

SOCIOLOGY BEFORE GEOLOGY
The New Social Competencies of Mining

9th Kenneth Finlay Memorial Lecture
School of Mining Engineering
University of NSW Mining
12 October 2006

Bruce Harvey, BSc (1st Hons Geology), MBA, MAusIMM
chief advisor Aboriginal and Community Relations, Rio Tinto Pty Limited

Traditionally, the community involvement of most Australian mining companies was largely unplanned or, in the case of purpose built towns associated with new operations, primarily focussed on infrastructure provision. To a large extent community interaction, whilst unavoidable, was considered secondary to the technical business of running a mine.

Over the last decade however, there has been a concerted drive within the resources sector to change how mining operations interact with their neighbours. Most companies have made public commitments to engage on a more informed basis with affected communities and other stakeholders on matters of mutual concern.

The primary business driver for this enhanced attention to community engagement is a desire to achieve competitive advantage through self-regulation. The aim is to attain community and employee endorsement; commonly referred to as a company's 'social licence to operate'. In a global environment of constant scrutiny, corporate guarantee linked to reputation is now as important for risk management as sovereign regulation.

A successful minerals company in future will need to be more than just technically and commercially proficient. Its competence in social sciences, relationship management and community development will be as important as its competence in engineering, metallurgy and financial planning. This is increasingly being recognised in the minerals industry and we are now seeing companies that once had a strong engineering culture coming to accept the validity of new values and the worth of the new competencies of social engagement.

Add social competence to a mix of engineering virtuosity, effective management and commercial savvy and you benefit from enhanced reputation, expedited approvals, reduced uncertainty and associated access to financial capital on preferred terms. For there to be a long term benefit, these enhanced capabilities must be embedded in the corporate structure itself and in all personnel, rather than just residing in specific individuals and 'showcase' sites. Hence, to develop strong careers in modern mining companies, mining engineers need to understand the new social competencies of mining.

Introduction

Let me begin by acknowledging the Traditional Owners of the country on which I speak tonight. The Eora people and their ancestors have occupied this land for many thousands of years and we are privileged to share it.

I also acknowledge Kenneth Finlay. He enjoyed an illustrious career and was a supporter of this mining engineering school. His career including stints as a senior mining executive with Exxon in the US, General Manager of Mt Isa Mines and CEO of Exxon Coal & Minerals in Australia.

I understand that this lecture has always incorporated a safety theme and I think it is highly appropriate that my topic, the social competencies of mining, should be placed on an equal footing. I think Kenneth Finlay would have approved. I commend the UNSW School of Mining Engineering and Professor Bruce Hebblewhite for 'inviting in' what many of you will consider is the 'soft and fuzzy' end of the business.

I hope by the end of this lecture to dispel the illusion that community relations is soft and fuzzy and can be neatly delegated to somebody else in the business!

I also hope you will appreciate the irony of my title. I have 'hard science' credentials; but I'm putting my later career ahead of my first and suggesting that this is the new order of priority for mining. Arguably, science and engineering have become commodities; competitive differentiation for mining companies now lies largely in the social arena.

I know that many mining engineers do not consider geology to be 'hard science'. Nevertheless, I hope that you will concede that it is a scientific discipline. However, to further assure you, I will reveal that I have Masters qualifications in macro and micro economics, operations science and organisational behaviour. In short, I'm emphasising that community relations, as it should be practiced, demands very real attention to hard science.

Lastly, let me state that community relations must conform to the same value proposition as the rest of the business. It must return enduring value to shareholders and provide a sustainable business advantage.

In this lecture, I intend to provide an overview of current trends in community engagement in the Australian mining industry, with particular reference to the experience of Rio Tinto. I will begin by identifying the main drivers for developing social competency, before describing a model for community engagement with reference to Rio Tinto's work with Aboriginal communities in Australia.

I want to convince you, as mining engineers, that while specific professional competence is critical in community experts; general social competence by all mine site employees is equally vital. An expert analysis is only as good as the commissioning agent's ability to understand and to act upon the recommendation of that analysis. Furthermore, community engagement is best undertaken across a whole site, not quarantined to a few specific people. But more of that later.

What is the Business Case for Community Engagement?

Times change. The last 30 years have seen political and economic developments that have dramatically changed the world and the minerals industry.

In times past, mining companies, particularly those in frontier situations, were able to operate as closed systems with relatively little recourse to local people and public opinion. At best, we restricted our community interaction to the administration of company towns. These towns were built and operated as essential elements of a mine's production system. Thus, the company was able to control and predict most variables affecting their operations, right down to issues of community administration.

In this context, mining corporations needed skills in fiscal management, handling public policy, media management and legal argument. External threats were kept at bay as long as political and governance conditions remained unchanged.

Today, changed community expectations and global scrutiny mean that mines must operate as open systems. For instance, where previously central governments regulated the mining industry with little direct community involvement, these days relationships between business, the public and government are increasingly direct.

In this new so-called 'tri-polar' world, new competencies are required to handle and resolve social issues and to maintain the so-called 'social licence to operate'.

These capabilities go far beyond what are usually referred to as public relations skills. What is required is the ability to work with people and communities pro-actively and transparently, and convince them that it is in everybody's best interest for the company to develop the resource.

It is at this point that the other, more traditional, capabilities of the company come to the fore; its technical capabilities. Without them the ore would remain in the ground, or be mined less profitably, and nobody would benefit. Furthermore, it behoves the primary party to take responsibility for catalysing a set of relational contracts that maximises the added value of the venture to benefit as many people as possible for as long as possible.

A critical challenge for companies developing new social competencies is to provide a persuasive business rationale. Companies are profit-making entities which need to be able to show that the activities in which they are engaged add value to the organisation. Unless corporate managers can show that there will be a return to the organisation from investing time and resources in voluntarily improving social performance, they will be reluctant to make such an investment, especially if it involves substantial additional costs. Likewise, financial markets are unlikely to look favourably on companies that are considered to be under-performing financially, regardless of how well they might score in terms of corporate social responsibility.

I do not mean to suggest that the business rationale is the sole reason for social engagement. When it comes to health and safety, for example, companies clearly have an ethical –and not just a legal – responsibility to protect their employees and surrounding communities from harm. However, relying solely, or even primarily, on values-based justifications is unlikely to embed good community practices throughout a company, particularly in those areas where the moral imperatives are not as stark.

Today, the focus has to be on gaining and maintaining a 'social licence to operate', rather than just securing and protecting the company's legal entitlement to mine. Where social licence issues are to the fore, an entirely different set of skills is required, such as the ability to identify latent debilitating or emerging social issues and deal with them effectively. A company, in order to avoid losing access to land for exploration and developing mines, must make decisions about non technical

expenditure. Whereas formerly such expenditure was restricted to well-defined taxation and royalty payments to sovereign government, these days it may also involve negotiated contracts with other stakeholders in order to gain their endorsement.

Relying entirely on administrative infrastructure in the form of government statute is fine during periods of minimal change, but a greater ability to manage your own destiny is needed in changing times.

Leading resources companies, Rio Tinto included, now strive for competitive advantage in the communities arena in order to become the 'developer of choice' for communities and governments. In doing so they improve the company's risk profile and secure favourable access to capital.

What is Community Relations and what is not Community Relations?

Currently there appear to be two ways to approach mine site community relations. The most common approach, the 'grant making' approach, is usually found at mature, profitable operations that are no longer seeking consents. Here the community relations activities are delivered unilaterally, without a corresponding commitment from the community to support the mine. There is generally no reference to research, no referral to expert advice and the community relations strategy is often ambiguous and poorly executed.

The other approach, the 'business driven' approach, is usually found at sites that are seeking project development and extension approvals, or those that are facing closure. Here, the community relations strategy reflects the strength of the business itself and the skills of its employees. It focuses on employment, on business, on local service and supply and on civic participation.

I am here to promote the business driven approach. It is based on the acquisition of data, on the informed interpretation of those data, as well as consultation and the participation of local people in the affairs of the company, and vice versa. It seeks to harness the comparative advantage of the business to incubate business initiatives, to enhance employment opportunity, training, contracting, local supply, environmental co-management, heritage management and local cultural awareness. The emphasis is on results and profitability.

The alternative, 'grant making', is regrettably all too common. Comparative advantage is not deployed, a very small number of employees are engaged to 'mollify' the public, top management is absent and the emphasis is on expenditure and subsidy.

How can you tell which approach prevails? I believe there are three tests;

- Firstly, are employee- community relationships face to face? Is there broad employee participation? Is community relations the responsibility of all employees and manager, or is it delegated to one or two people?
- Secondly, is there reciprocity, or does the community not have to commit to anything? One-sided giving seldom builds mutual respect. Is mutual support between the business and the community defined and formalised?
- Lastly, are community relations activities making a measurable difference? Are there mutually agreed targets and performance criteria? Or is the community relations activity merely designed to buy a few quiet years?

Community Relations Strategy

Decisions about community relations strategy should fundamentally depend on the projected life of the mine. If an operation has short life, less than 15 years, the strategy from day one should be directed to closure. While we must do all that we can through capacity building to ensure that an operation provides a net positive long-term legacy, time is a limiting factor. In most respects, the approach will mean minimising the mine's impact on local communities and environment; reducing the physical 'footprint', minimising development expectation and setting aside a remedial bond. Closure planning should dominate all social and environmental thinking.

Mines with more than 15 years projected life, require fundamentally different thinking. Long run business return requires long run security. This, in turn, is dependent on long-run social legitimacy and political acceptance. Increasingly, we recognise that political and social legitimacy needs to be based on sustainable local and regional economic and social relationships. This is certainly the case in frontier operating environments where we see the shortcomings of uniformly applied national order. Even in the developed world some of the same shortcomings are beginning to emerge and we should recognise them now. For the first time many of our remote operations have permanent local community and regional stakeholders. In Australia as elsewhere, it is in the industry's interest to actively encourage and participate in long run regional development that allows diverse, self-managed, economic, social and cultural representation.

There is value in the ability of mining companies to operate in a sustainable way in diverse regional settings; settings that we should help develop and that we might call 'robust regional economies'.

Whereas national, state and territory governments in Australia are responsible for providing general levels of national amenity, corporations have their own reasons to focus on the prosperity of the regions in which they operate.

Diversity is the key to developing 'robust regional economies' in these hinterlands. In such economies, as a natural consequence of pooled capacity and developed competencies, mining operations can themselves derive direct real benefits; including:

- A mobile pool of local employees able to move between different businesses as demand or personal preferences dictate
- A selection of locally-based service and supply enterprises
- Competitive forces that lower costs of service and supply to the mine and the community
- Diverse local capacity for non-core business contracting.
- The inherent stability of local government that comes from people 'managing their own affairs'
- A stable, mature workforce of reliable, locally-committed employees living 'at home'
- The presence of 'normal' societal institutions such as banking infrastructure, schools and health facilities
- An attractive, and hence stable, lifestyle for employees through access to the arts, ecology management, ceremony, living culture and other activities.

These 'robust regional economies' must be built on diverse opportunities:

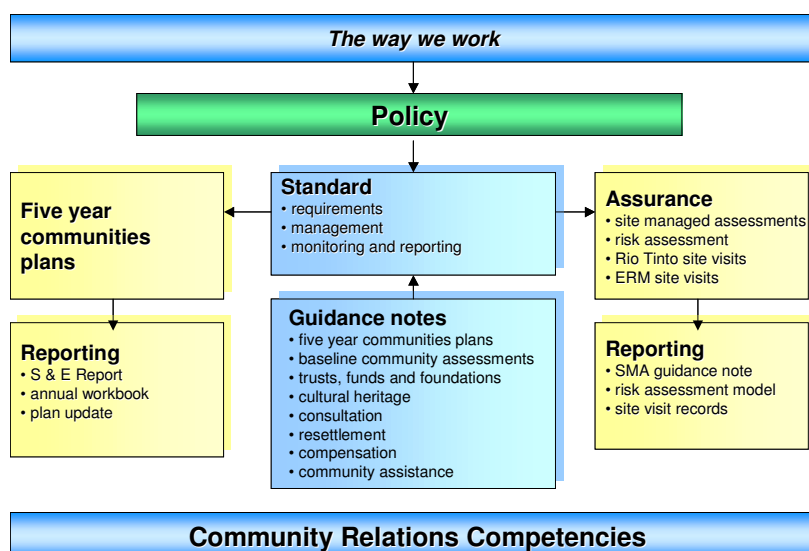
- Direct employment
- Enterprise and small business development
- Industrial services and procurement
- Tourism and cultural activity
- Historic and heritage preservation
- Sports and recreation
- Agribusiness, possibly based on unique local traditional products
- Partnerships/Joint Ventures

Mining companies should help build viable community economic infrastructure that can contribute to their own presence and activity. Company assistance and benefits to communities should be primarily directed at economic development, where corporations have greater skills relative to local expertise and opportunity. This is usually where communities expect assistance from companies, because, while communities seek help to develop their local economy and its interface with the global economy, they prefer to develop social and cultural aspirations themselves.

Communities Relations Architecture

Corporate capability, to be sustainable, must be systemic. Corporate social management systems should mirror the competence of technical and financial management systems. Systems can be usefully imagined as the 'architecture' of the corporation.

Architecture enables the corporation to assure the world that sustainable capabilities are in place. As an example, here is Rio Tinto's community relations architecture.



The policy, standard, reporting, guidance and assurance elements portrayed above are the 'hard-wired' requirements of community relations good practice. However, of themselves, they are not enough. They do not provide for the expanded thinking required by mining professionals to achieve real competence in sustainable community relations. Beyond hard-wired architecture, it is the specific recruitment and training of community relations professionals and socially competent mining

executives that is needed for continuous improvement in social performance. In the absence of competent personnel there will be a ceiling on the improvement that can be expected from mechanisms such as reporting, reviews and audits. Hence, while values and policy provide the canopy for communities work, it is the development of community relations competencies that provide the foundation.

And these competencies should be underpinned by what we may call 'foundation qualifications'. These include such things as project management, financial accounting, micro economics, mediation and conflict resolution, economic sociology, political science, development finance and anthropology.

How to operationalise community relations?

At an operational level, communities work has three chief elements. In order, they are:-

- baseline communities assessments,
- consultation, and
- community agreed development programmes.

Consider for a moment a metallurgy or tailings dam project being undertaken without rigorous research and cost-benefit-risk analysis. And yet, when it comes to the community aspects of development decisions, this happens regularly. Why the difference? I suspect it has something to do with an oft-heard refrain from mine site managers "Well, we live here you know, we are part of the community and we know how it works and what it wants."

Whatever the reason, a reluctance to undertake research, conducted and understood with the same degree of rigour that technical disciplines demand is completely unacceptable.

Incidentally, I might add that technically focused engineers with relatively narrow interests are unlikely to know how the community works and what it wants. To claim that they do suggests an unwillingness to even attempt understanding alternative viewpoints. Any mine site and town will include a range of sub-communities, for example - occupational, residential and Indigenous. Mining professionals fall within a small sub-set of the occupational community, a community that actually prides itself in being different.

Miners need to know their neighbours in something other than an anecdotal manner. Yet an absence of comprehensive base line social research, often referred to as socio-economic research, characterises many mine development projects in Australia. Equally, social research methodologies need to adhere to scientific principles; that is they are statistically robust, capable of independent peer review and testing and that the findings are verifiable and repeatable.

I do not intend to go into any detail on the second and third elements to which I referred; consultation and programmes, but I think you get my thrust.

Case Study

To illustrate how good community relations is practiced I want to get away from dry, incomprehensible abstraction. To enable a richer understanding I now want to look at a particular case study. I will describe some of Rio Tinto's work with Aboriginal communities in northern Australia.

As I indicated earlier, in order to better understand trends that underlie potential emerging social disequilibrium, good practice requires baseline communities assessments. In 2002 Rio Tinto commissioned a study of Indigenous population projections out to the year 2016 for the regions of its long life mines and areas of exploration interest in northern Australia

The research made it very clear that in the Pilbara, Kakadu/West Arnhemland, Gulf of Carpentaria, East Kimberley and Cape York regions, the momentum for population growth lies with Indigenous residents. A related, similarly striking feature was that the non-Indigenous population in each region is dominated by people aged 20-44, reflecting in-movement, frequently temporary, for employment purposes.

The key finding was that by 2016 the combined Indigenous population in Rio Tinto's Northern Australian mine hinterlands is conservatively projected to increase by some 10,000 people, an increase of 39 per cent.

A second key finding involved the projected Indigenous population for each mine hinterland as a percentage of the projected total population. In each region studied the Indigenous population is expected to dramatically increase its relative weight, to as much as 93 per cent of total population.

A third key finding was that while the Indigenous population is expanding in all age categories, it is heavily weighted to individuals of prime working age.

These figures are vitally important for mine and closure planning, regional development and social services allocation. They show that even with the most optimistic Indigenous employment objectives, Rio Tinto mines cannot hope to employ anywhere near the rapidly expanding Aboriginal populations around its northern Australian mines. Sustainable development and mining in these regions is going to require a broad coalition of government, corporate and local interests to build regional economies with the range of enterprise and employment opportunity that can. Whilst not Rio Tinto's sole responsibility, it is in the Group's long term self interest to ensure that all stakeholders recognise the challenge and work to ensure sustainable development in these regions.

Planning cannot satisfactorily progress without comprehensive consultation with those most affected; hence, the next stage of the Rio Tinto scheme - mutual consultation. The East Kimberley region can provide an example.

In 2001, Rio Tinto's Argyle mine commenced comprehensive consultation with traditional owners. In September, 2004, after three years, Mirriuwung, Gidga, Malgnin and Wallar traditional owners, Argyle and the Kimberley Land Council signed the Argyle Participation Agreement (APA). The Agreement was registered as an Indigenous Land Use Agreement (ILUA) under the Native Title Act in April 2005.

The APA is the most comprehensive and legally constituted form of consultation and agreement in Australia to date. It formally sets out a shared vision for regional development, including traditional owner ceremonial responsibilities associated with the mine lease area and their approval for the mine to proceed underground. Benefits to traditional owners, to be governed through community controlled trust structures, will provide for present day and post-mine programmes in, amongst other things, health, education and culture. Eight management plans for on-going traditional owner consultation and participation in non-operational mine business also support the agreement. The management plans cover:

- Aboriginal site protection and heritage clearance work;
- training and employment programmes for greater direct Aboriginal participation in the mine;
- cross cultural training for all mine employees and contractors;
- traditional owner access to non operational areas of the mine lease;
- once a year traditional owner land management inspection of country and water;
- traditional owner participation in planning eventual closure and decommissioning options;
- business development opportunities associated with the mine; and
- provision of specific attention, with its own management plan, to Devil Devil Springs, a heritage site of prime importance that has been affected by mine activities.

Rio Tinto's third element of sequential deployment, community agreed assistance programmes, can also be illustrated by reference to Argyle. In the majority of its dealings on Aboriginal land in Australia, Aboriginal people consistently say that they have no in-principle objection to mining on their lands, provided they can participate in the economic activity it engenders. The assistance has to be at a level that overcomes the disadvantage suffered as a result of history and the consequent on-going deficit in health, education, infrastructure, training and employment. This message and request for assistance was (again) relayed and secured during negotiation of the Argyle agreement.

Argyle moved immediately on employment and substantially increased the number of its Aboriginal employees during the three-year APA negotiation. From five per cent Aboriginal employment in year 2000 it progressed to 24 per cent by April 2005. Furthermore, Argyle has set a target of 40 per cent local Aboriginal employment in the underground mine. Lest anybody think that such achievement is of no substance and comes at no cost, the overall rate of employment for Aboriginal people elsewhere in the mining industry is less than five per cent.

The APA assistance programmes are in line with the latest thinking on international community development and reflect Rio Tinto's desire to support sustainable community activities.

In late 2005, the West Australian government agreed to reduce the royalty for the proposed, but financially challenged, underground extension at Argyle. Rio Tinto approved finance for the underground mine in December of that year and mine life now extends to 2020, whereas the mine had been scheduled to close in 2008.

It should be acknowledged that Rio Tinto is a large and diverse organization, which operates in remote regions with large Aboriginal populations (such as the East Kimberley) as well as provincial industrial centres and settled agricultural areas. Not all aspects of Argyle's approach will be transferable. Moreover, there was perhaps a stronger imperative – as well as a greater opportunity – for Argyle to re-focus its approach to community relations than there has been for some other Rio Tinto operations. Nonetheless, the case study shows what is possible and illustrates the new direction being taken by Rio Tinto and other leading mining companies.

Conclusion

Plainly stated, tomorrow's successful minerals company needs to be more than just technically and commercially proficient; it must be equally competent in social

science, relationship management and community development as it is in engineering, financial planning and environmental science. This is increasingly being recognised in the minerals industry and we are now seeing companies that once had an overpowering engineering culture beginning to accept new values and the worth of the new competencies of social engagement.

The addition of social skills to the mix of engineering virtuosity, effective management and commercial savvy has clear benefits. In a global environment of constant scrutiny, corporate guarantee is now as important for risk management as sovereign guarantee. In seeking self-regulation, corporations are responding to global scrutiny and market appraisal. Sound business architecture provides the basis for this by setting up a network of internal contracts, maintaining the corporate knowledge base, discouraging ad hoc behaviour and fostering consistency of delivery.

While product branding adds considerable value to the marketing of actual products, corporate branding adds its value through the guarantee of social integration, acceptance and self-regulation. Hence, progressive companies, such as Rio Tinto, have staked their reputation and their future access to development finance on comprehensive business architectures that aim to build effective community engagement systems. The challenges of implementing these systems should not be underestimated, but companies that are successful will reap substantial rewards through a competitive advantage in land access and development approvals, reduced risk exposure and a lower cost of capital.

For long term benefit, these enhanced capabilities must be embedded in the corporate structure itself and in all personnel, rather than just residing in specific individuals and 'showcase' sites. Hence, to develop strong careers in modern mining companies, mining engineers along with everybody else need to understand and practice the new social competencies of mining.