more conservative than many when it comes to external communications. It is an industry that, on a daily basis, operates in particularly sensitive environments. It is also an extremely sophisticated industry and does a lot for communities, but has been shy about communicating this.

Newmont has become much more open about sharing its stories. For instance, we have an incredible record on safety. We need to tell that story better.

Overall, we want to increase our brand recognition as an industry leader – primarily by engaging more actively with all key stakeholders, including investors, government officials, local communities, and NGOs. You also need third party voices and supporters. You must engage industry analysts and experts, who serve as the watchdogs for the industry. These stakeholders require very different levels of engagement – for example, local, regional, national, or international – but they are all critical in influencing our business and shaping our brand.

If there was one piece of advice on communications you could give, what would it be?

In today's social media and digital environment, if you do not tell your stories yourself, somebody else will tell them on your behalf. And, in many cases, the way other people will tell your story will be inaccurate, speculative, or misleading. So you need to actively engage and use all possible new platforms and vehicles such as blogs, social media, and digital content like infographics, photos, slides, videos, and podcasts.

Those of us in large companies know how difficult it is to get messages cleared and out in a timely manner, but we must learn how to respond quicker.

Some companies still primarily rely on media relations. But you have to have a much more sophisticated and integrated approach. You need to constantly share all the good things that are happening within your company and your industry.

What has impressed you in terms of a very creative or innovative communications practice in the industry?

Organizations like ICMM and the World Gold Council do a great job in terms of communications but also take it to the next level by creating some really interesting content, such as white papers, studies, and reports, often in collaboration with third parties. They offer great validated data which they share through appropriate channels such as events, media briefings, videos, infographics, and blogs. This is definitely a best practice example. ■

About Newmont and IFC

Newmont and IFC have worked together since 1993. IFC has provided $42 million in loans and mobilized additional financing to the Newmont-operated Yanacocha gold mine in Peru, while offering related advice on SME development and community engagement. IFC has also provided a $75 million loan to the Ahafo gold mine in Ghana (also operated by Newmont) and has advised the company on estimating the financial return of community investments.

Selected Tools

SAP's Integrated Performance (Cause & Effect) Analysis

Integrated or triple bottom line reporting is based on the idea that a company's performance must take into account its social, environmental, and economic impacts. These realms are intrinsically linked: actions taken in one area affect another. Companies can increase their value creation by responding more effectively to the business landscape. But what do we know about the synergies between our financial and non-financial indicators? Challenging ourselves to go beyond our assumptions, SAP looked into the connections through an integrated performance analysis.

"This analysis is still in its early stages but it can be critical for extractive companies in terms of integrated management using a holistic sustainability and operational dashboard. We have advanced integrated reporting. The next frontier is using this for day to day integrated management at operational levels," says Thomas Odenwald, Sustainability Strategies, Senior Vice President, SAP.

"Extractive companies know very well the interdependence of technical and beyond technical risks to an operation. Many projects are being stopped due to above ground challenges. We need real-time systems that help enlightened managers track and take decisions accordingly, understanding all the value at stake."

www.sapintegratedreport.com

The University of Queensland's new research initiative on mining and resettlement

In 2015, the Centre for Social Responsibility in Mining (CSRM) at The University of Queensland will launch a mining and resettlement research initiative.

The initiative will include a publicly available e-library of mining-specific studies, resources, and articles for industry, policy makers, researchers and civil society groups. As part of the initiative, CSRM will also develop a global database, conduct a resettlement practitioner survey, edit an Occasional Paper series, and formulate a range of teaching cases.

The aim of the initiative is to:

- Increase understanding of how resettlement risks from mining are being managed by industry;
- Identify strategies for improving outcomes for people affected by mining and resettlement;
- Conduct applied research that informs future policy and practice; and
- Contribute to debates about social due diligence for mining-induced resettlement.

CSRM's work is supported by company start-up funds from Rio Tinto, Anglo American, Newmont, and Newcrest.

www.csrm.uq.edu.au/mining-resettlement

IFC's CommDev: A repository for information on enhancing benefits to communities

CommDev houses selected public documents, tools, case studies, training opportunities, presentations, and resources produced by IFC, partners and other organizations to guide companies in delivering shared value and enhancing benefits to local communities. It is a well-established repository for information on community issues related to the extractive industries as well as agribusiness, forestry, and infrastructure.

www.commdev.org

IFC's Financial Valuation (FV) tool for sustainability investments

This tool helps estimate the financial return on site-specific sustainability investments, allowing managers to plan, implement and communicate the value of their social spending. More specifically, the FV tool aims to enable the justification and quantification of the business case for social investments as well as the comparative analysis of the portfolio of sustainable business options. It can strengthen the business case for community investments, enhance local development outcomes through improved project planning and evaluation, and help secure ongoing support from management and shareholders.

www.fvtool.com

Visual Capitalist: Infographics on mining

The Visual Capitalist site was founded in 2011 in the belief that art, data, and storytelling can be combined in a manner that makes complex issues and processes more digestible. The site is populated with exclusive infographics on business opportunities and investment trends in mining and a few other sectors.

www.visualcapitalist.com

Selected Publications

COMPILED BY

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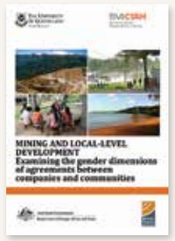
McKinsey & Company

REVERSE THE CURSE: MAXIMIZING THE POTENTIAL OF RESOURCE-DRIVEN ECONOMIES

This report offers research insights from the McKinsey Global Institute, McKinsey's Sustainability & Resource Productivity Practice and the company's Global Energy & Materials Practice. It addresses how the world's growing need for resources can be met and recommends strategic approaches.



The University of Queensland

MINING AND LOCAL-LEVEL DEVELOPMENT: EXAMINING THE GENDER DIMENSIONS OF AGREEMENT MAKING AND BENEFIT SHARING

Using research conducted in mining locations including Australia, Papua New Guinea, and Laos, this publication examines how the participation of women affects agreement negotiation, governance and local benefits. Furthermore, it outlines factors through which gender equality in negotiating, implementing, and monitoring agreements between communities and mining companies can be achieved.

World Gold Council

RESPONSIBLE GOLD MINING AND VALUE DISTRIBUTION

The second edition of the Responsible Gold Mining and Value Distribution report, published by the World Gold Council, includes data from 26 countries and 15 member companies. It helps stakeholders understand the economics around mining by examining the impact that the responsible gold mining sector has on development.

The World Bank

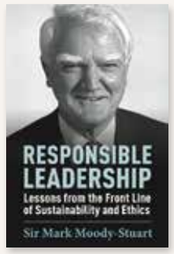
THE POWER OF THE MINE: A TRANSFORMATIVE OPPORTUNITY FOR SUB-SAHARAN AFRICA

This study reveals the potential but also the challenges of integrating power and mining. It presents three real sector scenarios in Guinea, Mauretania, and Tanzania and highlights how shared infrastructure can provide the anchor demand needed to develop regional projects and public-private investment opportunities. It addresses risks of integration as well as options for policy makers.

Kellogg School of Management

MINING COMPANY OF THE FUTURE: DEVELOPMENT PARTNER FRAMEWORK

This report highlights a wide array of complex challenges and opportunities in mining, and presents a new approach for companies that want to build lasting value through improved social, environmental, and economic sustainability. It is a collaboration that includes leaders from the industry, contractors, non-profits, and representatives from indigenous communities.



Responsible Leadership – Lessons from the Front Line of Sustainability and Ethics

BY SIR MARK MOODY-STUART

Sir Mark Moody-Stuart, former chairman of Royal Dutch Shell Group and of Anglo American, offers a personal insight in the field of corporate responsibility, ethics and sustainability of the world's leading companies in the oil and mining sectors. It also includes the discussion of Shell's major controversies and serves as a manifesto for responsibility in business and leadership.

Shared Value Initiative

EXTRACTING WITH PURPOSE: CREATING SHARED VALUE IN THE OIL AND GAS AND MINING SECTORS' COMPANIES AND COMMUNITIES

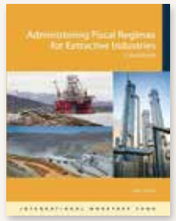
This report identifies how companies in the extractive industries can adjust their approach to social issues in order to deliver business value. It includes specific case examples from the mining industries and identifies four challenges that deter shared value. Additionally, the report highlights common behaviors by companies that prevent them from delivering shared value and offers recommendations on how to change them.

The World Bank

PUBLIC PRIVATE DIALOGUE FOR SPECIFIC SECTORS: EXTRACTIVE INDUSTRIES

This paper addresses the benefits of Public Private Dialogue (PPD) for the extractive sector and highlights three key principles needed to ensure effectiveness in PPD engagement. It illustrates the most pressing issues the industry faces and identifies relevant stakeholders, including companies, governments, local suppliers, and the media.

SELECTED PUBLICATIONS (CONTINUED)



IMF, The World Bank

ADMINISTERING FISCAL REGIMES FOR EXTRACTIVE INDUSTRIES: A HANDBOOK

BY JACK CALDER

This joint IMF-World Bank handbook draws attention to effectiveness in administering revenues from the extractives sectors. Moreover, it provides useful guidelines to help policy makers and officials create legal frameworks, organizational structures, collaborations, procedures, and transparency when administering revenue from the industry.

IFC

A STRATEGIC APPROACH TO EARLY STAKEHOLDER ENGAGEMENT: A GOOD PRACTICE HANDBOOK FOR JUNIOR COMPANIES IN THE EXTRACTIVE INDUSTRIES

This handbook addresses the context and challenges of Early Strategic Stakeholder Engagement faced by junior companies at the exploration and preliminary project development stages. Juniors generally have limited resources so inputs need to be comprehensive, strategic and tailored to each stage. The handbook takes the reader through the process of building trust, relationships and gaining and maintaining a social license to operate at each project's life-cycle stage.

IFC

LESSONS OF EXPERIENCE – PERU LNG: A FOCUS ON CONTINUOUS IMPROVEMENT

This publication highlights the lessons of experience from the IFC-PERU Liquefied Natural Gas (PLNG) project. Through the successful application of IFC's Performance Standards and its strong commitment to managing environmental and social risks throughout all phases of the project, PLNG successfully managed and mitigated operational and reputational risks related to their environmental and social performance. A focus on continuous improvement and adaptive management throughout the project, and an emphasis on stakeholder engagement and participatory monitoring are among lessons that are useful across sectors.

IFC

BASELINE ASSESSMENT AND DEVELOPMENT OF A FISHERIES LIVELIHOOD RESTORATION PLAN (DRAFT MAY 2014)

This handbook is intended to be a guide for projects whose development and operations have an impact on fish resources and the fishermen who depend upon them. It provides practical tools that may assist projects aiming to contribute to the sustainable development of fishing-based livelihoods in fishing communities within the project-affected area through their community investment programs and/or targeted development assistance.

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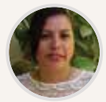

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