



Mining, Minerals and
Sustainable Development

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Welcome

James Bond, Director Mining Department, World Bank and IFC

James Bond set out the vision of the joint World Bank and IFC mining department: a mining sector that attracts the private sector, contributes to national development, and manages environment along the whole cycle.

He outlined some key characteristics of the mining sector, noting that it is small in volume but with a big footprint:

- Mining accounts for 1-2% of foreign direct investment worldwide
- The sector is dominated by around 20 large companies
- Mining has a huge impact
- The industry is essential but controversial

Reasons for the controversial nature of mining include:

- Economic rent – conflict over the division of risk and rewards, often leading to/associated with corruption
- High external costs – negative impact on local communities where the poor usually live

There was increasing recognition that external costs can lead to greater risks for investors and hence lower expected returns. So using a portion of the economic rents to address external costs could make good business sense. There is a business case for sustainability.

The financial sector is becoming increasingly better at handling and valuing risk but information is key. Mining companies with a good track record on environmental and social issues in theory should have access to capital at lower cost because they involve lower risk but this does not always happen.

This raises the question of why financial markets are not better at distinguishing between companies according to their performance on sustainability issues.

*Jacqueline Aloisi de Larderel, Director, Division of Technology, Industry and Economics,
UNEP*

Jacqueline Aloisi de Larderel started by setting out the global context in order to explain UNEP's interest in the conference:

- Foreign direct investment is five times greater than overseas development assistance
- The turnover of the ten largest companies is greater than the GDP of the 100 smallest countries
- Increasing privatisation of public services and industries based on natural resource extraction
- Increasing environmental problems - climate change, land degradation, water shortage
- Linkages between poverty and unsustainability.

In view of these trends UNEP is calling for corporate responsibility as are consumers, employees and NGOs.

UNEP has been working with financial institutions to raise awareness of sustainability issues through its Financial Institutions Initiative. It is also involved in the Global Reporting Initiative which aims to establish common standards and indicators.

Myths about Sustainability

1. Meeting environmental standards adds to costs – On the contrary it is a productive investment.
2. Being proactive makes you uncompetitive – The alternative view is that it makes you innovative and able to exploit business opportunities.

Expectations for the Conference

1. Increased awareness on the part of the mining sector about its environmental and social risks
2. Increased dialogue following the conference
3. Identification of specific follow-up actions.

Jay Hair, Chair, Assurance Group, MMSD

Jay Hair gave a general background to the MMSD project setting out the key themes and the reporting schedule.

He noted the context in which the project had been established – the growing call for transition to sustainable development in the mining industry as in other sectors and the key

impediments to this. Lack of trust between companies, governments and civil society and the lack of skills and institutional capacity.

Some key questions for the conference were highlighted:

- How do we ensure that investments in mining are supportive of best practice?
- Is certification appropriate for the mining sector and what criteria should be used?
- What information and reporting systems are needed?
- Can voluntary performance incentives work in the mining sector?
- What incentives can be put in place to reward those following best practices?

The Financial Sector, Mining and Sustainability – Outlook and Challenges

Ian Johnson, VP for Environmental and Social Sustainability at the World Bank introduced the panel session noting that:

- Extractive industries are the centre of concerns about environmental and social impact
- It is necessary to learn more about best practice in the private sector in mining
- The triple bottom line approach is relevant to the World Bank despite its traditional focus on the public sector

Ross Beaty Chairman and CEO Pan American

Mining is not an easy business

Many projects are successful but some are not. For example, Pan American had a project in Russia which after 4 years had to be abandoned. One of the main problems was satisfying the legal requirements of the project lenders.

Concept of sustainability in mining – A Flawed Concept

Mining involves extraction of a non-renewable resource so it is non-sustainable by definition. Mining is a temporary land use, unlike other uses like shopping malls. It is therefore hypocritical to regulate mining and not other more permanent land uses. Mining has also greatly improved as rules have changed and so has the practice of industry leaders. Environmental regulations have become tighter while community consultation is now a requirement. It is possible to reclaim mines such that there is little impact. While mining is inherently unsustainable, the world needs minerals so mines are necessary. Moreover, mines can be engines of social and economic development and play an important role in bringing infrastructure and services to underdeveloped regions. The wealth created by a mine goes not just to mining companies but also the local community and the national economy. An example was cited of a silver mine in Peru that Pan American is operating. The investment was \$170mn. 1300 jobs have been created and a town of 20,000 is being supported by the mine. Social facilities have been provided by the company and significant contributions to

government tax revenues have been made. But partly due to depressed silver prices, the project has not generated a return yet for the company.

Mining is extremely risky

There are many types of risk associated with mining, exploration risk, geological, extraction risk, marketing risk, political risk and many more. When a new mine is started up there are many things that can go wrong.

Mining is not very profitable

Low profitability is exacerbated by the casino element of exploration whereby only a small proportion of exploration activity leads to a mine development. Mining is also very cyclical. At the top of the cycle when everyone is optimistic about the prospects for the sector, capital is readily available so that even marginal mines can get finance. At the bottom of the cycle, the marginal mines are closed down and significant amounts of money are lost. There has also been a decrease in metal prices over the last 100 years that adds to the problems of low profitability.

The implications of sustainability for different types of mining companies

It is necessary to consider the financial capability of the whole spectrum of mines for achieving sustainability. Large mines with rich ore bodies can afford best practice but this is not the case for the small marginal mines at the other end of the spectrum. These are often locally owned and run but are often the worst polluters and the worst in terms of employee health and safety standards. However, they do create employment. In the middle of the spectrum, companies struggle to achieve profitability and will only spend on best practice if they are required to.

Future prospects

Sustainability will happen provided the world and the countries where mining takes place can afford it. This will be easier for large mining companies but the smaller ones will find it harder to compete and harder to secure finance. In North America, environmental bond requirements are already making it difficult for small companies to operate in the mining sector. As a result small companies will shift to the exploration sector. Marginal mines will therefore become rarer. This will be good for the environment and for the financial sector which will not be so exposed to losses but there will be an adverse impact on developing countries.

Lenders will seek to finance only companies and projects involving best practice. Mining will improve in terms of environment, safety and community impact.

Peter Seligman CEO Conservation International

The mission of CI is to preserve biodiversity while demonstrating that human society and nature can co-exist in harmony.

Basic Premises

- It is appropriate to demand improvement in standards from the private sector and not to accept past behaviour.

- Unacceptable behaviour implies exposure as accountability is increasing. The industry can no longer assume that practices in remote areas will go unnoticed. The world will hear about it.
- Extractive industries are not sustainable but impacts can be reduced, e.g. reclamation can restore land.

Mining areas coincide with biodiversity hotspots and tropical forests

CI has identified 25 hotspots which cover 1.4% of the earth and contain 60-70% of the world's species. These and the tropical forest areas of Latin America, Africa and Asia Pacific/PNG should be the targets of conservation efforts. But they are the areas that are also of interest to mining companies and timber companies. This is an opportunity for the mining industry and conservation movement to work together.

Partnerships between conservation organisations and the private sector

CI has established an initiative Environmental Leadership in Business which aims to bring the private sector and conservation interests together to work for a best practice. It has begun with the timber sector and oil and gas sector. It worked with Mobil in a biodiversity hotspot in Peru in a collaborative effort to reduce the public outcry over the potential environmental impact of such an activity. This engaged both communities and the conservation movement. Agreement was reached with the Peruvian government that areas that were not rich in oil would be designated as national parks. The result was a new approach to exploration in rainforest areas in which everyone won.

A similar approach has been adopted in Guyana. A timber concession that was not performing has been converted to a conservation concession. This is relevant to mining as there has been a significant increase in the exploration and development sites in the Guyanas over the last 5 years. Mining concessions should be considered as potential conservation concessions also. But the conservation movement needs to come up with the money to finance these conservation concessions.

Recommendations

1. The mining sector should work together with the environmental sector in developing best practice from exploration through to processing. If the mining industry does not do this, globalisation will.
2. Mining companies should consider what they can do to ensure that the biodiversity hot spots identified by CI survive.
3. The mining industry should set a standard of behaviour to which it can be held accountable. If it does not do this someone else will as demonstrated by experience in the forest sector. The Forest Stewardship Council established criteria with little consultation with the industry and imposed certification by threatening to boycott retailers. The forest industry in the US responded by developing the Sustainable Forestry Initiative but this was not transparent and too much under the control of the industry. If the forest industry had established good standards at the beginning it would not have problems now.

Phumzile Mlambo-Ngcuke, Minister of Minerals and Energy, South Africa

Importance of Mining to African Economies

Minerals are the only bankable and tradeable resource in many African countries and are therefore important even though they are non-renewable. But tourism is becoming as important as mining in Africa so the impact on the environment is key. Mining is still the bedrock of the South African economy which has 40% of the world's vanadium and over 50% of world manganese.

Key Issues in Mining and Sustainability in South Africa

Environmental issues are important for sustainability but so are social issues such as:

- The need to reverse the trend towards migrant labour which has led to rural impoverishment. Government, industry and labour agree on this.
- Providing for local development in mining towns after mine closure. This requires front-loaded social plans to intensify at the beginning when the mine is generating money. This is when investment needs to be made to address the consequences of future mine retrenchment.
- Black economic empowerment.
- Diversifying and adding value at the community level.

Sustainability will require early warning systems on economic and environmental threats and enforceable compliance and relief measures.

Successful operations at the small and artisanal end of the industry spectrum will also be required. This is a major challenge and will depend on what government and other stakeholders can do to create an enabling environment, e.g. a fund for the junior sector in South Africa.

The financial sector and governments cannot distance themselves from these problems and must broaden their mandate. A paradigm shift is needed for all sectors.

Conclusions

There must be a balance between environmental conservation and the aspirations of local entrepreneurs, working in the countries where the mineral resources are located. Mining must both produce profits and address poverty.

Attention needs to be focused on smaller places and communities and not just on the main centres, such as London, Washington and Johannesburg. Mining has to benefit communities as well as shareholders in faraway countries.

Stakeholders need to act in concert.

A system needs to be established to protect poorer countries from investor bullying in relation to standards

James D. Wolfensohn President, World Bank Group

Broadening concerns about mining

In the past corruption was the key concern related to mining but now concerns are much broader, encompassing environmental and social issues.

Importance of Mining in Developing Countries

Of the world's population of 6 billion, as much 4.8 billion live in developing countries. Three billion are living in poverty, i.e. on less than \$2 a day. Over the next 25 years, population will increase by 2 billion, mostly concentrated in developing countries.

Mining will be important for development but if the issues of poverty, environment and community are not dealt with adequately there will be no peace and no mining industry.

The need for responsible business

Good business is closely linked with good morality and ethics and this promotes peace. The experience of the World Bank with the forest sector has demonstrated this. The wealth of developing countries lies in their people and in their natural resources such as minerals and forests. But in exploiting these resources it is essential not to forget communities and environment. The World Bank is therefore trying to work with all segments of society.

Costs and Returns of Sustainability

Sue Ellen Lazarus, Director, Syndications and International Securities, IFC set out key questions for this session to address:

- What does it cost to invest in sustainability?
- Are costs worth the returns?
- Does investing in sustainability bring returns?

Ray Evans, Executive Officer WMC

The North-South Divide

While the ore bodies are mainly in developing countries, the capital comes from Europe and North America where corporate headquarters are located.

Defining Sustainable Development

Without knowing what sustainability means, it is not possible to know how much it costs. The concept is only meaningful by its negative. There are three pillars of unsustainable development: over population, mineral and resource exhaustion and environmental degradation. These have become articles of religious faith for some. But paradoxically, most people in the industry would welcome some mineral scarcity in order to push up prices and returns.

Religious faith in environmentalism

Some elements of the environmental movement have a religious quality which makes it difficult to challenge. If environmental issues have the quality of religious faith it will be difficult for the mining industry to reach an accommodation. There are some differences of belief that cannot be reconciled as evidenced by the US war over the morality of slavery. This is a serious challenge.

Relevance of religious faith environmentalism to capital markets

Capital markets in London and New York are key to the mining industry. The culture permeating the elites of those two cities will affect how decisions on allocation are made. The cases of Huntingdon Life Sciences demonstrates this as it has been driven to near bankruptcy following the withdrawal of financial institutions. Animal rights activists have campaigned against financial institutions connected to Huntingdon involving threats against their staff. This has persuaded these institutions to sever ties with the company. The basis of the campaign is that animal testing is wrong and not that Huntingdon is in breach of legislation. If a group of activists can do this to Huntingdon, they can do it to mining companies as well.

Gerard Holden, MD Barclays Capital

A banker's perspective on sustainability

Few businesses are more risky than mining. Banks make significant efforts to analyse risks and the claim that the financial sector does not understand environmental risk is not true. Barclays expects adherence to World Bank and IFC guidelines as a minimum, and wants to know that management has a proactive approach to risk.

While the costs of sustainability are not known, projects which address it can perform better. Moreover, in some parts of the world if projects are not embracing sustainability they will not be allowed to operate. Efforts by a company to address sustainability can make a difference to the financing decisions of banks. Finance was secured for the expansion of the Sierra Matos Billiton project in Colombia despite the concerns about the political risks of operating in this country. This was because the company's good track record of relations with the community made the financial sector comfortable with the overall risk profile. Similarly, Barratts in Tanzania obtained a loan for a relatively long period of nine years because of its good environmental and social track record.

The Need for Standards

Sustainability is an essential part of the investment equation but a common benchmark is needed. This is particularly so because mining developments are becoming political footballs between government and NGOs. Agreement on common standards will make the industry less vulnerable.

Costs and Returns of Sustainability

Detailed financial analysis of sustainability is still a long way off. But companies and projects with good sustainability performance will do better and will have a lower cost of capital. However, poor profitability and excessive cost could be associated with over-zealous attention to sustainability.

Shaun Mays, General Manager WestPac Financial Services

An investment management perspective

Environmental and social responsibility is now essential for access to capital, and the environment has moved into the mainstream. This is not a feel good issue but one of sound resource management.

An important driver is the democratisation of investment as individual contributors to pension schemes and funds are demanding more say over where their money is invested. There is evidence suggesting that the investment market is becoming discerning. Surveys of pension fund members show that human rights and environment are their two major concerns. 80% of Australians are concerned about the state of the environment.

This has important implications for the mining industry. Mining companies that do not address sustainability run the risk of increased cost of capital and loss of their licence to operate. Cyanide accidents in particular are likely to affect the licence to operate.

But there are opportunities associated with addressing sustainability issues. New South Wales has established carbon as a separate property right even though the accounting system for this is not fully developed yet. Investors in Westpac's SRI fund receive a dividend from investing in environmentally and socially responsible companies. 75% of mining companies in the fund have signed up to Australia's greenhouse gas commitments.

Conclusions

Good financial management is linked with good environmental management. The challenge for the mining industry is to improve its image.

Julian Morris, Institute of Economic Affairs

The concept of sustainability

The definition of sustainability must be procedural about creating the right institutions and legal framework.

Does the Triple Bottom Line Approach make financial sense?

Do firms have to conceive of themselves as sustainable and employ the triple bottom line (TBL) approach? It has been a boon to accounting firms and organisations running ethical funds but for companies it may imply a diversion of focus away from core competence which can lead to lower profits and vulnerability to takeovers. Examples include:

- IBM which in the 1980s had a huge focus on social outreach had financial problems in the 1990s because it took "its mind off the game".
- Levi's which in the 1990s shifted perspective partly in response to campaigns of CARE and other NGOs about working conditions and closed a plant down in Bangladesh, putting 50,000 people out of work. The loss of jobs led to further campaigns against the company which then proceeded to compensate by paying for housing but for only

10,000 of the workers. The consequence for Levi's of this diversion of focus was a profit fall in 1998-2000 of 25%.

In addition, research shows that ethical funds have underperformed in relation to conventional funds.

Defining a triple bottom line approach for mining

Defining TBL is contentious in the case of the mining industry given that many NGOs want the industry to close down. Furthermore, acceding to NGO wishes in relation to sustainability is fraught with difficulty as there may be a difference between the goals of NGOs and the local people they purport to represent. This is illustrated by the case of the Narmada dam where an international NGO (Oxfam) did not support a compensation agreement reached by a local NGO (Arch) with the Indian Government.

Alternatives to the Triple Bottom Line Approach

The focus should be on the key institutions of society: property rights and the rule of law. Clearly defined property rights ensure that people who are harmed are compensated, reduces the cost of capital and enables more effective conservation as evidenced by the private parks in South Africa and the Campfire programme in Zimbabwe. It also provides protection against government expropriation.

To ensure sustainability:

- Resources should be privatised
- Local issues should be dealt with at the local level
- Contracts should be upheld.

Ligia Noronha – Fellow, Tata Energy Research Institute

The public perception of what the mining industry is doing is very different from what management in the sector thinks it is doing. So far the industry has been “tinkering at the edges” focusing on environmental improvements rather than demonstrating a paradigm shift.

Understanding sustainability in the context of mining

Sustainability in this context can be defined as the adoption of measures to ensure that the systems, naturally and socially impacted by the mining activity, are able to maintain or enhance their functioning into the future. The success of a mining project requires understanding of its location and social context. It involves people and their aspirations, the dynamics of nature and the relation between people and nature and the wider political and civil community.

Analysis of the costs and returns of sustainability therefore needs to:

- Adopt a multi-stakeholder perspective recognising that sustainability is a contestable concept and the relative weight given to different aspects of it depends on the viewpoint of the agent or stakeholder.

- Determine a meaningful spatial scale for analysis - e.g. the region where the minerals project is located.
- Determine an appropriate timeframe – e.g. the life cycle of the mine.

Concerns should extend beyond prices and markets to include issues like land access and compensation, health, human rights and investment in human capital. In particular, it is necessary to deal with the dissonance between the company's values and those of the local community. This requires a paradigm shift.

It is also necessary to distinguish between risk management and ethical behaviour. Companies need to respect the rights of other stakeholders and the rights of communities even if inadequately articulated. This should be done for ethical reasons even if it goes against considerations of financial cost.

Time is an important factor in the assessment of costs and benefits of addressing sustainability. The greater the time lapse between the occurrence of environmental damage and social problems and the attempts to deal with them the greater the cost involved. Moreover these costs will be incurred at closure precisely when the company will be experiencing cashflow problems.

Returns from addressing sustainability

Addressing sustainability can reduce costs for a company in a number of ways:

- Investments in maintaining environment quality and in social services result in a more productive workforce and reduced worker and community compensation and damage suits.
- Creating value from waste.
- Hedge against future risk of liability through baseline studies and impact assessments.
- Enhance company profile and reputation with employees, consumers and investors.
- Strengthen the licence to operate – improved community relations and reduced vulnerability to mafia groups within the region.
- Reduced transaction costs such as negotiating contracts, dealing with disputes can offset costs of ensuring transparency.

The Role of Government, Local Communities and Civil Society

Sustainability performance is linked with good governance. The latter requires a well-defined regulatory framework including resource rights, demarcation of no-go areas, rules for sharing revenues with local communities, platform for dialogue amongst others.

Conclusions

Sustainability needs to be addressed from an agency, spatial and temporal perspective. Sustainability performance involves aspects of risk management and ethical behaviour. Some issues can be addressed in a cost benefit analysis but others do not lend themselves to this.

Discussion

Are there returns to sustainability?

One participant reiterated that increasingly debt capital will not be available for companies that do not embrace sustainability. Another participant observed that it is very difficult now for companies to invest in a new operation that involves estuary disposal of tailings. This is now considered too risky. This means that some mining operations will not go ahead for lack of capital unless the host country government can find it elsewhere

Shaun Mays, responding to the earlier statement that ethical funds had under-performed, emphasised that it is important to distinguish between positive screens, negative screens and best of sector approaches. Where funds adopt negative screens this reduces the universe of stocks from which to choose and thus increases risk. For this reason, Westpac has adopted the best of sector approach and has achieved returns 1-1.5% above a benchmark index.

Is Sustainability the same as good management or does it involve something more specific?

Martin Whitaker of Innovest observed that mainstream investors see sustainability as a proxy for management quality. Analysts do not necessarily understand sustainable development but they understand the advantages of well-managed mines, smooth regulatory procedures, etc.

Julian Morris clarified that his concern was about companies going beyond good management in addressing sustainability and becoming diverted from their core competence.

Property rights and impact on local communities

One intervention emphasised that local communities have property rights and that these must be respected. In response Julian Morris stated that the existence of property rights is not sufficient. They need to be well-defined particularly where they are shared by several individuals. The problem is that Northern NGOs do not always have local people's interest at heart as evidenced by the Narmada dam case. Ligia Noronha pointed out that property rights are rarely clearly defined for example, a community may not own land but may have informal use rights. Mining companies should take into account these rights whether clearly defined or not.

A participant stressed the need to consider not just the impact on communities but also the regional and national impact of mining where there was likely to be some positive benefits.

Information needs for measuring corporate performance

Shaun May stressed the need for metrics pointing out that equity investors cannot adopt the same level of detail in their analysis of companies as other types of financial institutions. Luke Danielson asked how sound validated acceptable criteria for corporate performance could be developed. Gerard Holden expressed the view that the financial community were

not the right people to take decisions on these issues. This was complex as there are many different views amongst stakeholders in governments and also between and within communities. Martin Whittaker felt that institutional investors would not be interested unless it was possible to show an effect on the bottom line and in a timeframe acceptable to their needs. Shaun May stressed the need for reliable criteria that companies can report against and that ethical funds can use in their discussions with companies on performance.

Sustainability – a Different Word for Risk Management?

Bob Elton, CFO, Eldorado

Risk must be examined from the point of view of the community, the company and the government as all three need to participate effectively in a mining project. The size of the company is also important as a small company, like Eldorado cannot force projects on a community.

For the community there will be environmental costs even if attention is given to clean-up. Therefore the economic and social benefits of a mine for local residents must exceed costs. Benefits have to be clear and measurable, starting at the outset of the project and continuing after closure. For one of its projects in Turkey, Eldorado has set up a foundation with the local community with a view to ensuring sustained benefits.

For government the most important way of managing risk is to get the right operator.

For the company, the need is to find the right country in which to invest. If sustainable development considerations are to be incorporated in investment decisions this may mean that some places will not be suitable.

Conclusions

Addressing sustainability does increase costs but can generate net benefits. This will happen in the case of good projects, operated by good companies and where governments have aligned local and national interests.

Utz Groeschel Deputy Member of Executive Management, Munich Reinsurance Company

The relevance of insurance to mining and sustainability

The function of insurance is to provide finance when things go wrong but it cannot cover everything so risk assessment is key. The insurance industry looks at what can cause substantial losses and where it will be affected by operator liability.

While sustainability cannot be insured directly it is possible to unbundle it into different types of risk. For the mining industry these include:

- Accidents, fire losses, flooding, landslides, subsidence, explosions
- Air and noise pollution and its effects on workers
- Effects on groundwater quality and implications for drinking water

- Tailings dams

Assessing environmental and social risk

The assessment of these risks needs to consider the type of mine, the extent of local legislation and the management of the site.

The extent of risk depends on the type of mine as underground mines are particularly susceptible to fire and flooding. Local legislation affects the assignment of liability in the cases of accidents. The measures taken by industry to manage risk for example, safe working conditions, avoidance of hazardous substances and landscape protection are also important issues for the insurance industry as these help to prevent accidents.

Steve D'Esposito, Mineral Policy Center

The Mineral Policy Center was founded to represent the interests of communities affected by mining. It is not the aim of the Center to put mining companies out of business but it would like to see more examples of successful and responsible mining operations.

Key Issues

1. Is it possible to make decisions about whether to mine and how to mine on a more responsible basis?
2. Are there mechanisms to promote this?
3. If not, can they be put in place?

Areas of risk associated with the mining industry

1. Dumping raw mining waste into natural water bodies. Only BHP and WMC have so far pledged not to do this. A company that does not make this pledge is high risk because of the implications for its reputation.
2. Spills – Little has changed with regard to spill prevention even though spills can be linked with falls in share price.
3. Underestimation of the true costs of mine closure – This affects the reputation of the industry.
4. Predictive modelling – (or the art of wishful thinking). This is the greatest source of unpredicted risk.
5. Perpetual treatment of water – Guaranteeing water treatment forever is not possible and in effect costs are being pushed on to other generations.
6. Technical fix – Issues are not just technical but social and cultural as evidenced by the debates on tailings dams. Companies waste capital by pushing the wrong projects based purely on technical considerations.
7. Gold as a commodity – (and other metals) Implications of a drop in prices.
8. GMI and MMSD – Will it deliver anything? Will it improve the industry's performance?

9. Public reaction – There have been calls for cyanide bans and public outcry over the impact of mines such as Ok Tedi. The sustained public pressure for responsible forest products shows how important public reaction can be.
10. Cyanide – the public reaction and concern over cyanide is highly rational.

What is needed

- Independent verification of mining companies' representations
- Independent monitoring of mining operations
- Minimisation of long-term impacts – these need to be addressed upfront so that society is not left with unanticipated risk.

Daniel Hoffman, Swiss Re

Sustainability is an excellent risk management tool. For this reason Swiss Re is incorporating sustainability into its risk management process.

There are different types of risk to consider:

- Liability risk – This is particularly relevant to the mining industry because liabilities can remain long after mine closure.
- Operational risk – the energy industry has shown how it is possible to increase operational efficiency and reduce environmental liability.
- Reputational risk – This is becoming more important. Exxon when it went to court over the Exxon Valdez case had already lost in reputation terms simply by being forced into court. A sustainability programme can reduce this risk.
- Financial risks – A company with a sustainability programme is more appealing to green/ethical investors. These investors are important to a company because they are there for the long-term.

Definition of sustainability

Sustainability can be defined as management of all resources that make an endeavour a success both in the present and the future. The future is key in this definition as the reinsurance industry has to consider the “long tail” of the mining industry.

Climate change can be used to illustrate these issues:

1. The risks of climate change are here to stay and it is necessary to learn from the experience with contaminated waste and Superfund. Industry can gain from thinking ahead.
2. Climate-related events have increased over the last ten years – this needs to be incorporated in company planning.

The mining industry is affected by climate change because of the expected impact on water. As a heavy user of water the mining industry needs to participate in the climate change dialogue and consider threats and opportunities for re-use of water.

Sustainability as a financial issue

Assessment of company sustainability is becoming a part of valuation and it is only a small step to it becoming a requirement of SEC and of rating agencies. NGOs are driving this by purchasing shares in companies in order to influence their policies. Environmental issues such as tailings dam problems will impact on company reputation and ultimately affect stock performance.

Discussion

Guaranteeing Long-term Benefits

One participant asked how can benefits be guaranteed over the long-term and what role the financial sector can play in this.

Another observer argued that it is up to local people to find out what the risks are and then decide as it is not possible to guarantee benefits. Steve D'Esposito stressed the need for the company to open up to independent scrutiny. Utz Groeschel emphasised the need for a record from other cases of how the company and the community are going to handle an accident. Daniel Hoffman agreed that information was key.

Who Pays?

An attendee asked who pays in cases where there is a shortfall between losses and amounts insured as in the case of tailings dam failure.

Utz Groeschel replied that if the responsibility of the company is not well-established, government and the people pay. But the management of the risks associated with tailing dams is key. Is the dam operation well-managed? Is the dam designed for storm events? Daniel Hoffman argued that if companies have a good sustainability programme the insurance industry can underwrite the risks.

Breakdown of Fiscal Systems

James Bond noted that a project could be well-managed but have problems with communities because breakdown of fiscal systems meant that benefits were not reaching the local level. Was this another type of risk that should be looked at?

Steve D'Esposito responded that when government is part of the problem, mining companies should be wary about assuming the role of government. An attendee agreed that this is a difficult issue, citing as a possible solution Eldorado's approach in Turkey where it has set up a community foundation.

Definition of Sustainability

One intervener observed that given the vagueness of the concept of sustainability, there was a problem with the question set for this panel. The discussion had so far concentrated on

environmental risk which was well-understood if not well-managed. But business risk and societal risk are also important for example, the risks of substitution and the risks to society of meeting needs with goods derived from biological resources instead of minerals. Daniel Hoffman agreed that sustainability was not only an environmental issue while Steve D'Esposito argued the need to use the term responsibility instead of sustainability.

Social Issues

A participant asked for a discussion about the kind of information needed to make judgements on social issues. Utz Groeschel agreed that it was difficult to address social issues in remote areas.

Better Linkages for the Financial Sector – Understanding Mining Operations Sustainability Performance

Claudette Cofta, Senior Director, American Chemistry Council

The Responsible Care initiative

The Bhopal disaster in 1984 and public concern about the manufacture and use of chemicals led the chemical industry to establish the Responsible Care initiative in 1988. This is a voluntary initiative which aims for continuous improvement in health, safety and environmental performance. Adherence to Responsible Care is a condition of membership of the American Chemistry Council. Codes of management practice have been formulated in the following areas:

- community awareness and emergency response
- employee health and safety
- pollution prevention
- process safety
- distribution, and
- product stewardship

The metrics for the codes vary – some are quantitative, e.g. emission levels, others are more subjective referring to management systems. Companies report annually on their progress in implementing these codes through a self-evaluation. Independent audits are carried out of company management systems set up for implementing Responsible Care.

An important aspect of Responsible Care is that it provides a forum for sharing of best practice.

Since the initiative was introduced there has been a 50% reduction in US emissions of the chemical industry.

Benefits to the Industry from Responsible Care

There have been tangible financial benefits to chemical companies from participating in Responsible Care, including discounts on insurance of up to 30%, reductions in project finance interest rates because of good environmental management. Participation in Responsible Care is also cited as a positive factor by investment analysts.

There have also been regulatory benefits in the form of lower fines and a better relationship with regulators. This means a higher level of trust which is important when regulators assess whether an incident is due to company negligence or was genuinely unanticipated. Companies have also found that securing permits for expansion is easier and faster. In addition, relationships with communities have improved.

Martin Whittaker, MD, Innovest

The Sustainability Premium

Examining sustainability performance is not just a case of looking for positive and negative impacts but also of identifying strategic opportunities. There are good reasons for believing in a sustainability premium for the mining industry. Companies that demonstrate sustainability will be rewarded by investors not just the socially responsible investors but also the mainstream. The 3-year compounded rate of return of companies that Innovest regards as showing high sustainability performance has been higher than that of others in the same sector. This has been seen in a number of sectors. In particular, a recent study carried out by Innovest for WWF of FSC certified companies has shown that these out-perform non-certified companies across a range of indicators price earnings ratio, rate of return on capital employed etc. This is because of improved stakeholder relations and better risk management.

The sustainability premium is going to grow in the future because of democratisation of the retail investor base and growing recognition by the corporate sector that it is doing things that are good for sustainability and that it needs to talk them up more. But institutional investors still do not fully understand these issues.

Improving linkages through quantification

The linkages between sustainability and the bottom line need to be brought out more clearly. While there is much talk of triple bottom line reporting, the case for sustainability needs to be made on the basis of the single bottom line – how sustainability ultimately affects profitability. Key areas of hidden value need to be examined and quantified such as:

- risk,
- franchise value and reputational capital, and
- climate change

The mining industry needs a vision that persuades society that the social and environmental benefits of sustainability outweigh the costs. This requires more engagement with the end users of metals.

Next steps

More detailed analysis is needed of the relationship between shareholder value, corporate profits and social and environmental performance. This will help to overcome the perception of conflict with fiduciary duty.

More outreach is needed to persuade the mainstream financial sector of the benefits of addressing sustainability.

Sustainability reporting needs to be communicated in ways that asset managers can understand.

Clive Wicks, Senior Fellow, WWF

The context

There are 2 billion people in poverty who depend entirely on the environment for their livelihood and water and marine resources are under threat.

Certification and public image

The mining industry does not have a good public image as evidenced by the decline in applications to mining university courses. The problem is lack of trust from civil society. Indicators are needed to assess the mining companies contribution to sustainability. The work being conducted by WWF in Australia on a certification system for mining aimed to address this issue.

Key concerns of NGOs about mining

- Tailings disposal in river surface water
- Seepage from tailings dams
- Environmental impact of marine mining and tailings disposal
- Waste reduction
- Mercury
- Mining wars
- Corruption
- The need for more recycling

Mike Hodge, MD Marsh Canada

Voluntary approaches

There is increased awareness now on the part of mining companies of environmental and social issues but they are perceived as primarily negative. Voluntary approaches to corporate compliance are more likely to be effective than the “big regulatory stick” as companies have to be motivated to change.

There are myriad risks in the mining industry. While there are links between risk and sustainability, risk management involves costs. In the current environment of depressed prices this limits what can be done, and there have to be clear incentives.

There is increasing evidence that environmental issues are an important driver of company performance. This was brought out in a WBCSD report which cited a number of company case study examples. However, there were no examples of success from the mining industry in this WBCSD report.

Recommendations

- The mining industry has done a good job on incorporating environmental issues into due diligence procedures but the financial sector needs to do more.
- Differentiated financial instruments are needed which reward good sustainability performance for example, reductions in taxes and insurance premiums
- It is necessary to focus on positive aspects of mining. Society needs minerals therefore mining is here to stay.

Guy Elliott, Head of Business Affairs, Rio Tinto

Poor profitability in the mining industry

Financial returns in the mining industry have been low indicating that allocation of resources has been done badly. Analysis by HSBC and Rothschild shows that total shareholder return for the larger mining companies has been in real terms 2.3% and 2.5% over 15 and 28 years respectively. If smaller companies had been included in this analysis it is likely that the returns would have been lower still.

Is financial return linked with sustainability or just with good management?

Analysis of what makes mining companies financially successful has not found any correlation between high returns and good sustainability performance. Good financial returns are more likely to be linked to good management rather than sustainability. Good management means avoiding bad decisions and implies improving risk analysis and risk management.

The need to improve risk analysis

Rio Tinto is currently trying to improve its approach to risk analysis, in particular how to address qualitative risks. A key issue in analysing risk is predicting how society's expectations are going to change in the future. This requires formulation and analysis of scenarios.

The need to address existing mines as well as incremental projects

Much of the focus of the conference has been on incremental decisions but this is "tinkering at the edges" because of the huge legacy from existing mines. Financial incentives are needed to improve performance at existing mines.

Dealing with the spectrum of mining operations

There is a wide range of organisations involved in mining, large, small artisanal, government-owned, privately-owned etc. The conference has primarily addressed large

mines. It is necessary to consider the capacity of different players in the industry to analyse risk, recognising that the low returns in the industry limit the extent of detail for such analysis. The dual role of government as regulator and mine owner that occurs in some cases also needs to be addressed.

Conclusions

- Rio Tinto supports certification in the mining industry.
- Sustainability is not bringing clear rewards for shareholders but good management seems to be rewarded

Discussion

The North-South Divide

An attendee expressed concern over the predominantly Northern view of the conference given that the main emphasis appeared to be on the environment. In the developing world, the perception of the mining industry is different – it is regarded as an essential industry and the key issue is over distribution of the benefits within the current generation. The difference in perception between North and South is illustrated by the cases of mines that are winning awards for environmental performance but are considered questionable at local level.

Another observer emphasised the contribution that mining could make in some countries, citing Peru as an example where the mining industry accounts for over 50% of exports. Moreover by bringing infrastructure to areas of difficult terrain like the Andes, mining was important for linking different parts of the country. While there are risks associated with sustainability there are also opportunities.

A third questioner stressed that debates over sustainability require equal and adequate representation of communities affected by mining.

Clive Wicks agreed that there were not enough people from the South present at the Conference, noting that people were unwilling to attend because they felt that their views would not be respected.

In response, Guy Elliot agreed that the Conference had reflected too Northern a view and that equal and adequate representation of communities was essential. However, he felt that the situation was not as bad as represented. For example, in Brazil, Rio Tinto had built on local culture and management. Local regulations were used and international standards where no local ones existed. Consultation had shown that local people were not only interested in immediate transfer of resources but also the longer term.

An attendee made a similar point by citing two projects of his company in Latin America which had given great emphasis to indigenous people.

Self Certification versus an Independent Approach

One attendee urged the mining industry not to enter into a self-certification process. The discussion about certification should involve all the stakeholders including governments, financial institutions and NGOs.

Another observer highlighted the approach of the Canadian mining industry which has taken a policy position to help the Canadian Government to achieve its Kyoto commitment. The mining industry in Canada is well below its 1990 CO₂ levels and this has been independently certified. But it has been good for business as energy efficiency has resulted in cost reductions. He also stressed that partnerships between industry and NGOs can work and can be good for business, citing as an example the fact that environmental NGOs and the industry association are jointly asking for stronger laws on species protection.

Claudette Cofta noted that self-certification was the most criticised element of Responsible Care but that this was being addressed in two ways:

1. members were being asked to pick out a performance goal to post on their website and to report annually on this and
2. ISO quality standards

She also emphasised that Community Advisory Panels were an important element of Responsible Care in the US. These met on a regular basis with plant representatives. In some cases the panels were run by individual plants in other cases by a coalition of plants. These were important in improving communication between companies and the local community. However, over time it was necessary to rotate community representatives as it was possible to become “too comfortable” with stakeholders.

Clive Wicks noted that the practicality of certification depended on the nature of the production chain. He suggested that mining chains are too complex and questioned the need to have so many players involved after the extraction stage.

Richard Sandbrook asked whether it was necessary to adopt a different approach for mining certification from that of the forest sector given that its production chain was so complex. Instead of certifying products it would be more practical to certify production, making a distinction between new mines, existing mines and abandoned mines. Clive Wicks expressed the view that product certification was preferable, predicting that some large companies will soon start demanding certified mineral products.

Another observer informed participants about the Social Accountability workplace standard which could be combined with environmental certification, e.g. with ISO 14000.

Sustainability and Self-Insurance

Richard Sandbrook noted that mining companies are largely self-insured and asked what implications this had for addressing sustainability. In response Guy Elliott stressed that even with self-insurance it was still important to reduce risk as major disasters would lead to both loss of profits and of reputation. Another observer remarked that the extent of insurance

cover was not the only issue. The problem for companies is loss of shareholder value and reputation.

Summing Up

Nemat Shafik summed up the main conclusions from this session:

1. There is evidence of benefits from addressing sustainability.
2. However, it is not clear where these benefits come from and whether they simply reflect good management.
3. Designing a participatory process is difficult. Not only is there a North-South divide but there are divergent views within stakeholder groups, e.g. across different departments of government.

Conclusion: Where do we go from here?

James Bond, Director, Mining Department, World Bank and IFC

There were seven key points emerging from the day's discussion

1. Mining has a big impact but it can also have positive impacts.
2. Sustainability is not only about environment but about communities.
3. Sustainability is a local issue.
4. The causal link between sustainability and financial performance is tenuous and is most likely to operate through quality of management.
5. Risk is key.
6. There is an information deficit – in particular, a better understanding of risk and sustainability is needed at the industry, company and specific investment level.
7. There is optimism about the financial community's interest and ability to address sustainability in the mining industry.

Wanda Hoskin, Senior Programme Office (Mining), UNEP

The conditions under which the mining industry will operate in the future will change. There will be increasing awareness that reputational liability is economic liability and that accidents have both financial and reputational risks.

Environmental screening tools need to be used more in due diligence procedures. UNEP is involved in the Global Reporting Initiative which is working on criteria for mining. This will facilitate analysis.

Financial institutions will only survive if they change, anticipate and adapt to customers' needs. More needs to be addressed in the area of sustainability.

Mining is vital but it is necessary to ensure that it makes a positive contribution to sustainable development.

Luke Danielson, Director MMSD

The following key topics for research had emerged from the day's discussion:

1) Metrics

What systems are in place to measure sustainability performance and what evidence is there that they are measuring what we want to know?

2) Dividends

Is there evidence of a dividend for good performance? If so, can we quantify it? What explains it? – is sustainability a surrogate for good management or is there some other factor?

3) Information

What information needs to be in the public domain?

4) Structuring a Process

Who needs to participate in standard setting to ensure that the process is equitable and transparent?

5) What are the implications for different scales of operation of addressing sustainability?