

**Response to the draft Mining, Minerals and Sustainable Development Project MMSD Draft Report issued 4/3/02 by the International Institute for Environment and Development.**

Barry Golding - Promethean Planning

[Promplan@bigpond.net.au](mailto:Promplan@bigpond.net.au)

The MMSD-Australia project recognized the importance of improving the public perception of the mining and minerals industry quoting the following words from Robert Burns:

O wad some Pow'r the giftie gie us  
To see oursels as others see us  
It wad frae monie a blunder free us  
An' foolish notion

The overarching objective of the Mining, Minerals and Sustainable Development Project (MMSD) is to explore the role of the mining and minerals sector in the transition to sustainable development. The report has been reviewed by continually asking what would a disinterested person, having read the MMSD Draft Report, be convinced that the mining industry is committed to improving its sustainable development record?

The MMSD Project objectives are to:

- (i) assess the global mining and minerals sector in terms of the transition to sustainable development. This would cover the current contribution – both positive and negative – to economic prosperity, human well-being, ecosystem health, and accountable decision-making, as well as the track record of past practice;
- (ii) identify how the services provided by the minerals system can be delivered in accordance with sustainable development in the future;
- (iii) propose key elements for improving the minerals system; and.
- (iv) build platforms of analysis and engagement for ongoing cooperation and networking among all stakeholders (iied 2002, p. 3).

Distilling the above objectives, the project's success will be measured by how well the industry (the minerals system) implements key elements recommended in the MMSD Draft Report to improve economic prosperity, human well-being and ecosystem health. My response focuses on how well the key elements recommended to improve economic prosperity, human well-being and ecosystem health in the MMSD Draft Report address the overarching objective which is to explore the role of the mining and minerals sector in the transition to sustainable development

How can the mining and minerals sector contribute to the global transition to sustainable development? Chapter 1 of the MMSD Draft Report effectively presents the evolution of the concept of sustainable development commencing with the 1987 World Commission on Environment and Development. The report quotes from *Our Common Future* (the Brundtland Report) which stated that "sustainable development (SD) is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."(Brundtland 1987). The core objective of SD is to improve human well being. It requires sustaining those improvements over time. The goal is for our children to have as good a life as their parents did, or better. It requires passing the means of survival on to future generations unimpaired and building, or at least not diminishing the total stock of capital. The idea of 'capital' lies at the heart of sustainable development; however, the kind of capital relevant to sustainable development goes well beyond the common idea of financial capital. It has five main forms:(iied 2002, p. 1-7)

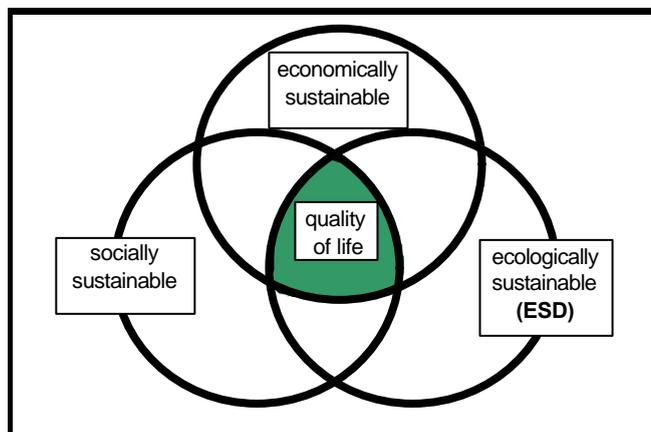
- (i) *natural capital*, which provides a continuing income of ecosystem benefits, such as biological diversity, mineral resources, and clean air and water;
- (ii) *manufactured capital*, such as machinery, buildings, and infrastructure;
- (iii) *human capital*, in the form of knowledge, skills, health, and cultural endowment;
- (iv) *social capital*, the institutions and structures that allow individuals and groups to develop collaboratively; and
- (v) *financial capital*, the value of which is simply representative of the other forms of capital.

Financial capital, underpinned by gold in the past and currently best represented by \$US is a framework for exchanging goods, and as acknowledged in the MMSD Draft Report, is simply a common method of valuing the other forms of capital. Likewise social capital is one facet of civil society which sits at the apex of any hierarchy related to improving human welfare as is explained further on in this response. The generally accepted forms of capital are natural, manufactured and human capital. The report goes on to acknowledge that some theorists consider that all forms of capital are substitutable. This is an outdated thesis and such theorists are now in a minority. Their thesis is not supported by empirical evidence and can easily be shown to be false by the following example. Manufactured capital can provide humans with some of the resources previously provided by a river system killed by acid mine drainage providing someone is willing to provide the manufactured capital free of charge; however, such altruism is unsustainable. Manufactured capital is as ephemeral as mining and in the long term cannot be substituted for natural capital.

The report states that the 1992 UN Conference on Environment and Development held in Rio de Janeiro (the Rio conference) accelerated agreements on climate and biodiversity but it did little to convert the principles of sustainable development into action and paid too little attention to social development. Rio did, however, establish the ‘three pillars’ of sustainable development: economic, environmental, and social. Thus sustainability is often portrayed as a three-legged stool. If judged by the volume of words, the MMSD Draft Report appears to give prominence to economic sustainability, suggesting that the social and environmental legs are subservient to the dominant economic leg as portrayed in Figure 1.

**Figure 1 - The three legs of SD**

The proposition that a robust economy serves as the foundation for the social and environmental legs is not supported by the evidence.



There are numerous historical examples of robust economies being deleterious to both social and environmental sustainability. The National Socialists reduced unemployment in Germany from 33% in 1933 to 2.8% on 1938 (Jordan , p. 1), and that robust economy had a devastating impact on both society and ecology. The MMSD Draft Report appears to be predetermining the parameters of the debate by placing economic sustainability at the apex of sustainable development whilst relegating ecologically sustainable development (ESD) to a subordinate role. The report may be interpreted as an attempt to obfuscate the debate in a manner similar to that described by John Ralston Saul in *Voltaire's Bastards* by redefining the parameters of the sustainable development debate so that the intended audience is controlled within these parameters rather than having time to reflect on the basic parameters (Saul , p. 116). In the ten years since the Rio conference the debate has moved on and although the three legged SD stool was seen as a good starting point civil society is demanding that ESD is a paramount task which logically it is. Australian Governments, both federal and state, and many other governments have wisely accepted ESD as their environmental vision. ESD does not equal SD. ESD is a fundamental requirement of SD, and without ESD there cannot be social or economic sustainability; however, as has been shown the reverse is not necessarily true. Since the report is structured around the three pillars or legs of SD, the report will be examined to see how well its coverage of each pillar contributes to the MMSD project's objective of explaining *how the minerals industry can best contribute to the global transition to sustainable development*.

The report considers the economic pillar first. Why does the report give this issue prominence? From an economic sustainability perspective, mining companies are no different to any other commercial venture. If they are not economically viable they are either liquidated or taken over. This is the major strength of our capitalist system. The only economic argument, which the mining industry could mount, is against anomalies that distort the capitalist model, such as subsidisation or tariff protection. In the developed world little subsidisation remains, although some does occur for example by way low electricity charges to the aluminium refining industry; however, it is unlikely this issue will be addressed in this forum and after all such subsidisation is within the sovereign rights of the government concerned. If mining companies feel that it is no longer profitable to invest in a country then the clear signal to government

is mine closure and the flight of mining to other countries or states. Chapter 8 devotes some space to extolling the benefits of mining. Attempts by the mining industry to show the importance of mining to the economy are generally seen as propaganda. Although the MMSD Draft Report may be seen to have allocated unnecessary space in Chapter 8 to information which may be construed as propaganda, the editors are to be commended for raising issues such as the inequitable distribution of the benefits from mining and other human rights issues that need to be addressed even though many of the issues can only be resolved by the sovereign government.

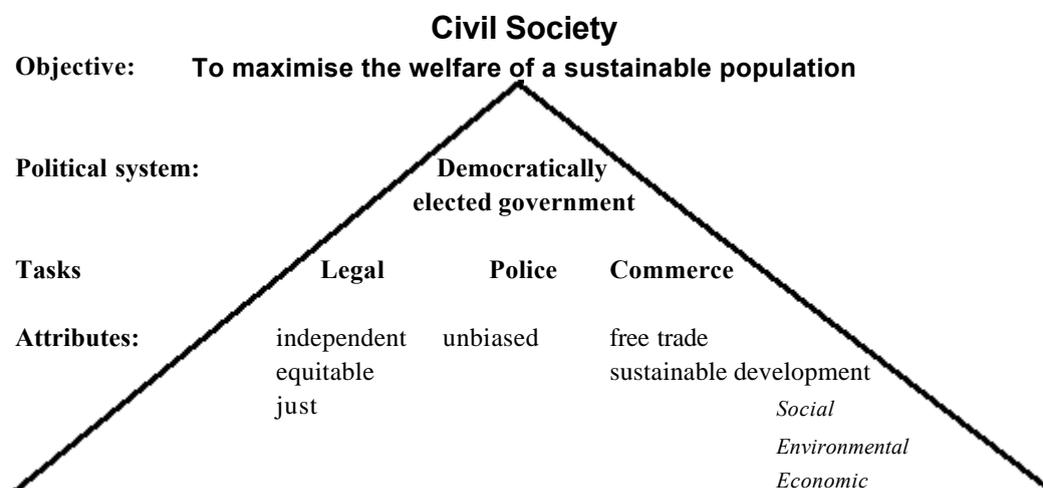
The report chose to cover the social leg next. The report appears to suggest that the mining industry has a commitment or obligation to the local community once mining ceases. Our track record in this area is variable, especially in relation to indigenous people. For example, well over a billion tonnes of coal has been extracted from Australia's Bowen Basin coalfield in the past 30 years with a value exceeding \$50 billion. To my knowledge very few scholarships or education grants have been offered to children in the only local indigenous township of Woorabinda. This is not meant to single out the Queensland coal industry, which has been above average in the mining industry in supporting local development, it is merely meant to highlight that it is perhaps too much to expect mining companies to support communities once mines close. Regarding land access, not unexpectedly, given its past lack of engagement with the indigenous people, the Queensland mining industry has spent considerable effort opposing native title. Nevertheless, those companies that have been willing to negotiate with native title claimants have generally gained access and found that commonly the aboriginal community and white community were seeking the same outcome, employment for themselves and their children. Social equity inevitably rests with the government; however, mining companies are aware of the fact that the government's interest may not always coincide with those of the local community and it is prudent to ensure the local community is treated equitable. Bougainville is a pertinent example. On the other hand fly in fly out may often be the better ESD option rather than building mining townships and establishing mining ghettos that will often be unsustainable.

The report addresses the important ESD leg last. The MMSD project presented a marvellous opportunity for the mining and minerals industry to make a significant

contribution toward developing clear guidelines for the industry to meet the ESD objective. On this issue the mining industry has the ability and prime responsibility to answer the question *how can it best contribute to the global transition to sustainable development*. Recycling gets almost a full chapter (Chapter 11); however, advances in this area play a minor role in ESD. The mining industry could have committed to ensuring that current and future mining and minerals projects adhere to the ESD principles. A commitment to the principle that mining and minerals projects should not leave a mess for future generations to clean up, or worse leave irreparable environmental damage, would show that our industry is sincere in its commitment to ESD and earn it a rightful place at the SD table.

The report states that "last but not least, sustainable development also requires democratic processes to ensure that people can participate in the decisions that affect their lives, as well as legal and political structures to guarantee their civil and political rights. Transparent and democratic governance is referred to as the fourth pillar of sustainable development." (iied 2002, p. 1-12). Any hierarchy of requirements for a civil society should have at its apex civil society. Sustainable development is one of the attributes of commerce as shown in the Figure 2. Defence and health have been excluded from the tasks for simplicity. The MMSD Draft Report would more accurately reflect the hierarchy of civil society if the wording quoted at the beginning of this paragraph was reversed to say that sustainable development is a necessary attribute for democratic government to achieve civil society's objective of maximising the welfare of a sustainable population.

**Figure 2 - Hierarchy of requirements for a Civil Society**



The report states that the World Summit on Sustainable Development, to be held in Johannesburg in September 2002 is also a chance to move beyond vague commitments to sustainable development and demonstrate that its principles can be at the heart of international collaboration (iied 2002, p. 1-12). Since this report is a contribution from the mining and minerals industry I assume this statement applies to the mining and minerals industry. The report then suggest a sustainable framework for the minerals sector stating that "moving from the concept of sustainable development to action requires:

- (i) a robust framework based on an agreed set of broad principles;
- (ii) an understanding of the key challenges and constraints facing the sector and the actions needed to meet or overcome them, along with the respective roles and responsibilities of actors in the sector;
- (iii) a process for responding to these challenges that respects the rights and interests of all those involved, is able to set priorities, and ensures that action is taken at the appropriate level;
- (iv) an integrated set of institutions and policy instruments to ensure minimum standards of compliance as well as responsible voluntary actions; and
- (v) verifiable measures to evaluate progress and foster consistent improvement.

If the minerals sector is to contribute positively to sustainable development, it needs to demonstrate continuous improvement of its social, economic, and environmental contribution, with new and evolving governance systems. The sector needs a framework within which it should judge and pursue any development. Table 1.1 provides a set of guiding principles for each of the four dimensions of sustainable development. These principles should be seen as high-level aspirations that could equally be applied to other parts of the economy. They should be interpreted in a way that recognizes diversity, the limits of existing levels of knowledge and capacity, and society's continuing need for minerals."

The five broad principles are vague and lacking in commitment and would hardly excite the general public; however, they are broad principles. Table 1.1 of the MMSD Draft Report is somewhat disappointing in that economic and social objectives come before environmental and governance is an unnecessary addition.

It was pleasing to note the following two possible commitments in the environmental management section:

- (i) "Long-term damage should be avoided. No permit should be sought on the basis of a trade-off today against long-term and irreparable legacies that may harm future generations. Prudence should be exercised where the environmental impacts or damage are not known.
- (ii) Mine closure and, more importantly, post-closure should be planned for. This should ensure that the land and structures can be restored for alternative uses after the mine closes." (iied 2002, p. 1-17)

Three aspects of the report are of concern. Firstly, other than the above two paragraphs, the report appears to be avoiding commitments to ESD, whilst allocating the predominant amount of space to the social and economic pillars of SD. Perhaps as well as the opening quote from Robert Burns the MMSD project could have been guided by the serenity prayer:

*God grant me the serenity to accept the things I cannot change,  
courage to change the things I can  
and wisdom to know the difference.*

Secondly, the report lags behind the current thinking of the environmental agencies and mining companies in the countries where many of the companies supporting the project have their head offices. For example the Australian Federal and State Governments accepted the ESD vision many years ago and their environmental agencies are well advanced in adapting this vision to mining. This vision requires that the mining industry identify the environmental attributes which mining may impact and take steps to protect or enhance the environmental attributes at risk from mining both within and outside the mining lease.

Thirdly, the approach described in the previous paragraph also incorporates risk management and cost-effectiveness analysis. Restoring land to some arbitrary use value may be neither cost-effective nor be supported by the principles of ESD. Most

of the damage caused by mining has been the long-term damage to river systems or ground water systems often outside the mining lease. Spending scarce environmental funds rehabilitating mined land at the expense of protecting the waterways may not deliver the best ESD outcome especially where there is likely long term damage to the environment external to the mine after mining ceases. Importantly the MMSD Draft Report gives a commitment to mine closure planning. The mining industry must show it is committed to this process by at the very least maintaining maps of the planned topography and hydrology of mines at completion of mining, if it is to convince the public of a commitment to ESD.

The MMSD Draft Report fails to define what physical actions the mining industry should take to reach either the ESD or SD vision; nevertheless, Chapter 16 sets out the vision of what can be achieved. Table 16-1 presents a sustainable development scenario and the items listed have been rearranged in the following Table 1 into the categories associated with SD as described in the MMSD Draft Report.

**Table 1 - Sustainable development scenario**

**Social-Government**

- (i) Mineral wealth spent transparently and increasingly to support development
- (ii) Disputes resolved efficiently in ways widely regarded as fair
- (iii) Decisions taken publicly, after consultation with affected parties, based on clear criteria
- (iv) A minerals industry that works in partnership with indigenous peoples communities to provide a basis on which they have more control over their own future
- (v) The minerals industries as a catalyst in promoting sustainable improvements in public health
- (vi) A safe, productive industry that takes care of the people it leaves behind

**Economic-Government**

- (i) A level playing field
- (ii) A shared system of laws and rules that applies to everyone
- (iii) An integrated approach to management of materials in use

### **Environmental**

- (i) Mineral development as a source of revenue to ensure stronger management and the protection of areas critical to biodiversity, and their expansion
- (ii) Integrated planning for sustainable post-closure environmental, social, and economic benefits

### **Public education**

- (i) Consumers who know where the products they use come from and increasingly act on that knowledge
- (ii) Knowledge of supply chains is used to manage risks proactively and minimise surprises

### **Global industry organisation**

- (i) Ongoing, intentional, and inclusive dialogue that involves widening circles of stakeholders

The preceding elements that are proposed to deliver the sustainable development scenario appear to be as much about influencing government decision making as a commitment to manage the mining and mineral processes in a sustainable way let alone an ecologically sustainable way. Whilst this may be a commendable endeavour if the intent is to improve human welfare in the particular country or state, the MMSD Draft Report's approach may be seen as an attempt to meddle in affairs which are the responsibility of the democratically elected government.

The MMSD Draft Report goes on to ask the question is something missing to drive the debate forward? The most obvious thing missing is a commitment from the mining and minerals industry to the principles of SD and a list of practical actions for the mining and mineral industry in order to move toward SD. The starting point would be a commitment by the industry to the principles of ESD and a willingness of companies to work with environmental agencies to first catch up with the current state of play and then to jointly develop management philosophies in support of ESD. This does not mean endorsing prescriptive legislation but rather a commitment to pre-mining environmental risk analysis, identification of the environmental attributes at risk from mining, mine plans which address these risks and most importantly mine

closure plans developed during the feasibility stage of mining. The *Guidelines for Mine Closure Planning* published by the Queensland Mining Council is an excellent starting point. Although the MMSD Draft report implies wide community consultation, such community input would not pass the bias test. Most input appears to have come from conferences where delegates paid to attend, which is a novel way of obtaining community input. Nevertheless, the community will judge the industry on what it does, not its published intentions. Community consultation is a two edged sword. If we ask and don't deliver we would have been better of not asking. Most commonly the community expects the mining industry to:

- (i) not leave a mess for them to clean up, or worse irreparable river systems;
- (ii) provide rewarding jobs for themselves and their children; and
- (iii) provide improved infrastructure

A good analogy for the mining industry is to see ourselves as if we were visitors to a national park. Our stay is temporary, we should destroy as little as possible, take our rubbish with us when we depart and leave no long lasting environmental damage to the mined area and more especially outside the mined area. When we have demonstrated commitment to these basic principles, we will be in a position to make commitments to sustainable jobs after mining and comment on social justice.

It is commendable that the global mining companies have taken the initiative to enter the debate on sustainable development. Unfortunately the draft document may be seen as an attempt to divert the discussion away from ESD rather than a constructive contribution toward SD. It is within the power of the mining companies to manage their operations within the principles of ESD. Having demonstrated its commitment to ESD, the industry would be in a better position to advise governments on the social and economic pillars of SD. If the mining and minerals industry is concerned to be at the forefront of the SD debate then it could take a courageous leadership role by bringing the worlds attention to the major obstacle impeding SD which is an unsustainable world population. Our industry and the energy industry have a duty to inform the world of our precarious position in relation to available cheap energy which underpins our high world population and which has enabled the mining industry to successfully provide affordable metals.

## **BIBLIOGRAPHY**

- Brundtland, H. G., ed. 1987. *Our Common Future*. Oxford University Press, Oxford.
- World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press, Oxford.
- World Commission on Environment and Development. 2002. *Mining, Minerals and Sustainable Development Project Draft Report for Comment*. International Institute of Environment and Development, London.
- Jordon, R. Hitler, the Unemployed and Autarky, Some Observations After 50 Years. *Journal of Historical Review*.
- Saul, J. R. *Voltaire's Bastards*. Vintage, New York.