Sustainable Mining Development

From Concept to Action

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Good morning ladies and gentleman; it is a pleasure to be here this morning.

Four years ago, at the July 1998 Madang Conference, I presented a paper entitled “From Enclave to Sustainable Development”.

In that paper I outlined what I saw as some emerging trends regarding sustainable mining development.

This morning’s presentation returns to those ideas, my aim is to

- place them in a more general sustainable development context,
- present some examples of sustainable development in action, and
- look at the implications for some of the key stakeholders.

Because of the time available, my presentation will only touch briefly on what are very important topics.

Many of them will be addressed in much greater detail by other speakers.

My paper is a survey paper and as such it should be noted that the text of the paper, as well as some of the slides in this presentation, contain considerable material directly taken from the various papers, proceedings, and presentations (including associated press releases) referenced in the report.
2. Introduction

Sustainable Development is in the forefront of the overall development agenda as shown by the Johannesburg Summit and in the forefront of the mining agenda as shown by the the Mining, Minerals and Sustainable Development (MMSD) project.

The first section of this presentation looks at the Business Case for Sustainable Development and summarizes the work of the International Finance Corporation (IFC) and the MMSD Project.

The second section provides some examples of companies successfully applying sustainable development approaches and looks at lessons learned from these examples. The examples are largely taken from World Bank conferences over the past two years on Mine Closure, Mineral Taxation and Local Management of Mineral Wealth and from the November 2001 Sullivan Mining Round Table.

The third section looks at the implications of sustainable development and the way ahead for different players including mining companies, governments, civil society and the World Bank.
3. The Business Case For Sustainable Development

What is Sustainable Mining Development?

Sustainable mining development involves mining development that is:
• Financially viable
• Environmentally sound
• Socially responsible
• Implemented with sound governance, and
• Brings lasting benefits especially for the community

Why does Sustainable Mining Development matter?

It is essential if a mining project is to contribute to effective and lasting poverty reduction and economic development at the local and regional levels.

Is Sustainable Development affordable in practice?

There is a growing body of evidence that sustainable development actions can provide benefits not only to the community but also to the investor.

What is sustainable development and why has it become a must for the mining industry? There is no single consensus definition of sustainable development. I see five key elements: sustainable mining development involves projects that are
• financially viable
• environmentally sound
• socially responsible
• implemented with sound governance (not only companies but also communities and governments)
• have lasting value

Why does sustainable development matter? It matters if projects are going to contribute to lasting poverty alleviation and economic development at both the local and national levels. This involves moving from a narrow definition of “environmental sustainability” to a broader definition which embraces “sustainable communities”

But is a sustainable development approach affordable in practice? There is now a growing body of evidence that the “sustainable development” approach, when well implemented, can provide net benefits not only to the community but also to the investor.
The first part of my presentation addresses the Business Case for Sustainable Development. I will look at the work of two groups.

First I would like to present some of the work that has been done by the The International Finance Corporation (IFC) which is the arm of the World Bank Group that undertakes investments with the private sector.

IFC use the term “sustainability” rather than sustainable development – but it is basically the same idea.

IFC have very recently published a new report entitled *The Business Case for Sustainability in Emerging Markets*,

Based on more than 240 real-life examples in over 60 countries, the report analyzes the “business case” for sustainability in emerging markets.

The IFC work, finds that for many companies there is a business case for sustainability for many companies and that IFC participation in projects can help to bring about sustainability.
Main Conclusions of the IFC Report on Sustainability

- Sustainability is not an all-or-nothing, one-size-fits-all proposition;
- Sustainability can increase all elements of the triple bottom line and contribute to public goods rather than simply adding economic costs; and
- Sustainability is a pragmatic pursuit, not an ideological exercise.

Overall, the report makes the case that sustainability is about increasing opportunities, not limiting them.

The report concludes that:

(1) sustainability is not an all-or-nothing, one-size-fits-all proposition;

(2) sustainability can increase all elements of the triple bottom line and contribute to public goods rather than simply adding economic costs; and

(3) sustainability is a pragmatic pursuit, not an ideological exercise. Overall, the report makes the case that sustainability is about increasing opportunities, not limiting them.
The IFC report presents a business case matrix which relates key aspects of sustainability to a set of recognized business success factors - demonstrating graphically where a viable business case exists. Some of the main conclusions are that companies can

- reduce costs,
- increase revenues,
- reduce risks,
- build reputation,
- develop human capital,
- improve access to markets

by actions to

- improve environmental performance
- engage with community
- improve human resource management
- strengthen corporate governance
The MMSD Report suggest that mining sustainable development can help achieve a broad range of cost savings, including:
- operational costs (such as labor, health, raw materials and insurance),
- financing costs,
- transaction costs and
- closure and post-closure costs.

Underlying these cost savings are innovative solutions and cleaner production processes.

In addition, the MMSD Report points to higher value for goodwill on the balance sheet, best practice influence on regulation, market advantages and access to “ethical” investment funds.

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The MMSD Report includes recommendations that

• Individual mining companies develop and adopt a Sustainable Development Policy and prepare Community Sustainable Development Plans;
• The Mining industry prepare a declaration on Sustainable Development;
• Labor support a global-level agreement for cooperation with industry in support of sustainable development;

Both governments and the mining industry support the establishment of a Sustainable Development Support Facility.
Equally important, the MMSD project places great emphasis on developing tools and processes to implement sustainable minerals development and provides a series of practical steps in the MMSD North America publication: “Seven Questions to Sustainability”. For those of you who have not seen it, it provides a template for identifying and addressing issues associated with implementing sustainable development.

The seven questions relate to the following:

- Establishing and implementing an effective engagement process;
- Improving people’s well being;
- Assuring the integrity of the environment;
- Improving the local economy through economically viable projects;
- Ensuring acceptable impacts on traditional and non-market community activities;
- Establishing effective institutional arrangements and governance; and
- Achieving a positive net result in the long term with appropriate metrics and periodic reassessments.
There is a critical mass of examples of sustainable mining development being achieved. I would now like to give a number of examples of these which strike me as especially notable.

The first examples are taken from the *World Bank Mine Closure Workshop* that was held in Washington D.C. in March 2000.

Here there were three examples – two from Canada and one from the United States of successful mine closure – where communities have achieved “life after mine closure.” First is the *Elliott Lake uranium mining operation* in Canada, where about 2,000 company housing units have been successfully converted into a successful retirement community. Next is the *Island Copper Mine* in British Columbia, Canada where there are new wood processing and aquaculture operations. Third, is the *Ridgeway gold mine* in South Carolina, where the mine introduced a bonus payment system so that it could retain the key workers needed to complete the closure. The Washington DC conference also included two examples of mines where a comprehensive mine closure approach is presently being implemented – these are the *Kelian gold mine* in Indonesia where the local Rio Tinto foundation will continue to assist the community after mine closure and the *Misima gold mine* in Papua New Guinea where the mining company has actively supported the community to set up its own mine closure planning task force and to plan for the future after the mine closes.
Following are examples from another Conference - the Sullivan Round Table - of actions to help achieve improved living conditions and sustainable development for local communities. Following a mercury spill in June 2000 at the Yanacocha gold mine in Peru, the corrective actions led to social network mapping so that the company could better understand key community concerns and a social development program was developed to respond to them. A Sustainable Development Plan has been developed for the local communities at the Antamina copper/zinc mine in Peru with support from the United Nations Development Program (UNDP) which carried out a comprehensive study of the stakeholders as the basis for the plan. Antamina is also working with other mines and the United Nations Environment Program (UNEP) to develop and implement an emergency planning process - the Awareness and Preparedness for Emergencies on a Local Level (APELL), which is the first of its kind in Peru. The Misima mine has provided support to build social capital within the local communities. In particular, a Sustainability Planning Advisory Committee was formed which brought together representatives from government, civil society and small business to work together to plan for their future in the post closure period. The Kudz Ze Kayah Project, Yukon Territory is another example of responsible mining development in Northern Canada, where following extensive consultation a Socio-Economic Partnership Agreement was created and a joint Management Advisory Committee established to meet quarterly to review project activities and chart progress.
Let me provide more detail with the example of the Red Dog Mine in Alaska. I like this example because it goes back to the nearly twenty years.

It is about what has been accomplished rather than what is planned or expected. The agreement signed between the mine and the local tribes responded to the concerns of the local communities.

For example it provided for a flexible work schedule which was important to the local people for them to be able to maintain their traditional pastimes such as fishing and hunting.

Specific agreements were made and the necessary implementation mechanisms were put in place.

For the most part the implementation mechanisms were committees such as the three shown in the slide.

While the mining company had to be willing to make accommodations to the local community which made the mine beneficial for the local communities, the company was able to develop a successful, profitable mine.
Examples of SD
13. Local Management Of Mine Wealth

- **2001 Conference on Sustainability and the Governance of Mining Revenue Sharing**
  - Fiscal revenue sharing for local economy development in Papua New Guinea presently includes the following elements
    - Royalties
    - Special support grant
    - Compensation
    - Infrastructure tax credit scheme
    - Equity

- **2002 Sullivan Round Table**
  - Coordinated Action by Mining Municipalities in Peru has successfully
    - Improved their share of mining revenues
    - Established a dialogue with the mining industry

Next is an example of a comprehensive range of benefit sharing mechanisms that has been introduced in one country – namely Papua New Guinea. As many of the conference participants know better than me landowners have demanded a strong voice in the development arrangements for new mines Papua New Guinea in the past two decades and this has resulted in an extensive range of benefits to the landowners, and local and provincial governments as demonstrated in the slide, which summarizes a presentation made by Graeme Hancock at a World Bank conference last year. This has resulted in mining-related transfers in excess of US$50 million per year to landowners, and local and provincial governments.

A key issue here is whether or not these funds are well used in practice to establish assets that will last into the future (including intangible assets such as education) – or whether they are squandered. The recently established trust arrangements for the Ok Tedi mine in Papua New Guinea also provides a very important case study of benefit sharing.

The second example here is taken from Peru. In this case an association of 200 mining municipalities has succeeded in having a royalty law passed so that a percentage of the taxes from mining regions that goes to the central government is returned to those regions. In addition, a year and one half ago the Association successfully started a dialogue on mining and development. It was started by three people and now there are ten of the biggest companies involved in discussions with NGOs, mayors and other government officials.
The Northern Saskatchewan Uranium industry is another example of mining sustainable development actions with a well demonstrated track record.

In 1977 in Northern Saskatchewan, 54% of the public opposed mining. However, in a remarkable turnaround, by 2000 88% of the northern population was supportive of environmentally sustainable mining.

The slide shows some of the key elements that made that possible.

- Trust and respect building process
- Local entry-level hiring, training and skills qualifications
- Community support and engagement
- Support for Kitsaki Companies (C$55 million turnover in 2001)
- Environmental Quality Committees to monitor the environmental performance of the mines and provide information to communities

Let me emphasize the importance of both side being willing to develop a relationship that was constructive and collaborative. As a result, the members Cree Tribe have developed a range of businesses that now have a turnover of 55 million Canadian dollars.
Examples of SD
15. Lessons Learned About Actions For Achieving Sustainable Development In Mining

- Consultation and relationship building between the mine and affected people – starting at exploration - based on respect for local community culture and land
- Mine Closure Planning with strong focus on post-closure sustainability
- Local Economic Development Plan and Agreements – hiring preferences, training, small business support, joint ventures
- Oversight and Management Committees
- Revenue Sharing Framework with specific benefits for local communities
- Environmental and Social Protection Plans and Agreements and Independent Verification

“We have not inherited the land from our ancestors, we are only borrowing it from our children.” – old First Nations quote

What are some of the lessons that we can learn from these examples about actions for achieving sustainable development in mining?

Consultation and relationship building between the mine and affected people – starting at exploration - based on respect for local community culture and land

•Mine Closure Planning with strong focus on post-closure sustainability

•Local Economic Development Plan and Agreements – hiring preferences, training, small business support, joint ventures

•Oversight and Management Committees

•Revenue Sharing Framework with specific benefits for local communities

•Environmental and Social Protection Plans and Agreements and Independent Verification

It is noteworthy that many of the above examples relate to projects in First Nation Lands in northern Canada. This may partly be explained by an old quote provided at the Sullivan Round Table by Ms. Rosie Barr of the NANA Corporation:

“We have not inherited the land from our ancestors, but are only borrowing it from our children.”
16. The Importance of Starting Consultation Early

Ian Thomson quoted in the proceedings of the Sullivan Round Table as follows:

“I could give you a list of more than a dozen projects worldwide that will not go ahead at least not in the rest of my life time because they are completely and utterly log jammed around a series of social and socio-environmental issues that were created at some point during the exploration phase.”

This quotation from Ian Thomson, emphasizes he importance of starting consultation from the first contact.
This quotation from Jay Hair points to the importance of companies supporting third party verification especially for environmental performance.
Artisanal and Small-Scale Mining (ASM) present one of the greatest challenges to implementing sustainable mining development.

At the global level, the World Bank is a co-convener of the Consultative Group on Artisanal and Small-Scale Mining (CASM) which was established in 2001 to help identify and disseminate good practice solutions for ASM.

In Papua New Guinea, the World Bank is the implementing agency for a Japanese Social Development Fund (JSDF) Grant to help improve ASM in Papua New Guinea. We believe that ASM can be improved by legalizing and licensing ASM activities. Our view is that the licensing of operations will help provide an incentive to get artisanal and small-scale miners to be more willing and able to make modest investments in their activities – which should bring improved productivity and better environmental performance. More stable operations will also be somewhat more amenable to inspection.

But there are no easy answers and I look forward to the papers that will be presented on the topic.
What does this mean for the future? For companies, the starting point is to develop a clear understanding of what sustainable development means and to translate this into a policy that is fully endorsed and supported by Senior Management and then fully communicated to managers and staff. This is essentially a process of internal change.

What are the actions companies can take?

At the exploration stage companies can identify and inform communities about what they are doing and work to avoid communities being disadvantaged by their lack of knowledge and capabilities.

At the feasibility and construction stage companies can make a determined effort to build respect and trust with the communities and design and construct the project in line with best international practice and minimize the footprint of the project. Negative impacts should be minimized, mitigated and compensated.

During operations, companies can forge effective partnerships, accommodate third party or joint monitoring of key environmental and social impacts; support training and outsource jobs to the community.

Finally companies can help the community prepare for closure and post closure stage and can close the mine in a environmentally responsible manner and undertake post closure monitoring.
The Way Ahead
20. What Governments Can Do

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<tr>
<th>Exploration</th>
<th>Feasibility and Construction</th>
<th>Operational</th>
<th>Closure and Post-Closure</th>
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<tr>
<td>Set</td>
<td>Require good practice in environmental and social assessments and construction activity</td>
<td>Ensure good monitoring and compliance</td>
<td>Help community prepare for closure including post closure service delivery levels</td>
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<tr>
<td>Administrative Rules and Procedures for Information Dissemination And Consultation</td>
<td>Ensure community has access to studies</td>
<td>Provide Community services</td>
<td>Oversee mine closure and post closure monitoring</td>
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<tr>
<td>Sets and funds service Delivery roles</td>
<td>Ensure good monitoring and compliance</td>
<td>Ensure equitable sharing of benefits within overall fiscal decentralization policies</td>
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Government actions set the rules that shape the financial viability, economic soundness, social responsibility and governance of mining projects and also determine the effectiveness of public sector services delivery.

Governments can support sustainable development in several ways.

At the project design stage for major developments, Government can ensure that the mine design process include adequate baseline environmental and social studies and both environmental and social impact assessments. Government can also ensure that the community has good access to feasibility studies before they are finalized and has full opportunity to express its views.

During construction and once a mine is operational, Government can ensure adequate monitoring arrangements and company compliance with environmental and social agreements. All too often in the past the central government has had an entirely inadequate presence at the mine site in terms of monitoring performance and helping resolve conflict. Another important role for Government is ensuring that the necessary capacity is in place for the provision of effective and sustainable health, education and other municipal services to the community. Government is also responsible for ensuring equitable sharing of benefits from the mine by setting for implementing rules and policies regarding the collection and use of fiscal revenues. When the end of mine life is in sight, Government can ensure that mine decommissioning and reclamation plans are adequate and that they are implemented properly. Government can also work with communities to help them prepare themselves for life after the mine closes and to ensure that any social assets or infrastructure operation by the mining company is properly transferred with adequate funding to the local governments or country.
The third important stakeholder in this process is the community itself – together with community based organizations (CBOs) and non-government organizations (NGOs) and any other organizations that may help communities or represent their interests.

Communities, and especially remote communities, are often very unprepared to deal with the presence and impact of major companies.

It is no surprise that they can quickly feel overwhelmed because there is an enormous mismatch in knowledge, experience, resources. But many communities do not fully appreciate the full range of actions that they can take to fully benefit from mining projects. Part of the key here is for the community to organize itself effectively so that it has a strong internal consensus, effective planning and good leadership.

As demonstrated by the earlier examples much can be accomplished – but this requires building community planning capabilities and leadership, developing a constructive engagement with the mine and taking a long term view.
Finally – what can the World Bank Group contribute to the process?

Our approach is based on the principle that getting the process right matters more than narrow technical standards. There are a broad range of activities that we undertake to support governments, communities and investors.

The practices procedures and safeguard policies that we use for our own projects are frequently used by private investors for their projects, even when the World Bank Group is not directly involved in the project.

Most importantly we have produced a Poverty Alleviation Sourcebook which includes a Chapter on how mining can contribute to poverty alleviation and economic development.

Finally, a new initiative is presently being prepared by the World Bank Group and discussed with potential donors and the mining industry.

This initiative would lead to the establishment of a new Sustainable Mining and Local Development Technical Assistance Program which will deliver technical assistance to communities, companies and governments to promote, implement, and disseminate best practice sustainable development around mining investment projects.