Mining, Minerals and
Sustainable Development

International
Institute for
Environment and
Development

WORKSHOP ON MANAGING MINERAL WEALTH

How can the Minerals Sector Support the Development of Mineral Economies and Contribute to Building Sustainable Communities, Especially in the Poorest Countries?

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Introduction

The broad aim of this three-day meeting was to facilitate discussion of the critical issues surrounding the contribution of the minerals sector to economic development. It brought together more than 60 experts from companies, research institutions, NGOs and community-based organisations, government and international organisations from 20 different countries.

Overviews of the topics covered in each working session were provided by a series of presentations, reflecting the perspectives of different actors. Case studies of 'good' and 'bad' practice were highlighted, and key constraints, ways to overcome them and opportunities for moving forward were addressed. The specific objectives of the workshop were:

- To understand the range of perspectives and interests on issues related to how the mining and minerals sector can support the development of mineral economies and contribute to building sustainable communities, especially in the poorest countries;
- To identify existing initiatives at policy level and in practice, and policy options;
- To identify further research, information needs and follow-up activities.

The meeting was opened by Richard Sandbrook, project coordinator of MMSD, and introduced by the chair of the first session, Colin Filer of the Department of Anthropology, Australian National University and MMSD Assurance Group member), who set out the objectives of the workshop and the challenge of the MMSD project.

Summary

- There was broad agreement that the workshop had succeeded in promoting dialogue between a diverse group of individuals, and had led to a much better understanding of the alternative perspectives and roles of the different players, based on real experience and informed by case studies.

- The need for the participation of all stakeholders in decision-making was highlighted throughout, with clear roles and responsibilities identified for the corporate sector, the community, local and regional government, international organisations and NGOs.

- However, it was agreed that the workshop would have benefited from greater representation by local SMEs, local and regional NGOs, donors, MMSD sponsor organisations, ministers of finance of developing countries and local government.

- While the workshop was informed by a number of case studies highlighting good practice, it was agreed that there need to be an analysis of good and bad practice in order to develop a 'best practice' code of conduct for all sectors.

- The workshop highlighted the need to develop indicators for sustainable development against which development outcomes can be measured.

- There was consensus on the need for an institutional framework for continuing the dialogue, and making decisions. It was suggested that a virtual workshop be set up to act as a forum for continuing debate.

1. THE DEVELOPMENTAL CHALLENGE: FOUR PERSPECTIVES

The World Bank perspective
James Bond, World Bank

The World Bank is a co-operative, owned by 185 countries and it operates like a bank, although its mission is not to generate profit, but to contribute to improving people's lives. The aim of this talk was to provide delegates with the World Bank's perspective on the development challenge and how this relates to the mining sector. A key point to emphasise is that the World Bank is not in the mining business, but is primarily concerned with creating institutions that generate development, both in terms of infrastructure and human development, with the aim of improving people's productivity and wealth generation potential.

The World Bank provides assistance to governments and developing countries through technical assistance loans and financial aid. It is the biggest financial institution involved with the closure of mines and environmental clean-up e.g. Russia, Romania, Ukraine and Poland.

It also provides assistance to private companies through the International Finance Corporation (IFC), the largest multilateral source of loan and equity financing for private sector projects in the developing world. It promotes sustainable private sector development primarily by:

- Financing private sector projects located in the developing world;
- Helping private companies in the developing world mobilise finance in international financial markets;
- Providing advice and technical assistance to businesses and governments.

Economic development
We are now living in an epoch of rapid expansion and growth. History tells us that the process of economic development is not one of gradual growth but of 'punctuated equilibria' – relatively slow periods of growth followed by periods of explosive growth. This was triggered by the industrial revolution in around 1800, initially fuelled by the extraction of coal and iron ore and then by oil, gas and other minerals.

Improvements in productivity have led to the rise of the modern firm and new methods of improving worker productivity through the development of management systems/ industrial organisation etc. A more efficient use of information has also dramatically increased the efficiency of markets. There are more wealthy individuals living now than at any other time, a phenomenon which has been fuelled by mineral and energy extraction. However, the central paradox to all of this is the closer a country is to the source of mineral wealth the less likely it is to benefit from it, as illustrated by Nigeria, Algeria, Mexico, Congo, Venezuela and Indonesia. Nigeria, for example, has enormous oil reserves, and yet the per capita income today is lower than it was thirty years ago. Resource-poor countries on the other hand have managed to prosper e.g. Japan, Singapore, Switzerland. There are, of course, exceptions where some countries have managed to successfully exploit their own mineral resources e.g. USA, Canada, Australia and Botswana. Factors that need to be teased out during the course of this debate relate to our understanding of the mechanisms that lie at the root of this 'paradox of plenty': Dutch disease – over valuation of minerals leading to loss of competitiveness for other industries, governance issues, corruption and the collapse of state institutions and lawlessness.

We also need to look at local and regional disparities within resource-rich countries, where some regions bear the brunt of the cost of mining activity without sharing in the benefits of the revenue generated. Such regions generally tend to be worse off than the population as a whole. From the World Bank's perspective, the key question that needs to be answered is why this revenue is not being converted into human and social capital, necessary to achieve sustainable economic development. The paradox of plenty also partly accounts for the negative reputation of the mining industry around the world. Consequently, the World Bank is happy to support the Global Mining Initiative and MMSD in its efforts to address these concerns.

Different actors and their respective roles

The paradox of plenty affects each actor: government, industry and local communities, and each must have a different response.

Governments have a major role to play and bear a significant responsibility in this process. For example, in looking at the reasons why Australia has benefited more from its mineral wealth than Nigeria, a number of key observations can be made:

- *Institutions:* the Australian government has stronger, more robust institutions. This enhances transparency and provides investors with mechanisms which allow for legal recourse;
- *Safeguards:* it has a system of safeguards – rules governing environmental and social performance of investors plus monitoring and compliance enforcement;
- It has *fiscal systems* (income from rents, taxes) which ensure a fair distribution of benefits between the investor who needs to make a decent profit and the host country which needs to receive income for the export of raw materials; and
- It has a *decentralisation policy* – a system that ensures equitable distribution of benefits between resource-rich regions and the rest of the nation.

A widely held consensus is that governments should not own or operate their own mineral assets, but should establish a framework to allow the mining industry to contribute to economic development. Governments also have a critical role to play in managing the relationship between mining companies and local communities.

Companies are responsible to their shareholders who own the capital. Shareholders want the best return on their capital that they can get, and the best return from a future stream of cash flows that have some degree of certainty. The biggest risk to the cash flows are the local communities who can shut down the mining operation. Therefore, to manage this risk, companies require a 'social license to operate', i.e. they need to develop close ties with their host communities and treat them as partners and beneficiaries of mining, not just passive bystanders. The aim is to leave behind a community that will have sustainable economic activity after the mine has closed. This should not be treated as an external relations exercise, but rather woven into a sophisticated risk management strategy that aims to deliver real return to investment and value. Communities themselves need to 'own' this process and organise themselves accordingly.

The challenge ahead is to explore mechanisms at the interfaces of the three groups: government-industry, industry-community and community-government that will allow the minerals sector to contribute to development in resource-rich economies and among the communities around the mines.

A labour perspective

Fred Higgs, the International Federation of Chemical, Energy, Mine and General Workers' Unions (ICEM)

As sponsors of the MMSD project, ICEM are actively represented in project activities at both the regional and global level. The headquarters is in Brussels, with regional offices in Washington, Brazil, Zimbabwe, Seoul and Moscow. There are 20 million members from 400 affiliated organisations in 110 countries.

ICEM does not see itself as an NGO. One of the things that makes it different is that it has a major vested interest in seeing the mining industry succeed – which NGOs do not necessarily share.

ICEM also has a strong interest in the social aspect of mining. Social, economic and environmental sustainability is regarded as essential for the long-term stable employment of its members. ICEM believes this cannot be achieved unless workers and trades union representatives are identified as key stakeholders at the local, national and international levels.

The rationale behind this thinking is that workers and trades unions are best placed to monitor and oversee industry practices, and can contribute to sustainability at the workplace level by seeking compliance with their employers on issues such as the protection of workers' rights; equal opportunities; safety; the eradication of poverty and the protection of the environment. ICEM must be prepared to campaign against bad practice, to persuade members that certain activities are indefensible.

Furthermore, because of their involvement in community-level activities, they are also considered to be the best ambassadors for representing industry interests within the community.

At the national level, ICEM provides advice, support and training to assist its members to acquire information and skills needed to actively engage with their employers. This should be welcomed by employers (though many fear it) as an invaluable tool in assisting with political debate and with achieving enterprise sustainability.

At the international level, ICEM works hard to develop global policies and campaigns that promote sustainability through active consultation with industry leaders, national governments and inter-governmental institutions. But the industry must be organised and have representatives to engage with ICEM on a sectoral basis.

Conclusion
Economic, social and environmental problems continue to manifest themselves at the local and national level, but increasingly the solution is being sought internationally. MMSD can play a valuable role in setting up structures that will enable ICEM, on behalf of its members, to engage properly and effectively with the mining industry on these issues.

A corporate economist perspective
Mike Waller, BHP Billiton

In assessing the role of the private sector in development, particularly when looking at the issue of managing mineral wealth, it is helpful to first examine the track record of the private sector's contribution to development; to analyse the arguments for a different role for the private sector; and to assess its future role in development.

The record
Foreign direct investment (FDI) is an important driver of development, evidenced by the increase in flows to developing economies which have more than quadrupled over a ten year period. The figures are striking: between 1988-93 FDI flows to developing countries averaged US$47bn a year, reaching US$208bn in 1999. By comparison, equivalent figures for official development aid over the same time period were approximately US$50bn and US$48.5bn respectively.

Since 1945 significant improvements have been achieved in living standards in non-OECD countries. It is widely held that this is largely the result of FDI, which is in turn driven by the increased integration of world production, driven by TNCs While the role of local level companies in the development process should not be underestimated, the massive opportunities and potential benefits (employment, infrastructure, etc.) created by FDI are worthy of attention.

However, the potential benefits are tempered by two major disadvantages: firstly, evidence suggests that FDI and its benefits are unevenly distributed, and secondly, even in countries that receive a dominant share of investment, the record on achieving positive developmental outcomes is patchy.

Commercial misjudgement may account for this to some extent, but so too does the issue of governance. From a corporate economist perspective, commercial focus criteria are an important determinant of company decision-making: for mining companies geology is the essential determinant of investment opportunity. This may present a real development opportunity for some LDCs, while for others it may serve as a constraint e.g. mineral economies facing 'Dutch disease', 'resource curse', etc.

The financial performance of the top 50 companies demonstrates that mining is not always profitable. Between 1989 and 1999 only one of these companies out-performed the SMP 500 index, and a third of these had negative returns. The market capitalisation of the fifty companies combined amounted to US$300 billion, which is the equivalent of Microsoft alone. This is relevant when considering the distribution of mineral rent and the returns required to induce mini investments in countries with high sovereign risk.

A different role for the private sector?

There are two contrasting models, each suggesting a different role for the private sector: the profit maximisation model (i.e. the main purpose of a company is to make a profit) and the stakeholder/corporate responsibility model, which argues for a greater role for the private sector in development, based on the following assumptions:

- Companies are now more powerful than states, and with many states being unable to provide key government services there is a need for corporate intervention to fill the void;
- The link between reputation and profit emphasises the need for active stakeholder engagement, since a company's 'license to operate' is conditional on the participation of civil society. They have the power to withdraw this where they believe a company fails to meet acceptable standards of environmental, social and economic performance.

Critics of this model argue that it is founded on a false set of assumptions, and that it raises real concerns about the constitutional implications for the involvement of both the government and the private sector in taking on broader responsibilities.

Mike Waller argues that the dichotomy presented between the two models is essentially false and that there is a confusion of ends with means, since companies need to engage with stakeholders and adopt socially responsible practices in order to be profitable. He argues that companies realise that the pursuit of short-term financial gain is detrimental to longer term development, and that there are huge risks involved in riding roughshod over the interests of key stakeholder groups. He describes the hallmark of successful, enduring companies as possessing:

- a strong culture and a sense of what is acceptable in terms of values and behaviour;
- a keen sensitivity to changes occurring in the wider environment; and

- a willingness to understand how such changes might affect business and how they can respond to them, even if it means going beyond their core business responsibilities.

For Waller, the key question is whether business should actually assume a role in the development process or whether that responsibility should be imposed by civil society on companies. Waller argues against this for two reasons:

What then for the future role of the private sector in development?
Firstly, there is a constitutional issue: development choices exist within societies themselves, the private sector is not a democratic entity. It is important to recognise that companies operate within a framework of rules and conventions determined by society, and that while the private sector may influence the balance of decisions, it should not determine the outcome.

Secondly, there is the question of capability. The private sector is not equipped to deal with a broader set of social responsibilities, since companies are not development institutions. Nor are they democracies, and should not be empowered to make decisions that affect society as a whole from either a constitutional standpoint or in terms of deciding what constitutes social interest. Rather, they are best able to support development outcomes by focusing on the key objectives of profit maximisation and enhancing shareholder value, where positive development outcomes are seen as a consequence rather than a determinant of corporate behaviour. Companies are learning to play a more effective and supportive role in reconciling stakeholder interests with the goals of improved and sustained development.

Conclusion
Thinking about the role of the private sector in development in this way raises important questions for the discourse on managing mineral wealth. For example:

- Who is accountable for development choices and outcomes and how is this accountability best discharged?
- Within this accountability framework, is there clarity about the roles and responsibilities of all the key actors?
- How would proposed changes affect development outcomes in terms of enhanced incentives, capabilities and transparency?
- How will performance be measured and evaluated to ensure improved outcomes are achieved?

An NGO perspective
Miguel Schloss, Transparency International

From an NGO perspective, the key development challenge is how to move from words to deeds. Very interesting conceptual notions have been raised and debated, but the question remains how the roles of government, the private sector and civil society can be made mutually supportive. In other words, how do they work together bearing in mind their specific roles? And what are the key variables?

Schloss argues that pivotal to these questions are the issues of accountability, transparency and corruption. Countries with high levels of corruption are often countries with distorted governance structures. This results in more costly public investment, lower government revenues, which lead in turn to lower expenditure on operations and maintenance and lower resource surpluses, resulting in poorer standards of economic performance.

Through a series of graphs, a distinct and positive correlation can be drawn between high levels of civil liberties and low levels of corruption. Similarly, corruption tends to be lower in countries with high levels of the rule of law, and a high standard of professionalism, particularly in the civil service. The more conditions that have to be met in terms of granting permits, licenses, etc, the more evidence of corruption there is.

A multi-pronged strategy is advocated for dealing with this problem. Measures being implemented along these lines are already in evidence in many countries, e.g. the disclosure of assets in Bolivia and Georgia and reform of tax administration in Latvia and Ecuador. The participation of civil society, the government and the private sector is regarded as fundamental to making this strategy work. Transparency International believes that civil society tends to be the weaker of the three parties and tries to enhance the capacity of civil society through its calls for public accountability. The issue of how information is made public and disseminated is believed to be key to raising standards of accountability and generating competition.

In countries outside the OECD, corruption is a major problem. As the bulk of activities in the mining sector are in non-OECD countries, solutions to this problem need to be actively debated.

So what does all this mean for the mining sector? A number of issues currently being addressed at the global level are relevant here. For example, the OECD Convention on Corruption, currently being drawn up, will require all companies to abide by international regulations. This raises the question of how companies will begin to engage with sustainable development processes. Some companies have already taken steps to introduce their own norms of conduct and in the future, will have to think about how they can help by using their resources strategically.

As we move towards sustainability, the private sector will need to change its role from that of proprietor to one that actively engages with the world in which it operates. But that does not mean that companies should behave like governments.

Discussion

The 'paradox of plenty'
Evidence suggests that economic growth and increased FDI alone are insufficient grounds for achieving sustainable development e.g. Angola. While mineral wealth can present real opportunities for development e.g. Botswana, it can also accelerate the route to poverty e.g. Nigeria. What can the rest of the world do about this, and

what are the legitimate means of intervention? Economic growth is needed, but the way income is distributed in these countries also needs to be addressed.

The role of trades unions

It was argued that unions have a key role to play in poverty issues, and in developing standards of good practice. However, these need to be developed internationally. There are cases where companies which act in an exemplary way towards their employees in one country, behave in an exploitative way in a country that does not have the same regulatory structures. In a lot of places trades unions are illegal, and trades union members imprisoned. In such cases ICEM applies pressure on companies to ensure that basic human rights are applied.

Corruption

There is great potential for using mining as a motor of economic growth. However, corruption is a major obstacle to this process. Governments and companies talk to communities, but money still goes to the national coffers. On the other hand, some countries with undeveloped mineral wealth, like the Dominican Republic, have trouble convincing companies that the political stability exists to attract investment. Examples from the coffee sector in Columbia regarding consultation with communities might be relevant to mining.

2. SETTING THE SCENE

How can mining contribute to sustainable economic development?
Rod Eggert, Colorado School of Mines

In addressing this kind of question the danger lies in overlooking the complexities of applying theory to practice. Discussion was mainly centred on the economic dimensions of sustainable development rather than the environmental and social aspects. While attention was focused on the national level (hence little was said about small-scale mining), much of the discussion was equally relevant to the local and community level.

The presentation had three objectives: to identify what is meant by a mineral economy; to analyse the fundamentals of economic sustainability; and to examine the different roles of stakeholders e.g. governments, companies and civil society.

Profile of mineral economies

Mineral economies are extremely diverse – some are successful, others not so. They differ not only in terms of output, geographical location and products, but also in terms of their broader development performance. They cannot be classified according to a single common definition. Explanations range from looking at mineral output as a percentage of GDP, to mineral exports, or a combination of both. ‘Mineral’ production includes the extraction of metallic and non-metallic minerals, coal, oil and gas (both fuel and non-fuel products).

For the purposes of this presentation, a mineral economy is defined as one where the value added in mineral production is greater than, or equal to 8 per cent of a country's GDP. Thirty-nine developing countries meet this criterion, of which 17 are based in Africa, 14 in Asia and 8 in Latin America. Of these, 16 are described as trading in non-fuel products and 23 in fuel. 23 countries are identified as continuing mineral economies, 12 are described as 'new', and 4 as ex-mineral economies. 13 are categorised as low-income countries, 11 as lower-middle income and 4 as upper-middle income economies, thus emphasising the diversity that exists between them.

When looking at the figures for growth in real per capita GDP between 1975 and1998, other differences are also evident. For example, the annual average growth rate is highest in Botswana at 5.2 per cent per annum, and lowest in the Congo at -4.8 per cent per annum. Figures from the UN Human Development index reveal a series of other important characteristics.

Because there is so much diversity amongst these so-called mineral economies, it is dangerous to make broad assumptions and generalisations about their success or otherwise. Eggert argues that the real issue is not *whether,* but *how* mineral wealth can contribute to sustainable economic development.

Fundamentals of economic sustainability

Three challenges need to be met before mineral wealth can contribute to sustainable economic development:

- *The creation challenge:* this involves creating and sustaining mineral wealth in a manner that is consistent with social preferences for environmental quality and other social and cultural values. A framework of social benefit-cost analysis is the methodology Eggert finds most useful in dealing with the complexity of this issue.
- *The investment challenge:* how to create renewable wealth out of non-renewable resources, and how to sustain economic wealth even if mineral wealth cannot be sustained. The key issue is how much ought to be saved and how much invested, and how much of this investment needs to be channelled through human and other forms of sustainable capital.
- *The macroeconomic challenge:* addresses the economic and political aspects of mineral development, including:
  - External economic issues – e.g. declining and unstable commodity prices
  - Internal economic issues – e.g. structural change associated with large and booming export sector producing minerals, Dutch disease etc.
  - Political issues e.g. rent seeking, corruption

Different roles for different participants

Governments: Four clear roles have been identified for government in the debate on mining and its contribution to sustainable economic development.

1. Providing an overall framework for economic development, including:
   - a legal foundation, a non-distortionary policy environment (i.e. the conditions for macro economic stability);
   - basic social services and infrastructure (protection of the vulnerable and the environment). The economic objectives of public policy from this perspective

should be to facilitate market activity, to promote economic efficiency and pursue equity.

2. Facilitate the creation of and sustain mineral wealth by:
    - providing geological information either through government geological surveys or by funding of private surveys;
    - Establishing policies which define the conditions under which exploration, development and mining takes place and which set out the conditions for mineral taxation and how other payments to government are made, including licensing etc. They are also responsible for guaranteeing the stability of these rules.

3. Sustain the economic benefits of mining through:
    - Saving and investing in sustainable capital;
    - Ensuring that mechanisms are in place to capture any spillover benefits deriving from mining in those communities and regions where mining takes place, as well as directly investing in the social and physical infrastructure of the country.

4. Manage the broader economic and political effects and problems of mineral development.

Companies**:** The standard macro view of companies is that they act in society's best interests by striving to maximise profits within a social framework defined by government policies, and in line with the broader requirements and preferences of society. They have a central role in creating and sustaining wealth, as well as an evolving and ill-defined role in sustaining the broader economic benefits of mining.

Eggert argues that companies are increasingly being asked to take on responsibilities traditionally regarded as key responsibilities of government such as investing in education, health and infrastructure. The identification of a proper company role in community development represents a major challenge for mining and sustainable development. Eggert's personal view is that companies should occupy a minor role in managing the broader economic and social impacts of mineral development, and that it would be better to develop the capacities of governments and civil society to meet the goals of sustainable development, rather than expecting companies to take on more responsibility in this regard.

Civil Society: is broadly defined as comprising of participants other than governments and companies. They have an important role to play in the decision-making process that cuts across all 3 challenges (creation, investment and macroeconomic).

Civil society also has an important role to play in sustaining the economic benefits of mining:

- *directly* through partnerships designed to foster development, ensuring that appropriate investments are made in sustainable human and physical capital e.g. community programmes etc.; and
- *indirectly* through its role in ensuring that the social and environmental effects of mining are taken into account when making decisions about mine development.

This is particularly true when government institutions are poorly developed or absent.

Civil society also has an important watchdog role to play in dealing with the potential and broader economic political problems associated with mineral dependence.

This discussion of the various roles for different participants leads Eggert to conclude that recognition of these differences should be built upon and taken advantage of when looking at how the minerals sector can best support the development of mineral economies and contribute to building sustainable communities.

An anthropological view
Juan Ossio, Pontificia Universidad Católica de Perú

Ossio highlights the need for collaboration in the field of mining companies. He sees the mining industry as undertaking important work in community areas. Mining is extremely important in Peru, although it only contributes 4 per cent to Peru's GDP. However, GDP is only one of a range of different indicators of a country's development. Mining contributes 46.6 per cent to external revenues.

What Eggert refers to as the creation challenge is perhaps the most important challenge in terms of analysing social and cultural issues. Ossio believes we are more than ever confronting an intercultural battle. Mining companies are rooted in western values, and it is essential they take into account the views of the people in the areas where they operate. It is interesting to note that mining companies wonder why they are not liked by communities.

Concerning the roles of different stakeholders, Ossio suggests adding the international community, which he believes is becoming increasingly concerned with issues of corporate social responsibility. Governments find themselves tied by the financing conditions set by WB/IMF for liberalising their economies, and in the case of Peru this has meant a large influx of foreign-owned companies now operating in Peru. There is very little trust in Peruvian institutions, exacerbated by the Fujimori regime, and corruption is widely regarded as an institutional problem. In laying down the conditions for further economic growth, the World Bank is indirectly seen as complicit in this process.

Regarding land negotiations with local communities, Ossio suggests developing alliances between governments and local communities. Responsibility can then be shared between local government and other organisations. It is not the responsibility of companies to assume the role of governments.

Discussion

The role of governments

Government involvement is not readily welcomed by communities who fear that money that is rightfully theirs will be misappropriated. Local governments are not seen as arbiters of community interests, but rather as competitors for economic rents accruing to local communities. Communities tend to trust companies more than government, and would welcome their involvement in community development processes. However, companies are not interested in this role after mine closure.

Furthermore, when governments change, priorities and even human resources are often lost, and community development initiatives abandoned. Democracy is key. Without stable structures in place, it is difficult to capture mineral wealth.

Devolution of power by the federal government to local government is essential, provided there are strong institutions in place to make this possible (as in Canada, but not in Indonesia).

The role of companies

There is a need for an alliance between mining companies and communities. Companies are located in remote areas where the government has limited reach. Their proximity to local communities explains why people tend to trust them more, particularly as they are their only source of livelihood. This issue is fundamental to the debate on managing mineral wealth. How far should corporate responsibility go? What should be done in non-democracies? Should corporations go to non-democratic areas and fill in the void? If this cannot be done in a democratic fashion what is the best way to do it? Companies need to be clear about their own responsibilities.

All companies have mission statements and codes of conduct. Most promise to operate within a legal framework. But what happens if the law does not allow for unions or if it is not based on principles of sustainability? International initiatives such as Global Compact are voluntary because it is so difficult to reach international agreement.

The role of other actors

In a globalising world there is a key role to be played by the international community, particularly in the area of conflict resolution. Unfortunately, it is difficult for outsiders to engender trust in people whose countries are affected by corruption. An international body that can mediate in conflict situations would be very helpful. Thought also needs to be given to dealing with the distrust people feel in such institutions.

It was emphasised that development cannot come from outside. It has to happen in the countries themselves, and can be promoted through the support of local efforts.

3. CREATING AND CAPTURING MINERAL WEALTH

Introductory overview
John Stewart

A good starting point is to unpack the concept of creating mineral wealth. Mineral wealth is only created when minerals are extracted at a cost that is less than the revenue earned. Discussion during this session focused on the critical issues underlying the creation and capture of mineral wealth and an examination of how this might enable the mineral sector to best contribute to sustainable development.

The first prerequisite in the creation of mineral wealth is a mix of policies in the host country aimed at attracting the required investment for mining. Decision-making by international investors is predominantly governed by risk-return considerations, such as:

- Policy and legislative certainty;
- Macro economic stability;
- Private ownership of enterprise;
- Access to pre-competitive geological information;
- Security of tenure and access to land;
- Access to labour, skills and technology;
- Free movement of financial capital;
- Fair and internationally competitive taxation;
- Efficient and honest administration.

Measures taken by governments to facilitate the process of capturing mineral wealth include:

- Income tax on profits
- Royalties
- Import and export duties
- Application and registration fees
- Surface rentals
- Withholding tax on remitted dividends
- Withholding tax on foreign loan interest
- Withholding tax on foreign services
- Value added tax
- Local and regional taxes

In addition, there are a number of tax incentives that can be used to help attract mining investment, including:

- Exploration expenses
- Mine development
- Equipment imports
- Export sales
- Commodity price cycles
- Post-production expenses
- Stable taxation over long periods
- Negotiated agreements
- Ring fencing
- Accelerated depreciation
- Tax holidays

From this list it is clear that a desperate need for short-term development can easily lead to an under-recovery of mineral rents, which would work against the principles of sustainable development. Against this background, the following points should be considered:

- ***Fair sharing of resource rents***: *w*hile no one has been able to determine exactly how resource rents ought to be distributed, Cawood proposes a 60/40 split for the investor and the state respectively. However, Botswana has been identified as a resource country that has achieved considerable growth, and while the government's share from diamond mining has been kept secret, it is expected to be in excess of 75%. Long-term development programmes were put in place, enabling Botswana to create a sustained source of revenue out of mining.

- ***Competition between countries*: ** developing countries compete for investment in mining, propelled by a desperate need for development. They are pitted against each other in what has been described by The Third World Network-Africa as a 'race for the bottom'. This is because efforts made to attract mining investment run the risk of counteracting measures taken to promote sustainable development and intergenerational equity.

  One solution to this might be to establish inter-governmental agreements e.g. the SADC Mining Protocol which calls for the harmonising of national policies. Another solution, increasingly employed, is where investor funds subscribe to certain social responsibility criteria.

- ***Competition between mining companies:*** mining companies compete against each other for a bigger slice of the market and are driven by a strong need to acquire low cost production measures. These dynamics can lead to over-production, low prices and lower returns, but to what extent is this a problem, and how should it be dealt with? The solution lies in the consolidation of companies and the employment of voluntary codes of conduct.

- ***Unintended consequences of market dynamics***
  While the primary beneficiaries are consumers, the losers are the future generations of mineral producing countries.

  Soros and others have pointed out the inability of global markets to deal with moral dilemmas and issues of social responsibility. Is this a looming problem and how should it be addressed?

Creating and capturing mineral wealth: the redistributive effect of large-scale mining in Chile
Francisco Tomic, Compañía Minera Escondida

During the 1960s Chile developed a unique way of creating and capturing mineral wealth. It created mineral wealth by forming a producing body, and captured it through nationalising the production of minerals.

Chile provides a good example of how mineral wealth can be managed and shared successfully. Chilean mining production is of world importance, with significant production of copper, gold, silver, nitrates, potassium chloride and iodine. It is a world leader in copper production, responsible for 35 per cent of total world production, and production costs to rival those of the US. It also has prospected mining reserves that are set to continue growing. It has had a round of mining investments over the past ten years.

In one of a number of regional initiatives, Chilean infrastructure is being used to develop the Argentinian mining industry, and will allow the development of projects located on the border. A similar agreement may be made with Bolivia.

The main mining companies operating in Chile, including CODELCO, the last truly competitive state-owned company worldwide, are organised under the Mining Council, which unites large producers.

Regional development

Mining investment in Chile quickly followed democracy, and although a regulatory framework was put in place during the 1970s, it was not until the early 1990s that investment arrived. The practical results of the redistributive effect of large-scale mining investment is very much in evidence in Antofagasta, Chile's mining capital, with increased levels of mortgage loans and rising sales of motor cars, flights and supermarket shopping. Unemployment has fallen (in spite of migration from other poorer areas of the country), and poverty rates have been significantly reduced for the country as a whole, especially in Antofagasta. Evidence for this is found in the growth of supermarket sales, in house and office building, in mortgage loans, in the purchase of motor vehicles and the percentage of people using planes.

The Chilean example is a successful case study of the far-reaching benefits that can be derived from large-scale mining investment, with its development of sophisticated capital market systems and reduction in levels of poverty and unemployment.

Escondida is the second largest mining company in the world. It recognises that it has an enormous responsibility and must act as a paradigm of how a mining company should conduct itself.

Creating and capturing mineral wealth: government perspectives
Keith Brewer, Natural Resources Canada

Economic policy is a key determinant in creating wealth from mineral resources. Such policy needs to be developed along with alternative lines of economic activity. Risks that are present in mining but which do not occur in other areas of the economy can be mitigated through special tax provisions for mining. This is the principal tool that enables governments to create employment and development opportunities in the peripheral regions of a country.

Economic policy is regarded as an important precursor to tax policy, since it determines whether or not investment takes place. It is also through macroeconomic policy that the economic viability and financial feasibility of a mining project is tested, and provides the basis on which the success or failure of government taxation policies can be measured. Taxation policy is also contingent on price cycles and global trends in mineral prices.

The key question to ask at this point, is how a tax system can be constructed or adapted to withstand the volatility and fluctuations intrinsic to macroeconomic policy?

It does not take much of a change in tax or macroeconomic impact to render a project viable or non-viable. A country assessing its tax policies has to be aware of the economic trends and the basic viability of mining development, even before the taxation regime is considered.

The needs of private sector investment

- Companies are the engines through which mineral development takes place, and they will only invest if revenues after taxes are profitable. The role of government, therefore, is to design mining taxation policy within an overall taxation system that encourages and stimulates economic development.

- Governments provide the framework for private sector decisions, and it is important that information on taxation rules and regulations is made available to investors, since this is how they make their investment decisions. In Canada, a joint consultation exercise with the private sector took place before any changes were made to investment rules and regulations.

Options for taxation on production

In considering the options for taxation on production, it is important to recognise that no generic solutions exist. Mining is taxed in different ways in different countries: through royalties, income taxes, property taxes and a variety of non-profit taxes as well. In designing a tax system, government objectives may be:

- To maintain existing production capacity;
- To achieve economic growth and long-term job creation;
- To share resources fairly;
- To generate steady revenues;
- To have a simple system and a high degree of compliance;

Some of these objectives may be in conflict with each other, for example an onerous general income tax system may not necessarily be favourable for attracting new mining investment, unless a preferential tax treatment for mining is introduced. Similarly, where existing mining operations are not profitable, an inflexible tax system may precipitate mine closures and compromise a government's longer-term objectives for economic growth.

In short, designing a tax system requires making decisions on:

- choosing an appropriate method of taxation;
- setting competitive tax rates;
- designing a tax base;

As well as influencing production, the tax system can also be used to finance exploration; environmental protection/mine reclamation through the setting-up of trust funds delivered through taxation policy; and community development.

Conclusions

The tax system and its characteristics are important because the tax system can aid or hinder government policies designed to promote the development of a country's mineral assets. While resource development can be seen as a motor for the rest of the economy, it is important to bear in mind that the tax system itself is also designed to yield revenues to government.

Lessons from the Canadian experience demonstrate that it is critically important to ensure that tax policy and the burden of taxation do not inhibit the number of mines coming on stream. The tax system vis-à-vis the mining industry in Canada has been structured in a way that can be described as 'progressive', where the tax burden is set at a rate that is consistent with the ability of the mine to pay, thus ensuring that the project can remain economically viable and a stream of fiscal revenues can flow to different levels of government.

Discussion

Competition for creating mineral wealth

FDI is probably the most powerful way for less developed countries to develop. The race to the bottom is unlikely to be the result of increased FDI as shown in the case of Chile. Restrictions in competition help neither the consumer nor the government of a developing country. However, distrust in competition is tremendously powerful.

Capturing mineral rent

Who gets the mineral rents? Are they used wisely to promote economic development in general? It is suggested that devolving power to regional government might be the best approach, although there is considerable tension between national and regional governments. However, delegating to local governments is not the panacea that it is widely held to be.

Individual companies and countries have to set their own rules for capturing mineral rent. Going back to the example of Botswana, it has a small population relative to its production of diamonds, and has been politically stable. It is a democracy where the population obeys the rule of law, and within the African context, demonstrates low levels of corruption. When diamonds were discovered the state owned the land. It negotiated a very good deal with companies who wanted to exploit them. The state maintained a strong position and now owns an important part of the sector. This has given the government a level of stability and certainty and enabled it to implement policies promoting sustainable development. This relates to the point that when evaluating risk in a country, companies look at the levels of corruption and transparency.

Price of metals affecting rent capture
Because productivity has risen through economies of scale and technological advances, metal prices have decreased. Capital intensiveness has gone up because companies are concerned with cash costs. If the trend for price decreases continues, rent capture could be affected. Because mining companies are so far from end markets, they cannot affect demand and prices.

4. THE MANAGEMENT AND DISTRIBUTION OF MINERAL REVENUE

Overview: The revenue dimension: new issues and practices
Kathryn McPhail, Quality Assurance and Compliance Unit, the World Bank

As chair of this session, Kathryn McPhail provided a brief overview by way of introduction.

She began by considering what is meant by revenue distribution. Revenue *distribution* addresses (i) the split between the public and the private sectors and (ii) allocation of payments among the central, regional and local levels. Revenue *management* refers to how these rents are utilised by the public sector to support development at the national, and increasingly, at the regional and local levels. Addressing this issue requires risk management - particularly the compensation required for use of land/assets and for negative impacts (e.g. resettlement, loss of habitat) and " adding value": how resource rents can be combined with other activities at regional and local level to contribute to poverty reduction. One way of achieving this is through public/private partnerships, and encouraging private companies to emulate and mainstream good practices in the diagnostic, design and delivery of projects.

Partnerships
Examples of partnership exist at policy and at project level. At policy level, partnerships are being formed, in some cases, to set rules or principles for operation. MMSD is a good example of such a partnership. One of its key challenges is to address the issue of managing mineral wealth. The World Bank has been involved in work in the Andean countries with oil companies, governments and communities, particularly indigenous peoples, to look at the issue of revenue distribution. It has also been working with oil companies and NGOs, identifying examples of good practice and focusing on social impacts.

At the project level, work is ongoing to determine what companies are doing to encourage good practice in terms of revenue distribution and management.

Good Diagnostic Practices
- Optimising Business Multipliers: The Prince of Wales Business Leaders Forum identified the importance of monitoring and reporting: In its annual Social and Environmental Review, Rio Tinto published figures indicating its

direct economic value of businesses on a worldwide basis. This amounted to US$ 4.8 billion in 2000, with 46 per cent of value added accruing at local level; 31 per cent nationally, and 23 per cent internationally.

- Regulatory frameworks: There are about a dozen countries which have provision for revenues to be distributed from the national to the local/regional level including Venezuela, Bolivia, Colombia, Indonesia.

Good Design practices

- Transparency: how can communities get access to information, and how do they participate? An example is provided by the Development Forum process in PNG in 1988 which allowed communities to participate in a benefit sharing agreement, signed off by the communities and government. In Colombia revenues distributed at the regional level amount to US$ 100,000,000 per year. BP worked with local communities to determine investment in health education, and then sought the agreement of local authorities. This was signed off in local development plans. BP then provided resources in financial management.
- Intergenerational equity: In the Chad/Cameroon project, 10 per cent of the incremental revenue was invested in a "Future Generations Fund".

Good Delivery practices

- **Governance:** In terms of institutional arrangements underpinning delivery, foundations have proved very popular for social investments, but not for benefits distribution. Most of them deal with US$ 1 or 2 million per annum and thus do not have the capacity to deal with amounts of $30-100million per annum.
- Capacity: where government capacity is weak to deliver social services, infrastructure tax credit in Papua New Guinea have proved effective in allowing companies can take tax credit on gross sales and use it for public infrastructure.
- **Dispute resolution:** because of the long life-cycle of mining operations, it is important to build into the design some mechanism for disputes to be resolved. Pioneering work is being done in Kelian on this issue.
- **Independent monitoring:** In a report commissioned for MMSD, Pricewaterhouse Coopers found that only 28 per cent of environmental reports and 16 per cent of social reports were independently audited. Independent monitoring is absolutely essential to maintain credibility and trust. Under the UK Companies Act, working in Angola, BP has decided to disclose revenue payments to the government once production begins. Similarly for the Chad/Cameroon pipeline, offshore accounts are to be independently audited.

Partnership Approach

Companies, governments and communities cannot manage this issue on their own: a more integrated approach to benefits agreement is needed in which each of the three different actors can intereact in a meaningful way for poverty reduction.

The concept and management of a mineral development fund in Ghana *Kwabena Sarpong Manu, MIME Consult, Ghana*

Background

Ghana's main mining activities revolve around gold, diamonds, manganese and bauxite. The right to all minerals lies with the president, and the central government determines how mining revenues are distributed.

Until the late 1990s, the desire to see mining as a catalyst for development, including community transformation led to calls for the establishment of:

- a Mineral Development Bank;
- financing schemes to support small-scale mining; and
- schemes to support non-mining economic activities in mining communities.

In addition, traditional rulers and community leaders were vociferous in their demands for mining companies to contribute to the development of the communities in which they operated. Mining companies became the focus of widespread criticism, in spite of meeting their fiscal obligations towards the state.

The Mineral Development Fund

The Mineral Development Fund (MDF) was introduced to address some of these concerns. Funded through 20 per cent of royalties paid by mining companies, it is aimed at redressing some of the harmful effects of mining, undertaking development projects in communities hosting mining operations; supporting the budgets of mining sector institutions and carrying out special mineral-related projects.

Communities receive 50 per cent of the funding, with the other 50 per cent going to government institutions working closely with the mining sector.

At the community level, money is allocated to district assemblies which use revenue only after approval of their members and traditional authorities, who are able to use this income as they wish for the benefit of their local communities.

However, channelling community resources in this way has led to tension between traditional authorities and district assemblies. Traditional authorities find the disbursement procedure cumbersome and the amounts received inadequate, while district assemblies question the way in which traditional authorities use the income for their communities, and argue that they should receive a greater proportion of the revenue.

These perceptions underline the main weaknesses of the MDF:

- A lack of transparency and accountability in the way MDF is used to develop social and other infrastructure in communities covered by mining operations;
- Increasing use of the fund to finance expenditure other than that for which it was intended;
- Inadequate consideration by custodians of the fund of the communities displaced by mining operations;

- No linkage with the creation of alternative livelihood strategies;
- No legal backing to the MDF, so that at government level money is released only to those who are politically vocal. Without a proper reporting system to oversee how payments are administered, the knock-on effects will have a potentially negative impact on budget planning for the future.

Suggested solutions:

- The fund should be covered by an act of parliament;
- Objectives should emphasise the creation of alternative livelihoods;
- There should be a board of trustees to oversee the use of the fund
- Mining companies should figure more prominently in the use of the fund

This raises a number of other key issues with wider institutional and constitutional implications, such as:

- Who should ensure that money accruing to communities is used to achieve the objectives of the fund?
- What role should mining companies play in ensuring prudent use of the money?
- How would those communities already alienated from their land benefit from the fund?
- What measures can be taken to ensure that the fund does not become a substitute for other money intended for the communities?

Long-term planning strategies for projects
Richard Jackson

Preliminary observations

- Very few people like having their area mined, yet mining products remain essential in the world economy.
- Mining is the only activity in which very large sums of money are invested in remote rural areas, and in spite of anthropological suggestions to the contrary, people living in these areas actually want economic development.
- Countries that are heavily dependent on mining have a poor development record. Transforming natural resources into financial capital has met with some success, but transforming them into sustainable human development has been less successful. In other words, national economic sustainability of existing mineral wealth appears to be very weak indeed. Many of the nations which are heavily dependent on minerals are very poor at managing mineral revenues.
- The mining industry has also been less than efficient in its own conversion of natural resources into financial assets e.g. waste management.
- Very few areas in the world continue to experience social and economic development once mining ceases. In terms of sustainability, it would be worth exploring the reasons why some regions have prospered and why others have fallen into decay.

Jackson emphasises that, in order to make sustainability work in remote areas, the transformation of natural resources via capital resources into sustainable human resources *must* be efficient. This has not been the case so far. In order to examine the reasons for this, the following need to be considered:

- There is a need to compare across countries worldwide how efficient mining is in generating financial capital and for whose benefit. Mine-generated cash does not always seem to be channelled into resources that facilitate long-term development.
- There is a need to consider the reasons why in regions and jurisdictions where national governments have ceded to local interests, cash flows have not necessarily resulted in more sustainable prospects for local communities.
- The issue of sustainability seems to be of concern only when mine closure approaches. Even where mining companies have done their best to achieve sustainability in their host communities, how this will be maintained and who will be responsible for its maintenance remains a principal source of unease. The empowerment of local communities is a priority, since they are the ones who will have to maintain the land after a mine closes.
- A strategy for post-closure sustainability needs to be built in at the planning stage of a mining project and agreed upon by all relevant stakeholders before mining starts. The ability of local stakeholders to plan for their own futures should not be underestimated – they must be part of the planning process.
- Government provisions and regulations to address the social impact of the mining industry, and the administration of these measures need to be strengthened at the local level, particularly at the point where mining projects can be linked to regional development programmes.
- A global activity like mining needs global rules and codes of behaviour. The main objective of these rules should be towards achieving sustainable economic and social development.

The role of companies in ensuring effective distribution of revenue
Holly Lindsay, BHP Billiton

To address this issue, three key questions need to be asked:

- Whose responsibility is it to distribute revenue?
- Can companies enhance transparency in the countries where they operate?
- Can companies influence policy-making in developing countries?

Responsibility for revenue distribution
Defining the boundaries of responsibility is a central theme in the discussion on managing mineral wealth. While companies can influence the standards of living in communities where they operate, effective revenue distribution and sustainable development relies on the establishment of complex social and economic systems. Companies do not want to supplant the role of government in this process, even though the dividing line between corporate and government responsibility is becoming increasingly blurred.

Economic development literature supports the notion that it is the prevention of corruption, financial irresponsibility and inappropriate taxation design that lies at the heart of the issue of effective distribution of revenue and benefits. However, there is an expectation that developing countries are able to rise to this institutional challenge within a relatively short time-frame – even though it has taken the western world centuries to develop such structures. This fact alone probably explains why we do not see the results we would necessarily like to see.

Transparency
Ultimately, it is up to the government and society of a country to determine the norms of behaviour and establish the economic framework. However, companies can demonstrate how adopting good behaviour practices can help improve transparency.

For example, BHP Billiton has made efforts to establish a standard global code of business conduct and has even turned down investment opportunities in countries where there is a perceived a lack of transparency. This is one way that companies are able to bring pressure to bear on governments for increased transparency.

Policy making
There are four main ways in which companies can influence policy design:

- They can ensure that successful development models are well understood. The decade of the 1990s in Chile is cited as a period of good policy-making which yielded positive results. Although BHP did not play a direct role in designing effective economic policy and distribution of revenues (the institutional framework was already there), it was enhanced by the success of the mine and the management of the mine.
- They can encourage policy excellence by supporting institutions which perform well. Companies have a preference for strong governments who are able to collect and distribute revenues in a way that enhances political and economic stability.
- They can assist by engaging in policy debates with a wide-range of actors e.g. government, NGOs, unions and community representatives.
- They can help by channelling funds through community development, and using institutional mechanisms e.g. trust funds. Companies have a desire to help empower governments develop transparent and effective economic policies that will facilitate the effective distribution of revenue.

Management and distribution of mineral revenue: capacity building
Olle Ostensson

Managing mineral wealth at the national level is less a question of capacity than of political will and feasibility. While the problems facing governments are well-known, the implementation of solutions is problematic, not because capacity is lacking, but because of political expediency.

At the local level it is more an issue of building the capacity of all stakeholders. This can be achieved through horizontal cooperation and the involvement of all parties.

Participation of both men and women is central to maximising the contribution of the mineral sector to economic and social development. At the local level a sustainable economy has the following characteristics:

- It is diversified;
- It has growth potential;
- It is sustainable beyond the life cycle of a mine;
- It meets standard of living expectations; and
- It provides a broad range of employment opportunities.

This objective can only be reached through:

- Local authorities which are capable of formulating and executing plans for the development of social and physical infrastructure;
- People in local communities who are able to identify and use new economic opportunities;
- Companies that are willing and able to provide their support.

Do these capacities exist?
There is a tendency to underestimate the capacity and potential of local governments and communities, but because the existing skills base is difficult to ascertain at the planning stage of the project, it is a complicated issue. This partly explains why companies who wish to define their own responsibilities but have narrow capabilities, tend to adopt either paternalistic attitudes towards capacity building or a complete hands-off approach.

How can capacities be built?
No blueprints exist, although companies can use their experience in other countries to begin setting up a system of global standards. Associations of mining communities are beginning to establish a platform where they can learn from and communicate with each other, e.g. an UNCTAD project with local officials in Latin America. NGOs and trades bodies such as ICEM also have an active role to play in this process. The overriding conclusion is that capacity building cannot be taught. It needs to be lived.

In order to develop and implement a strategy for capacity building, stakeholders need:

- *A common language* that is jargon-free; knowledge of the situation that is relevant to all the parties; and a system that is transparent and where the fear of technology is removed.
- *An understanding of the alternatives:* stakeholders need an understanding of political acceptability; they need to work within a well-defined thematic and geographical scope and reasonable timeframes; and they need regular reality checks.
- *Objectives:* formulating objectives is a step-by-step process, which may provide provisional or interim solutions; it is a process that is based on the art of

compromise and may need external facilitators; it requires constant reviewing and monitoring and may even lead to a redefinition of the situation and a reappraisal of objectives.

Discussion

Stabilisation funds
These can be a source of corruption in many countries. Experience with these funds has not been very good on the whole. UNCTAD's work showed that their poor performance was largely a result of insufficient government support.

Capacity building
This is not a new concept. Development organisations around the world have been attempting to build capacity for the past 20 years. The main obstacle to effective capacity building lies in economic structures. Developing countries are faced with the challenge of structural reform, a precondition for sustainable development.

Although there is a strong emphasis on democracy, transparency and devolution as preconditions for development success, countries who have 'made it' have not always had these characteristics. There is a need to establish what are meaningful preconditions for development.

Capacity building is sometimes seen as a threat to central government. The tax credit infrastructure scheme is an example: local communities were complaining that centrally collected taxes were not returning to the communities because of corruption, lack of capacity, etc. So communities kept a certain percentage of the money (which would never make it to the central level) and administered it for their own purposes – e.g. built bridges, schools etc. This was seen as undermining government capacity.

The management and distribution of mineral revenue in PNG: facts and findings from the Sysmin Preparatory Study - a consultant's perspective

Patrice Christmann, BRGM

Mineral resource development in PNG faces a unique combination of challenging conditions which include rugged terrain, seismicity, high biodiversity, limited infrastructure and a mosaic of cultures with around 800 languages. In this undeveloped region modern mining sharply contrasts with traditional cultures. PNG has not attracted as much exploration as the other prominent mining regions in the world like Latin America, Canada and Australia, and this has decreased dramatically in the past few years. If no new projects are undertaken, mining production is likely to decrease by about 80 per cent between now and 2011.

The El Nino drought and the slump of the copper and gold price in 1997 caused a loss of about 72 M € or 7 per cent of the PNG government's income. This led the government to apply for support from the European Development Fund Sysmin Special Financing Facility established under the revised 4th Lome Convention.

BRGM defined a 50 M€ programme consisting of 10 projects to support the further development of PNG's mineral resources sector. This complements the ongoing Mining Sector Institutional Strengthening Programme, supported by the World Bank.

The roles and responsibilities of the actors
The five key actors in PNG's mining industry have been identified as follows:

- *The private sector*: their main role is in exploration and mining. They often take risks and their main aim is to make a profit. It was noted that the role of the private sector was essential for building a sustainable community.
- *The state:* promotes mineral wealth by regulating and supporting development and the exploitation of mineral resources, working through the Department of Mining and the Office of Environment and Conservation.
- *Local Populations.*
- *NGOs:* put pressure on the other parties to engage in dialogue on mineral resources issues. Their role is important in support of the social and environmental pillars of sustainable development.
- *Development partners* like EDF, the World Bank, Aus Aid play a key role in supporting capacity building.

Economic, social and environmental Impacts.
In PNG, mineral exports constitute 50 per cent of the total exports. In order to ascertain how the revenues from the mining sector flow to the different economic actors of PNG, there is a need for more detailed, easily accessible economic data, obtained by measuring the injection of earnings into the local economy, spin-off activities and the development of local added value.

The social impacts of mining on PNG are manifold and complex. For instance at the Ok Tedi mine, life expectancy has increased from around 30 to 50 years, and infant mortality has dropped from 27 per cent to 2 per cent; access to education and infrastructure has improved; Ok Tedi employs 91 per cent nationals and 85 per cent Pogera. This has led to the development of skills which can be used in other economic sectors. One of the negative impacts is the culture clash with foreign companies and their employees, which has far-reaching destabilising effects on traditional cultures.

The most significant of the many environmental impacts is the result of the disposal of tailings in the rivers. The presence of larger human communities in the rainforest and a change in lifestyles have also had a considerable impact. The need for environmental guidelines and the human and material capacity to implement them, was highlighted.

Small-Scale Mining
SSM is the oldest form of mining in PNG, starting with the gold rushes in Wau and Bulolo in the late 20's and early 30's. About 8 per cent of PNG's population, or around 60,000 people are estimated to be directly involved in small-scale mining, with a further 420,000 dependent indirectly. Annual production from SSM is estimated at 4-5 tons of gold which amounts to 3 per cent of GDP. One of the main problems is the

widespread use of mercury, and the speaker emphasised the need for support to address this.

Need for further information and research.

The mining industry needs to assist in generating well structured, accessible data, documenting the complex relationship between mining and the three pillars of sustainable development. Such data are necessary to prepare the actual cost/benefit and economic analyses needed to persuade donor agencies to provide further support to PNG and other developing countries to promote/regulate their mineral sectors. Companies should work with all stakeholders to draft cost-benefit analyses, to promote the rational development of small-scale mining and to facilitate research and communication in sectoral issues.

Investment Funds in Alaska, Alberta and Norway

Rögnvaldur Hannesson

Revenue from mineral extraction is not income but wealth. It needs to be transformed into 'productive wealth' which can take many forms: infrastructural knowledge, built up through public investment; equipment producing goods for markets etc. This requires part of the mineral revenues to be set aside to be invested rather than used for immediate consumption. Governments take a large part through taxes and other fiscal instruments. The use of mineral rents is a question of public policy. Three countries have chosen to use investment funds to transfer oil wealth into investment wealth: Alaska, Alberta (Canada) and Norway. There are three main questions to be asked in each case:

- Has enough of the oil wealth been invested?
- Was the investment successful?
- What accounts for the success or failure of these investments?

Alaska Permanent Fund

A permanent Alaska fund was established in 1976, involving the investment of 25 per cent of all the oil and gas revenues. However, probably no more than 15 per cent of the mineral revenues were deposited in this fund. The money in the fund cannot be withdrawn, and over 25 years it has grown to US$26 million. A dividend programme has been set up where cheques are distributed to citizens (US $8000 for a family of four last year). The fund invested in stocks and bonds in capital markets worldwide, and the returns have been well above the target of 5 per cent per annum.

A year ago it was proposed that income from the fund be used to cover state costs. This would have cut the dividend and was overturned by popular referendum. This exposed the weak side of the fund: the real savings of the state cannot be other than the surplus of the state, and therefore it is of little benefit to earmark oil revenues for investment if the state is running a deficit on a different account. State deficits have since been covered by funds recovered from tax dispute settlements from oil companies, but these may run out in the near future. Alaska will need to find another way of covering the state deficit.

Alberta Heritage Fund
Established in 1976, this fund has been much less successful than the Alaska Permanent Fund. Originally 30 per cent of the oil and gas revenues were invested, but this was later cut to 15 per cent until 1987, when payments stopped. The fund now amounts to $ CAN 12 billion. Investment of the fund and the use of the income are at the discretion of the Government of Alberta. It is tempting to consider this fund as an account of the Alberta treasury. Inhabitants of Alberta have no stake in the fund. Part of the fund has been used for education, infrastructure and commercial investments, although the latter have not always been successful and have brought no benefits to the community. The portfolio is to be transferred to stocks and bonds. The fund could not translate gas and oil revenue into permanent wealth so long as the province continued to accumulate debt as it did from the 1980s to around 1990. The net debt has now been paid off, and the Heritage Fund will probably resume its role in the near future. However, it stands as a warning against having elected politicians acting as businessmen.

The Norway Petroleum Fund
Though this was established in 1990, no money was put in until 1995. It is now worth US$50 billion. Some argue that more has been invested than necessary. Like the Alberta Fund, it is an account, and money deposited into it is surplus to the government budget. It has no constitutional guarantee.

The fund has invested in stocks and bonds in foreign capital markets, but the returns are not distributed to the citizens and the use of the money is at the discretion of the government. Unlike the Alaska fund, there is no dividend programme and citizens have no individual stake. This is the greatest weakness of the fund.

If it is to be maintained, it will need to find a way of giving people a stake.

Conclusions
- Mineral wealth can only be invested successfully if the fund is at arms length from elected politicians.
- Public support will only be won if citizens have a common interest in the fund, as in the Alaska Investment Fund.
- Setting aside a portion of a country's mineral wealth does not guarantee that it will be invested well.
- A benchmark is needed against which to measure success.

Managing mineral wealth in Latin America (Bolivia, Chile and Peru), with an emphasis on social and economic impacts
Alberto Pasco-Font, Group for Analysis for Development (GRADE)

This needs to be considered at both macro and micro levels. At the macro level, central governments welcome mining, as it is a source of foreign exchange, fiscal revenues, and infrastructural development. Problems arise over dependence on metal prices. Price increases are usually seen as permanent, with spending increased accordingly, whereas a fall in prices is seen as temporary. The stabilisation fund in Chile is used to stabilise the economy when there is a fall in metal prices. In Peru a couple of extremely low-cost gold mines make all other mines and exports difficult to operate because they cannot compete. This is an example of 'Dutch Disease'.

At the local level mining has enormous impacts particularly in poor communities, including:

Negative:
- Competition for resources like land and water.
- Land buying is often a great source of friction, and misunderstandings. Normally land is not bought in a single transaction, and there is a common assumption in the community that by building links with the company, they will be ensured that future payments are re-negotiated in their favour. Because this assumption is not shared by the company, a great deal of resentment is caused.
- There is a great deal of imported labour for goods and services. Findings from GRADE studies show that possibilities for local employment are very limited, and that services are charged at a higher price on the local market. For example, the Anatamina Company in Peru subcontracted Bechtel for construction and employed a Chilean watchman at the gate. Furthermore, local goods and services were not used, thus worsening the relationship between Anatamina and the local communities.
- There is often a mismatch between local capabilities and company needs, which means that opportunities for employment are limited.

Positive:
- Improved health services.
- Improved education system.
- Infrastructural development etc.

Mines are usually welcomed at the macro level, but not at the micro or community level. There is a need to find ways of sharing benefits from macro to micro levels. This might be facilitated by splitting the taxes and benefits with the local government and transferring revenue to the local municipalities, though unfortunately the capacity for managing this wealth can be limited.

There has been an evolution of corporate responses to local needs, including charity by the wives of workers to members of the local community; passive responses by the company to requests for funds to pay for particular goods and services; paternalism where the company offers goods or services that it feels are convenient for the community without prior consultation, e.g. water supply.

Alliances between NGOs and the local community are proving successful in helping the community to develop capacities to engage more successfully with the mining company. These might take the form of forestry or rural development projects, resulting in the production of goods and services welcomed by the mine.

Challenges

Communication is probably the main challenge: there is a need for mediators between communities and companies, and NGOs were suggested as the best groups to take on this role. Three-way communication needs to be established between central government, local government and companies. Currently this is seldom the practice: central government normally holds bilateral discussions with either local government or the company – but not both at the same time.

Discussion

Financial planning - stabilisation Funds
The copper and petroleum stabilisation funds in Chile provide an example of macro-level financial planning. The Copper Fund is geared to avoiding external shocks associated with the price of copper and so helps to keep the spending policy of the government stable. The petroleum stabilisation fund helps to alleviate external shocks to the price of oil. These examples of short-term stabilisation measures work well, and money is not diverted elsewhere. Long term stabilisation is more difficult, and no examples were provided.

Different tools are usually required to address macro and micro mineral wealth, although this is not always the case. The effect of salaries is important: higher salaries for mining industry workers can have important knock-on effects (e.g. Niger).

Regional/strategic development plans
When a company arrives in a community there is rarely a local development plan. An independent body such as an NGO needs to be hired to undertake this work with the local community well in advance of the start of mining. The stronger the community, the better the long-term planning. The city of Kalama in northern Chile provides an example of strategic development in which the local and national governments came together with the mining community to redesign the whole city.

The World Bank and ICMM are currently working on the design of a strategic development framework, which is urgently needed. Strategic development plans need to consider all the economic alternatives of a region and the social, economic and environmental impacts.

Community fragmentation - capacity building
Communities may or may not have the capacity to participate in decision-making, especially in processes which are foreign to them. Understanding the needs of the local community is crucial. The difficulty can be identifying and addressing a 'community' that may not exist as such. Communities cannot be represented by NGOs when they are fragmented, or when they do not trust the NGO.

Case Studies on the distribution of mineral wealth

In the Philippines, the 1995 mining act was established to distribute more mineral wealth to provincial governments. Today local governments share mineral wealth in 3 ways:

1. A portion of the national government's tax goes to the local government and community government. (Capacity to manage this money by local governments is often found to be a problem).

2. Direct taxes are imposed by local government, such as real estate tax. This is lucrative for large-scale mining operations.
3. There is a mandatory social development plan. Mining operations must provide 1 per cent of their operational costs to this plan. This is in the form of a trust fund managed in the host communities. A working definition of who should benefit from this 1 per cent is being developed.

It was discussed that a 50-50 split should be made between the local and national government. In the Philippines, 60 per cent of net benefits from mining are kept in the country.

In PNG local communities were initially considered an impediment to the development of the country, and were as a result neglected at Ok Tedi and Bougainville. In Bougainville, communities showed their displeasure by reclaiming the mine, thereby forcing a policy change toward significant inclusion of communities in the decision-making process. The new approach is still evolving from a series of separate agreements with different levels of PNG government (national, provinces, local communities etc) to a comprehensive agreement. Regional planning is now also being included. In the case of Newmont Nickel, local government was consulted over how it wanted to develop the province over the next 40 years, and the final agreement included central government commitments. This was the first agreement of its kind.

5. CONTRIBUTING TO BUILDING SUSTAINABLE COMMUNITIES

Introductory overview
Glynn Cochrane, Rio Tinto plc

In terms of communities the notion of sustainability is not new, but it needs a clear definition if it is not to become devoid of real meaning. Similarly such terms as well-being and sustainable communities should be used with caution.

When looking at sustainability, the following considerations spring to mind:
- A broad range of interests
- A way of predicting the future or commenting on the past?
- A way of framing important choices or a calculus for making choices?
- A concept whose meaning and method of use should vary according to whether community, national or global issues are involved?
- Inductive or deductive when applied to concrete situations?

Sustainable development is much more difficult at community level than at national or international level because of the large knock-on effect of small changes, many of which are unforeseen and unintended.

Three main things affect sustainability:

- *Population growth:* for example, at Freeport, the rate of population increase was astronomical. As well as the pressure on land an water use, this called into question the type of facilities to build – that would be suitable for future generations;
- *Impact of innovation*: The introduction of a mining company involves three possible types of transactions: land and labour might be transacted by market forces fully, marginally or not at all. The introduction of money can have a major impact in communities where paid work is not the central ritual of people's lives, and where people have little practice in using it.
- *Calculation of priorities*: It must be recognised, that not everything can be sustainable. There must be a set of priorities and a set of calculations for determining the ranking system. These involve difficult choices, and there is a responsibility to empower people to make informed choices.

Where are the gaps?
The 1983 World Bank Development Report in 1983 found that central government tended to take the revenue that was easy to collect, and leave the 'hard stuff' to local government. Because local government was under-resourced, it could not employ a skilled enough workforce to overcome such problems. Moreover, because borders of local government jurisdictions did not necessarily correspond to the borders of communities, they found it very difficult to operate effectively. Over the past 17 years, national level reforms have begun to allow local authorities to work more effectively, but there are still many problems.

Decentralisation is seen as the key to this problem, Indonesia is decentralising for the second time but this is yet to be proved successful. Seen as 'development from below', participation is also important, but is difficult to implement.

Community resources
Community resources for sustainable development include:

- Land tenure for mines. Good plans rarely exist, and this concept cannot be grasped in two-week studies. Fragmentation is a key problem. The carrying capacity of land is also very important. This kind of information needs to be widely available.
- Forest - access and use, construction, charcoal etc.
- Water - uses and politics.
- Agriculture and food supply - shifting/ sedimentary, tree crops, ground, livestock etc.
- Education - literacy and numeracy.

Raising awareness
To raise awareness, 3 aspects need to be considered:

- Information;
- Skilling; at community level the range of skills to get work done is not available, and there is no training, hence there is no obvious source of expertise for sustainable development;
- Choices: what should we focus on? Does sustainable development depend on the perspective one takes?

Sustaining benefits after mine closure

Dave Parker, Teck Cominco Metals Ltd

The Sullivan Mine in Kimberley, British Columbia, due to close in 2001, was used as an example of how the benefits of mineral wealth can be sustained after mine closure.

Over 90 years of mine life, what was initially a mining camp has developed into community of 6-7000 people. Over the mine life, and with an average of 1000 employees, it is estimated that there was a direct contribution of C$20 billion to the local economy and C$60 billion in indirect benefits. Much infrastructure and recreational and social development was brought about as a result of the mine.

The community established an Economic Development Office to consider post-mine economic sustainability strategies. They started looking for other industrial partners to develop the mountainous, high biodiversity area. Questions that were considered within the local context included:

- Is the local economy diversified?
- Will there be a broad range of employment opportunities?

In Sullivan, examples of initiatives aimed at economic diversification include:

- The development of an industrial site (hydro power, natural gas with rail and road access);
- A plan for developing tourism e.g. through encouraging the Bavarian heritage of the community (an annual accordion festival), through a four season resort (unfortunately funding from government was refused);
- The development of a golf course with a fund from the mining company;
- A residential development plan has been undertaken in the hope that taxes from the residential development area will cover revenue loss from the mine.

While planning for closure began 20 years beforehand in the case of Sullivan, one of the most important lessons learned was that it is never too early to begin such planning. The community must be aware of the need for this and be willing to sustain itself. There must be local political will, and it is very important that key individuals take on a leadership role. In the case of the Sullivan Mine, it was the mine manager who took the lead, playing a very proactive part in developing sustainable development strategies.

A summary of the lessons learned:

- If a mine is built, people will come and want to stay;
- If a mine leads to a community, plan at the outset for post-closure sustainability;
- Communities of interest should be identified and brought into the planning process; it is important to recognise interdependence;

- Corporate commitment to sustainability is good, but operations management commitment to action is essential;
- Government policy and regulations must be aligned; they are essential to sustainability planning.

It is important to recognise that all that all mine projects are different as are the circumstances for community planning. The roles of government and companies have to be determined in each case, as well as the responsibilities of the mine manager when planning for community sustainability. The skills required for such planning have to be identified. A key question is to what extent should community sustainability be a component of project feasibility planning and assessment?

The Sullivan Round Table – Lessons in Sustainability was made available.

Skills requirements in modern mining
Ian Emsley, Anglo American plc

Ian Emsley started his presentation by highlighting the need for mineral wealth to be translated into human wealth, or human capital. Mining has not always been seen in a positive light compared to the manufacturing industry – as literature on 'resources curse' illustrate. One variant of resource curse is that mining helps to squeeze the development of manufacturing in developing countries, firstly because it does not tend to produce as skilled a labour force, and secondly, the competition for labour works against manufacturing.

Manufacturing tends to be preferred over mining to provide national income because mining is seen as inherently unsustainable; mineral revenues are volatile; and because of the low level of backward and forward linkages in the mining industry (less generalised economic development).

Technological developments, particularly in information technology, in the last twenty years have had a profound impact on productivity in the mining industry. In the US and Chile, for example, productivity increased faster between 1987 and 1997 than in any other sector. For example:

- Mine surveying has greatly benefited from IT. Where it previously involved a surveyor taking measurements with traditional equipment to create a 2D plan, and moving several times from surface to below ground to liaise with drillers, this is now carried out by means of laser-based information tools which fed measurements into computers to produce 3D plans on screen, which are fed directly to drilling equipment.
- By means of electronic sensors in dump trucks, drivers can now take accurate readings of the weight of the load, and this ensures that the trucks are neither over-loaded, which would put undue strain on the equipment, or under-loaded, thus necessitating more journeys.

The accumulation of a number of technological improvements has led to considerable progress in the mining industry, as determined by the increases in weight of ore and rock mined per hour per employee. Newer mines tend to have higher levels of productivity than older mines. Using Chile as an example, it was shown that combining the two types of productivity gain, namely gains at existing mines and gains due to the introduction of new mines, suggests an overall annual productivity increase of between 4.5-5.0 per cent.

Technological innovation in mining has resulted in a workforce more highly skilled than in the past, and probably as skilled as the workforce found in most parts of the manufacturing sector. This is borne out by figures for Chile, which indicate that between

Required Skills for Modern Mining[1] (percentage of workforce)				
	Unskilled	Semi-Skilled	Skilled	Professional/Managerial
Underground 1980s	72		16	12
Underground 2000	17	44	14	24
Surface 2000	21	44	18	17

1990 and 1996 the number of workers with 'higher education' went from 26 per cent to 36 per cent compared to 14 per cent for other sectors in 1996. (This is partly due to the expansion of the Chilean mining industry).

Given that earnings tend to reflect skills requirements, further evidence that the mining workforce is increasingly skilled comes from Canada, where over the last thirteen years mine workers have continually earned well in excess of average earnings in manufacturing and services.

In conclusion, the employee attributes in modern mining largely reflect the technological developments that have taken place in the last 10-15 years. The mining industry employs far fewer workers than in the past, but the workers that it does employ are, in general, more skilled and better educated.

Retrenchment
Wayne Dunn, Wayne Dunn & Associates, Ltd.

Retrenchment is a big problem in South Africa, involving over 100,000 mine workers in the past decade and causing social and economic dislocation.

In April 1999 Placer Dome bought 50 per cent of the Western Areas mine and formed the Placer Dome Western Areas. Major restructuring and modernisation was required and the retrenchment of 2,560 workers began. The CARE project, presented here, was initiated to help with this transition.

[1] The figures obtained from the WME Cost Estimation Handbook do not include longwall or block caving methods. The figures for the 1980s are for a mid-sized mine and are taken from 'Mine of the Year 2020' Canadian Institute of Mining, Scoble and Danesch, Vol 91, No 1023 (1998)

The main goals of CARE were to mitigate the social and economic impact of 'retrenchees' families and communities, to provide support and assistance so that 70 per cent of the retrenched employees or nominees could become economically active, and to help develop infrastructure and expertise for an HIV/AIDS programme.

The CARE project set new standards in South Africa by providing a severance package and financing to allow workers' families to become economically active. The project worked in partnership with the Mine workers Development Agency (MDA), TEBA, TEBA Bank, World Bank mining (which worked on a pilot project on HIV/AIDS), CIDA (Canadian International Development Agency),WDA and others.

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The individuals involved in this case were from an area covering 800 x 2500km over five countries, and encompassing about 1,000 villages, many with no infrastructure and poor communications. Challenges were presented by the rugged geography, overall economic decline in the area and the difficulty of developing alternative economic opportunities, traditional gender roles and responsibilities, making some opportunities more difficult, low levels of literacy and continuing resentment over the retrenchment.

The CARE Process involved:

- Briefing retrenched employees – offering training and counseling;
- Visits to home areas of 'retrenchees' to determine an implementation strategy;
- Community Development Facilitators (ex retrenchees were trained to do this), employed by TEBA to interact with the retrenchees and their families in order to identify economic opportunities and assistance;
- The development of an Implementation Strategy.

Financial resources were moblised for training programmes, staffing, provision of expertise, etc. to assist MDA, TEBA and TEBA Bank to increase their overall capacity to support retrenched mineworkers in southern Africa. Career fairs were organised to increase local capacity and awareness, and district counselling was provided in which small groups of retrenchees were brought together in their districts for a briefing on business and enterprise training, micro finance and other types of training and counselling available to them.

Small groups of retrenches attended a six-day economic life skills workshop to provide them with a basic understanding of economic opportunities. Retrenchees were offered different opportunities depending on whether they wished to be self-employed or follow traditional employment.

Small-scale mining
Bernd Drechsler, ITDG, South Africa

There are currently between half a million and one million small-scale miners in southern Africa, and the number is increasing worldwide. It is estimated that the number will treble in Zimbabwe in the next 10 years.

Is SSM a challenge or a threat? This depends on who gets the benefits and who pays the costs. Traditional mechanisms for distributing mineral wealth (through taxes etc.) do not always work in SSM which is, in 80-90 per cent of cases, illegal.

Redistribution of SSM revenues go back into local development via direct routes – i.e. through the community & miners themselves. Maximising SSM's contribution to local sustainable development is of key concern. Social, human, physical, financial, and natural capital are needed for the sector.

Recommendations
Governments can help by lifting EPO (exclusive prospecting order) restrictions, by supporting the transformation of the sector to the formal sector, by providing monitoring and advice, and through supportive macro-economic policies. In addition:

- Access to natural capital should be made easier (i.e. access to water, land fuel);
- Access to financial capital should be made easier – through grants and loans, fair interest rates, increased linkages with buyers of minerals for fair marketing of products;
- Human capital gains through training programmes, attachments in large mines, and exchange programmes should be encouraged;
- Physical capital could be improved through linkages with technical partners in large mines which would help to widen choices.

The successes and failures of different projects need to be highlighted for future use. In particular, new markets for SSM products have to be found.

Case study on the distribution of benefits from Porgera mine including the intergenerational trust, the Development Forum Process and infrastructure tax credits
Graham Taylor, PNG Department of Mining

The Porgera mine was established in 1998, situated in the Ipili people's (a warrior race) territory, close to an area of jungle so impenetrable that some of the people living there have had no contact with the outside world.

In PNG land rights are tightly controlled and land is not easily available. The mining company organised landowner associations with the local people who were asked for their views on the future of the community. The local government was also asked the same question, but the two views turned out to be divergent.

The PNG government had to be convinced that there should be people participation. The mining company felt that landowner buy-in to the project was necessary to make the operation more secure etc. As a result, the Porgera Development Forum was formed, composed of government, company and local people representatives.

As part of the deal a percentage of royalties and compensation were to be paid directly to the province. Royalties were split 50/50 between the national and provincial level. To promote clarity and transparency, all signed agreements were usually followed by sub-agreements, to explain the main headings in the agreement.

The Porgera Development Forum package included an emphasis on women's education programmes in the Porgera area and other development schemes. Land owners were asked to first try resolving contentious issues before disrupting mining. This formula was considered quite successful as arbitration only resulted once. However, there were a few difficulties. People downstream from the mining operation felt left out of the agreement and this had to be addressed. Furthermore, the provincial government found it difficult to maintain infrastructures built by mining companies. When the PNG currency (the Kina) devalued, the provincial government could not keep up the capital maintenance fund established.

To avoid the sudden wealth syndrome, the Development Forum decided to invest the money from royalties etc. in land and other investment schemes. The Board of Porgera Development Authority invested in land around the community to maintain revenues after mine closure. A tax credit scheme was also put in place. The main investment by the Development Authority was in education, which it was thought would be the main legacy from mining to the area. Ten per cent of royalties were kept in an education fund restricted to landowners.

The Development Forum also invested in a local police force, to respond to the population increase in the area, and money was kept in a trust fund for young adults to start businesses or buy houses. In addition, as part owners of the mine, the landowners are required to keep a portion of the dividends in a fund for future use. A long-term economic plan was developed where small-scale mining will be encouraged after the mine closes. The possibility of using and distributing the power supply for the mine is being investigated, as are agriculture and tourism.

A Sustainable Vision of the distribution of mining revenue
Juan Aste Daffos, Grupo de Investigaciones Económicas, ECO

New economic structures have made mining easier for big companies. Mining in Peru today represents 45 per cent of total exports, but generates relatively few jobs. While over 50 per cent of goods and services required by mining operations are bought locally, a substantial amount is still imported. This is largely a result of 'globalised' decision-making by multi nationals and their contractors about purchasing (i.e., deals with outside suppliers exist, even though they are more expensive and require the import of goods that could be provided locally). The short-term nature of mining projects and the long-term nature of potential impacts mean that, if sustainable development is the aim, adjustments in current practices need to be made.

Because of the current 'unsustainability' of mining, the Peruvian government is focusing more on agroindustries and tourism. Between 1998 and 2000, taxes on mineral rent have amounted to 36 per cent of the value of exports and 3.2 per cent of the value of mineral production, whereas the mineral rent itself has amounted to 0.7 per cent of exports and 0.6 per cent of mineral production. This illustrates the relatively small amount of wealth remaining in the country in exchange for the use of natural resources.

In the Tambo Grande region of northern Peru, agricultural produce and forestry products are an important source of income. In this area, BHP-Billiton has discovered sulphur in the ore bodies that has the potential to create serious acid drainage problems. Over 45,000 people live in urban zones of this region, and more in rural zones. They are against the development of the ore proposed by a junior Canadian company (Manhatten) through fears that their livelihoods will be threatened in exchange for small benefits from mining. The government has pledged to respect the wishes of the community for the time being, though it remains undecided in the long term.

The Newmont mine has operated for eight to nine years in Cajamarca, with few benefits. The unilateral social programmes have resulted in very little positive impact from the mine, and there is no confidence in the current practice of distributing rent to NGOs. The case illustrates how corruption and dependence on mine revenue can be propagated where local capacity is lacking, and no strategies exist to strengthen governments.

Homogeneous criteria need to be established for distributing rent with very specific conditions about the community share. Differences in rent and the unique qualities of different operations should be taken into account. Equitable rent distribution should be an internalised cost for mining companies.

Mineral Rent: the Peruvian Case

In Peru mineral rent tends to be reduced by deductions for mining development costs. Rent distribution is a serious problem. The common practice of distributing it locally according to population numbers means that cities often receive higher shares than areas that are directly affected by the mining operation. Recent changes in legislation regarding rent (taxable rent increased from 20 to 50 per cent) are relatively ineffective because of implementation problems. Such changes include clauses governing the distribution of rent to affected communities and requirements for rent to be used for investments.

Monetary value of access to land for mining.

The value of land in many potential mining areas is not monetary but cultural. Amounts paid for land have varied between US$14.3 to US$28.6 per hectare for grazing land (e.g. Cajamarca) and from less than US$1 (Cusco), to US$1000 (Ancash, Barrick Gold) for low productivity lands. For Yanacocha, the low cost of land was compensated by the creation of a credit fund, which converted landowners into debtors. In the Antamina project, land compensation had to be revised to take into account ancestral rights and rotational use of land. The value of cultural land has to be recognised in equitable compensation.

In Peru environmental control is compensated poorly. This type of compensation is not part of mineral wealth distribution and should not be considered as such. Furthermore, when the mine proprietor changes (e.g. Rio Algom, Normanda) all project plans change with it. Lack of continuity is a problem.

Conclusions
A vision of mining that contributes to sustainable development for Peru should include the following considerations:

- Mining cannot be considered as the key economic sector for the country but should be considered as a tool to develop other sustainable industries;
- Royalties should be part of the mining cost and be calculated according to production values;
- A methodology for valuing land has to be based on 'rent' and not on sale;
- Economic activity generated by mining should be incorporated into regional economic development plans to make positive effects more sustainable.

Community development in South Africa
Paul Kapelus, AICC

The history of mining in South Africa has included a wide range of players, from explorers, pioneers, settlers, colonialists and revolutionaries. Today, once again, mining is a pioneering industry, but in a very different sense from that of 100 years ago.

In a region with severe institutional capacity problems and where integrated development still poses an immense challenge, there is a dependency on mining to deliver social goods. Furthermore, the high level of conflict, in terms of wars, environmental conflict, disputes over mineral rights, resettlements and access to resources, puts the need for conflict management high on the agenda.

Issues in local development
The key issue here is that local development is multi-dimensional, and it needs a multi-faceted approach. Furthermore:

- There are very few policy reforms, and these are not explicit in terms of the relationship between the mining sector and communities;
- The organisation of partnerships between the mining sector and communities is very complex, with issues of trust, conflict, participation and equity to be taken into account;
- The planning stage is critical, and there are a number of different opportunities for stakeholders to participate in the planning, and to tap into each other’s resources.
- Not enough is done at the post operation stage to plan for alternative livelihoods, and different economic opportunities.

In a study on the copper belt in South Africa, it was found that a paradigm shift has taken place, and that the enclave community has broken down. While mining companies want to be socially responsible, they are very wary of creating dependency. However, in the absence of regional planning frameworks, and legal frameworks promoting social responsibility, companies who come into the development vacuum are presented with an enormous challenge.

Work has been carried out on gender. If women in the communities around the mines are not given adequate voice, and access to opportunities, there will be serious repercussions, and sustainable development objectives will not be achieved. In the past six months, mining companies have started employing women. It is found that incomes earned by men are distributed very differently within the household and the community very differently from incomes earned by men.
Resettlement is another important concern. In southern Africa there are few places not inhabited by people, which means few operations can take place without people being moved. However, there are no standards rules of procedure governing this process of resettlement which also takes place without collaboration between countries. World Bank guidelines might provide a starting point, but they require funding to be put into practice.

The mining sector recognises that it makes business sense to act in a socially responsible way. This is difficult in a governance vacuum, and pressure needs to be put on government to play an active role in providing development and legal structures. One starting point is to focus on corporate capacity building, in recognition of the fact that employees are also members of the community. Civil society as a whole needs to mobilise itself and there needs to be a three-way dialogue between the industry, the community and government.

Community participation in decision-making
Ginger Gibson, CoDevelopment Canada

Capacity building is about helping people to build skills to change their future. Skills can be built at the individual, organisational, community or system level. The Community Decision-making Model of capacity building, developed in 1987, rests on three premises:

- Communities need to build community organisations and networks;
- Training needs must be met in different areas, to be defined by the communities themselves;
- There need to be reliable up-to-date information gathering and sharing mechanisms.

Capacity building has to be differentiated from consultation or public relations. In practice it is sometimes regarded as antipathetic to industry or government. There must be political will for capacity building to take place. The importance of capacity building is highlighted by the danger of decentralisation when local capacity does not exist. The goal is to develop some criteria and questions to refine the concept of capacity building:

- Who initiates capacity building?
- Who directs it?
- Who controls the funds?
- What is the goal?
- What level of social organisation is focused on?
- How will it be involved in capacity building?
- How do people integrate the skills they learn after a programme is completed?

These questions are posed for two reasons. Firstly they help in the development of evaluation criteria for the project or programme; and secondly they help in the evaluation of case studies. The questions were applied to case studies in Bolivia, Nicaragua and Peru, where CoDevelopment Canada worked with partner organisations in communities of small-scale miners. The aim was to help them develop capacity to negotiate agreements with companies wanting to set up in the area.

The focus of this presentation was a case study in Peru of a community affected by a mercury spill. 151kg of mercury had been spilled in the area, affecting three districts. The worst affected was the district of Choropampa, where, according to official figures, 965 people had suffered health effects, although there were unofficial indications pointed to a much higher figure. The goal of the capacity building in this case was to provide training on the effects of mercury on environment and health and on planning for future emergencies; and to provide information that was otherwise inaccessible because of language barriers or because the information was from foreign sources. Partner organisations implemented the training at community level.

The project was initiated through discussion with leaders in the company and in the community. Difficulties arose because of the unevenness of leadership; for example, mayors were not always accountable or representative. At the corporate level it was found that companies are not always very good at talking to communities.

The funds for the project came from the company but were directed by the organisation. One community felt that they had been sold out or bought by the community. Some felt that the company was spying on them.

The main goals, defined by the community, were to provide training on the effects of mercury on public health and the environment. In particular, the project aimed to help people understand what mercury is, how it affects health, and what they could do in future accidents. At the organisation level, the aim was to help community leaders to network, negotiate and organise so that they could more effectively work with the company.

The project was focused at the levels of family and leaders of organisations in the community.

One area where capacity building is often weak, is the integration of skills learned after the completion of a programme. CoDevelopment Canada is currently working on this area. Retrospective analysis on how well the projects have worked is rarely available.

Assumptions
Capacity building is often based on the following assumptions, which may turn out to be false:

- The need is greater than it is; it is often assumed that skills need to be built without ascertaining what skills already exist;
- That a collaborative approach will work; for certain communities this is not the case;
- Assets and risks will be shared; this is not always so;
- Short-term training programmes can change deep-seated power structures;
- Government can be bypassed and parallel structures can be built;
- The company will listen and change. In fact change does not happen in an organisation unless there is a belief throughout the organisation a particular issue is important.

There is a danger that communities will be asked to make decisions without understanding the regional, national and international contexts. Perhaps the most important aspect of capacity building is the provision of accessible information, through which people are better able to make informed decisions, and thus move from a passive to a more active role. However, there is still work to be done to ensure that skills communities develop can be used once the programmes have come to an end.

Discussion

Mercury spill in Yanacocha
Yanacocha produces 48 tons of mercury and 55 tons of gold per year. A large amount of mercury was spilled in the accident a year ago, but there were no contingency plans, and no mechanisms in place to cope with the problem. When the spill occurred, mercury was collected by many of the local people who knew nothing of its effects. The company offered to buy mercury from the people in an effort to recover some of it. As time went by, the price offered was increased several times, and this unwittingly encouraged people to keep the mercury for as long as possible, thus increasing their exposure to it. Solicitors suggested they could claim compensation and raised expectations among the members of the community, who prolonged their exposure to the mercury in an attempt to maximise their compensation payments.

Company Budgeting for SD
The question of how companies structure their budgeting in relation to sustainability was raised. What should be the responsibilities of companies and government respectively? The question of budgeting was answered by a delegate from a mining company who said they did not budget, but determined how much should be spent on a country by country basis through negotiation. The point was made that in relation to

inward investment, local communities see manufacturing companies as bringing something to them; but with mineral extraction companies, local communities see them as taking something away. Mining companies therefore have an enormous responsibility towards communities affected by the mining operation.

6. MOVING FORWARD: ROLES, CAPACITY BUILDING AND INSTITUTIONAL STRENGTHENING

Public-private partnerships
Sirkka Korpela, UNDP

Sirkka Korpela started with the proposition that public private partnerships will be the paradigm for the foreseeable future.

From a business point of view, the notion of sustainability has tended to be seen in environmental terms only. However, in the past few years other dimensions have become important, including social and economic dimensions, and increasingly, governance issues.

Globalisation is now a fact of life, which demands new responses in terms of policy choices, structure choices, capacity needs and definition of roles. The growing interdependency and complexity created by globalisation is reflected in all stakeholder groups. For example, the customer base and the employee base of a company are also global. The development challenges require action by all the stakeholders in partnership, including governments. However, they do not always have the capacity to fulfil the development role.

The roles of the different stakeholders are also changing. Contributions are not necessarily based on financial capital. Human capital, in the form of skills, information or creativity is recognised as equally important.

At the local level, UNDP is working in 15 different countries to bring together local stakeholders including companies, civil society, NGOs and governments to encourage dialogue around different themes, depending on the issues of the country in question. HIV/AIDS is a common concern affecting all stakeholders. Other themes include the environment, education, and the role of business in conflict resolution.

Important elements for partnership
There are three important elements for successful partnerships:

- Understanding all the issues of the different stakeholders;
- Understanding alternative ways to resolve these issues;
- Shared objectives: all stakeholders must have the same objectives and have a stake in the solutions.

Examples
In a low cost but high impact project in Venezuela, UNDP has been working with Statoil, AI and the Supreme Court, to train judges on human rights issues. The judges are also trained to train others.

In China, UNDP has been involved in a training project with the Chinese Business Association and TNCs and an outreach to 58 business schools.

Other examples include a project in Kazakhstan working on microcredit schemes with local institutions; a dialogue with the business sector in Mongolia on the new economic legal framework; looking at the contribution of business to the new enterprise law in Vietnam. Such projects would not be possible without the convening role of UNDP.

Comments by Santiago Porto
Business Partners for Development, which carries out action research to support partnerships and draw lessons, currently have projects in Colombia, India, Zambia, Nigeria and Indonesia. These have involved voluntary collaboration between different sectors, and they are now entering the last phase. Materials, methods, tools and lessons learned are available.

The main conclusion is that this approach builds on complementary competencies, where each sector contributes resources and skills for the common good. Each party has received a clear added value, achieving more than they would have done on their own.

The development of community-based organisations
Kathy Whimp, Independent legal policy consultant

Kathy Whimp's presentation was based on her experience in PNG and Australia.

Community-based organisations (CBOs) are important because they are a mechanism for the management of mineral wealth; and a vehicle for community economic and social development.

Before a mining operation begins, it is important for the mining company to identify who owns the land. There are situations in which land holding interests are not reflected in titled land tenure systems. Community-based organisations can be instrumental in identifying who owns the land, forming the basis of Landowner Associations. In addition CBOs help in the representation of landowners in negotiations, they act as a channel for benefit streams, and they can also be important for business development and for community involvement in local government.

When assessing the effectiveness and capacity of CBOs, it is necessary to examine how institutional incentives affect behaviour.

Of key concern is the legal structure of CBOs. Most are based on the model of incorporated associations, whose 'cricket club' management style is designed for common interest groups, where office holders are elected at general meetings, and are able to act on behalf of the membership. This is not necessarily an appropriate decision-making mechanism for community-level decision-making, particularly for indigenous peoples. The ways in which they work are not explicitly stated, which is of particular concern when they engage with other cultures. Furthermore, the formulaic incorporation processes can be counter-productive: for example, there is no proper consideration of whether there should be loans to directors; or what should be the powers of directors vis a vis shareholders. The corporate regulation framework tends to be internally focused, and is not equipped to help resolve conflicts which might arise between groups at community level. If community organisations work effectively, then success will be determined by how these organisations are formed. Clearly, the most intensive work in establishing CBOs needs to take place before they start up.

In PNG different revenue distribution arrangements drive different responses. It was found that revenue formulas which divided royalties equally between different groups, resulted in a fission of those groups, driven by attempts by individual members to optimise the amounts they would receive. In a subsequent project, still awaiting results, revenue is distributed on a per capita basis, but it is predicted that this will lead to a different range of disputes.

Moving forward: conventional legal frameworks are a major barrier; more research and development is needed into accountability mechanisms and decision-making structures. The establishment of participatory processes is critical, and international sector-level initiatives can add value.

The role of mining companies in development
Jim Cooney, Placer Dome Inc.

We are living in a period of great uncertainty, faced with many challenges. In examining the nature of the role of corporations in development, we firstly need to define what is meant by a corporation. It can be:

- A legal entity;
- Bound by a ‘social contract’ which may not be formally incorporated;
- A community of persons with a common mission (i.e. money).

When stakeholders look at a corporation they relate to it in various ways. If they see the CEO, they see it as a legal entity; if they wish to know its social obligations, environmental responsibilities etc, they see it as a social contract; and if they are looking for corporate ‘champions’ they see it as a community of persons. These perceptions have many implications for how decisions are made, how roles and responsibilities are defined and how corporations enter into partnership with others.

While Placer Dome exhibits each of these ‘personalities’, at the mine level, the legal entity is less emphasised; the social contract more so; and the community of persons is dominant, making linkages with people in the community.

Jim Cooney described two contrasting models of a company. The traditional role of a company is to maximise its capital returns, operating within the boundaries of the law and according to public perception. The social contract of this model sees corporations as being entitled to maximise their wealth as long as they respect their social obligations. In the community of persons model is obligated to place profit at the top and to delegate social concerns to government and civil society.

A broader definition of the mining company sees its role as enhancing the longer-term benefits to investors, employees, consumers and communities where it operates. The social contract requires that corporations create wealth, encourage equitable distribution, preserve environmental values and promote social progress. In the community of persons model, individuals are empowered to act on their basic values – honesty, integrity, thoroughness and altruism, rather than take on corporate values.

Between these two extremes lie all mining companies. There is a general acknowledgement that mining affects social structures, governance, civil society etc. but the key question is what is the relative priority given to these impacts? And who takes the lead role?

Mining companies tend to have an engineering mentality where the right result requires the right process. In contrast, sustainable development, as defined in the Brundtland Report, has a process orientation, where the right process leads to the right, but initially undetermined result. What is needed in the quest for sustainable development is a structure which spans generations, and which can assume responsibility for the future. Mining companies have these qualities, but have not yet come to terms with what this implies.

Conclusion

- Corporations need to develop a self definition in terms of a legal entity; a social contract and a community of persons;
- They need a strategic position with regard to wealth distribution, environmental protection and community development;
- They need to develop a long-term perspective on the optimal outcomes for each stage of mining;

Partnerships are a great motivator because the idea of burden sharing is introduced. Sustainable development should not add more costs – it should be about doing more with less.

Towards sustainable development: The case of Antofagasta
Fernando Cortez, Ministry of Social Planning, Chile

It is important to distinguish between two different realities in Chile, characterised by two distinct models: the rural indigenous model; and the urban model.

The region of Antofagasta fits into the urban model. Covering an area of 126,000 km^2, and with a population of 470,000, it is an extremely arid region, based in the Atacama Desert. Antofagasta has always been a mining region, and 60 per cent of the region's GDP comes from mining. It is now the world's leading producer of copper, and also produces lithium, iodine and nitrates, contributing 7 per cent of the country's GDP with exports amounting to US$ 4 billion per annum. Projected investment for 2000-2004 is $2.7 billion, $2.5 of which will be in mining. Its growth rate currently stands at 9.7 per cent.

This economic dynamism is clearly reflected in the social indicators for the region, which show lower poverty and unemployment rates than the national average. It ranks 4th amongst the 13 regions of the country in terms of human development. The average salary of a worker is US$550, compared with US$400 for the country as a whole. There is also a better wealth distribution and a much higher proportion of skilled workers than in the rest of the country. High investment in mining over the past ten years (US$700 billion in copper) is seen as a key determinant of this economic and social change, with the development of small and medium enterprises in electrical energy and the arrival of natural gas making a significant contribution.

However, despite the progress made in economic development, there are still serious weaknesses in the provision of education, housing and health services. There is still a significant shortfall in investment in the region, with the government providing only US$90 million of the US$800 million required annually. Furthermore, because the region's development is based on non renewable resources and limited water reserves, it faces a crisis of sustainability. The challenge for local government is to make development sustainable. Increasing taxes is not an option for them, but strengthening the contribution of the productive mining sector is. The public sector needs to build strategic alliances with the industry through the establishment of a clear and stable framework. The mining sector in turn needs to contribute by setting up and administering a regional sustainability fund to invest in human capital and consolidate a mining specialised services complex.

Capacity-building and policy networking for sustainable mineral-based development

Kwabena Mate, Independent consultant on mining, human rights, development and legal issues

Kwabena Mate started by highlighting the need to look at the relationship between the three main actors: the community, the state and the industry, and at the current framework for sustainability, capacity building and policy networking and went on to identify how a mineral policy might address these issues.

Historically, mining has often taken place within the following context:

- A weak state;
- Mineral companies the dominant party;
- Rural and indigenous people marginalized;
- Land use conflicts decided in favour of mineral development;
- Difficult to access information;
- Top-down flow of policy;
- Little attention to socio-economic impact;

- Community protests over the absence of economic development, and the way in which mineral wealth is used by government.

Concerted efforts are needed to ensure that the three main actors relate to each other on an equal basis. Mining and mineral policy needs to be directed towards facilitating:

- Participation
- Transparency
- Trust, credibility and understanding between the state, mining companies and communities
- Environmental protection
- Mineral revenue allocation
- Mineral revenue stabilisation
- Social and human development
- Access to information
- Artisanal/small-scale mining
- Community development
- Decentralisation
- The need to strengthen local government
- Corporate social responsibility

However, it is important that these issues are addressed across the country as a whole. To focus solely on mining regions would create tensions between communities outside and communities inside areas of mineral development, as has been seen in Nigeria.

All three actors have capacity building needs to ensure that they are able to deal with each other on a more equal footing. For the state, capacity building needs to focus on democratic governance and democratic culture; developing an integrated land use policy; the integration of environmental considerations into economic decision-making; co-ordinating all the policy aspects of a sustainable mineral policy; and management of mineral revenue. The community needs to be empowered through access to information, and the building of communication and negotiation skills to facilitate a more equitable relationship with industry and government. Industry needs to focus on corporate social responsibility, and developing a corporate culture that is operationalised.

Discussion

Company role in SD

Are governments or companies better placed to lead the development of a region? Corporations are uncomfortable with this kind of responsibility and do not wish to replace the government. NGOs or the church might be better equipped to address these issues, but this is not always possible. These actors do not necessarily wish to work with industry or to go to the affected areas.

While companies have a major role to play in communities, it is not their role to act as development agencies. Furthermore, it has been found that the more companies get involved with the community, the bigger the potential 'fall' once the mine closes. Finding the right 'development agency' is a difficult, but key task.

Defining Sustainability
We also have to define the limits of sustainability at the community, regional or country level. Since the whole country is dependent on the mining industry in terms of its exports, discussion of sustainability needs to elevated to a higher level.

Local populations affected by mining are well aware of the problems facing their community, but do not know how to solve them. It is crucial that capacity building is rooted in the needs of the communities, and not defined externally. If mining is not the principal means for social and economic growth, are there other activities that can be linked to mining that can generate and lead to sustainability? Mining can generate wealth and serve as a catalyst for other activities. Through this multiplier effect the whole community/region stands to benefit, but local authorities need to ensure that certain rates of profit are ploughed back into the community.

We also always have to bear in mind what countries retain from mining. There are very few forward and backward linkages. As developing countries all compete for mining investment, they tend to give away things that would contribute to sustainability in their countries.

Community decision-making
Everyone agrees that a central point of sustainable development is to respect the autonomy of communities in making their own decisions. Mining companies can institute global level standards of good practice based on their experiences in different countries. They can also create mechanisms for transferring resources back into local communities i.e. transforming non-renewable resources into human capital for the future.

People tend to underestimate the resources already present in local communities. In a community you will find a multitude of professions, particularly in African countries where people retire to their communities from their professions in urban centres. Sustainable development at a community level is an issue of awareness raising, as well as providing skills, information and other choices.

TOWARDS SOLUTIONS: The Roles of Different Actors

The following are summaries of the key issues and recommendations that were identified by break-out groups. The groups were asked to identify developmental outcomes they would we like to see.

Group 1 - The role of corporations and communities

The group focused on two models: the community forum process; and the mining development forum.

The Community Forum Process
This involves building a partnership between stakeholders at project level with the following elements:

- Involving anyone with an interest in the mine;
- Situating mining in the broader context of regional development;
- Commitment to the process by all parties.

It needs to be supported at the national level. Ideally it takes place in a democracy, but should be tried even where the government is not democratic, in which case, the need for such a process might be even greater. Other instruments such as joint participation and planning, and environmental monitoring all come under the umbrella of the Community Development Forum.

Roles of the participants
These were given as follows:

- The community should own the process;
- The company should commit to the process, as should all the stakeholders;
- The role of government should be to establish a requirement for the process in its regulatory framework, although it should not specify to companies how this should be done;
- There should be a national framework of expectation so that all companies are on a level playing field;
- The government should assist companies to develop common approaches;
- Donors should incorporate a requirement for this process into their project design and funding criteria; it should not necessarily be funded by companies, but through trust funds at a national level. This would mean taking the government's income stream out of the project and diverting some of it back to the local area to fund this sort of process. In countries that do not have national support, the issue of how funding is dealt with needs to be addressed.

Implementation
This needs to be established as industry best practice, and labour standards need to be extended to community development.

In order to come up with a 'best practice' code of conduct, the meaning of best practice needs to be established, by analysing case studies of good and bad practice; and looking at models in developed countries where there is further demand for community development and more sophisticated models have been developed.

These ideas need to be disseminated at the international sector level. Another suggestion is to set up an industry self-regulatory body to act as a watchdog.

Mining Development Forum
This initiative addresses the issue of mine closure, how it is managed, and what should happen to the mine infrastructure after closure. The following points were made:

- Planning needs to start early in the life of the mine;
- It needs to be done on a case by case, site specific basis;
- There should be community participation in and ownership of the plan;
- The plan should address the issue of how the mine closure and the infrastructure left afterwards should be managed. Trust funds might help to ameliorate the economic impact of closure;
- Consider diversification of mine activity at the mine location;
- Consider alternative uses for the mine infrastructure after the closure of the mine;
- Decommissioning funds can be used to address environmental rehabilitation at closure.

Roles of participants

- The company needs to start planning as soon as possible. Transparency and the disclosure of information to the community are key;
- The community needs to participate and own the plan;
- The government needs to set a regulatory framework to make planning a requirement at the project planning stage, and to set up an umbrella mechanism to stabilise the impacts of closure;
- Donors must require planning of mine closure when they finance projects, and must involve international and local NGOs in the capacity building of local communities to participate in the planning process.

Implementation

Promoting closure planning is an essential element of risk management both for companies and financiers. An important part of this process would involve drawing up guidelines based on the analysis of good and bad practice.

Group discussion points

The group was asked who would own and take the lead in developing the plan, and how it would evolve. It was thought that the company would need to take the lead and then facilitate the participation of the community.

Group 2 – Local/national wealth distribution

This process should be underpinned by two key objectives: firstly, where a mine is set up in a community, the community must see that they are better off. No-one should be worse off as a result. Secondly, revenue should be divided in a way that is mutually acceptable to all parties.

Roles and responsibilities

- ***Central government*** should be responsible for coordinating the participation of all governmental actors, and for the allocation of revenues; this is assuming that central government is representative. It should also be responsible for ensuring the transparency and accountability of the process.
- ***Local government***: the question here is, whether the local government is representative or what the communities want? It should be responsible for local

planning and local infrastructure. Local tax is also connected with the allocation of revenue, but it raises the question of how the revenue would be divided.

- ***The community*** should define what it means by sustainable development, and it needs to be involved in the decision-making process. (In fact the process is even more important than the result). The community should be responsible for providing an objective assessment of the natural resource base. [It was pointed out in discussion following the presentation that local communities do not have the technical capacity to assess their natural resources; the group agreed with this, but stressed the need for the local community to be involved in the process of assessment].
- ***NGOs*** should act as facilitators and providers of information in support of the community in defining sustainable development; in assessing the resource base; and in being fully involved in the process.
- ***The company*** should be responsible for raising finance, and for maximising the wealth which is to be distributed amongst all actors in a socially and environmentally responsible way.
- ***Donors*** are responsible for advising on sustainable development and for providing funds at a national and local level.

Sequencing of events

- Capacity assessment of actors involved;
- Remedy deficiencies – using innovative mechanisms;
- Formation of alliances and multi-stakeholder agreements; set up and agree dispute resolution mechanism;
- Implementation of agreements;
- Monitoring and evaluation.

Criteria for acceptable local expenditures

- Local expenditure must be consistent with government programmes and plans (provided the country has an infrastructure);
- There needs to be a formal agreement in writing as to what wealth is spent on with clear guidelines for evaluation;
- Expenditure and sustainable improvements must have long-term horizon;
- There must be a strong community involvement in the process of deciding on expenditure.

Group 3 - Attracting investment – wealth creation

The group focused on the challenge presented to all workshop participants: 'What developmental outcomes would you like to see in x years time?'. The group felt the need to examine in more depth what developmental outcomes would look like in this area; to define actions leading to such outcomes; and specify the meaning of 'x'.

Developmental Outcomes

1. Countries and investors should receive an equitable share of mineral wealth and agree that this is the case, i.e. there should be agreement about the way in which

wealth for a given resource is being shared. Tools for achieving this should be concerned with governance, institutions, companies and timescales.

Tools:

- *A tax system* based on material wealth. This requires a very clear analysis by the UN, the World Bank and academia, with support from the Chamber of Mines as a partnership activity. The timescale to unpack this and make progress – 5 years.
- *Good case studies* of good practice in developing and developed countries, carried out by the UN, the World Bank, academia, the Chamber of Mines and companies. MMSD can make inroads into this.
- *Process guidelines.* Community participation is needed to address real and perceived fears about what mining can or cannot do, so the benefits and costs can be better understood.

2. Absolute transparency on the size and use of mineral wealth, particularly mineral rents over and above returns to capital.

   Tools:

   - *International agreement* representing standards of sources and uses of mineral rents;
   - *Involvement of governments and agencies*, the World Bank, the UN, companies and accounting standard bodies.

   Progress by 2003.

3. ***International agreed guidelines on the management of rents*** – that return on mineral wealth which is over and above capital.

   This would involve the same bodies, the same partnership approach and timescale as above. This is a more difficult goal, but the group was positive about the outcome.

4. ***Growth of mineral rent*** relative to the growth of mineral wealth of countries. The group focused on reducing costs and shortening investment timescales. This would be beneficial to companies, and to the attractiveness of countries to work in.

   Tools:

   - *Knowledge about the quality and location of resources in different areas*. Surveys and data sharing already being carried out, but more could be done. Governments in host countries, international donor agencies, international agencies and companies could play a key role.

5. ***Land-owner and broader baseline social data needed.*** Area and region specific. The main players should be the World Bank, the UN, NGOs and academia.

   Good progress could be made in 5 years.

6. ***Timescale to development.*** Two issues are important here:
   - The design of regulatory structures: financing relationships; equity structures for sharing benefits and environmental requirements need to be standardised. There is already a good foundation to build on, but more work needs to be done;
   - Administration needs more capacity.

   Progress can be made in 5 years, but the task is not easy.

7. ***Supporting infrastructure.*** This is very project specific, but understanding what works and what does not work in terms of financing structures, administrative structures, relationships between countries, companies and local communities, are areas that need much more work. There needs to be legislative certainty when governments change. Governments must make their own judgments, but case studies will help to inform governments. To help tackle the issue of corruption, there should be an international standard that companies have codes of conduct and are made answerable for them.

8. ***Better returns for minerals***. More research is needed into protection of markets, toxicity of metals and extended uses.

9. ***Making more effective use of locally based companies*** might help in extending benefits to domestic economies. Further work is needed on this issue.

Discussion points

- How to determine equitable share? Who decides? The group suggested this be assessed on a case by case basis. Some information tools exist between governments and companies.
- What are acceptable rates of return? One of the reasons the group had focused on this was that a number of actions suggested were designed to increase transparency and reduce the perceived country risk premium that are loaded on particular countries by companies. Good practice states that there are certain areas where investment is encouraged, and others where it is discouraged.

Group 4 – Diversification

The group defined the challenge as ‘Making mineral wealth permanent’, or ‘transforming mineral wealth’. This might mean transforming mineral wealth into human capital – education, health services etc.; physical capital – better roads, power supplies etc.; social capital e.g. institutions; and natural capital – farming, agricultural activities etc.

There are many means of undertaking these transformations:

- Direct government investment in infrastructure;
- Government investment in education and health care;
- Trust funds or foundations – e.g. Alaska, Norway, Alberta Funds.

The group focused at the local community or regional level on the so called 'Wealth Assessment Plan', and discussed the possibility of making wealth transformation a specific part of the larger national planning process. This process would combine prediction with planning. It would need to involve all interested parties and should be undertaken at the beginning of the project's life. Wealth assessment should also be case specific.

Roles and responsibilities

- ***Companies*** should promote their business case whilst being mindful of their social and environmental responsibility. This requires commitment from the sector and the application of existing planning tools. In general the corporate sector has the capacity and the will to change.
- ***The community*** needs to increase its capacity to participate, and must be prepared to communicate its needs.
- ***Government*** should take on a co-ordinating role, leading the development process, and applying existing planning tools.
- ***The international community*** should encourage responsibility amongst companies, and should promote the development process at the regional and community level.

Group 5 – Issues to be addressed at national level

This group considered what could or could not be achieved within a five-year timetable. There was an acknowledgement that the process was more important than the physical outcome. The aim should be not to produce a blueprint outcome to apply globally, but to identify elements of a process that could be applied universally.

The approach needs to be one which considers different perspectives:

Private sector: develop a process-orientated code of practice based on commonly agreed principles, including guidelines for engagement of all actors including civil society.

Public sector and government: develop a checklist of issues – at national and local level - to be incorporated into mineral policy with respect to sustainable development outcomes. It should cover processes for decision-making; and engagement of communities in civil society.

The following are necessary to develop such a set of principles:

- Good information and case studies;
- A better understanding of the north/south divide – i.e. what will work in developing countries;
- Agreed criteria on indicators for sustainable development;

- Accountability: achieving this is very difficult; who should be responsible for bringing to account? Civil society organisations and NGOs should work with communities to bring companies to account, and monitor their performance.

One of the major difficulties in developing countries is the development of institutions. Developed countries have often had hundreds of years to develop institutions. This needs to be addressed, and is an issue for development agencies.

Irrespective of where one is, there is a need for transparency and disclosure of information by companies to communities on conditions; health and safety issues; environmental impacts; labour etc. Civil society needs to be strong enough to monitor performance of companies and government to ensure transparency. Government needs strong policy and strong capacity to minimise individual discretionary powers in order to avoid corruption.

The group also looked at management of mineral flows and avoidance of boom and bust or Dutch disease. They also considered price stabilisation, which was deemed not to be a good idea since it works against the market. Stabilisation funds that have been successful tend to be in areas with substantial government capacity, reasonable fiscal responsibility and limited discretion on withdrawals.

Summary
Outcomes the group would like to see in five years time:

- To have tested or at least developed a set of ethics or standards to be applied by the industry whether or not they are legally required or binding;
- An improved understanding of the mining sector at all levels; government needs capacity to develop a better understanding in order to design more effective policies; civil society needs to improve understanding to appreciate firstly that mining companies are not an unending source of cash, and secondly, that there are positive impacts as well as the potentially negative ones.

ANNEX I

Agenda

Wednesday 15th August

8.30 Coffee and registration

9:00 Welcome and Introduction

Welcome by Richard Sandbrook (Project Coordinator, MMSD) and introduction of Colin Filer, Workshop Chair (Dept. of Anthropology, Australian National University & MMSD Assurance Group member). The objectives of the workshop and challenge of the MMSD Project.

9:45 The Developmental Challenge: Four Perspectives

Chair: Colin Filer
Different perspectives on the challenges facing developing economies, leading to the question of how the minerals sector can best contribute to development.

Speakers:

- James Bond (Director, Mining Department, World Bank Group): the World Bank perspective
- Fred Higgs (General Secretary, ICEM): a labour perspective
- Mike Waller (Chief Economist, BHPBilliton): a corporate economist perspective
- Miguel Schloss (Director, Transparency International): an NGO perspective

Open Discussion

11:00 Refreshments

11:15 Setting the Scene

Chair: Colin Filer
Overview presentation on the issues relating to managing mineral wealth and of the contribution of the minerals sector to GDP, export earnings, employment etc. in key mineral economies. The presentation will be followed by discussion.

Speaker: Roderick Eggert (Professor and Director, Division of Economics and Business, Colorado School of Mines)
Discussant: Juan Ossio (Professor at PUCP, Peru)

Open Discussion

12:15 Lunch

13:30 Creating and Capturing Mineral Wealth

Chair: John Stewart (Chamber of Mines South Africa & MMSD Assurance Group member)
Discussion of factors determining fiscal payments, e.g. liberalisation, competition, foreign direct investment incentives, socially responsible investment, international norms etc. This session will also address public versus private take; national versus local take; and issues pertaining to intergenerational equity.

Speakers:

- John Stewart to give an overview
- Francisco Tomic (Compañía Minera Escondida, Chile) on the impact of liberalisation trends
- Keith Brewer (Director General Economic and Financial Analysis Branch, Minerals and Metals Sector, Natural Resources Canada) – Creating and Capturing Mineral Wealth: Government Perspectives

Open Discussion

15:00 Refreshments

15:30 The Management and Distribution of Mineral Revenue

Chair: Kathryn McPhail (World Bank Group & MMSD Assurance Group)
Discussion of the relative success of different economic and institutional mechanisms to manage mineral revenue, including stabilisation funds, trust funds and policy development. This session will also consider equity issues (intra- and inter-generational equity, national versus local benefit and who decides) and capacity issues.

Speakers:

- Kathryn McPhail: overview of issues
- Kwabena Sarpong Manu, Ghana (former Director of Finance, Marketing and Research, Minerals Commission, Ghana; Executive Director, MIME Consult Ltd.)
- Richard Jackson (Emeritus Professor, James Cook University and self-employed mining consultant, Philippines) on long-term planning strategies for projects
- Holly Lindsay (Manager, Public Policy and Economic Development, BHPBilliton) on the role of companies in ensuring effective distribution of revenue

- Olle Ostensson (Chief, Information and Risk Management Section, Commodities Branch, International Trade and Commodities Division, UNCTAD) on capacity building

Open Discussion

17:30 End of Day

17:45 – 18:15 Welcome Drinks

19:30 Dinner

Thursday 16th August

09:00 The Management and Distribution of Mineral Revenue (Continued) Case Studies

Chair: Kathryn McPhail
Discussion of the relative success of different countries in the management and distribution of mineral revenue.

Speakers:

- Alberto Pasco-Font (Principal Researcher in the Group of Analysis for Development, GRADE, Peru) on managing mineral wealth in Latin America (including Bolivia, Chile and Peru), with an emphasis on social and economic impacts
- Patrice Christmann (Advisor, Economy, Intelligence, Sustainable Development Mineral Resources Department, BRGM, France) on the management and distribution of mineral revenue in PNG: facts and findings from the Sysmin Preparatory Study - a consultant's perspective
- Rögnvaldur Hannesson (Professor, the Norwegian School of Economics and Business Administration, Norway) on investment funds in Alaska, Alberta and Norway

Open Discussion

11:00 Refreshments

11:30 Contributing to Building Sustainable Communities

Chair: Glynn Cochrane (Chief Anthropologist, Rio Tinto)
Discussion of the relative success of different economic and institutional initiatives in maximising the benefits of mining at community level, including local business development, training and skills development, preparing for mine closure, infrastructure development, local planning. This session will also consider inter- and intra-generational equity issues.

Speakers:

- Glynn Cochrane – overview of issues
- Dave Parker (Manager, Regulatory and Public Affairs, Teck Cominco Metals Ltd.) on sustaining benefits after mine closure
- Ian Emsley (Safety, Health and Environmental Policy Unit, Anglo American plc) on skills requirements in modern mining
- Wayne Dunn (President, Wayne Dunn & Associates Ltd., Canada) on retrenchment
- Bernd Drechsler (Project Mining Engineer, ITDG – Southern Africa) on small scale mining

Open Discussion

13:00 Lunch

14:00 Contributing to Building Sustainable Communities (Continued)

Chair: Colin Filer

Speakers
- Graham Taylor (Principal Project Coordinator, Mining Division, Department of Mining, PNG) to give a case study on distribution of benefits from Porgera mine including intergenerational trust, Development Forum Process and infrastructure tax credits
- Juan Aste (Grupo de Investigaciones Economicas ECO, Peru) on revenue-sharing
- Paul Kapelus (Director, AICC and MMSD Southern African researcher) on community development in Southern Africa
- Ginger Gibson (Director of Mining Initiatives, Co-Development Canada) on community participation in decision making

Open Discussion

15:30 Refreshments

16:00 Moving Forward:
Roles, Capacity Building and Institutional Strengthening

Chair: Colin Filer
Discussion on the roles of different actors and on initiatives to overcome some of the constraints, e.g. partnerships, capacity-building exercises.

Speakers:
- Sirkka Korpela (Director for Business Partnerships, UNDP) on public-private partnerships
- Kathy Whimp (Independent Legal Policy Consultant, Australia) on the development of community-based organisations
- Jim Cooney (General Manager, Strategic Issues, Placer Dome Inc.) on the role of mining companies in development
- Fernando Cortez (Ministry of Social Development, Chile)
- Kwabena Mate (Independent Consultant on Mining, Human Rights, Development and Legal Issues) on Capacity Building and Policy Networking

Open Discussion

18:00 End of Day

19:30 Formal Dinner

Friday 17th August

10:00 Towards Solutions: The Roles of Different Actors
Facilitated by Amar Imandar (Synergy)

Breakout group leaders (to be confirmed):
Labour: Fred Higgs (General Secretary, ICEM)
Industry: Jim Cooney (General Manager, Strategic Issues, Placer Dome Inc.)
Government: Graeme Hancock (World Bank Technical Assistance Project in the Mining Sector, PNG Department of Mining)
Civil Society: Kathy Whimp (Independent Legal Policy Consultant)

Breakout group sessions will be based on topics covered in previous sessions.

The specific design of the breakout sessions to be finalised after day 2 but will include role-playing breakout group sessions divided into different types of actor: mining companies, governments, labour, NGOs. The objective will be to discuss:

1. Their roles
2. Strengths and weaknesses
3. Opportunities for improving contribution, e.g. through changing role, forming partnership, capacity building
4. Consider the need for new initiatives/strengthening of existing ones

10:30 Breakout Groups: National Level Issues

13:00 Lunch

14:00 Breakout Groups: Local Level Issues

15:30 Refreshments

16:00 Report Back

17:30 Wrap up led by Colin Filer

ANNEX II

List of Participants

Attendee	Organisation	Country
Juan Aste Daffos	Grupo de Investigaciones Económicas	Peru
James Bond	Director of Mining, World Bank	USA
Keith Brewer	Mineral and Metals Sector, Natural Resources Canada	Canada
Neal Brewster	Rio Tinto plc	UK
Patrice Christmann	Sustainable Development Mineral Resources Department, BRGM	France
Glynn Cochrane	Rio Tinto plc	UK
Jim Cooney	Placer Dome inc.	Canada
Fernando Cortez Guerra	Ministry of Social Planning	Chile
Dr Rajat Das	ASHA	India
Caroline Digby	MMSD	
Bernd Dreschler	ITDG – Southern Africa	Zimbabwe
Wayne Dunn	Wayne Dunn & Associates	Canada
Cholpon Dyikhanova	CBF and MMSD Assurance Member	Kyrgyzstan
Roderick Eggert	Division of Economics and Business Colorado School of Mines	USA
Peter Eggleston	Rio Tinto plc	UK
Ian Emsley	Anglo American plc	UK
Dr Colin Filer	Australian National University and MMSD Assurance Group member	Australia
Gabriela Flores-Zavala	MMSD	
Ginger Gibson	CoDevelopment Canada	Canada
Reg Green	ICEM	Belgium
Dr Graeme Hancock	PNG Department of Mining	PNG
Rognvaldur Hannesson	The Norwegian School of Economics and Business Administration	Norway
Ralph Hazleton	Partnership Africa Canada	Canada
Fred Higgs	ICEM	Belgium
Dr Amar Inamdar	Synergy, Oxford Centre for Innovation	UK
Richard Jackson	Emeritus Professor, James Cook University, and self-employed mining Consultant based in Manila	Australia
Rita Jordan	Independent consultant working on PASMA Programme	Argentina
Namakau Kaingu	SADC Women in Mining Trust and MMSD Assurance Group member	Zambia
John Kangwa	Copperbelt University School of the Built Environment	Zambia
Paul Kapelus	AICC	South Africa
Antonio Kayap	SHUAR Federation	Ecuador
Sirkka Korpela	UNDP	USA

Wai Lee Kui	MMSD	
Kwabena Mate	Independent Consultant on Mining, Human Rights, Development and Legal Issues	Ghana
Patricio Leyton	MMSD	
James Mayers	IIED	
Kathryn McPhail	World Bank and MMSD Assurance Group Member	USA
Frank McShane	MMSD	
Juan Ossio Acuna	Pontificia Universidad Católica del Perú	Peru
Olle Ostensson	UNCTAD	Switzerland
Archie Palane	NUM	South Africa
Dave Parker	Teck Cominco Metals Ltd	Canada
Alberto Pasco-Font	Group of Analysis for Development (GRADE)	Peru
Marco Perez	Unidad Corporativa Minera	Dominican Republic
Santiago Porto	BPD	UK
Horacio Ramos	Mines and Geosciences Bureau	Philippines
Charles M. Rose	Phelps Dodge Corp.	USA
Antonio Sanchez Espinoza	Ministry of Mining	Chile
Richard Sandbrook	MMSD	
Kwabena Sarpong Manu	MIME Consult Ltd	Ghana
Migueal Schloss	Transparency International	USA
Andrea Steel	MMSD	
John Stewart	Chamber of Mines of South Africa and MMSD Assurance Group member	South Africa
Graham Taylor	PNG Department of Mining	PNG
Francisco Tomic	Compañía Minera Escondida	Chile
Mike Waller	BHP Billiton	Australia
Alyson Warhurst	Warwick Business School, Warwick University	UK
Deborah Webb	Warwick Business School, Warwick University	UK
Elisabeth Wood	MMSD	

Acronyms

AICC-African Institute of Corporate Citizenship
ASHA-Association for Social and Health Advancement
BPD-Business Partners for Development
BRGM-Bureau de Recherches Géologiques et Minières
CBF-Community and Business Forum
GRADE-Peruvian research institution with vast experience in the area of natural resources and environment, particularly in mining
ICEM-International Federation of Chemical, Energy, Mine and General Workers' Unions
ITDG-Intermediate Technology Development Group
MERN-Mining and Energy Research Network
MMSD-Mining, Minerals Sustainable Development
PASMA-Programa de Restructuracion del Sector Minero de Argentina (financiado por el banco mundial y el gobierno de Argentina)
PNG-Papua New Guinea
PUCP-Pontificia Universidad Catolica del Peru
RSPAS-Resource Management in Asia-Pacific Programme
SADC-South African Development Community
UNCTAD-United Nations Conference on Trade and Development
UNDP-United Nations Development Programme
WB-World Bank
WBCSD-World Business Council for Sustainable Development