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Leading Practice Strategies for Addressing the Social Impacts of Resource Developments

November 2009

CENTRE FOR SOCIAL RESPONSIBILITY IN MINING

The Centre for Social Responsibility in Mining (CSRSM) is a centre within the Sustainable Minerals Institute, University of Queensland, Australia. CSRSM works with companies, communities and governments to respond to the socio-economic and political challenges brought about by resource extraction. The Centre's aim is to help build the capacity of these stakeholders to manage change in more effective ways. CSRSM has global reach, with particular experience in Australia and the Asia-Pacific. For more information visit our website at: <http://www.csrsm.uq.edu.au>.

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EXECUTIVE SUMMARY

In September 2008, the Queensland Government introduced the Sustainable Resource Communities (SRC) policy to improve the assessment and ongoing management of the social impacts of resource developments, provide greater coordination and collaboration between stakeholders and address resource governance issues at multiple scales. The policy strengthens the Queensland Government's coordination role, introduces a social impact assessment (SIA) function, improves state-wide and regional coordination through the formation of a partnership group and local leadership groups, emphasises greater links to regional planning, and introduces social impact management plans (SIMPs) to outline the forecasted changes to communities, the agreed strategies for mitigation of impacts, and the responsibility of various parties in relation to the management of social issues.

As part of the implementation of this policy, the Queensland Department of Employment, Economic Development and Innovation (DEEDI), in association with the Queensland Resources Council and the Local Government Association of Queensland, commissioned the Centre for Social Responsibility in Mining (CSRMI) to undertake research on the leading practice approaches for addressing the social impacts of resource development adopted by other jurisdictions. This research, reported here, considers the promise and pitfalls of such approaches and the applicability to the Queensland context, and provides case studies, advice and principles to assist the development and implementation of the SRC policy in Queensland.

Four government jurisdictions are reviewed as case studies. These are South Africa, Canada, New South Wales and Western Australia. In addition, a range of corporate policies were investigated as were the policies of the International Finance Corporation (part of the World Bank group), which has pioneered the use of Social Management Plans.

This section provides a summary of the key findings and the relevance to Queensland of each case study. The section also draws a number of principles and opportunities, from the analysis undertaken in the body of the report, to guide the implementation of Social Impact Management Plans and the SRC policy more generally. While there are opportunities to learn from the approaches adopted by other jurisdictions and from leading practice examples in industry, the research has found that the SRC policy itself potentially represents a leading practice example, when benchmarked against other jurisdictions. The introduction of social impact management plans for resource developments has the potential to encourage a more responsive and proactive approach to addressing impacts, if such plans are embedded within management systems at the operational scale.

The main body of the briefing paper consists of two sections. Section 1 provides background on the SRC policy, the social challenges experienced in Queensland resource communities and the methodology of the research. Section 2 provides a compendium of strategies and working examples, drawn from the case studies that aim to avoid and mitigate adverse impacts and enhance the positive social impacts of resource developments.

KEY CASE STUDY FINDINGS

This briefing paper profiles a series of leading practice strategies for addressing the social impacts of resource developments. Broadly the approaches fall into two categories. The first are those that have been adopted by a state or federal government jurisdiction. These approaches are reviewed to provide a benchmark from which the Queensland Government can assess its own policies. The second are approaches that may complement the regulatory process but reach beyond the bounds of a single jurisdiction. These approaches are often voluntary. The reason for inclusion of such approaches here is that jurisdictional approaches should take into consideration the activities already in practice while at the same time raising the standard of practice across the industry.

CANADA

Canada provides a useful point of reference for Queensland given the similarities in history, legal and governance systems, and resource development. In the area of SIA, the report reviews the economic and social provisions of the Canadian federal environmental assessment system, and the provincial level system in Alberta, which explicitly targets cumulative effects. Alberta's oil sands region has many similarities to the growth issues experienced recently in Queensland's resource provinces and we profile in detail a number of management approaches including industry forecasting initiatives (e.g. the Oil Sands Developers Group; see section 2.4.1), regional monitoring and threshold definition (e.g. the Cumulative Environmental Management Association, the Wood Buffalo Environmental Association, and the Regional Aquatics Monitoring Program; see section 2.7.1), whole of government approaches to coordinate social and economic infrastructure (e.g. the Oil Sands Sustainable Development Secretariat; see section 2.4), and regional planning and government-led regional assessments (e.g. the Land Use Framework; see section 2.4).

The success of the Canadian system, particularly in Alberta, is challenged by the scale of resource development. However, there are a number of innovative approaches to collaborative management, particularly in the area of industry forecasting and multi-stakeholder monitoring that may prove informative for Queensland. Without social management plans at the project-level the ongoing management of social issues lacks coordination. There are also issues with coordination of social and economic infrastructure and services between the local and provincial government, and industry. The activities and research findings of the Oil Sands Sustainable Development Secretariat, which was formed to fill this gap, provide a comparative reference for the Queensland Partnership Group and the Queensland Government's Coal Infrastructure Taskforce.

SOUTH AFRICA

The South African examples reviewed here demonstrate some similarities with the Queensland Sustainable Resource Communities Policy, however, at the same time South Africa represents a contrasting historical and social context. The South African Government has introduced a form of social management plan for resource developments, called Social and Labour Plans (SLPs; see section 2.5.1). These management plans are similar to the Social Impact Management Plan's proposed under the Sustainable Resource Communities Policy. The content of the plans, however, are tailored to redress the historical injustices of apartheid and there is a significant focus on human

resource issues such as career progression, in addition to provisions on socio-economic development. SLPs are also designed to link with regional planning initiatives, though in practice these links appear weak. South Africa has also introduced regional mine closure strategies as a means to align the closure strategies of individual operations (see section 2.2.2). Given the absence of mine closure issues as a specific area of focus within the Queensland Sustainable Resource Communities Policy further consideration of this aspect of South African policy may be warranted.

WESTERN AUSTRALIA

Two initiatives are introduced from Western Australia. The first is a joint Commonwealth and Western Australian State Government strategic assessment of the Browse Basin common-user liquefied natural gas hub (see section 2.2.2). Strategic assessments, as discussed in greater detail below, present an opportunity to forward plan for environmental and social change and define common standards across developments. While the Browse Basin case demonstrates some of the potential of strategic assessments the main limitation, in the context of this review, is that as a function of the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* such assessments are only triggered by matters of national environmental significance, a condition that would be present in only a minority of Queensland resource provinces. The second initiative reviewed is the Pilbara Industries Community Council (PICC; see section 2.6.1), a partnership between the mining and petroleum industries, local and state government, and community that has programs addressing social and economic infrastructure in towns and Indigenous employment. The applicability of a PICC style approach to Queensland has been canvassed by the Minerals Council of Australia and the Queensland Resources Council and may warrant further investigation, though some of the potential functions of such a group fall within the mandate of the Partnership and Local Leadership groups established under the Queensland SRC policy.

NEW SOUTH WALES

While the New South Wales (NSW) system of impact assessment is quite similar to that of Queensland, there are a number of key points of difference. NSW has used strategic assessments (e.g. the Upper Hunter Cumulative Impact Study; see section 2.2.2), has more detailed requirements for the assessment of cumulative impacts in impact statements, and has trialed regional monitoring approaches for socio-environmental issues such as the health and amenity impacts of dust (e.g. the Upper Hunter Air Quality Monitoring Network; see section 2.7.1) and for environmental issues such as water quality (e.g. the Hunter River Salinity Trading Scheme; see section 2.7.1). These initiatives may have the potential for consideration in Queensland and, with further research, could be adapted to address socio-economic impacts. NSW also mandates the use of community consultative committees (see section 2.3), to mixed effect. It has not introduced a system for social management plans.

INTERNATIONAL FINANCE CORPORATION

The International Finance Corporation (IFC) has pioneered the use of social management plans, and this provides a working example that might be considered for comparison to SIMPs in Queensland. These Environmental and Social Action Plans are a requirement of most IFC financed projects (see

section 2.2.2). The plans summarise the findings of the impact assessment; outline the measures for mitigation and community development; provide estimates of the timing, frequency, duration and cost of management measures; and establish monitoring and reporting procedures. They also explicitly refer to capacity building activities where there is not the institutional or community capacity to undertake the activities. Finally, the plans outline the procedures for how social issues will be addressed in site management systems and plans. The main relevance of the IFC's Environmental and Social Action Plans to Queensland are that they provide a working example of a social management plan process for comparative reference to Queensland's proposed Social Impact Plans. IFC standards have become the *de facto* international standard applied by development banks and other international financial institutions through their incorporation into the Equator Principles. In practice, however, very few Queensland mining developments finance their activities through such bodies and are thus not bound by these standards.

CORPORATE AND INTERNATIONAL POLICIES AND STANDARDS

A series of industry-wide, corporate, national and international policies and standards are profiled (see section 2.1.1 – 2.1.4). These initiatives demonstrate varying degrees of influence, however, they can provide a guide to what is considered leading practice in the industry, and more specifically the goals and principles that have been committed to by individual mining organizations operating in Queensland. The standards already committed to by industry should inform the design of the Social Impact Management Plans proposed under Queensland's SRC policy. Consideration should also be given to how SIMPs might complement existing leading practice social management processes.

KEY ISSUES AND OPPORTUNITIES

The review of leading practice strategies presents an opportunity to consider how management of the social impacts of resource developments in Queensland might be improved. In the following section opportunities to strengthen the approach outlined in the Sustainable Resource Communities Policy are discussed. This section is followed by a series of principles that are relevant to the design of SIMPs in Queensland.

Cumulative impacts were identified as a key issue within the Sustainable Resource Communities Policy and during the review of leading practice strategies. Many of the opportunities outlined below are designed to improve the management of cumulative social impacts. In the mining context cumulative impacts arise from the compounding activities of a single operation or multiple mining and processing operations, as well as the aggregation and interaction of mining impacts with other past, current and future activities that may not be related to mining (see Franks, Brereton and Moran, 2009). Cumulative impacts can be what are most important to environments, communities and economies because cumulative impacts are what they actually experience. The assessment and management of cumulative impacts requires greater collaboration and coordination amongst stakeholders and presents a major challenge for resource governance. The Partnership Group and Local Leadership Groups established under the SRC policy are well placed to lead this process. However, there are a number of key areas where the management of cumulative impacts might be improved, including better information on planned and future developments, regional and systems level monitoring, and strategic assessments (see corresponding sections below) as well as through

partnerships (see section 2.6.1), improved consideration of cumulative impacts within impact assessments (see section 2.2.1), and improved links between impact assessment and regional planning (see section 2.4). A key area within the SRC policy where coordination could improve the management of cumulative impacts relates to the process adopted for the preparation of SIMPs and the coordination of key activities across the SIMPs of individual operations. This issue is outlined in greater detail in the discussion of good practice principles for the development and implementation of SIMPs.

Another recurring theme identified during the review is the importance of adaptive management. By embedding the identification and understanding of social impacts (through assessment and monitoring) into management systems at the operational level mining companies will be better placed to respond to changing circumstances. This includes explicit links between Social Impact Assessments (and Social Impact Management Plans) and site and business plans, but also the incorporation of effective community relations capabilities, community engagement and participation (see section 2.3). Finally, social impacts manifest across the lifecycle of resource developments and as such processes to address impacts must be in place prior to, and following, the project approval process and operations phase.

These key issues are addressed in greater detail below. The following are specific areas where the Queensland government could improve the governance of cumulative as well as direct and indirect social impacts of resource developments in Queensland.

FORECASTING

A major impediment identified by proponents and government to addressing cumulative impacts within project-level impact assessments, and effective planning more generally, is the availability of information on the future of developments and prospective developments. There is an absence of reliable data in the public domain about planned and possible future developments and the planned closure timing for existing developments. This is largely due to considerable uncertainty about the future context and issues of commercial sensitivity. Forecasting is a means to provide information on future activities and their likelihood. While Queensland has a population forecasting capability through the Planning Information Forecasting Unit, there is an opportunity for the Queensland Resources Council (QRC) to assist in the collection and aggregation of industry information on planned and potential future operations¹. This could entail the QRC playing a similar role to the Oil Sands Developers Group (OSDG), in Alberta, Canada (see section 2.4.1). The OSDG commissions industry forecasting surveys with data publicly reported in an anonymous and aggregated form. The information is used to assist industry and government planning of social and physical infrastructure development and to anticipate and respond to social, economic and environmental impacts.

¹ Alternately information could be directly supplied by individual companies to PIFU.

ACCESSIBILITY OF ASSESSMENTS AND SUPPORTING DOCUMENTATION

A gap that still remains in Queensland's impact assessment system is the accessibility of past assessments and supporting documentation. While hard copies of past impact assessments are available within the John Oxley Heritage Collection of the Queensland State Library in Brisbane their large size and the single location makes hard copies impractical for active use within ongoing assessments. A potential improvement in the accessibility of impact assessments could be the creation of an online repository of past impact statements and related literature, submitted as part of EIS processes, as well as environmental management plans and licenses (and in the future Social Impact Management Plans). Existing infrastructure could be used to host the collection, for example, the recently refurbished Australian Agriculture and Natural Resources Online database (AANRO). The repository would also have the benefit of promoting consistency in practice and methodologies and facilitating comparative analysis.

REGIONAL AND SYSTEMS LEVEL MONITORING

Where social and economic impacts extend well beyond the geographic location of an operation, and impact systems already affected by other operations, industries, and activities, the monitoring of activities on a site-by-site basis is often inadequate. For important issues of high stakeholder concern, regional monitoring can help to address the cumulative impacts of multiple actions. Regional collaborative monitoring approaches and system level indicators, limits and thresholds have been adopted in a number of other jurisdictions, such as Canada and New South Wales (see section 2.7.1). In Queensland the Isaac Regional Council is currently leading a multi-stakeholder process to improve the livability of the town of Moranbah through coordinated management and monitoring of dust from multiple mining developments. There may be an opportunity for the Queensland Government to encourage such collaborative approaches for issues of high concern in Queensland's resource provinces, and to consider the legislative implications.

STRATEGIC ASSESSMENT

A strategic assessment can be the most appropriate form of assessment for issues involving multiple stakeholders or complex, large-scale actions. Strategic assessments are undertaken at the scale of a policy, plan or program, while regional assessments may be at the scale of a minerals or resource province, catchment, or political jurisdiction. In some jurisdictions, government-led strategic and regional assessments may establish the conditions for future development and reduce or remove the requirements for project-specific impact assessments, provided that the proposals meet the conditions outlined in the assessment (see section 2.2.2). Such an approach has obvious benefits for community and government, including the early identification and resolution of potential issues when there is still the flexibility to make changes. There are also potential benefits for industry as it can provide certainty for development proposals, reduce the potential for consultation fatigue, lessen the regulatory burden, and shorten the approvals process. In particular, there is a potential opportunity for the Queensland Government to explore the role of strategic assessments for regions where there may be intensive resource development.

MANGAGEMENT OF IMPACTS FROM EXPLORATION THROUGH TO CLOSURE

The varied social impacts across the lifecycle of a mining operation and associated resource processing stages demand varied approaches to assessment and management. At the exploration phase there is often a need to carefully manage community expectations, a challenge in maintaining continuity, and a risk that the outcomes at this early stage can greatly influence the future of relations. At the construction phase, there is invariably a large influx of temporary contract workers into a region that may pose challenges for communities and local governments, while, at closure, impacts are generated by the absence of activities and management requires long term planning to support alternate futures.

The impacts of exploration have arisen as a key issue of concern to landholders and local governments in Queensland. Exploration impacts are not explicitly covered by the Sustainable Resource Communities policy, or SIMPs, which are implemented following the approval of the operational phase. The Queensland Government has convened a Land Access Working Group to redraft a single Land Access Code of Conduct for mineral and petroleum exploration and provide guidance on standard conduct and compensation agreements between landholders and explorers². However, currently there are no formal mechanisms for the provision of information to councils, compensation, or ability for local government to collect rates on exploration activities. Incidental activities associated with the exploration period can have significant impacts on the local community and on the local government's ability to effectively provide services and infrastructure. This is an area that requires more focused consideration.

While the SRC policy was framed during a period of substantial growth of resource developments in Queensland the Global Financial Crisis has highlighted the cyclical nature of the resource industries and the need to plan for the potential impacts of mine closure. There is an opportunity for Social Impact Management Plans to proactively consider the implications of planned and unanticipated mine closure and focus activities on post-mining legacies.

FUTURE RESEARCH AND CAPACITY BUILDING

There is a continuing need for more robust guidance and training on cumulative impacts and their assessment, on social and economic indicators and monitoring approaches, and the expectations, opportunities and barriers for collaboration between resource developers. Future research may also be useful to consider the transferability of regional collaborative approaches to monitoring social and economic impacts, in contrast to socio-environmental impacts such as air and water quality.

Another significant and emerging area that may warrant future research is the potential for social planning for closure of operations and the relationship between closure planning and SIMPs. There is also a need to better understand the interface of SIMPs with other processes such as regional planning and Indigenous Agreements.

Issues such as accommodation and social services within resource communities, in particular the implications of fly-in-fly-out and drive-in-drive-out workforce arrangements, can be significant issues

² A similar process exists for agreement between explorers and Native Title holders.

of concern and influence a broad range of quality of life issues. These issues are under researched. Appropriate housing to withstand conditions where there are vibrations from blasting or subsidence from long-wall mining is an additional research area where there is scope to improve social outcomes for communities.

GOOD PRACTICE PRINCIPLES FOR THE DEVELOPMENT AND IMPLEMENTATION OF SIMPs

The Queensland Government has introduced Social Impact Management Plans (SIMPs) to facilitate the ongoing management of impacts identified through Social Impact Assessment. The plans will “outline the forecast changes to communities in terms of local and cumulative effects, the agreed strategies for mitigating the effects and the responsibility of various parties in relation to the strategies” (Qld DTRDI, 2008, 3). SIMPs will be developed by proponents under the guidance of government and will be implemented as a condition of granting mining tenure.

From the review of leading practice approaches undertaken in this project, a series of principles have been identified to guide the implementation of SIMPs. These principles cover both the content and process of the plans. In line with the consultancy brief, the principles present a picture of what a *good* practice SIMP might look like and do not attempt to define a set of minimum standards.

It is important to note that the local context of a resource development will significantly influence the content of each SIMP, for example, the proximity of an operation to towns or other mines, the degree to which the workforce is locally located or fly-in-fly-out, the history of nearby communities, coexisting industries, and alternate land-uses. The following provides some overarching principles of good practice to guide the development and implementation of SIMPs in these different contexts.

1. **Prioritisation.** SIMPs should summarise the issues identified in the SIA and prioritise the key issues of concern through effective scoping and engagement. SIMPs should not seek to tackle all issues that are identified. A risk management approach should inform prioritisation. The priorities for activities and investment should be clearly outlined in each plan, including a summary of measures in the near term. The plans should include an implementation timetable and cost estimates.

SIMPs should also be concerned with the enhancement of opportunities, the avoidance of negative impacts and the minimization of social harm, in addition to the mitigation of negative social impacts. Positive impacts can be enhanced by identifying and building on existing positive examples.

2. **Adaptive management and flexibility.** SIMPs should be responsive to changing circumstances and increased knowledge and awareness of impacts over time. As such they should be a representation of an ongoing adaptive management system and not a static document. The design of SIMPs should thus emphasise process and outcomes in contrast to the prescription of outputs and activities, and focus on identification, coordination and planning as much as regulation and compliance. Similarly, SIMPs should demonstrate continuous improvement.

SIMPs should be flexible to adapt to changing on-the-ground conditions. Where possible, SIMPs should retain the flexibility to accommodate leading practice examples of corporate and international policy and standards. That is, where the process and content of corporate social management plans exceeds what is required by SIMPs, these should be accommodated. This will ensure that while the SRC policy raises the industry-wide benchmark, it does not at the same time result in duplication or a reduced willingness to go 'beyond compliance'.

3. **Life-cycle approach.** Social impacts, opportunities and risks should be assessed and managed at all stages across the life-cycle of extractive resource developments. SIMPs should demonstrate the processes adopted to integrate social management into all aspects of a mining organization (for example, site plans). SIMPs should articulate a process for ongoing assessment. Baselines and social profiles should be periodically updated and there should be demonstrated opportunities for ongoing consultation and engagement, through community reference groups and consultative committees.

SIMPs should also focus on leaving positive long-term legacies. As such they should plan for outcomes that reach beyond the life of the operation and should tailor approaches toward enhancing post-mining futures. Leaving a positive legacy goes beyond the mitigation of negative impacts – it means providing the broader region with something of value beyond the operation. This will be highly contextual and, for example, may not always mean the continuation of purpose-built mining towns but could, rather, involve the development of workforce skills and mobility on a regional basis. SIMPs should be aligned with community and government-preferred futures through engagement and make explicit reference to regional planning and other relevant processes/frameworks. SIMPs should also demonstrate a process for closure planning at the outset of an operation.

4. **Engagement.** SIMPs should demonstrate the process for how a mining operation will approach ongoing engagement with community and government. The development of a SIMP should reflect meaningful public input. Active processes that seek community involvement should be prioritized over standard periods for public comment. There may be a role for community consultative committees and reference groups, local leadership groups, and local government in reviewing and setting the directions of a SIMP. Foundational documents outlining the issues and initiatives in the region as well as priorities might be drafted by local leadership groups or government to be considered in the preparation and negotiation of a SIMP.
5. **Integration.** Where applicable SIMPs should demonstrate integration with relevant regional, strategic, planning, legislative and corporate initiatives, as well as with Environmental Management Plans. Environmental impacts are a common source of social impact, and, in turn social factors will often constrain how environmental impacts are managed.
6. **Build capacities.** Social investments and community development activities outlined in SIMPs should, where possible, seek to build the capacity of communities to undertake activities, and minimise dependency on mining companies. Mining companies should seek to facilitate outcomes by contributing to community-led initiatives wherever practical.

Investments and activities committed to in SIMPs should avoid over-reliance on built infrastructure, in part because of the associated issue of maintenance liabilities. A more effective focus is likely to be in areas such as enterprise development, local and Indigenous employment programs, and other programs focused on building human and social capital.

7. **Partnerships.** Where appropriate, SIMPs should demonstrate partnerships with local and state government, communities, other mining operations, and with other industries to address issues of concern. For some cumulative impacts, the most effective approach may not be to target a particular impact generated from mining but to consider 'off-site' approaches to ameliorate impacts or enhance benefits generated by other activities.
8. **Commitments.** The content of SIMPs should reflect and reiterate the commitments made by the mining organisation in corporate and industry policies and standards, other voluntary codes, plus contextually specific documents such as memoranda of understanding and agreements, in addition to the commitments made during the preparation of the plan. Measures committed to by industry and government should be recorded and form the basis of an ongoing partnership. There may also be an opportunity for forward commitments by all levels of government to be made available during the preparation of a SIMP to promote synergies; for example commitments made by the Queensland Government's Coal Infrastructure Taskforce.
9. **Balance between operational and regional context.** SIMPs should be tailored to the individual operational context; however, they should also seek, where appropriate, to take a systems level approach to ensure that the totality of impacts from other operations, industries and activities are considered, and that efforts to coordinate management, monitoring and mitigation are explored. SIMPs should, where appropriate, be developed with reference to the other existing SIMPs and SIAs within a region and seek opportunities for alignment and coordination of activities. The initial development of SIMPs should, where appropriate, consider existing plans and SIAs for other operations. Subsequent reviews of plans should take into account changed circumstances; for example, the closure or opening of new operations.
10. **Coordination.** SIMPs should guide a more strategic use of funds, trusts and other investments and activities and a more coordinated approach across mining operations across the region. While there is an attraction for organizations to exclusively implement and brand investments, this does not preclude greater coordination to decide on priorities to target. Priorities should be identified from SIAs, community planning exercises, ongoing consultation and engagement, regional planning and other initiatives. Consideration should be given as to how best to coordinate investments. There may be a role for local leadership groups, in addition to local and state government, in identifying priorities of regional concern. These priorities, in turn, could be communicated through the preparation of a foundational document, along with regional plans and Local Leadership Group plans, to guide SIMPs produced in a resource province. This may require a contribution from industry to support preparation of such a document and, possibly, to fund research on issues of concern or complexity. An alternate approach may be for Local Leadership Groups and

government to partner and coordinate the distribution or implementation of social investments with industry.

11. **Monitoring.** SIMPs should outline a process for monitoring at the operation level and identify key indicators. Periodic reporting of SIMPs may provide an opportunity to detail the outcomes of monitoring. Monitoring should be tailored to priority concerns at the operational and regional scale and address priority issues and concerns, as verified with community stakeholders ('monitoring what matters'). For cumulative impacts of high concern, government and industry should investigate regional and 'system level' monitoring approaches. Participatory approaches to monitoring should also be encouraged.

SIMPs should, where applicable, articulate the process adopted for grievance and complaints handling. Periodic reporting on SIMPs could provide an analysis of the cases received and their resolution.

12. **Review.** SIMPs should be periodically reviewed by industry to realign processes and activities and take into consideration changed circumstances. A comprehensive SIMP would include a process of periodic compliance auditing. Third party auditing of social management processes is already undertaken at a number of operations, so such an approach would align with existing good practice within industry.

13. **Reporting.** SIMPs, and reports arising from them, should be public and have a facility for public input and review. Data reported by SIMPs could be used to inform regional planning. There may also be benefit from periodic collective reporting by government on the issues and outcomes identified by SIMPs of a region. This report might form a foundational document for the preparation of the SIMPs of future operations.

SECTION 1 – BACKGROUND AND METHODOLOGY

1.1 INTRODUCTION

The sustainability of natural resource developments has conventionally been approached by the predictive assessment of the environmental and social impacts of project proposals at the approvals stage, and the regulation of the environmental impact of a project through environmental management plans, and the issuing of an environmental license during the operational phase. This process is designed to consider if, where, and how an operation can be appropriate in a particular context; and to ensure the extraction and processing of resources without adversely disturbing ecosystems, communities and economies overlying and surrounding deposits.

While an approach to sustainable development and mining that is focused on prediction, harm minimization and the impacts of a single proposal has contributed to some improvements in outcomes for communities and environments, the experience of development in a number of resource provinces has revealed that such an approach is insufficient. Sustainable development requires that social and economic impacts, as well as environmental impacts, are managed across the life-cycle of extractive resource developments, and that in addition to the avoidance and mitigation of impacts, there is a need to focus on the delivery of long-term positive outcomes and the legacy of development. Further, the full range of impacts, beyond those of a single operation, must be understood and managed in their environmental, economic and social context.

Leading practice resource developments have responded to these challenges by strengthening their internal management systems, investing resources in engagement with communities and other external stakeholders, and developing mechanisms for regularly reporting on their social and environmental performance. Some organizations have also focused on the enhancement of positive outcomes with an eye to the legacy that will be left to communities and regions upon the cessation of operations. In the Queensland context, many of these activities have been beyond what is required by the regulatory system.

The ongoing management of social impacts has not received the same attention as environment impacts, which are regulated through Environmental Management Plans. The absence of a governance framework for managing social and economic impacts has left some operations ill-prepared to meet changing community expectations.

For those most part, even leading practice approaches have focused on the performance of single operations. Cumulative and regional impacts may arise from individually minor, but collectively significant, actions taking place over time and space. In the mining context, cumulative impacts can arise from compounding activities of a single operation or multiple mining and processing operations, as well as the aggregation and interaction of mining impacts with other past, current and future activities that may not be related to mining. Cumulative impacts can be what are most important to environments, communities and economies because cumulative impacts are what they actually experience. The assessment and management of cumulative impacts requires greater collaboration and coordination amongst stakeholders and presents a major challenge for resource

governance. Collaboration is essential to effectively respond to complex issues that are the result of multiple activities and actors.

In September 2008, the Queensland Government introduced the Sustainable Resource Communities policy to improve the assessment and ongoing management of social impacts, provide for greater coordination and collaboration between stakeholders, and address resource governance issues at multiple scales. This research surveys approaches adopted by other jurisdictions, considers the promise and pitfalls of such approaches, and the applicability to the Queensland context, and provides case studies, advice and principles to assist the development and implementation of the SRC policy in Queensland. This section provides background on the SRC policy, the social challenges experienced in Queensland Resource communities and the methodology of the research. Section 2 provides a compendium of strategies and working examples that aim to avoid, mitigate and enhance the social impacts of resource developments.

1.2 RESOURCE DEVELOPMENT IN QUEENSLAND

The Queensland Department of Employment, Economic Development and Innovation (DEEDI), in association with the Queensland Resources Council and the Local Government Association of Queensland, are seeking research support to inform the development and implementation of the Sustainable Resource Communities (SRC) policy. In the following section we introduce the policy and the three resource communities which are the focus of the policy: the Bowen Basin, the Surat Basin and the North West Minerals Province.

1.2.1 THE SUSTAINABLE RESOURCE COMMUNITIES POLICY, QUEENSLAND GOVERNMENT

The Queensland Government's Sustainable Resource Communities policy is designed to both maximise the opportunities presented by developments in Queensland resource regions and mitigate and avoid adverse impacts in areas such as social infrastructure, employment, housing, community services, amenity, quality of life, health and education. The policy is initially focussed on three resource communities, the Bowen Basin, the Surat Basin, and the North West Minerals Province, where resource development has significantly, or in the case of the Surat, has the potential to significantly affect community infrastructure and services, and the social structure of communities. The policy responds to the cumulative and regional impacts that may be experienced by Queensland communities, economies and environments as a result of multiple, concurrent and overlapping proposals for resource development. The policy strengthens the Queensland Government's coordination role, introduces a social impact assessment (SIA) function, improves state-wide and regional coordination through the formation of a partnership group and local leadership groups, emphasises greater links to regional planning, and introduces social impact management plans (SIMPs) to outline the forecast changes to communities, the agreed strategies for mitigation of impacts, and the responsibility of various parties in relation to management. Finally, the policy seeks to facilitate research into leading practice.

THE QUEENSLAND PARTNERSHIP GROUP AND LOCAL LEADERSHIP GROUPS

The role of the partnership group, which consists of representatives of state and local government, the Local Government Association of Queensland, and the Queensland Resources Council, is to share strategic information, develop and coordinate solutions, undertake research into best practice and assessment methodologies and facilitate cross-sector communication (the partnership was formalized by an agreement that can be found [here](#)). At a resource province level, local leadership groups will “act as a ‘sounding board’ for resource companies and will focus on regional planning, and developing projects that address the cumulative effects of resource developments” (QDIP, 2008b, 19). They will provide ongoing engagement, identify preferred strategies and programs to manage impacts, and will link to regional planning.

SOCIAL IMPACT MANAGEMENT PLANS

The Social Impact Management Plans (SIMPs) will facilitate ongoing management of impacts identified through the SIA process. The plans will “outline the forecast changes to communities in terms of local and cumulative effects, the agreed strategies for mitigating the effects and the responsibility of various parties in relation to the strategies” and will be implemented as a condition of project approval (QDTRDI, 2008, 3). Regional planning will also command greater attention under the policy. Draft statutory regional plans have been recently developed for Central West, South West, and Maranoa Districts, and further plans will be prioritised to provide guidance to resource developments. The Queensland Government is currently developing the detail of these plans.

RESOURCE COMMUNITY SUMMITS

In November 2008 the Deputy Premier of Queensland and then Minister for Infrastructure and Planning convened a series of three resource summits (one in each of the three regions) to invite public discussion on the impacts and opportunities of mining expansion on regional communities and environments. The events were the first time Ministerial level summits have been held to address the social and economic impacts of resource development. Summit sessions highlighted a broad range of issues. Of particular interest to this study was the need to bring stakeholders together to address the cumulative impacts of multiple mining projects from mine to port, and for better collaboration between planning and assessment agencies. Participants requested data from mining companies to assist in the projection of demand for services, and more accurate projections of future mine developments. The summits signaled an attempt to improve the flow of information between stakeholders, announce coordination and planning initiatives, and identified priority issues in each of regions (QDIP, 2009a; QDIP, 2008a; QDIP, 2008b; QDIP 2008c).

A summary of the outcomes of the summits is available [here](#), with individual reports also available for each region (Dysart [here](#), Mt Isa [here](#), and Dalby [here](#))

1.2.2 QUEENSLAND RESOURCE REGIONS

BOWEN BASIN

The Bowen Basin covers an area of approximately 60,000 km² in Central Queensland stretching from Collinsville in the north to Theodore in the south (see Figure 1). The Basin hosts 34 operational coal mines and produces over 100 million t of black coal annually (QDIP, 2008b). A further 22 mines and 8 expansions were under development, as of July, 2008 (ISR, 2008). Increasingly the basin is also attracting development and exploration for coal seam gas extraction.

The Bowen Basin is serviced by communities including Collinsville, Nebo, Glendon, Moranbah, Clermont, Dysart, Middlemount, Tieri, Emerald, Blackwater and Moura. The Basin has a total population of around 70,000, with an additional 10,000 non-resident workers in company accommodation (e.g. single persons quarters) while on roster that drive-in, drive-out (DIDO) and fly-in, fly-out (FIFO) to the coastal centres of Bowen, Mackay, Rockhampton and Gladstone (QDLGPSR, 2006). Coal from the Basin is mostly exported through ports at near Mackay, Gladstone and Bowen. Glenden, Dysart, Tieri, Middlemount, Blackwater and Moranbah are purpose built mining communities, while other communities were established to service rural industries, particularly grazing.

Expansion of coal mining in the Bowen Basin has contributed to the generation of a number of cumulative impacts, particularly pressure on social and economic infrastructure. The region has reported shortages in affordable accommodation and housing (e.g. rents in Emerald and Moranbah have been up to 95% more expensive than the state capital city of Brisbane; Rolfe et al., 2007), skills shortages in trades, difficulties in retaining staff in the non-mining sectors, and pressure on community services such as child care, employment and skills training, local medical and dental services (QDIP, 2009a).

Increased mining activity has also brought positive economic cumulative impacts to the Basin with greater employment, and a larger population base to support services and facilities. In addition, the Bowen Basin has experienced positive cumulative impacts as a result of community development activities and funds, local business development from mine procurement, and the development of human capital (skills, employment and training).

Due to the dispersed nature of mining in the region, impacts have most often arisen in the areas of regional infrastructure and services, rather than amenity issues associated with densely located operations. Where multiple mining operations are located close to towns, such as around Moranbah, the cumulative impacts of dust, noise, visual amenity and vibration have been evident. The maintenance of roads, disruption to agricultural enterprises from exploration activities, and the impacts of mining subsidence on flood plains are also issues of concern.



Figure 1. Coal mines and deposits of the Bowen Basin, Queensland (source: QDME, 2007a).

SURAT BASIN

The Surat Basin is a sedimentary basin that overlies the Bowen Basin and is located in central southern Queensland and northern New South Wales. In Queensland the basin stretches from Taroom in the northwest to Goondiwindi in the south, near the Queensland New South Wales border (see Figure 2). The Basin itself is integrated into a larger Surat Energy Resource Province linking resource extraction within the Basin to mainland ports and communities that service the Basin but that are located outside of its boundaries.

The Surat Basin is serviced by the communities of Taroom, Wandoan, Roma, Miles, Kingaroy, Dalby, Chinchilla, Toowoomba, Milmerran and Goondiwindi. The two major regional councils of the Surat Basin are the Western Downs Regional Council and Maranoa Regional Council. In 2008, the estimated resident population for the Dalby Regional Council was 30,564 people and for the Roma Regional Council 12,828 people (QDIP 2008d).

The region has recently experienced a significant expansion of coal mining and associated electricity generation and is regarded as a highly prospective thermal coal, coal seam gas and coal gasification

province. Oil and natural gas developments in contrast have an established presence in the region (DSD 2007). The Queensland Government estimates 4 billion tonnes of known thermal coal deposits exist near Macalister, Chinchilla, Wandoan and Taroom (QDME, 2007a). One of the many drivers for coal exploration and mining in the Basin is electricity generation for Southeast Queensland.

An important feature of the resource development in the Surat Basin is the linkage to the Gladstone and Brisbane ports. Gas pipeline infrastructure from the Surat Basin to ports and liquefied natural gas facilities in, and around, Gladstone, are increasing the energy development potential of the region. The proposed Surat rail link, between Banana and Wandoan, will also make possible the export of coal, freight and agricultural resources to the port facilities in Gladstone (QDIP 2009b).

The region is known internationally for its agricultural production, which includes beef cattle, wheat, grain, cotton and forestry products. The majority of towns in the Surat are service centres for the agricultural industry. In contrast to the Bowen Basin very few communities have been purpose built for mining development. The transition and adjustment by communities to the increasing resource investment in the Surat requires planning and due consideration for the potential for cumulative impacts. For example, affects on the existing community infrastructure such as schools, childcare and health facilities. The potential increase in the workforce is also likely to place pressure upon the amount of adequate, affordable housing and accommodation in the region. The increase in the labour force also has implications for potential skills shortages and the retaining of workers in industries such as agriculture (QDIP 2009a). Like the Bowen Basin, the Surat is also likely to experience significant positive impacts through increased regional and economic development, employment and services.

The issues of land access for exploration and development and the ability of the mining, petroleum and agriculture industries to coexist have also featured prominently in discussions about the future of the region (QDIP 2008d). The issue of coexistence is particularly acute for coal seam gas extraction due to the semi-intensive use of land where an agricultural presence may continue in production regions. The production of saline water from coal seam gas creates additional opportunities and potential problems (QDIP 2009c).

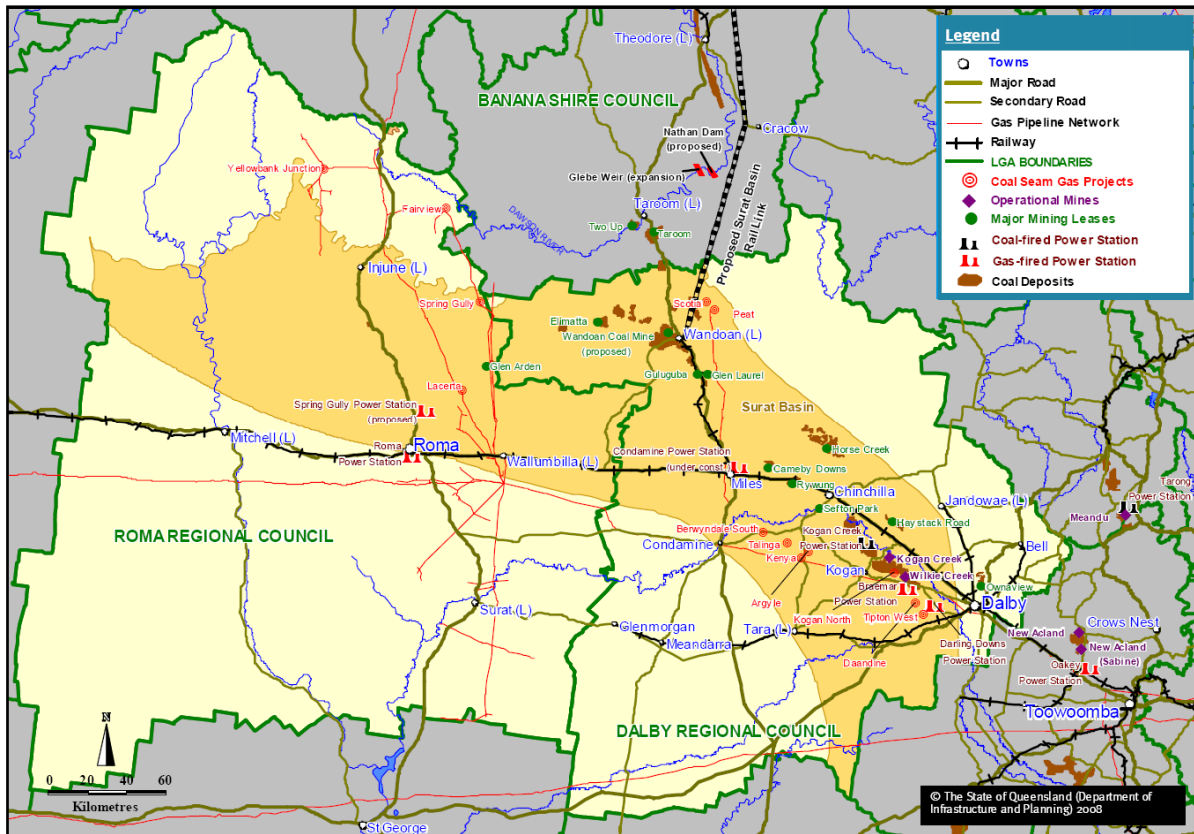


Figure 2. Resource development projects in the Surat Basin, Queensland (source: QDIP 2008d).

NORTH WEST QUEENSLAND MINERAL PROVINCE

The North West Queensland Mineral Province (see Figure 3) is a world class supplier of copper, lead, silver and zinc (QDME 2007). The province covers a vast territory, north to Burketown in the Gulf of Carpentaria, south to Birdsville and West to Hughenden. Major mining operations include Mt. Isa Mines (copper, lead, zinc and silver), Cannington Mine (lead, zinc and silver), Ernest Henry Mine (copper and gold), Century Mine (zinc, lead and silver), Eloise Mine (copper, gold and silver) and Phosphate Hill (phosphate). There are also a number of advanced projects at feasibility stage in the region primarily around Cloncurry (QDI 2007). In 2006-07, mineral production in the province was valued at A\$6.66 billion (QDME 2009).

The province is centered on the Mt Isa Inlier, which is located near the major regional centres of Mount Isa and Cloncurry. In 2006, Mt Isa had a population of 21,116 people. Cloncurry, in 2006, had a population of around 3,336 (ACIL Tasman 2009). In 2004-05, the industry directly employed 6,860 people with an estimated 6,130 additional indirect jobs in the region (QDME 2007b).

The Barkly/Flinders highway links the province to the East coast of Queensland, which includes the Port of Townsville, and several refineries' in the Townsville and Thuringowa region that service the mining industry. Rail is also significant in terms of the haulage of ore and freight to the East coast.

Improving social and community infrastructure, for example access to health services, for the smaller more remote towns such as Richmond, Hughenden and Julia creek is a unique challenge within the province. Other challenges include health concerns, such as those related to possible lead

exposure in Mt Isa, and the high level of alcohol and substance abuse (QDIP 2009a). The impact of housing affordability is often acute for groups without the income stream emanating from mining wealth. The Real Estate Institute of Queensland (REIQ) released figures indicating a close correlation between Queensland resources and property booms. For example, median house prices in one Mt. Isa suburb recorded an increase of sixty-five (65) percent during 2006-2007 (REIQ 2007).

Indigenous communities are particularly vulnerable to such inequities, due to the scarcity of employment opportunities for Indigenous people. Access to affordable accommodation, and health services, are particularly acute for Indigenous communities in remote parts of the province such as the Gulf of Carpentaria (QDIP 2009a).

The cost and availability of water has the potential to become a major area of consideration into the future, as will energy supply, which was the focus of a recent review (Sims, 2009).

1.3 METHODOLOGY

This research aims to review, analyse and synthesise the key success factors, gaps, failures, and context of leading practice social (social, cultural, economic, health etc.) impact assessment and management strategies in other jurisdictions to inform the development of SIMPs, and the SRC policy more generally, in Queensland.

The methodology adopted is as follows:

1. Scoping: a literature and desktop review of social impact and management strategies in other jurisdictions. The review focused on examples that linked social impact assessment to ongoing management (such as social management plans, and the relationship between project assessment and regional planning).

Methods included:

- review of industry, government, multilateral agency and non-government organisation websites, reports, legislation and policies (published and unpublished);
 - review of academic literature (books, periodicals, reports);
 - review of social impact assessment reports;
 - targeted consultations with key government, industry and community informants and contacts in Australia and overseas;
 - experiences, interviews, literature and findings gathered from a recent (November 2008) field trip to Alberta, Canada to investigate social impact assessment and management strategies with relevance to their application in Australian resource communities, and a field trip to Gunnedah, New South Wales, to investigate the challenges and opportunities of local level resource governance initiatives in a prospective mining region;
 - knowledge, contacts, and literature, including previously published and unpublished work of the research team;
 - guidance and literature from colleagues derived through professional sources such as the International Association for Impact Assessment, and the EcoMinerals e-list;
 - peer review at several stages by an additional eminent scholar in the field (Professor Frank Vanclay) and input by DEEDI to guide case study selection, literature to be surveyed, and contacts for additional information.
2. Prioritisation of cases studies. From the initial scoping exercise case studies were chosen for in-depth review, analysis and synthesis. The criteria for case study selection included the success of the strategy, the relevance to the Queensland context, and the availability of information. The case studies chosen for in-depth analysis include four government jurisdictions: South Africa, Canada, New South Wales and Western Australia. In addition, a range of corporate policies were investigated, as were the policies of the International Finance Corporation, which has pioneered the use of Social Management Plans.
 3. In-depth review and analysis of chosen case studies. Case study findings and principles were synthesised to inform principles to guide the development of SIMPs in Queensland.

The description, analysis and synthesis of the case studies considered the:

- aims, constraints, practice and implementation procedures of the strategies identified;
- successes, gaps, and failures of the strategies identified;
- responsibilities of each party (proponents, government, the broader industry, and communities);
- relevance to Queensland political systems, environment, resources, communities and industry;
- policy background and practice of industry government collaboration and partnerships in the case study;
- political system and legislative context and backing;
- range of corporate practice;
- stage in the project life-cycle (exploration through post-closure) and stage of project approval (project assessment through to management) the strategy targets; and the
- type of resource developments and communities.

SECTION 2 – COMPENDIUM OF SOCIAL IMPACT STRATEGIES

In this section we profile a series of leading practice strategies for addressing the social impacts of resource developments. The compendium includes an array of approaches from standards and codes, to regulatory and voluntary social impact assessments, strategic assessments, regional planning, social management plans, engagement and consultation approaches, agreements, community development initiatives, partnerships, multi-stakeholder and regional monitoring, grievance handling mechanisms and reporting.

Broadly the approaches fall into two categories. The first are those that have been adopted by a state or federal government jurisdiction. These approaches are reviewed to provide a benchmark from which the Queensland Government can assess its own policies. The second are approaches that may complement the regulatory process but reach beyond the bounds of a single jurisdiction. These approaches are often voluntary. The reasons for inclusion of such approaches here are that jurisdictional approaches should take into consideration the activities already in practice while at the same time raising the standard of practice across the industry.

The compendium does not attempt to represent the standard of practice currently applied across the industry. Practice is widely variable and even where leading practice policies exist there can be disparities with the on the ground experience.

The principles outlined in the Executive Summary are drawn from the analysis presented in this part of the briefing paper. The compendium is designed to demonstrate the breadth of approaches, and the context, challenges, and success factors.

Not all of the strategies are accompanied by case studies. The decision to include approaches without reference or analysis of specific examples was done in order to highlight the breadth of available approaches, whilst keeping the research project to a manageable size.

2.1 STANDARDS AND CODES

There are a range of standards and codes that have the potential to influence practice in the minerals industry. Standards and codes have proven to be an important means to articulate and communicate goals and principles, though they are limited by their enforceability. In this section, the major industry, corporate and international standards and codes are profiled.

2.1.1 INDUSTRY STANDARDS

Industry standards provide guidance and direction to member organizations on meeting industry and community expectations. The enforceability of industry standards varies depending on the organisation, however, most industry organizations do not undertake compliance auditing. Industry standards are therefore usually considered a voluntary approach to guide good practice.

The International Council on Mining and Metals (ICMM) is the peak international body concerned with the relationship between sustainable development and the mining industry. The ICMM was established in 2001 and is responsible for carriage of the Mining, Minerals and Sustainable

Development Project³ recommendations. ICMM membership currently consists of 17 companies and 30 mining and commodity associations [↗](#).

In 2003 ICMM began the development of an industry code of practice for member organizations [↗](#). The principles include reference to social issues and form part of a broader Sustainable Development Framework (ICMM, 2008; for relevant principles see Table 1). Principle 9, for example, requires members to “contribute to the social, economic and institutional development of the communities in which we operate,” including to “engage at the earliest practical stage with likely affected parties to discuss and respond to issues and conflicts concerning the management of social impacts” (ICMM, 2008).

The Minerals Council of Australia (MCA) has developed more detailed guidance to its members on implementing the ICMM principles. This guidance is incorporated into a framework called, *Enduring Value* [↗](#), which is a requirement of MCA membership [↗](#) (MCA, 2005). Among these principles, the MCA advises members to “undertake social and economic research and assessment in partnership with communities and appropriate organisations to support planning and development of operations with subsequent management review of social and economic effects through the whole cycle” (MCA, 2005).

The International Petroleum Industry Environmental Conservation Association (IPIECA) is the peak international body for sustainability issues in the petroleum industry. Its membership includes: the Australian Institute of Petroleum, the Canadian Association of Petroleum Producers, South African Petroleum, the World Petroleum Council, BHP Billiton, BP, Shell, Chevron, Petronas, Woodside, ConocoPhillips, and ExxonMobil among others. IPIECA members are committed to:

- Contribute to sustainable development by providing safe and reliable energy in an environmentally and socially responsible manner
- Conduct their operations and activities in accordance with applicable law related to environmental and social issues and ethical business practices
- Seek to improve their performance in addressing environmental and social issues
- Develop, share and promote implementation of sound practices and solutions with others in industry
- Engage with stakeholders, taking into account their expectations, concerns, ideas and views, and work with government and nongovernment organizations (IPIECA, 2008)

IPIECA has also developed a guidance product on undertaking social impact assessments [↗](#) (IPIECA, 2004), and has a Social Responsibility Working Group [↗](#) that covers issues such as social investments, human rights, conflict and social impact assessment.

³ As part of the Global Mining Initiative, the World Business Council for Sustainable Development and the International Institute for Environment and Development undertook a review of the sustainability of the mining industry called the Mining, Minerals and Sustainable Development Project (MMSD). The final report, *Breaking New Ground* [↗](#) (IIED and WBCSD, 2004), proposed a series of principles of sustainable development for the minerals sector. Similar country-specific reviews have been undertaken in Canada, *The Whitehorse Mining Initiative* [↗](#) (Mining Association of Canada and Natural Resources Canada, 1994), and South Africa, the *Sustainable Development through Mining Initiative* [↗](#) (South Africa Department of Minerals and Energy, 2009a).

ICMM Sustainable Development Framework – Selected Principles	
Principle 03.	<i>Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.</i>
	<ul style="list-style-type: none"> • Ensure fair remuneration and work conditions for all employees and do not use forced, compulsory or child labour. • Provide for the constructive engagement of employees on matters of mutual concern. • Implement policies and practices designed to eliminate harassment and unfair discrimination in all aspects of our activities. • Ensure that all relevant staff, including security personnel, are provided with appropriate cultural and human rights training and guidance. • Minimise involuntary resettlement, and compensate fairly for adverse effects on the community where they cannot be avoided. • Respect the culture and heritage of local communities, including Indigenous peoples.
Principle 04.	<i>Implement risk management strategies based on valid data and sound science.</i>
	<ul style="list-style-type: none"> • Consult with interested and affected parties in the identification, assessment and management of all significant social, health, safety, environmental and economic impacts associated with our activities. • Ensure regular review and updating of risk management systems. • Inform potentially affected parties of significant risks from mining, minerals and metals operations and of the measures that will be taken to manage the potential risks effectively. • Develop, maintain and test effective emergency response procedures in collaboration with potentially affected parties.
Principle 09.	<i>Contribute to the social, economic and institutional development of the communities in which we operate</i>
	<ul style="list-style-type: none"> • Engage at the earliest practical stage with likely affected parties to discuss and respond to issues and conflicts concerning the management of social impacts. • Ensure that appropriate systems are in place for ongoing interaction with affected parties, making sure that minorities and other marginalised groups have equitable and culturally appropriate means of engagement. • Contribute to community development from project development through closure in collaboration with host communities and their representatives. • Encourage partnerships with governments and non-governmental organisations to ensure that programmes (such as community health, education, local business development) are well designed and effectively delivered. • Enhance social and economic development by seeking opportunities to address poverty.
Principle 10.	<i>Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders</i>
	<ul style="list-style-type: none"> • Report on our economic, social and environmental performance and contribution to sustainable development. • Provide information that is timely, accurate and relevant. • Engage with and respond to stakeholders through open consultation processes.

Table 1. International Council on Mining and Metals’ (2008) sustainable development principles. The principles included here are those that are relevant to social impact assessment and management.

The Australian Petroleum Production and Exploration Association (APPEA) is the peak industry body for the upstream (explorers and producers) petroleum industry in Australia while the Australian Institute of Petroleum represents downstream industries (refining and marketing). APPEA has around 64 full members and 103 associate members. In 2003 APPEA developed a series of principles for conduct for members [\(APPEA, 2003\)](#). They are:

- Ethical and responsible business practices
- Sustainable development considerations integrated into company decision making
- Foster economic growth and business development, generate government revenue, provide commercial returns to the industry and contribute to the wealth generated by Australia's natural resource base

- Health, safety, environmental and community risk management strategies that are based on sound science and effective communication
- Continuously seek opportunities to improve health, safety and environmental performance in addressing risks posed by our operations to employees, contractors, the public and the environment
- Contribute to the conservation of biodiversity and protection of the environment through responsible management of our operations and their impacts
- Foster economic and social development of the communities in which we operate
- Respect the rights and dignity of our workforce, and deal fairly with our workforce, suppliers and the communities in which we operate
- Open and effective engagement with the communities in which we operate (APPEA, 2003)

APPEA has developed more specific codes on environment [\[4\]](#) (APPEA, 1996), exploration and access, safety and health, skills, education and training, but has yet to develop a code on the topic of social or community issues.

The World Coal Institute (WCI) is the peak international body for coal producers. The WCI has a membership of 17 corporate members and 21 associate members [\[4\]](#). It has developed a Members Statement of Commitment [\[4\]](#) (WCI, 2009) which emphasizes the importance of corporate social responsibility and support for the UNDP Millennium Development Goals. The Institute has also developed a Sustainable Coal Policy Statement [\[4\]](#) (WCI, 2007) that declares the commitment of members to engage openly and constructively on issues including the socioeconomic benefits and effects from coal mining. The Australian Coal Association (ACA) is the peak industry body for black coal producers in Australia. The ACA has a membership of 24 coal producing companies. The ACA has not developed a code or standard of practice for its members, though many of its members are also members of the MCA. The ACA is a member of the WCI.

2.1.2 INTERNATIONAL STANDARDS

There are a number of international standards that may influence or guide practice in the area of addressing social impacts. The identification, assessment and management of social and environmental impacts are mandatory for all projects financed by the International Finance Corporation (IFC) [\[4\]](#). According to the IFC, the promotion of the social wellbeing of local communities is an explicit objective of IFC-financed projects, and social assessment is an integral part of the environmental assessment process (IFC, 2003). Funding recipients are required to implement an environmental and social management system that consists of seven elements: (i) social and environmental assessment; (ii) management program; (iii) organisational capacity; (iv) training; (v) community engagement; (vi) monitoring; and (vii) reporting (IFC, 2006). Risks and impacts (positive and negative) are to be assessed and managed across the key stages of a project's lifecycle, including consideration of supply chains. The scope of the assessment and management system must be commensurate with the scale of the risks and impacts. The IFC has set up a Compliance Advisor/Ombudsman [\[4\]](#) to handle community grievances related to IFC financed projects.

Furthermore, leading financial institutions have adopted the *Equator Principles* [\[4\]](#) as the benchmark for responding to social and environmental risks. The Equator Principles (2006) are largely modeled

on the standards of the IFC and require that projects undertake a social and environmental assessment to determine the potential social and environmental impacts and risks (including labour, health, and safety) and that the assessment undergo independent review. There are also provisions for independent review of monitoring information and the preparation of social and economic action plans and management systems to address the issues arising out of the social and environmental assessment (in line with those required by the IFC; see section on social management plans below). There are exemptions for projects located in high income Organization for Economic Cooperation and Development (OECD) countries, such as Australia.

The *OECD Guidelines for Multinational Enterprises* [↗](#) also set voluntary principles and standards that are relevant to the mining industry (OECD, 2008). The guidelines set general principles (see Table 2) and more explicit principles on employment and industrial relations, environment, combating bribery, consumer interests, science and technology, competition and taxation. The more detailed principles in the environment field, which also explicitly address health and safety issues, require companies to establish and maintain environmental management systems; provide information and engage in communication and consultation with affected communities on the activities of the enterprise that may have environmental, health and safety implications; assess environmental, health and safety impacts over the full life-cycle (including through the preparation of an EIA); and adopt contingency plans for preventing, mitigating, controlling and reporting environment or health incidents (OECD, 2008).

OECD Guidelines for Multinational Enterprises – General Principles
1. Contribute to economic, social and environmental progress with a view to achieving sustainable development.
2. Respect the human rights of those affected by their activities consistent with the host government’s international obligations and commitments.
3. Encourage local capacity building through close co-operation with the local community, including business interests, as well as developing the enterprise’s activities in domestic and foreign markets, consistent with the need for sound commercial practice.
4. Encourage human capital formation, in particular by creating employment opportunities and facilitating training opportunities for employees.
5. Refrain from seeking or accepting exemptions not contemplated in the statutory or regulatory framework related to environmental, health, safety, labour, taxation, financial incentives, or other issues.
6. Support and uphold good corporate governance principles and develop and apply good corporate governance practices.
7. Develop and apply effective self-regulatory practices and management systems that foster a relationship of confidence and mutual trust between enterprises and the societies in which they operate.
8. Promote employee awareness of, and compliance with, company policies through appropriate dissemination of these policies, including through training programmes.
9. Refrain from discriminatory or disciplinary action against employees who make <i>bona fide</i> reports to management or, as appropriate, to the competent public authorities, on practices that contravene the law, the <i>Guidelines</i> or the enterprise’s policies.
10. Encourage, where practicable, business partners, including suppliers and sub-contractors, to apply principles of corporate conduct compatible with the <i>Guidelines</i> .
11. Abstain from any improper involvement in local political activities.

Table 2. OECD Guidelines for Multinational Enterprises – General Principles (2008).

Other relevant codes and conventions include: the International Association for Impact Assessment principles to guide SIA practice [↗](#) (see Table 3); the *United Nations Declaration on Human Rights* [↗](#);

the *International Covenant on Civil and Political Rights* and the *International Covenant on Economic, Social and Cultural Rights*; the *United Nations Global Compact*, which commits businesses to support and respect human rights; the conventions of the International Labour Organization, in particular *ILO convention 169* on Indigenous and Tribal Peoples, and *ILO convention 176* on Safety and Health in Mines; the *Voluntary Principles on Security and Human Rights*; the *United Nations Declaration on Indigenous Peoples* (United Nations, 2008); and the Natural Resource Charter (Bell et al., 2009).

IAIA International Principles of SIA practice
1. Equity considerations should be a fundamental element of impact assessment and of development planning.
2. Many of the social impacts of planned interventions can be predicted.
3. Planned interventions can be modified to reduce their negative social impacts and enhance their positive impacts.
4. SIA should be an integral part of the development process, involved in all stages from inception to follow-up audit.
5. There should be a focus on socially sustainable development, with SIA contributing to the determination of best development alternative(s) – SIA (and EIA) have more to offer than just being an arbiter between economic benefit and social cost.
6. In all planned interventions and their assessments, avenues should be developed to build the social and human capital of local communities and to strengthen democratic processes.
7. In all planned interventions, but especially where there are unavoidable impacts, ways to turn impacted peoples into beneficiaries should be investigated.
8. The SIA must give due consideration to the alternatives of any planned intervention, but especially in cases when there are likely to be unavoidable impacts.
9. Full consideration should be given to the potential mitigation measures of social and environmental impacts, even where impacted communities may approve the planned intervention and where they may be regarded as beneficiaries.
10. Local knowledge and experience and acknowledgment of different local cultural values should be incorporated in any assessment.
11. There should be no use of violence, harassment, intimidation or undue force in connection with the assessment or implementation of a planned intervention.
12. Developmental processes that infringe the human rights of any section of society should not be accepted.

Table 3. International Association for Impact Assessment international principles of social impact assessment practice. Source: Vanclay (2003).

2.1.3 NATIONAL STANDARDS

National standards are usually represented in legislation, however, some jurisdictions have adopted an array of non-regulatory approaches to compliment the regulatory framework. The Australian Commonwealth and State Governments, through the Ministerial Council on Mineral and Petroleum Resources, and in collaboration with the Australian Petroleum Production and Exploration Association, the Australian Coal Association, the Minerals Council of Australia, and the Australian Pipeline Industry Association, has developed a series of *Principles of Engagement with Communities and Stakeholders*. The five principles are:

1. Communication: Open and effective engagement involves both listening and talking
 - a) Two-way communication
 - b) Clear, accurate and relevant information
 - c) Timeliness

2. Transparency: Clear and agreed information and feedback processes
 - a) Transparency
 - b) Reporting
3. Collaboration: Working cooperatively to seek mutually beneficial outcomes
4. Inclusiveness: Recognise, understand and involve communities and stakeholders early and throughout the process
5. Integrity: Conduct engagement in a manner that fosters mutual respect and trust (MCMPR, 2005).

Further elaboration of each of these elements can be found in the code [☞](#) (MCMPR, 2005).

The Australian Commonwealth Department of Resources, Energy, and Tourism has developed a series of handbooks to build capacity in the minerals industry and set a benchmark for practice. The series, *Leading Practice Sustainable Development Program for the Mining Industry*, includes handbooks on Community Engagement and Development, and Working with Indigenous Communities [☞](#).

The Government of South Africa has developed a mining charter, *Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry* [☞](#). The empowerment charter provides detailed principles and is complemented by a yearly scorecard on the progress of companies toward the principles of the charter [☞](#). The principles are also reflected in other mining policy instruments, such as the *Social and Labour Plans* outlined in greater detail below.

2.1.4 CORPORATE STANDARDS

A number of resource companies have developed corporate policies, standards and operational procedures that go beyond regulatory compliance in the area of social impact assessment and management, and have employed designated organisational units and community specialists to address social issues, though practice can vary at the operation level (CSRSM, 2007).

Rio Tinto's Communities Policy [☞](#) and Communities Standard [☞](#) include multiyear community plans, community baseline assessments, grievance handling processes, indicators and sustainability reporting (Rio Tinto, 2007a; 2007b). The closure policy also outlines procedures for closure planning from the onset of an operation, including a specific socio-economic mitigation program [☞](#) (Rio Tinto, 2004).

Anglo American's Socio-Economic Assessment Toolkit [☞](#) provides guidance and outlines a mandatory process of social impact assessment and management for mature operations. The process is designed to be undertaken by Anglo American staff and includes periodic profiling of the operation and communities, the identification of impacts (with participation from the community), the development of a management and monitoring plan to address the issues, and a plan for post closure. SEAT reports are made publicly available, as is the original version of the toolkit itself (Anglo American, 2003; 2007).

Xstrata has developed a Sustainable Development Framework, which it revised in 2007, that includes policies [\[link\]](#), standards [\[link\]](#) and an assurance program. Sustainability policies in the area of communities commit the organization to culturally appropriate, transparent, early and ongoing engagement; to contribute a minimum of 1% of Group profit before tax each year to fund community initiatives; and to minimise adverse impacts on communities and avoid dependency (Xstrata, 2007). The more detailed Sustainable Development Standards require operations to undertake social baselines and risk assessments where appropriate, and develop community strategies and social involvement plans, which are reviewed annually in consultation with communities (Xstrata, 2008).

BHP Billiton's Sustainable Development Policy commits the organization to "engage regularly, openly and honestly with our host governments and people affected by our operations" and to "develop partnerships that foster the sustainable development of our host communities" [\[link\]](#) (BHP Billiton, 2008). The Health, Sustainability, Environment and Community Standards provide detail on operational requirements [\[link\]](#) (BHP Billiton, 2005). Community relations plans are prepared for most operations.

In the gas industry, Santos has developed a Communities Policy, but does not yet publicly disclose community relations or impact assessment standards [\[link\]](#), while Origin's health safety and environment policy and management system does not explicitly make mention of community or social issues [\[link\]](#) (Origin, 2007).

Many of the corporate policies and standards outlined above go beyond regulatory compliance for most jurisdictions, including Queensland. The processes of assessment and management of social impacts are almost exclusively defined at the corporate level and cover much of the detail that will likely be required by SIMPs. The lesson to be drawn from this is that SIMPs should, where possible, retain the flexibility to align with leading practice examples. On the ground practice, however, can be variable and there are examples where economic imperatives have over-ridden social and community objectives. The implementation of SIMPs will provide a minimum standard to ensure the ongoing management of socio-economic issues, however, care should be taken not to restrict leading practice in the process.

Findings

- There are a range of industry-wide, international, national and corporate policies and standards that provide guidance on the social impacts of resource developments.
- While these standards are commonly voluntary they provide a guide to what is considered leading practice in the industry, and a point of reference when engaging individual mining organizations operating in Queensland.
- The standards already committed to by industry should inform the design of the Social Impact Management Plans proposed under Queensland's SRC policy. Consideration should also be given to how SIMPs might complement existing leading practice social management processes.
- The South African Government has developed a regulatory code of conduct, with an associated monitoring program to overcome the issue of enforceability.

2.2 SOCIAL IMPACT ASSESSMENT

Broadly speaking, social impact assessment is a process for understanding and responding to the social issues associated with development. SIA should be an iterative process, rather than a one-off activity, and it is focused on how to identify, avoid, mitigate harm as well as enhance outcomes for communities (Vanclay, 2003). SIA can be predictive (what is expected to happen) or evaluative (what happened and why). The term 'social', in this context, generally includes economic, political, health and cultural concerns (sometimes explicitly referred to as social and economic impact assessment; SEIA). While SIA is often distinguished from environmental impact assessment, social and environmental impacts are interconnected, such that SIA is concerned with understanding the socio-environmental impacts experienced by communities, such as the health impacts of dust, or the amenity impacts of noise (Slootweg et al., 2001; Vanclay, 2002).

In this section we profile a snapshot of regulatory and non-regulatory approaches to social impact assessment in Canada (Alberta and Northwest Territories), Australia (New South Wales and Western Australia), and voluntary assessments conducted by industry. These approaches include project-level, strategic, and regional assessments, and vary in their focus from predictive assessments at the outset of projects, baseline assessments and social profiles as part of ongoing management, and closure impact assessments.

2.2.1 PROJECT LEVEL APPROVAL

Social impact assessment is required as part of regulatory approval processes at the project development phase for mining and processing stages in many jurisdictions. These SIAs are usually focused on predicting impacts related to a specific project and may be independent, or integrated, within environmental impact assessments (EIAs).

QUEENSLAND, NEW SOUTH WALES AND WESTERN AUSTRALIA

Impact assessments for mining developments in New South Wales, Western Australia and Queensland are required to be undertaken by proponents as part of project level approval. Project level assessments in Queensland, New South Wales and Western Australia consist of the same basic process:

- 1) the production of an initial advice statement (Queensland), application for approval (New South Wales), or environmental scoping document (Western Australia; which may be released for public comment) by the proponent that broadly outlines the scope of the proposal;
- 2) the development of a Terms of Reference (Queensland) or report detailing the environmental assessment requirements (New South Wales) to be covered in the assessment (in Queensland the ToR includes provision for public comment, while in NSW the requirements must take into account the views of other government agencies);
- 3) the production of the Environmental Impact Statement (EIS; Queensland and New South Wales) or Environmental Review and Management Program document (Western Australia) by the proponent (which includes an assessment of social impacts);
- 4) a period of public review and comment, and if required by the relevant authority, a supplementary report to address issues raised by public submissions; and

- 5) an agency/Ministerial decision whether to approve the proposal and an environmental assessment report that provides an overview of the process and indicates whether the EIS has complied with the act.

In Queensland, mining projects are commonly assessed under the *Environmental Protection Act 1994*. In such cases the process is managed by the Department of Environment and Resource Management (formerly known as the Queensland Environmental Protection Agency). Impact statements are accompanied by Environmental Management Plans, which outline ongoing monitoring and treatment of environmental impacts, and establish the conditions for an Environmental Authority (permit). Projects considered 'significant' by the Queensland Government are required to be assessed under the *State Development and Public Works Organisation Act 1971*. In these cases the assessment process is managed by the Coordinator General, a division of the Department of Infrastructure and Planning. In practice there is significant overlap between what is required under both systems. In both cases the EIS must be written in the form requested by the agency and as such guidance on the type of impacts that need to be assessed are given in the ToR developed by the agencies.

Under the Queensland *Environmental Protection Act 1994* the development of the Draft ToR is the responsibility of the proponent, with a period of public comment and then finalisation by the agency. This procedure is designed to tailor ToRs to the specific features of each proposal (i.e. what is assessed). In practice this has also led to the removal of some references to the scope of the assessment, such as cumulative impacts, when compared to the generic ToR provided by the agency (i.e. how it is assessed). More recently the EPA has demanded closer alignment to the generic ToR, arguing that the generic ToR represents the 'approved form' as required under the act and this change has led to a more comprehensive treatment of some issues, such as cumulative impacts within final ToRs.

A gap that still remains in Queensland's impact assessment system is the accessibility of past assessments and supporting documentation. While hard copies of past impact assessments are available within the John Oxley Heritage Collection of the Queensland State Library in Brisbane their large size and the single location makes hard copies impractical for active use within ongoing assessments. A potential improvement in the accessibility of impact assessments could be the creation of an online repository of past impact statements and related literature, such as data and grey literature submitted as part of EIS processes, as well as environmental management plans and licences (and in the future SIMPs). Existing infrastructure could be used to host the collection, for example, the recently refurbished Australian Agriculture and Natural Resources Online database (AANRO). The repository would also have the benefit of promoting consistency in practice and methodologies and facilitating comparative analysis.

Lockie et al. (2008, 182) identified a number limitations in the analysis of social and cumulative impacts in project level EIS in Australia. They reviewed a case study sample of 16 coal mining EISs produced in Australia between 1996 and 2006. In their assessment of the social and economic aspects of the reports they found that a number of EISs acknowledged the potential for cumulative impacts on communities situated near multiple mines, but not a single case proposed management or mitigation activities to address the identified issues.

The assessment and collaborative management of cumulative impacts is a requirement in both Queensland and New South Wales, but in practice the treatment of cumulative impacts in EISs is variable. A review of impact assessments undertaken for this briefing paper identified examples of proposals in the vicinity of other operations where the only mention of cumulative impacts in the EIS was in the Terms of Reference attached as an appendix. There are difficulties that proponents face when undertaking impact assessments that attempt to take into account regional and cumulative impacts. Information on the plans and activities of other current and future projects (both mining and non-mining) can be difficult to ascertain, impacts may have temporal and spatial extents beyond those which can be studied in a project level assessment, limits and thresholds may be poorly understood, particularly in regions of transition or where little research exists, and when information is available there are often issues with the compatibility of methodologies and data sets.

The collaborative approaches outlined in the SRC policy have the potential to address many of these issues, however, improved practice in the treatment of cumulative impacts will also require increased attention by proponents and regulators and enhanced capacity, through guidance, training and methodology development.

In New South Wales impact assessment is regulated under the *Environmental Planning and Assessment Act 1979*. The act is supported by the *State Environmental Policy (Major Projects)* that was introduced in 2005 and defines the classification criteria for different levels of assessment. Mining projects generally fall into the 'Designated' and 'State Significant Development' categories (for more information see NSW DUAP, 2000, 2). The New South Wales Department of Urban Affairs and Planning has published a guideline for the preparation of EIS for coal mines and associated infrastructure (2000) [\[link\]](#) that explicitly outlines the expectations of assessments, particularly in the area of addressing cumulative impacts. The guidelines describe cumulative impacts as the result of "a number of activities with similar impacts interacting with the environment in a region...they may also be caused by the synergistic and antagonistic effects of different individual impacts ...[and] due to the temporal or spatial characteristics of the activities and impacts" (NSW DUAP, 2000, 37). Cumulative impacts are required to be considered when prioritising issues, in site selection, the assessment of potential impacts, and management (2000, 13, 15, 23). Proponents must consider the resilience and capacity of the receiving environment to cope with impacts, the relationship to other mines and infrastructure, and must refer to existing regional, cumulative and strategic studies (such as the Upper Hunter Valley Cumulative Impacts Study), catchment or cumulative water quality management strategies and compliance arrangements (2000, 3, 17, 23, 26, 37). For analysis of air quality the guidelines describe a suggested methodology of cumulative assessment (2000, 28) and compel the proponent to take into account the cumulative effects of other developments that have been approved but are yet to commence (2000, 29). Measures to avoid and mitigate river impacts through discharge schemes, trading or supply to and from adjacent mines and industries, and reuse opportunities are also to be considered (2000, 27). No specific methodologies are proposed for addressing cumulative socio-economic impacts.

In Western Australia impact assessment is regulated under the *Environmental Protection Act 1986*. Western Australia has four levels of assessment, with the Environmental Review and Management Program (ERMP) corresponding to Queensland's significant projects level. Cumulative impacts are also required to be assessed as part of ERMPs in Western Australia.


CANADIAN ENVIRONMENTAL ASSESSMENT ACT

The *Canadian Environmental Assessment Act* (CEAA, 1992) is the legal basis that sets out responsibilities and procedures for carrying out what is known as ‘environmental assessment’ at a federal level in Canada. Comparatively speaking, Canadian legislation and the regulatory framework for impact assessment are structured similarly to Australia’s, which provides some strength and justification for comparison. Both are federal systems, have similar colonial, Indigenous, and economic histories, and demonstrate similar geographies of land use, with mining a major part of the economy.

Canadian impact assessment, like Australia’s, has in the past underemphasized social and economic issues. The term ‘environmental effects’, as defined in Canadian legislation, has focused primarily on biophysical impacts. More recently, and in light of CEAA amendments (2001), there are provisions that require attention be given to social, cultural, heritage, and health impacts. Amendments to the CEAA in 2001 demonstrated a concerted focus toward greater inclusion of social issues, public and Aboriginal participation, and traditional Aboriginal knowledge. These amendments represent a significant shift toward social impact management and legally require an applicant (e.g. a mining proponent) to demonstrate ‘how a proposed project may have social-economic impacts’ on individuals or communities.

A 2004 study on the determination of social and economic impact significance commissioned by Canadian Environmental Agency (CEA), determined that greater attention *still* needs to be placed on SIA with broader temporal and spatial scoping. The study (detailed below) emphasizes that public participation is a requisite for the effective determination of social and economic significance. The report also makes clear that greater concentration toward cumulative effects and more emphasis on positive impacts is required. Taking the CEAA legislative reform and the CEA commissioned social economic impact determination study together; this section offers some discussion on the legislative framework in Canada and what (regional, provincial) strategies are being taken up to reach higher level EIA.

The purpose of the CEAA is to ensure that “environmental and social factors are integrated into planning and decision making, anticipate and prevent degradation of environmental quality, encourage actions to promote sustainable development, avoid duplication, and provide opportunities for public participation” (CEAA, S.C. s. 37, 1997). EIA first emerged in Canada as a non-legislated process within the Federal Government environment policy framework in 1974. In June 1992, Bill C-13 of the *Canadian Environmental Assessment Act* (CEAA) received Royal Assent and on January 19, 1995 came into force. After extensive cross-Canada public consultations, the Minister of Environment introduced amendments to CEAA in March 2001 to strengthen the process and build on areas in public participation⁴ and efforts towards more predictable and timely assessments. Under CEAA, projects receive a level of EIA tailored to the potential impacts. These review processes include: screening, comprehensive study, mediation, and panel review.

⁴ Public participation in EIA promotes an open and balanced process, strengthens the quality and credibility of assessments and builds public trust and confidence in the decisions that are made .

The Federal EIA process is triggered⁵ when a federal authority has a specific decision-making responsibility in relation to the project. Each Province and Territory has different administrative mechanisms to guide the process with standards maintained through the permitting and inspections of the site by regulatory agencies. The application for a mine generally starts at the provincial or territorial level. Each Province has different administrative mechanisms to guide the process: standards are maintained through the permitting and inspections of the site by provincial officials. In British Columbia, for example, the *British Columbia Environmental Assessment Act* (2002) is administered by the Environmental Assessment Office (EAO). A Federal review is triggered by factors related to the location of the project and the type and scale of the potential impacts. In 2004, Canada and the Province of BC signed the *Canada-BC Environmental Assessment Cooperation* which sets out a cooperative approach for conducting environmental assessments of projects that are subject to requirements of the CEAA and BC EAA (BC EAO, 2004). While, Canada and BC make separate decisions, information is procured and shared throughout the process in a cooperative manner. Similar type cooperation agreements exist in other Canadian provinces and in Australia.

The CEAA supports the analysis of measures to reduce or avoid negative environmental *and* associated socio-economic impacts. To this end, 'environmental effect' under the *Act* is defined to include 'health and socio-economic conditions' and changes to the 'use of lands and resources for traditional purposes by Aboriginal persons', amongst other effects. This definition contrasts with the *Queensland Environmental Protection Act 1994*. The most recent CEAA reform strengthens the systems for iterative and ongoing public engagement (stakeholders, Aboriginal peoples, and civil society) in decision making.

One major difference between the Canadian and Australian impact assessments systems is the degree to which a determination of the 'significance' of an activity is required. Canadian EIAs must explicitly determine the significance of actions. An extensive research and development study, *Significance of Social and Economic Impacts in Environmental Assessment*, was commissioned by the Canadian Environmental Agency (2004), to advance the quality and effectiveness of social and economic impact significance determinations. The study, which was based on comments from over 100 EIA and SIA practitioners and in-depth case study analysis, made the following recommendations:

- Interpretations of social and economic impacts should not be artificially constrained by excluding positive direct, cumulative, psychological impacts or by limiting the analysis to impacts that can be linked to standards or qualified.
- Social and economic impacts should be interpreted at multiple levels to include individuals, families, groups, businesses, communities etc.
- Social and economic significance should not be limited to expert judgment.
- Context and the wider concerns that bound and structure EIA and SIA need to consider spatial, temporal, social, ecological, institutional and cumulative impacts.

⁵ The federal EIA process is triggered when a federal authority has a specific decision-making responsibility in relation to the project. This can include when the federal authority proposes a project, provides financial assistance or provides a license, permit or approval: namely when the project has regulatory triggers under the *Fisheries Act*, *Navigable Waters Protection Act*, the *Explosives Act* and/or the *Canadian Environmental Protection Act*.

- Effective social and economic significance determination is dependent on effective public participation.

The report also identified a number of limitations of the system. These include:

- Social and economic impact significance determination procedures are hampered by the secondary status of social and economic concerns in most EIA regulatory systems, by narrow definitions of the environment and by the inconsistent treatment among jurisdictions of public and private undertakings.
- Gaps exist between SIA and other impact assessment types, and there are often few follow up studies, confusion regarding the roles of and links between SIA and public involvement, insufficient consideration of social/psychological concerns, traditional knowledge and distributional impacts, and a bias toward the qualitative.
- There is too much emphasis on mitigating the negative rather than on achieving the positive.
- Proponents often resist collaborative and composite significance determination approaches because of fears about project delays.

Identified opportunities for improvement include:

- Integrate EIA/SIA principles earlier in planning and decision making.
- Re-orient social and economic determination to place more emphasis on social issues management, maximizing local benefits, providing adequate resources and expertise for conducting social and economic analysis, on monitoring and follow up.

The full report is available here [📄](#).

CUMULATIVE EFFECTS MANAGEMENT FRAMEWORK, ALBERTA, CANADA

In Alberta, a region renowned for its richness in oil and gas development, a new Provincial cumulative effects framework has been created to ensure a results-based and area-specific approach. This has been driven, in part, by increasing scale and complexity of cumulative impacts, along with an evident need (see to Duinker & Greig 2006) to implement a more systematic resource based and spatially appropriate approach.

In Canada, cumulative effects assessment is a requirement nationally and in some provincial jurisdictions. The requirement for the assessment of cumulative effects was formally introduced, nationally, into the EIA process in 1995 with the promulgation of the *Canadian Environmental Assessment Act*. Under the CEAA, s.16 (1) requires an assessment of: “any cumulative effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out”. Similar stipulations at legislative levels exist within other jurisdictions. For instance, the *Mackenzie Valley Resource Management Act* Section 117 (2) requires consideration of "any cumulative impact that is likely to result from the development in combination with other developments".

In October 2007, the Alberta Government announced a broad new approach to address cumulative effects. The cumulative effects management approach will:

- consider the total impact of development in a region, over time, in decision-making;
- determine the capacity of the land and the environment to support the effects of all activities; and
- identify thresholds for the air, land, water and biodiversity.

The cumulative effects management approach aims to focus planning and decision-making on the impacts of activities, rather than the activities themselves. It seeks to ensure that all the impacts of all activities, over time, are considered and included, by strengthening the consideration of cumulative impacts at the project level and by undertaking government-led regional assessments (for more on this type of assessment see strategic and regional assessments section below; Government of Alberta, Environment 2009). Regional assessments consider all of the potential impacts of all projects within a region, both existing and new; to create a more comprehensive view of development and land-use activity.

The cumulative effects assessment (CEA) is a regulatory requirement of the EIA and needs to document “predicted changes to the environment that might be reasonably anticipated from a proposed activity in combination with other activities” (Government of Alberta: CEA Overview, 2). The CEA is to include a discussion of historical developments and activities that have created the current “baseline conditions”. Explicit in the discussion (which is provided by the proponent) is a prediction of “the incremental consequences of development, identification of interactions of stresses, and a prediction of cumulative consequences of combined effects”. The proponent must detail the effects in respect to time and space and defend any assumptions made in the report. The CEA report must also demonstrate that it is not a static one-off review and that baseline conditions, project parameters, natural conditions, etc. will change over time.

Furthermore, regulators expect the proponent to:

- consult with adjacent industrial operations and incorporate data into their CEA report;
- present and provide an exploratory analysis of potential outcomes based on information obtained; and
- describe how the proponent proposes to monitor uncertainties and plans to address unfavorable outcomes if they arise.

SOCIO-ECONOMIC ASSESSMENT – NORTHWEST TERRITORIES, CANADA

The environmental management regime in the Northwest Territories (NWT) was engendered out of comprehensive land claim settlements. This means the legislative and regulatory frameworks were developed more recently and were informed through deep consultations and community input, paying particular attention to social and economic management and utilization of international SIA principles.

In the NWT the Mackenzie Valley Environmental Impact Review Board is charged with administering the EIA process. Impact assessment and management in the Northwest Territories was established under the *Mackenzie Valley Resource Management Act* and two comprehensive Aboriginal land claims, the *Gwich'in Land Claim Agreement* (S.C. 1992) and *Sahtu Dene and Metis Land Claim Agreement* (S.C. 1994). The Mackenzie Valley Environmental Impact Review Board is co-managed

(i.e. has Aboriginal and government appointees) and has a strong participatory focus on socio-cultural impacts and regional planning. A recent review of the Board assessed the contribution social and economic impact assessment (SEIA) was making as part of overall environmental assessment to better long-term decisions about social and economic sustainability in the Mackenzie Valley (Consilium and Gartner Lee Ltd., 2003). The recommendations are reported in Table 4, and are relevant to Queensland as the MVEIRB is recognized both nationally and internationally (Galbraith et al., 2007; Klein et al., 2004) as a highly innovative approach to SIA.

Expand SEIA Consultation Guidelines	To expand consultation, the Review Board is considering the development of guidelines for broadening public participation, including requirements for appropriate cross-cultural consultation and community-based licensing.
Standardize SEIA Terms of Reference Items	The Review Board is considering the development of certain standard SEIA Terms of Reference with consistent: <ul style="list-style-type: none"> • Social, cultural and economic questions; • Expectations for social and economic impact boundaries and, • Structure for determining alternatives.
Guidance on SEIA Prediction Methods and Tools	To improve the overall social and economic impact analysis of projects, the Review Board, will consult with appropriate agencies, and will develop a guideline supporting: <ul style="list-style-type: none"> • The use of community-based socio-economic change research (that is, use of standard social science techniques alongside the long term surveys and ethnographic research that is done now); • The use of appropriate tools for economic analysis and overall impact evaluation (for e.g., the government's use of specific tools like cost benefit analysis which more accurately predict the overall economic impact of development); and, • Valuation of things that are important to people but hard to measure (such as the market value of potential losses to traditional economic activities).
Strengthen Significance Determination for Social and Economic Impact Evaluation	To improve the outcomes of SEIA significance determination, the Review Board, in consultation with appropriate agencies, will: <ul style="list-style-type: none"> • Determine best approaches exist for addressing factors such as magnitude, duration and frequency of the social and economic effects that remain after mitigation; • Encourage government initiatives that develop social, cultural and economic benchmarks or thresholds appropriate for the region.
Linking Mitigation, Management and Monitoring to SEIA	To strengthen adaptive management related to SEIA within the context of mitigation monitoring, evaluation and management of project impacts, the Review Board will, in consultation with appropriate agencies: <ul style="list-style-type: none"> • Carry out research and consultations on the types of mitigation measures that are acceptable to help lessen or avoid undesirable impacts and maximize benefits to northerners; • Develop a guideline requiring follow-up reporting on the success or failure of mitigation measures and whether they were implemented; and, • Encourage developers and affected communities to conclude IBAs after conclusions of SEIA are made public.

Table 4. Recommendations for improvement of the Social and Economic Impact Assessment (SEIA) process of the Mackenzie Valley Environmental Impact Review Board.

2.2.2 STRATEGIC ASSESSMENT

Strategic assessments are assessments done at the scale of a policy, plan or program, while regional assessments may be at the scale of a minerals or resource province, catchment, or political jurisdiction. Strategic and regional assessments may be undertaken during, or prior to, the establishment of a new type of industry, extraction method, or exploitable resource. The advantage of such approaches are that they facilitate the early identification and resolution of potential issues when there is the flexibility to make changes; provide an opportunity for longitudinal and comparative research; may more effectively identify existing and potential cumulative impacts; may explicitly link assessment to regional planning and reporting; and can establish baseline and regional datasets that assist the development of region-wide monitoring efforts.

In some jurisdictions, government-led strategic and regional assessments may establish the conditions for future development and reduce or remove the requirements for project-specific impact assessments prior to regulatory approval if the proposals meet the conditions outlined in the assessment. Such an approach has obvious benefits for business as it can provide certainty for development proposals, reduce the potential for consultation fatigue, reduce the regulatory burden, and shorten the approvals process.

A strategic assessment can be the most appropriate form of assessment for regions involving multiple stakeholders or complex, large-scale actions. Strategic assessments are often promoted as a method to more effectively account for cumulative impacts as they are broader in spatial and sometimes temporal extent (Therivel and Ross, 2007; Therivel, 2004; Fischer, 2002; Noble, 2000); they may make explicit regional standards, thresholds, and links to land use planning; and they often establish regional databases, protocols, management systems and tools for implementation (e.g. methods for threshold allocation). Strategic assessments may also offer advantages for business by avoiding the duplication of project level assessments, informing developers about the environmental and social context in which they operate, and the potential for more certainty in the approvals process⁶.

Strategic assessments are gaining ground in the offshore energy sector in Australia, Canada, Norway, the United States, and the United Kingdom⁷. Canada's Atlantic offshore energy sector has formal systems of strategic environmental assessment in place and have initiated work (through federally funded research) to develop a formal system for northern Canada (Beaufort Sea-Mackenzie Delta Basin).

UPPER HUNTER CUMULATIVE IMPACT STUDY, NEW SOUTH WALES

The New South Wales Government in particular has utilised strategic assessments to specifically assess the cumulative impacts of coal mining in the Hunter Valley. In the mid 1990s, the NSW Commission of Inquiry for the Bayswater No. 3 and Bengalla coal mines recommended that the Department of Urban Affairs and Planning undertake a study of the cumulative impacts of coal

⁶ Regional Forestry Agreements are examples of strategic assessments that guide potential resource development in Australia.

⁷ In Canada, Denmark, and the federal level in Australia strategic assessment provisions are separate from EIA legislation. In the Czech Republic strategic assessment sits within the EIA legislation.

mining on the Upper Hunter Valley Region. This recommendation was prompted through the concerns of community and local government. The study, the 'Upper Hunter Cumulative Impact Study and Action Strategy' (UHCIS) was developed in conjunction with various government, industry, environmental and community representatives, and released in June 1997 (NSW DUAP, 1997).

The aims of the study were to:

- establish the effects of cumulative impacts of various existing and major proposed land uses and activities;
- establish a regional framework for the assessment of the environmental impacts of individual development proposals and activities;
- provide the basis for coordinated environmental monitoring and enhanced environmental management practices;
- assist future strategic land use and development planning at both the local and regional levels.

The scope of the UHCIS incorporated the Local Government Areas (LGAs) of Singleton, Muswellbrook, Scone, Murrundi and Merriwa. The study consisted of three phases:

- 1) A qualitative review of all potential cumulative relationships between various land uses and activities and the environment, using a set of environmental indicators.
- 2) Analysis of the more significant potential impacts using quantitative techniques. The most relevant environmental impacts of a cumulative regional nature were examined, including air quality, water quality, catchment conditions and economic and social conditions.
- 3) Strategic assessment of the findings of phases 1 and 2. In accordance with the data available at the time, the study found that there were no major cumulative impacts that warranted additional regulatory intervention or major restrictions on development (Department of Urban Affairs and Planning 1997, p. 3).

The UHCIS highlighted the need for more consideration to be given potential cumulative impacts in future decision making, planning and environmental management. Key proposals were to:

- 1) Strengthen the planning process – use the outcomes of the study in future EIS and planning activities.
- 2) Strengthen environmental monitoring and databases – examine the relevance and consistency of data for assessing cumulative impacts.
- 3) Strengthen environmental management practices – develop and implement best practice guidelines and reconsider existing practices.
- 4) Improve coordination, liaison and participation – implement initiatives for improved information sharing and consultation.

An action strategy of 39 items was developed to help ensure that greater consideration was given to cumulative impacts over the short-, medium- and long-term. A number of these action strategy items had particular relevance to the coal industry in the area. These included a recommendation that cumulative impact considerations be addressed in EIS preparation, and that a landscape master plan be developed to coordinate landscaping between existing and future mines to lessen the visual impact of construction and mining developments and to ensure appropriate mining rehabilitation.

The study proposed a review of monitoring systems for the Upper Hunter and the development of a consistent and coordinated environmental monitoring approach to enable the detection of long-term trends and cumulative impacts. A series of ongoing review reports was also proposed to monitor performance of conditions of consent for coal mining projects with regard to environmental monitoring and independent auditing. Other action items included the development of site-specific blasting guidelines, operational guidelines and a clarification of issues pertaining to community concerns about nuisance dust. Finally, the study advocated the continued development of best practice guidelines for stabilisation and rehabilitation of areas exposed by mining (NSW DUAP, 1997).

Following the UHCIS a strategic assessment has also been developed to analyse the coal mining potential of the Upper Hunter Valley (NSW Department of Planning, 2005) [\[4\]](#). The assessment takes into consideration coal resources, mine development potential, surface and groundwater, social and amenity issues, natural and cultural heritage, land and agriculture. In late 2006, the NSW Government initiated a strategic review of the impacts of underground mining in the Southern Coalfield, specifically subsidence. The findings of the review stress the need for better assessment of cumulative and regional impacts and improved attention to cumulative impacts within project level EIAs. The study also recommended that regulatory agencies and industry consider collaborative efforts with other 'knowledge holders' to develop improved regional and cumulative environmental data sets for the Southern Coalfield (NSW DIP, 2008).

BROWSE BASIN STRATEGIC ASSESSMENT, WESTERN AUSTRALIA

At a federal level, the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) includes an impact assessment function that is triggered in cases where the Minister believes there to be likely impacts on matters of national environmental significance from a proposal. The Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* also provides the facility to undertake strategic assessment, in collaboration with state jurisdictions. The Commonwealth Department of Environment, Water, Heritage and the Arts has established a function to undertake strategic assessments [\[4\]](#).

In February of 2008 a bilateral agreement was signed between the West Australian Government and the Commonwealth to undertake a strategic assessment of a common-user liquefied natural gas hub precinct in the Browse Basin gas field. The assessment is currently in progress and will consider the range of impacts that are likely to arise from the operation; proposed management arrangements, safeguards and mitigation measures. After a process to consider the feasibility of alternative locations of the facility, James Price Point was chosen as the preferred location, 60 km from Broome.

The Browse Basin common-user liquefied natural gas hub strategic assessment will set out the conditions by which development can proceed and thus reduce the necessity for project level approvals, if the proposals meet the conditions outlined by the assessment.

REGIONAL MINE CLOSURE STRATEGIES, SOUTH AFRICA

The Regional Mine Closure Strategies, South Africa, are whole of government strategic assessments of mine closure introduced by the South African Government in 2008. The strategies were

introduced to address the cumulative impacts of mine closure, that is, the unintended consequences of the closure of a single mine on the communities and other industries in the region, particularly where other mines rely on shared infrastructure and industrial synergies. The regional strategies identify dependencies, scope the regional context, develop a strategic framework to promote alignment between individual mine closure plans, and outline conditions and actions for operations.

The South African Government has identified a number of priority resource intensive regions for application of the strategies, though mines may be excised from the strategy if they do not pose any risks to other mines as a result of closure. In such cases only the specific mine closure plan applies. The regional closure strategies are used by the authorities to assess the suitability of individual mine closure plans, which are required by law.

While the regional closure strategies focus heavily on environmental sustainability there is some scope for socio-economic planning to minimise risks and maximise opportunities, and address the critical closure issues for the specific region. In the socio-economic area the strategies are founded on a social and economic profile and propose short-, medium- and long-term actions to minimise mining dependency and promote alternative economies, for example, to establish a regional industry forum to coordinate initiatives, establish employment and training programs and counselling services for retrenched employees, and engage with stakeholders over proposals for post-mining land use (Department of Minerals and Energy, 2008a). More on the strategies can be found here [📄](#) and here [📄](#).

The strategy is a product of the 'Sustainable Development through Mining' program, led by the Department of Minerals and Energy (DME), the Council for Scientific and Industrial Research (CSIR), Mintek and the Council for Geoscience (CGS). The program was established following the World Summit on Sustainable Development in Johannesburg, 2002.

2.2.3 BASELINES

Leading practice companies in the mining industry require their operations to undertake baseline studies and social profiles and update them at regular intervals, particularly when there is any significant change to the scale or shape of a project or community. There is an opportunity for SIMPs to demonstrate ongoing assessment across the life of extractive projects.

Through regular review of profiles and baseline studies, or by approaching profiling as a 'living' output, longitudinal trends may be observed over time and a more accurate picture of the change processes will be developed. Social profiling consists of understanding the communities and stakeholders potentially impacted by the activity through social and economic research. Profiling is a phase of taking stock of the trends and characteristics of a region at a given point of time. Baselines are an appraisal of the state of a community or social group, before an activity takes place. Baseline studies provide a benchmark against which potential impacts can be anticipated and change measured. They are also valuable for building mutual understanding. The foundational information and understandings provided by profiling are useful across all of the phases of extractive projects.

Profiling may include analysis of demographic patterns and trends, population characteristics, ethnicity and culture, the local economy, labour market, land-use and ownership patterns, social and

political organisation, family and community organisation, health, nutrition, disease, community infrastructure and services (housing, health, childcare etc.), expectations and concerns community members have about the project, community 'needs' and desired futures and the capacity to meet these needs, and the vulnerability of social groups.

2.2.4 SIA FOR CLOSURE

Social impact assessments focused on the specific issues of closure are not currently a regulatory requirement in any jurisdictions. However, due to the importance of closure planning, operations are increasingly undertaking voluntary SIAs for planned closure. Significant social consequences can arise from mine closure, especially in situations where employment opportunities and the economy are dependent upon mining. Today, many operating mines may be influenced by planning decisions that took place decades ago. In this way, the longer a mine has operated, often the more difficult it may be to make changes and design for an effective transition from production to closure. In existing mines, the issue of sustaining benefits becomes the major concern when mine closure approaches. The greatest degree of flexibility and potential is, therefore, with new mines, which can fully explore closure options through observations and lessons learned.

Mine closure occurs primarily for two reasons: ore depletion, or low commodity and metal prices, making the mine uneconomical to operate. Unanticipated closures can occur because of changes in the economic conditions due to sharp fall in metal prices and poor economic health of the mining company. Even if closure plans are in place for the end of operations, most mines are poorly prepared for an orderly closure when operations do cease.

The socio-economic impacts of the closure of a mine can be long-lasting. Mine closures can create dramatic changes in political, legal, social and economic relations at a local, regional, provincial/state or even national level. The management of problems related to closure, today, are still very much reactive rather than proactive. Social Impact Assessment can be effectively applied to help alleviate, mitigate and avoid many of the problems of anticipated closure, and scenario planning can help prepare operations to respond to unanticipated events (see section on scenario planning below). SIA can support the development of a management framework for implementing a policy vision for closure; encourage tripartite relationships with Government, industry and communities to facilitate long-term planning; and, initiate development strategies to foster long-term community socio-economic independence.

The Centre for Social Responsibility in Mining (CSRSM) has undertaken a number of closure focused voluntary SIAs on behalf of operations in Australia and overseas, as well as closure focused social risk assessment workshops (see Evans, Brereton and Joy, 2007), some of which are available online [🔗](#). The CSRSM has also developed guidance on SIA of mine closure [🔗](#) (Kemp, Clark and Zhang, 2007).

Findings

- Social impact assessment is a process for understanding and responding to the social issues associated with development and is best approached as an iterative process, rather than a one-off activity.
- Social impact assessment is required as part of regulatory approval processes at the project development phase, but is also commonly undertaken voluntarily at different stages of the project lifecycle. For example, baselines and social profiles are most effective when regularly updated and the social impacts of planned mine closure can also be effectively anticipated through SIA.
- There is no regulatory requirement to update baselines or undertake SIAs for closure in Queensland. The design of SIMPs should encourage ongoing social assessment across the life-cycle of operations.
- Cumulative impacts are required to be addressed when preparing impact assessments in Queensland and other jurisdictions but the extent to which impact assessments address these issues in practice varies.
- Federal and provincial legislation in Canada requires more explicit consideration of social and cumulative impacts. These provisions may prove relevant for ongoing improvements in Queensland.
- There is a potential for the Queensland Government to explore the role of strategic assessments for regions where there may be intensive resource development. Strategic assessments can be the most appropriate form of assessment for issues involving multiple stakeholders or complex, large-scale actions. Strategic assessments provide early identification and resolution of potential issues when there is still the flexibility to make changes, and may provide certainty for development proposals, reduce the potential for consultation fatigue, lessen the regulatory burden, and shorten the approvals process.

2.3 COMMUNITY RELATIONS AND COMMUNITY ENGAGEMENT

Increasingly mining organizations are employing dedicated community relations teams to develop and maintain relationships with community stakeholders. The practice of community relations emphasises greater dialogue, understanding and relationships with stakeholders and attempts to resolve real and perceived community concerns, impacts and risks. The field of community relations seeks to shape company actions to be socially, culturally, and environmentally grounded in the people and places (potentially) affected by a development. Community relations practice contrasts with public relations where the primary motive is typically the communication, and adoption, of company perspectives by the public.

Community relations is therefore a three-dimensional practice (Kemp, 2009). Practitioners must simultaneously assist mining companies to understand perspectives held within the community, foster mutual understanding from divergent community and company perspectives, and drive organisational change within mining companies to improve performance.

Company-community relationships, from this perspective, can be improved through informal and formal opportunities for consultation, engagement, and participation, through activities that foster understanding of communities, processes for responding to complaints and disputes and community and enterprise development initiatives that seek to improve the balance between the costs and benefits of mining.

Community engagement in the mining industry ranges from the communication of the project proposal to stakeholders and the incorporation of stakeholder views to modify projects, to ongoing participation in assessment and management across the mine lifecycle. Increasingly higher levels of engagement are expected by community and governments. Community engagement and participation can assist in developing open, meaningful dialogue, and can influence decision making, build trust, legitimacy, capacities, address real and perceived community concerns, manage expectations, tap local knowledge, and negotiate mutually beneficial futures that are more sustainable and locally relevant. The form and level of engagement will vary across the mining lifecycle and the phases of social impact assessment and management (Kemp, 2009).

Ongoing consultation mechanisms such as Community Consultative Committees are a relatively common feature of the mining industry. In NSW, Community Consultative Committees are mandatory. In the following section the NSW system will be introduced.

COMMUNITY CONSULTATIVE COMMITTEES, NEW SOUTH WALES

Community consultative committees are reference groups that can provide a forum for generating feedback on operational and proposed activities. A significant proportion of mining operations in Australia have such committees. In NSW community consultative committees are a condition of approval by the Minister for Planning. The committees provide feedback on the project assessment, the implementation of the conditions of approval, the results of monitoring, annual environmental management reports, and review the resolution of community complaints. The committees may undertake site visits, advise on initiatives to which the company may contribute, and liaise with committees from other mines to discuss common issues and respond to cumulative impacts.

Membership includes, an independent chairperson, 3-5 representatives of the local community and other stakeholders, a representative of local government and 2-3 representatives of the mine. State government representatives are not part of the committee but can attend specific meetings at the request of the committee. Community representatives are chosen following advertisement in the local press. Meetings are usually to be held at least quarterly, with minutes recorded by company representatives and available to the public, usually through the website. While the committee is encouraged to communicate with the broader community, only the Chairperson can speak publicly on its behalf (NSW Department of Planning, 2007) [🔗](#).

The committees provide an ongoing forum for consultation and engagement across the lifecycle of the mining operation, however, there are a number of areas where the NSW approach could be improved. In circumstances that deviate from the norm, there is a need for greater flexibility in the process. For example, a community consultative committee is required to be constituted for each mining lease. In situations where multiple leases are issued for a 'single' integrated operation or where multiple mines are located in close proximity, the consolidation of committees is not

permitted. The representation and feedback to community more generally is also a common problem. For community consultative committees to be at their most effective, there needs to be strong governance and feedback mechanisms back to the broader community to provide an opportunity for input and to report on outcomes. There is also a need to broaden representation to include groups such as youth and aged organisations, local business, tourism, health, welfare, policing and education in addition to environment, government and community groups to ensure a broad range of issues are covered, though the committees do need to be kept to a manageable size.

Findings

- Company-community relationships can be improved through informal and formal opportunities for consultation, engagement, and participation, through activities that foster understanding of communities, processes for responding to complaints and disputes and community and enterprise development initiatives that seek to improve the balance between the costs and benefits of mining.
- Increasingly mining organizations are employing dedicated community relations teams to develop and maintain relationships with community stakeholders, and undertake programs for community development. As much as possible the Queensland Government policy should support this trend.
- Community consultative committees are a common feature of the mining industry and provide an ongoing forum for consultation and engagement across the lifecycle of the mining operation. To be effective community consultative committees must have strong governance and feedback mechanisms back to the broader community, broad representation and be flexible to accommodate diverse community and operational circumstances.

2.4 STRATEGIC AND REGIONAL PLANNING

There are numerous strategic and regional planning approaches led by government in both Australia and overseas. Planning at this scale provides important constraints and guidance for resource development projects and coordination for responding to the impacts of such developments. Queensland has developed regional plans (some statutory some non-statutory) for most regions [\[1\]](#). These plans are augmented by complementary planning and coordination approaches such as the Queensland Coal Infrastructure Taskforce [\[2\]](#) and strategic plan, the Northern Economic Triangle [\[3\]](#) infrastructure initiative, the Surat Energy Province strategy [\[4\]](#) and action plan [\[5\]](#) and the Surat/Western Downs Regional Development Corporation. Similar initiatives in NSW include the Hunter Council's Regional Environmental Management Strategy, 2003 [\[6\]](#); the Hunter Economic Development Corporation, Hunter Vision, 2008 [\[7\]](#); and the NSW Department of Planning Lower Hunter Regional Strategy, 2006 [\[8\]](#).

In Canada, the Great Sand Hills of Saskatchewan Regional Environmental Study [\[9\]](#) used a baseline assessment of the environmental, social and economic dimensions of the Great Sand Hills to develop an alternative future scenario and predict the impact of these scenarios. A preferred alternative model for sustainability was then selected for the region (Government of Saskatchewan, 2007). The

Province of Alberta, Canada, has also developed a new regional planning approach to complement its Cumulative Effects Management System, described in more detail below.

COAL INFRASTRUCTURE TASKFORCE AND MORANBAH GROWTH MANAGEMENT GROUP, QUEENSLAND

In October 2004, the Coal Infrastructure Coordination Group was formed by the Queensland Government, later changing its name to the Queensland Government Coal Infrastructure Taskforce. The mandate of the Coal Infrastructure Taskforce is to coordinate whole-of government planning for the provision of coal infrastructure (transport, water, energy, housing and social infrastructure) in Queensland. The body, which is part of the Queensland Department of Infrastructure and Planning, reports to the Cabinet Budget Review Committee thus providing the Taskforce with a direct line to state government funding. The Taskforce is an attempt to expedite the infrastructure investments to cope with the sharp expansion of the coal industry since 2003 and to proactively address the cumulative impacts on physical and social infrastructure, especially in Bowen Basin mining communities.

In 2005 the Queensland Government, with the support of the Queensland Resources Council (QRC), prepared the Coal Infrastructure Program of Actions to coordinate development to meet Queensland's current and future coal infrastructure needs. The program of actions is heavily focused on transport infrastructure, but areas such as water and power supply, workforce skills and social and housing infrastructure are dealt with to a lesser extent⁸. The Taskforce has also commissioned a Queensland Coal Industry Strategic Plan to determine future infrastructure needs of the state (QDIP, 2008a).

The Queensland Government has also embarked on initiatives at the regional and local level. The Government committed to assist the Belyando Shire Council (now the Isaac Regional Council) to resolve issues related to the rapid growth in the mining town of Moranbah. The Minister for Environment, Local Government, Planning and Women proposed the development of the Moranbah Growth Management Group (MG²) to facilitate the resolution of acute growth issues in this purpose built mining town within the Bowen Basin. The MG² reported directly to the Coal Industry Taskforce and consisted of representatives of the Department of Local Government Planning, Sport and Recreation, the office of the Coordinator General (Department of Infrastructure and Planning), Department of Mines and Energy, Isaac Regional Council, unions, BMA (BHP Billiton Mitsubishi Alliance) and Anglo Coal, and chaired by the State Government member for the region⁹. The group led the preparation of the Moranbah Preferred Growth Management Strategy and commissioned the development of a Moranbah Strategic Plan. The Queensland Government has also convened

⁸ Work completed to December 2007 indicates that the proportion of spending was as follows: rail (\$1 billion; 14%), rolling stock (such as locomotives and wagons; \$2.1 billion; 28%), ports (\$2.5 billion; 34%), water (\$445 million; 6%), energy (\$1.3 billion; 17.3%), skills (\$25 million; 0.3%), housing and planning (\$31 million; 0.4%; figures in Australian dollars; Qld DIP, 2008a). These investments have increased Queensland's coal export capabilities and improved water storage capacity servicing coal mines (including the use of recycled town wastewater by industry). In the skills area the investments consisted of a redevelopment of the Mining Industry Skills Centre, the establishment of the Queensland Minerals and Energy Academy and the development of the Central Queensland Coal Regional Skills Formation Strategy.

⁹ Growth management groups are only considered in cases of severe pressure and crisis and have been somewhat superseded by local leadership groups in the SRC policy.


Land Access Public Forums to coordinate issues related to the impacts of exploration on landowners, chaired by the Director General of the Queensland Department of Mines and Energy. Initiatives under discussion include a code of conduct for explorers, standard compensation agreements, and common corridors for easements.

LAND USE FRAMEWORK AND OIL SANDS SUSTAINABLE DEVELOPMENT SECRETARIAT, ALBERTA, CANADA

Increasingly over the past decade, the Province of Alberta, and the town of Fort McMurray in particular, has experienced many of the same social and economic resource development issues as the Bowen and Surat Basins. Their experience provides a good comparative point of reference for Queensland, given the similarities in legal systems, history, industry and culture.

The scale of mining development in the Athabasca region is significant. As of August 2008, 7 additional oil sands operations were under construction and 15 had either received or been submitted for regulatory approval. In 2007 Fort McMurray, the regional population centre, housed over 27,000 workers in camps and temporary accommodation (hotels and motels) in addition to a permanent population of 66,000 people (OSDG, 2008). The permanent population has risen from just 37,000 in 1999, a rate of around 9% per annum. The potential for environmental change is also large. Oil sands underlie 140,200 km² of boreal forest, with 20% accessible to open cut mining, and the remainder potentially accessed through in-situ methods. Industry estimates indicate that around 420 km² of boreal forest is currently disturbed for oil sands mining (OSDG, 2008).

Rapid growth in oil sands development has led to high housing costs, stretched social and health services, a high proportion of workers in temporary accommodation, skills shortages and very high workforce turnover in non-mining service sectors. More than \$86 billion was invested in Alberta's oil sands since 2000 (Government of Alberta, 2009). The Province of Alberta has responded to these issues with an array of approaches including, an impact assessment system based on cumulative impacts (Cumulative Effects Management Framework; discussed above), a multi-stakeholder approach to regional monitoring (the Cumulative Environmental Management Association; discussed below), a new regional planning framework (Land-use Framework; discussed here) and a whole of government approach to coordinate the delivery of infrastructure and services (the Oil Sands Sustainable Development Secretariat; also discussed here).

The *Land-use Framework* offers an emerging regional planning regime designed to manage cumulative impacts. The *Land-use Framework*  is structured upon the principles and practices of regional cumulative effects management. In 2009, the *Alberta Land Stewardship Act* (Bill 36) was passed to support outcome based management and integrated regional planning. This Act houses the Province's *Cumulative Effects Management Framework* (and *Cumulative Effects Management Approach*) and guides the regulatory mechanisms that administer and integrate policy and planning into impact assessments, project permitting and long-term decisions regarding land-use. The *Bill* is designed to support the implementation of the *Land-Use Framework* (LUF) which was released in December 2008. The LUF aims to support outcome-based management and integrated regional planning in Alberta. The framework will be implemented through a hierarchy of policy, planning and operational decision making, which are under the auspices of Bill 36. The purpose of the LUF is to

‘manage growth, land-use pressures and cumulative effects, reconcile competing demands for land, ensure sustainability of land-use, and integrate land-use policies in Alberta’.

Seven regional land-use plans will be developed for the Province. The plans will seek to provide guidance so that “sub-regional and issue-specific plans, project approvals and other lower-level land-use decisions may be more protective of the environment, human health and other land-use values than the management thresholds and limits established to manage cumulative impacts at the regional scale”. The framework is in its infancy and its practical utility has yet to be determined – nevertheless it represents a substantial shift toward a strategic process and outcomes based approach and may provide ongoing comparative value to the regional statutory planning process in Queensland.

In 2007 the Government of Alberta announced the formation of the *Oil Sands Sustainable Development Secretariat* [↗](#) to tackle the social, infrastructure and economic ‘rapid growth’ issues of oil sands development. The Secretariat is similar in approach to the Queensland Coal Infrastructure Taskforce. The Secretariat sits within the Treasury Board of the Alberta Government, has seven permanent staff, and takes a whole of government approach to align the activities of multiple ministries and assist local municipalities. The Secretariat is developing a social and infrastructure assessment model to determine the level of investment required, short-term action plans, and coordinate long-term strategic planning.

In February 2009 the Secretariat released, *Responsible Actions: A plan for Alberta’s Oil Sands*. The 20 year plan will be implemented regionally through the *Land-use Framework* regional plans, and at a provincial scale through government ministries, coordinated by the *Oil Sands Sustainable Development Secretariat*. Strategy 2 of the plan is to ‘promote healthy communities and a quality of life that attracts and retains individuals, families and businesses’. The goals of the strategy are to identify social and infrastructure needs, and address these needs through programs and initiatives; take into account the ‘shadow population’¹⁰ as a result of remote working arrangements (such as drive-in-drive-out and fly-in-fly-out); develop community approaches for planning and capacity building; explore funding models that take into account cyclical growth and regionalisation of municipal service delivery in high growth areas (Government of Alberta, 2009, 22). The plan also sets out a process for data sharing with industry the *Sustainable Resource and Environmental Management Information-Sharing Initiative*, to promote consistency.

The plan is based on research and consultations undertaken as part of *Investing in our Future: Responding to the Rapid Growth of Oil Sands Development* (Government of Alberta, 2007, 2006). This research found significant gaps in housing, services and infrastructure and provided detailed recommendations that provide comparative insight to Queensland’s resource communities, including on topics such as the balance between industry and government investment, forecasting methodologies, the regulatory approvals process, the release of land and affordable housing programs, and even the need for the establishment of a new town north of Fort McMurray to service the industry.

¹⁰ For a detailed explanation of ‘shadow populations’ and their social implications in Canada see Aylward (2006).

2.4.1 FORECASTING

A major impediment identified by proponents and government to addressing cumulative impacts within project-level impact assessments, and effective planning more generally, is the availability of information on the future of developments. There is an absence of reliable data in the public domain about planned and possible future developments and the closure timing for existing developments. This is largely due to considerable uncertainty about the future context and issues of commercial sensitivity.

Forecasting is a means to provide information on future activities and their likelihood. Forecasting may range from the collation of information on planned and potential future operations to production trends, resource reserves and pricing forecasts, consumption and demand trends, and upstream and downstream technology roadmaps (Giurco et al., 2009). Forecasting may be undertaken at various scales and using various methodologies. The *Planning Information Forecasting Unit* [in Queensland](#) provides data that can be used to inform planning and assessments by industry and government and should be utilised to inform the development of impact statements and inform the activities of local leadership groups. Industry can also play an important role in the collection data. Forecasting innovations in Canada have overcome issues of commercial sensitivity and confidentiality to provide anonymous and aggregated data on future activities.

OIL SANDS DEVELOPERS GROUP, ALBERTA, CANADA

The Oil Sands Developers Group (OSDG) [is](#) an industry representative organisation established to respond to the regional and cumulative impacts of extensive development of Alberta's oil sands resource. The organisation was originally founded as the Regional Infrastructure Working Group in 1997, but later changed its name to the Athabasca Regional Issues Working Group Association in 2003, and then to the OSDG in 2008. The organisation fulfils the traditional roles of an industry representative organisation, that is to share and disseminate information and advocate a collective position, however, the organisation also undertakes a rather unique role of commissioning industry forecasting surveys to assist government and industry planning of social and physical infrastructure development and to anticipate and respond to social, economic and environmental impacts (Athabasca Regional Issues Working Group, 2007a, 2007b).

The OSDG began its activities with an assessment of the issues of concern at a regional scale. Committees established to respond to priority issues. Currently the organisation hosts committees in the following areas: Aboriginal affairs, co-generation/transmission, communications, health care, housing, regional environmental & regulatory affairs and transportation. One of the early hurdles that faced the group was the administrative burden of managing multiple committees. A full-time coordinator was hired to support the committees and assist in the timely completion of work.

The committees play an important role in overseeing the industry surveys and forecasting. The process emerged out of a fairly informal group of companies with a vested interest in the aggregated data. Now it is a requirement of membership to provide data during surveying. Data collection is limited to the member companies for the most part and data is collected/analyzed in house and with the assistance of consultants. Data is publically reported in an anonymous and aggregated form. The committees review the survey templates on a yearly basis, while OSDG staff send out, collect,

analyses the data and prepare the reports. Confidentiality is maintained by controlling who has access to the raw data. Only one organisation currently requires a formal confidentiality agreement with the organisation. Trust has been established through the consistent confidential treatment of data. Surveys include information on corporate donations, contributions to Aboriginal peoples, Aboriginal workforce, Aboriginal contracts, employment, revenues to government, camp residents, current and future anticipated capital expenditure and production (at interview, 2008). Some of the surveys and forecasts are available here [🔗](#).

Findings

- Strategic and regional planning provides important constraints and guidance for resource development projects and coordination for responding to impacts.
- There are a number of planning initiatives in Australia and Canada that explicitly seek to manage the impacts of intensive resource development, particularly the coordination of social and economic infrastructure.
- As previously identified within the Queensland SRC policy there is a need to link SIMPs with regional planning. This is an area where further research is required.
- The activities and research findings of the Oil Sands Sustainable Development Secretariat provide a comparative reference for the Queensland Partnership Group.
- An impediment to effective planning is the availability of information on the future of developments and prospective developments. Forecasting is a means to provide information on future activities and their likelihood. There is an opportunity for industry to assist in the collection of information on developments in Queensland. The Oil Sands Developers Group (OSDG), in Alberta, Canada provides a comparative model in this regard.

2.5 IMPACT MANAGEMENT

Social impact management generally refers to systems and strategies undertaken during the implementation phases of a development (including exploration) to monitor, report, evaluate, review and proactively respond to change. In many circumstances there is a lack of integration between social impact assessment and the ongoing management of social and economic issues once a project commences and after an operation closes. There are a number of reasons why this can be the case. SIAs are often conducted by external consultants to serve the regulatory need for independent analysis. In such cases there can be a lack of continuity between impact assessment and a disruption in the relationships developed with community and stakeholders. Another possible reason for a lack of integration is that impact assessment might be the responsibility of a small team, most likely in the community relations section, while management requires coordination across all aspects of the operation.

It is important that the outcomes of SIA are embedded across all aspects of the business, in a similar way to how health and safety has been in recent years. Social impact management can be formalised into management systems, typified by the various series of the International Organization for Standardization (ISO), site plans, Impact and Benefit Agreements, the development of standard

operating procedures for high risk issues, and systems to handle complaints and grievances (Vanclay, 2005; Kemp, Boele and Brereton, 2006; Kemp and Gotzmann, 2008; Kemp and Bond, 2009).

For impacts that cannot be avoided, particularly some cumulative impacts, the most effective approach may not be to target a particular impact generated from mining but to invest 'off-site' to ameliorate or enhance impacts generated by other activities. In such cases there are three approaches to the management of impacts. These are to: (i) mitigate/enhance the impacts of past and existing development; (ii) mitigate/enhance the impacts of the project under development or consideration; or (iii) mitigate/enhance the impacts of potential future projects (or, in the case of regulators, consider whether and how these projects should proceed; Duinker and Greig, 2006; Franks, Brereton and Moran, 2009).

In this section a number of strategies for ongoing management will be introduced. There is a great deal of overlap between the strategies outlined here and the practice of community relations, community development and community engagement. As such, this section will briefly detail a sample of approaches including social management plans, social risk assessments, scenario planning, community consultative committees, community development and social investments, and partnerships.

2.5.1 SOCIAL MANAGEMENT PLANS

Environmental management plans are a common feature in the mining industry. Social management plans, however, have only recently emerged as a process to link assessment to ongoing management and proactively respond to social and community issues. Social management plans (also known as social impact management plans, environmental and social management plans, social and labour plans, and environmental and social action plans) may be developed in partnership with regulatory agencies, investors, and community, and identify the responsibilities of each party in the management of impacts, opportunities and risks. Management plans also provide an opportunity to link activities with local and regional planning processes and, if developed with reference to the management plans of other operations, can assist to address cumulative impacts. They also provide the facility to coordinate project activities with service and infrastructure planning by government.

ENVIRONMENTAL AND SOCIAL ACTION PLANS, INTERNATIONAL FINANCE CORPORATION

In 2006 the International Finance Corporation, the private lending arm of the World Bank, introduced a set of environmental and social performance standards that are a condition of financing. Amongst these standards, recipients are required to prepare an Environmental and Social Action Plan (ESAP). While such plans are only a requirement of projects funded by the IFC, their elaboration here is relevant for two reasons. The first is that ESAPs are a widely adopted process for the management of the social issues of major developments. The second is that while mining projects in Queensland are rarely financed by the IFC, the IFC standards now form the basis of the *Equator Principles*, which have been adopted by most lending institutions.

Environmental and Social Action Plans summarise the findings of the impact assessment; outline the measures for mitigation and community development; provide estimates of the timing, frequency, duration and cost of management measures; and establish monitoring and reporting procedures.

They also explicitly refer to capacity building activities where there is not the institutional or community capacity to undertake the activities. Finally, the plans outline the procedures for how social issues will be addressed in site management systems and plans.

ESAPs are public documents, unlike South Africa’s Social and Labour Plans (detailed below) and proponents must periodically report to community on the progress of the plans. The period and form of reporting must be commensurate with the level of concern held by community, but not less than annually. The action plans provide an ongoing process to update impact predictions and focus efforts on the issues of most relevance. The IFC approach encourages the integration of social and environmental issues, both within the plan and across the organisation’s planning and management systems. Such integration recognizes that most environmental issues are social issues to some degree, and can be the main source of concern for communities in the vicinity of developments.

Social Content in Preparing an Environmental and Social Action Plan (ESAP)

- ▶ **Summary of Social Impacts:** Brief description of the predicted social impacts of the project, both positive and negative. These should be cross-referenced to sections of the ESIA report that provide further detail.
- ▶ **Summary of Social Mitigation and Development Measures:** Brief description of each mitigation and/or development measure being proposed and the impact to which it relates. Each specified measure should be accompanied by a description of how and by whom it will be carried out.
- ▶ **Monitoring and Reporting:** The monitoring program for social impacts should be elaborated, including what targets and indicators will be used as well as timetable and methods. Monitoring is the primary means for tracking and evaluating progress towards the attainment of stated outcomes and objectives. In addition, procedures should be specified for periodic reporting of progress and monitoring results to company management, IFC and affected stakeholders.
- ▶ **Implementation Timetable:** The implementation schedule should be elaborated here, with dates and duration of key actions linked to overall project implementation timeline.
- ▶ **Budget:** All mitigation and development measures specified in the social management plan should include a cost estimate of the initial implementation as well as any recurrent expenses. The costs should be factored into the total project cost.
- ▶ **Organizational Arrangements:** Implementation and monitoring responsibility for social mitigation and development actions should be specified as well any requirements for coordination or joint action among various parties. This includes clear lines of organizational responsibility and accountability for social actions, such as the identification of a Social Manager. Clear mechanisms should also be established for communicating Environmental and Social Action Plan commitments throughout the company. Operational and documentation controls should be put in place to ensure that programs and procedures are implemented and documented.

Figure 4. Content requirements for the International Finance Corporation’s Environmental and Social Action Plans. Source: IFC (2003, 23).

SOCIAL AND LABOUR PLANS, SOUTH AFRICA

In 2004 the Republic of South Africa introduced social and labour plans (SLPs) as a prerequisite for the granting of mining and production rights¹¹. The plans are embedded within the broader ‘transformation’ from the apartheid era and are an instrument to redress economic and social disadvantage. SLPs aim to promote the employment and advancement of all South Africans and “ensure that holders of mining or production rights contribute towards the socio-economic development of the areas in which they are operating as well as the areas from which the majority of the workforce is sourced” (South Africa DME, 2006). That is, the labour component is as important as the social, and resource developers are required to invest in geographic regions beyond the immediate location of the mine. While this context is in stark contrast to Queensland there are areas of relevance that may be informative to the implementation of SIMPs.

¹¹ Social and Labour Plans are specified in Part II of the Regulations under the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), which came into effect in 2004.

SLPs are developed by the proponent and submitted with the application for a mining or production right. The plans are developed in *negotiation* with government agencies. The Government plays an active role in the setting of targets and the monitoring of progress. The designated agency may provide proposals for amendment with the revised plan relogged. The plan lasts the duration of a project until a closure certificate is issued and there is a periodic process for review. Amendment of the plan requires ministerial approval. An annual report on compliance must be submitted to the designated agency. The social and labour plans are confidential but the annual reports are made publicly available.

The contents of SLPs are as follows:

1. Preamble – which includes the details of the project.
2. Human Resource Development Program – including a skills development plan, a career progression plan, a mentorship plan, an internship and bursary plan, and an employment equity plan. The employment equity plan, for example, sets a target of 10% female participation in mining and 40% historically disadvantaged South African's participation in management within 5 years of the Mineral and Petroleum Resources Development Act, 2002.
3. Local Economic Development Programme – applicable to the area of the operation and the area for which the majority of workforce resides. The plans must ensure the cooperation and participation of communities and government in implementation. The plan must align with the integrated development plan of the district municipality where the operation takes place and include a social profile, the provision of economic activities, a description of the anticipated impact, improvement of housing and living conditions, health measures and a plan for procurement from historically disadvantaged South African companies.
4. Processes for Management of Downscaling and Retrenchment – including the establishment of a future forum within 2 years of the establishment of a new operation to promote dialogue between worker representatives and management, identify productivity and efficiency opportunities and implement joint strategies. The proponent must also outline the processes adopted to avoid job losses, alternative employment solutions and how the proponent will address the social and economic impacts on communities. A profit to revenue threshold is set at 6% (over a period of 12mths) below which the retrenchment processes are activated.
5. Financial Contribution – including an outline of how the plan is resourced.
6. A declaration of responsibility (South Africa DME, 2006).

While the initiative is in its infancy there are a number of lessons that can be drawn from early practice. The degree to which the plans integrate with local integrated development plans appears mixed and there is an emphasis by those within the governing agencies negotiating the plans for tangible infrastructure over programs such as enterprise development. This is probably a function of the mining context in South Africa. Government lacks the capacity to invest in critical infrastructure and SLPs are a means of harnessing the capital and organizational capacities of the industry. The human resource focus of the plans is also particular to the circumstances, with a large underutilised labour pool and a historical legacy of disadvantage, though there are some similarities to the Australian Indigenous context.

The capacity of the agencies to process plans has also been an issue. To hasten the pace of plan development at least one mining house has sought to negotiate the operation-specific plans as a package at the corporate level. Furthermore, the plans do not appear to be informed by a 'community relations' perspective, for example, the confidentiality of the agreements appears at odds with leading practice community participation and transparency, and there does not appear to be a process for public involvement in their review or development. The social development aspects of the plans are largely consistent with best practice in South Africa and there are some indications that the mining industry is relatively comfortable with such contributions. If there is an area that has generated industry reticence, it is the inflexibility of some of the provisions and the intangibility of required commitments. That said, there are features of the plans, in particular the attempted integration with regional and local planning and the alignment of local development activities with anticipated impacts that are potentially applicable to Queensland.

2.5.2 SCENARIO PLANNING

Economic cycles can increase the risk of premature or temporary closure and downsizing of operations. The effects of mine closures (where impacts are generated by the absence of activities) can be a significant challenge for regional communities and economies. Planning for such events should proceed at the outset of an operation and measures should be put in place to prepare communities and companies should such scenarios eventuate.

Scenario planning can assist organisations to prepare for unplanned activities. Scenario analysis is a tool to anticipate change under different plausible future situations. Scenario analysis assists the development of a proactive policy response through the testing of assumptions. If conducted with communities, scenario planning can help to inform the public of risks and manage expectations. While this approach is not widely utilized, it may prove an increasingly important strategy to anticipate change, particularly in the context of unplanned closure.

2.5.3 IMPACT AND BENEFIT AGREEMENTS

Negotiated agreements in the mineral industry typically occur on a bi-lateral basis between a mining proponent and Indigenous groups. Notwithstanding considerable regional differences, negotiated agreements provide a great deal of insight on how impacts are addressed and where communities and proponents feel additional attention (security, certainty, corporate profiling, etc.) is required – and in addition to the existing regulatory framework. In Australia and Canada, agreements are commonly referred to as impact and benefit agreements (IBAs). In some jurisdictions (for example Nunavut in Canada) and under certain legislative frameworks (for instance the *Native Title Act 1993* which requires a negotiation process between traditional owners and companies) negotiations are a requirement of the Government, while in others agreements are voluntary.

Negotiated agreements provide additional opportunities for communities to influence or participate in developments. They also highlight where regulatory parameters are perceived to fall short. In many cases, negotiated agreements expand on impact management; both on avoidance of adverse impacts and enhancing positive impacts. Nonetheless, their intent is not to replace regulatory requirements set out by the state and are best to be considered as 'top ups'. This is in part because

negotiated agreements are commonly confidential and whatever they set out to achieve (as determined by signatories – the mining company and Aboriginal community) is not available for public consumption. The content and effectiveness of these agreements and subsequent clauses are not transparent, therefore, there is no guarantee they will serve the function or deliver on their intent.

In most cases, agreements operate as ‘contracts’ and bind parties’ commitments under the auspices of contract law (i.e. are enforceable). Legislated Indigenous Land Use Agreements (ILUAs) in Australia and the Inuit Impact Benefit Agreements (IIBAs) in Nunavut, Canada, have a similar common purpose to voluntary IBAs. The terms of agreements vary between projects, but generally entail the sharing of benefits arising from a mining project and additional mechanisms to address or compensate for the adverse impacts on the host Aboriginal community.

IBAs are concerned with a multitude of complex interactions triggered by a mineral development (Sosa & Keenan, 2001). Since their inception three decades ago, IBAs continue to evolve as comprehensive environmental and socio-economic contracts. Monetary benefits are often a key component to IBAs and can consist of equity ownership, royalties, funds, foundations and trusts. IBA provisions frequently include employment and contracting opportunities, training and educational programs, environmental protection programs (environmental monitoring, traditional knowledge, cultural heritage management plans, land use planning), and social investments. IBAs can act as an action plan to initiate a partnership development and provide Indigenous peoples with a level of involvement and influence over the project (Gibson, 2006; and see Aurukun Sustainability Framework section below).

Much research and analysis (Galbraith et al., 2007; O’Faircheallaigh, 1999, 2004, 2006, 2007, 2009; Fidler, 2009; Prno, 2007; Kennett, 1999; and Keeping, 1999) has been performed on the nature and rationale behind the increasing number of IBAs. Attention has focused toward the role of IBAs and the relationship to SIA/EIA in Canada and Australia. The following points provide some foundation and justification for IBAs:

- IBAs build on areas of EIA, particularly SIA;
- IBAs solidify partnership early – and before an EIA or Mine Approval process is triggered;
- IBAs focus heavily on positive impacts;
- IBAs can support community aspirations beyond what can be afforded or granted by the State;
- IBA clauses have no limitations and can therefore build on areas of regulatory deficiency, for example mine rehabilitation plans and security reclamation bonds;
- IBAs can enhance a company’s corporate image and (in some cases) demonstrate that a social license to operate has been achieved.

That said, it is clear that not all impact management can be addressed through legislation, regulation and policy. Therefore, well structured IBAs can play an important role in the long-term planning and integration of ‘community’ into resource planning.

Of course there are a number of challenges commonly associated to IBAs:

- *Transparency and Confidentiality*: understanding how impacts were identified, how impacts will be monitored, and who in the community is responsible to implement and provide feedback on the overall utility and effectiveness of the agreements.
- *IBA Relationship to EIA*: How does the agreement supplement or expand on the regulatory framework? There is a well articulated concern that the relationship between IBAs and EIA is not clear. This stems significantly from the inability for civil society, government agents, and adjacent communities to understand an agreements impact management plan.

On a precautionary note, EIA in Canada and Australia is a democratic process. IBAs, on the other hand, may run the risk of excluding or disenfranchising certain populations and failing to provide equitable benefits or secure intergenerational equity. To this end, the confidential nature and uncertainty (from the perspective of broader civil society) regarding how impact management clauses are negotiated, enforced, monitored, is unknown.

Governments should not delegate or off load EIA or SIA efforts into a private agreement as there are no due diligence requirements that guide IBAs. With no check-in procedures and the risk of excluding other interest groups, the long-term effectiveness of IBAs in Canada and Australia is justifiably a concern for all parties. Ill-conceived IBAs may unintentionally create, or add to adverse impacts vis-à-vis poor management techniques. With a long-term outlook in mind, government does not want to run the risk of having to deal with IBA legacy issues due to the absence of formal systems and policy.

AURUKUN SUSTAINABILITY FRAMEWORK, QUEENSLAND

The Aurukun Sustainability case study represents a state-led initiative that aimed to encompass community perspectives on sustainable development into feasibility studies and the long-term planning of a bauxite mine in Cape York. The case is an example where the acquisition of a mineral tenure (through an international competitive process) required the applicant to meet various social and economic criteria imposed by the state. The state was keen to apply best practices and drew from the last few decades of advances in the mineral sector (in terms of community engagement) along with international principles/guidelines (e.g. ICMM). This case adds credence that linking social impact issues with technical issues, early on and before an EIA is triggered is not only important but possible vis-à-vis a regulatory framework.

The Queensland Government cancelled a mine lease over the bauxite resource that was located adjacent to Aurukun, a region primarily inhabited by Wik and Wik-Way peoples (Native Title holders) on Cape York. The previous tenement holder had not fulfilled the development agreement terms and the State decided to offer tenure to the resource on an international competitive basis.¹²

The State wanted to apply best practices, taken from previous stakeholder and industry research and development to address potential areas of environmental management and socioeconomic

¹² In keeping with requirements set out in the *Native Title Act 1993*.

development deficit. The State's approach aimed to encompass community interests with sustainable development outcomes for the lifecycle of the mine.

The project, known as the Aurukun Bauxite Project (ABP), was to "build the levels of trust between parties and Indigenous confidence in the resource development process". This was sought to be achieved through the implementation of five strategic elements:

1. Sound ongoing consultation process.
2. Effecting access to the resource for exploration.
3. Joint process of information gathering on socioeconomic and environmental conditions.
4. Establish a framework for negotiations in the event of mine development.
5. Identify areas to maximize on opportunity (e.g. business development, mentoring).

These strategic elements applied sustainable community resource development advances that had occurred within the mining industry over the last couple decades. Furthermore, through this approach, the State maintained that each party was accountable and responsible to deliver on their obligations. To this end, each party (State, Indigenous Community and Industry) were obliged to participate and deliver on different elements. For example, element three (above) solicits Indigenous parties (traditional owners) to prepare reports on the socioeconomic environmental and biophysical environment.

The State wanted to ensure that the proposed evaluation process was defensible and transparent. Key features to address parties' perspectives and perceived risks were addressed by: developing a guiding framework with baseline requirements for socioeconomic investigations through a sustainable development plan (SDP), and examining state and commonwealth government policy (including roles, responsibilities, and existing commitments toward SD in the region).

The SDP was modelled on a project planning tool, Log Framework, used by agencies such as the German Development Agency (GTZ), AusAID, ICMM, and the Asian Development Bank. An attribute of this tool (if used effectively) is the ability to "identify clear objectives and to build consensus amongst stakeholders, while providing a core link between project design, implementation and evaluation" (Vidler 2009). This coordinated approach was used to establish a framework for adaptive management, via monitoring and evaluation. Furthermore, the SDP approach is embedded early on - during feasibility - which holds merit and potential to link technical issues with social impact issues early on in mine design and project planning stages. The project is currently at the feasibility stage - time will tell if the framework will be effective and capable in achieving its intent for all parties.

Findings

- In many circumstances there is a lack of integration between social impact assessment and the ongoing management of social and economic issues once a project commences and after an operation closes.
- Knowledge of social and economic issues should be embedded across all aspects of mining operations, in a similar way to how health and safety has been in recent years.
- SIMPs provide an opportunity to encourage the integration of social issues into ongoing management systems of mining operations, and should be tailored with this goal in mind.
- There are a number of existing international examples, outlined above, that may guide the development of SIMPs in Queensland.

2.6 COMMUNITY DEVELOPMENT PROGRAMS & PARTNERSHIPS

The majority of mining operations have programs to financially support community activities, events and organisations. Traditionally these programs have been part of a broader public relations profile, but in recent years there has been a shift toward a community relations and community development approach by prioritizing and coordinating investments with community needs and preferred futures.

Community development programs present an opportunity to focus and coordinate investments at a site *and* regional level. Community development may be prioritised by the scoping, baseline and profiling, and predictive assessment phases of social impact assessment and, most importantly, through community participation. Partnerships are often the best way to facilitate local capacity building and development programs, social services and infrastructure (Kemp, 2003; 2009). Partnerships with organisations, service providers, governments, other mining companies and peak industry bodies can be effective in mobilising greater resources, leveraging investment and coordinating activities to respond to complex issues.

There is significant debate among community development practitioners regarding the efficacy of direct delivery of development activities. Many practitioners prefer an approach where community-led initiatives are facilitated by industry to build the capacity of community and their organizations to undertake activities and avoid dependence. Mining organizations, too, may shy away from what is sometimes termed 'social engineering', preferring to focus on the core business of resource extraction. Bound up with this critique is a strongly held belief within the industry that community and social development is a role for government not industry. As long as industry is paying royalties for resource extraction, they will continue to look to government to fund the physical and social infrastructure of towns and regions.

That said, there is increasingly a recognition that the mining industry must contribute along with government to ameliorate the effects of proposed activities, including those in the social and economic domains. There are a number of reasons for this: unmitigated impacts have the potential to delay or even prevent expansion of mining in existing and prospective areas; the quality of life of

employees can become a high priority for companies competing to attract skilled workers; and the reputational benefits of environmental and social management are increasingly better recognized. The following section provides a snapshot of the types of community development approaches currently in practice, including partnerships, trusts and funds.

2.6.1 PARTNERSHIPS

Partnerships and multi-stakeholder working groups are an opportunity to facilitate cooperation around a particular goal, and are becoming increasingly common within the mining industry. Partnership programs may solidify ongoing collaboration to tackle complex problems.

Numerous examples exist of community development and skills training partnerships. By way of example, the Gladstone Schools Engineering Skills Centre (GSESC) is a training program co-located within the NRG Gladstone Power Station. The centre prepares secondary school students for engineering trades. The program is funded by the Rio Tinto Australia Community Fund, the NRG Gladstone Power Station, the Australian National Training Authority (ANTA) and local schools in conjunction with Education Queensland (CSR, 2007). The Mining Industry Skills Centre is another collaborative initiative between the mining industry and the Queensland Government to encourage skills development.

In the area of Indigenous employment and Indigenous enterprise development, there are numerous agreements between the industry, and state and commonwealth governments. A memorandum of understanding (signed in 2006) between the MCA and the Commonwealth Government aims to improve Indigenous outcomes from mining, and a memorandum of understanding signed between the QRC and the Queensland State Government will target Indigenous employment and enterprise development (CSR, 2007). The initial focus of the MOU will be on North West Queensland. The Australian Employment Covenant, a joint industry and Commonwealth Government scheme, aims to generate an additional 50,000 long-term jobs for Indigenous people within a two year period.

At the corporate level, BHP Billiton Iron Ore entered into a partnership in 2005, solidified by a Memorandum of Understanding, with the Western Australian Department of Education and Training to improve educational services in the Pilbara communities of Port Hedland and Newman. This partnership was followed by a health MOU with the Western Australian Department of Health to improve the quality of services in the Pilbara.

Most partnerships involve a single company, but the last couple of years have seen the formation of higher-level, multi-stakeholder partnership agreements at the industry to government level.

PILBARA INDUSTRY COMMUNITIES COUNCIL, WESTERN AUSTRALIA

The Pilbara Industry's Community Council (PICC) is an industry-led, multi-stakeholder body in Western Australia. PICC consists of BHP Billiton Iron Ore, Chevron Australia, Fortescue Metals Group, North West Shelf venture, Rio Tinto Iron Ore, Woodside, the Commonwealth, Western Australian and local Governments, Pilbara communities, and the Chamber of Minerals and Energy Western Australia (CME, 2008). PICC has two current areas of work. These are an Indigenous employment

program and an alternate stream on improving towns (CME, 2008). Multi-stakeholder working groups, such as PICC, offer opportunities to share strategic information, develop and coordinate solutions, undertake research into best practice and assessment methodologies and facilitate cross-sector communication. Multi-stakeholder working groups are well placed to focus on the management of social issues at a regional scale.

It is too early to judge the success of this initiative, but it does point to a new and promising direction to deal with complex social issues.

Findings

- Community trusts, funds and development programs should be tailored to build the capacity of communities to undertake activities, and minimise dependency on mining companies. There is an opportunity for SIMPs to encourage such an approach and facilitate the coordination of community development activities with existing government programs, and the activities of other mining companies and community organisations.
- Partnerships and multi-stakeholder working groups are an opportunity to facilitate cooperation around a particular goal, and are becoming increasingly common within the mining industry.

2.7 MONITORING

Monitoring consists of the collection, analysis and dissemination of information on social impacts, opportunities and risks over time. This phase can assist to refine assessments; track the progress of social impact management approaches; assess the return a company or government is getting on its community investments; report to communities on how they are being impacted; and facilitate an informed dialogue around these issues.

This section will review a number of regional and multi-stakeholder monitoring approaches and introduce grievance and complaints handling mechanisms. While the regional monitoring approaches reviewed here are exclusively applied to monitor amenity and environmental issues, there is the potential to learn from the conceptual and organizational approach of the initiatives. The transferability of such approaches to socio-economic impacts are likely to provide an innovative means to effectively monitor and mitigate issues of high concern to stakeholders and should be investigated in further research.

The Centre for Social Responsibility in Mining has developed a *Sourcebook of Community Impact Monitoring Measures for the Australian Coal Mining Industry* (CSRM, 2005) that may provide further assistance in this area.


2.7.1 MULTI-STAKEHOLDER AND REGIONAL MONITORING

Social and economic impacts often extend well beyond the geographic location of an operation and may contribute to systems already impacted by other operations, industries and activities. As such

monitoring of the activities of a single operation can prove insufficient. Due to sampling and methodology limitations, the aggregation of data from individual operations also often fails to present a full picture. Regional monitoring can help to address the cumulative impacts of multiple actions. For important issues of high stakeholder concern, system level indicators and regional collaborative monitoring approaches have been adopted in a number of other jurisdictions.

The participation of community members can assist many aspects of monitoring (CAO, 2008), including the collection of data (Stehlik and Buckley, 2008), participation in the development of indicator frameworks (Brereton and Pattenden, 2007) or multi-stakeholder monitoring organisations. Meaningful participation can assist to build public confidence and trust in monitoring. The following section profiles multi-stakeholder and regional monitoring approaches from Canada and New South Wales.

THE CUMULATIVE ENVIRONMENTAL MANAGEMENT ASSOCIATION, ALBERTA, CANADA

The Cumulative Environmental Management Association (CEMA)  is a non-government, multi-stakeholder, organisation established in June 2000 to assist the Government of Alberta to manage the environmental and socio-environmental impacts of oil sands development. The organisation currently is governed by 44 members representing the multiple levels of government, industry, environmental organisations and Indigenous groups and is based in Fort McMurray, Alberta, Canada. The mandate of the organisation is to develop guidance and management frameworks based on sound research and collaboration to address the cumulative impacts of oil sands development in the Wood Buffalo region of Alberta.

CEMA was established following an Alberta Government initiative, the Regional Sustainable Development Strategy. The strategy identified priority issues of concern through consultation, and developed a conceptual framework for cumulative impact management, and timelines for implementation. CEMA consists of a series of multi-stakeholder committees that research and define the capacity of systems and thresholds for key regional environmental issues of concern and provide an ongoing forum for dialogue between key stakeholders. The agreed thresholds and guidance are implemented by member organisations in management plans and inform the development of project-level assessments. This is both a strength and a weakness of the organisation. The relative independence of the organization from government and industry provides a space for the inclusion of the views of diverse stakeholders, however, the organisation relies on the adoption of the recommendations into corporate and government policy.

CEMA is predominantly funded by the oil sands industry and has a budget in the vicinity of \$8 million per annum. The Alberta Government has recently contributed funding to meet budget shortfalls. The budgets are developed from business plans recommended by working groups. Funding is available to environmental and Indigenous representatives to facilitate participation. The industry representative body, the Oil Sands Developers Group (see regional planning section above), now manages the apportionment of industry funding provided by its members to support CEMA.

The organisation has been criticised for the slow progress in developing agreed standards, and with regard to issues of governance and representation. The organisation has been challenged by the difficulty of developing consensus amongst diverse parties on difficult issues and effective

administrative and governance systems to help facilitate such agreement. The technical nature of the work has also been identified as a barrier to participation, especially by Indigenous representatives. The Alberta Government has recently announced that some of the functions of the organisation will now be advanced from within the relevant agency, in an effort to hasten progress (Integrated Environment 2008; Spaling et al., 2000; Severson-Baker et al., 2008).

CEMA was not mandated to deal specifically with socio-economic issues, though socio-environmental and health issues are addressed through the various committees. In 2007 the Government of Alberta announced the formation of the Oil Sands Sustainable Development Secretariat [\[4\]](#) to tackle the social, infrastructure and economic 'rapid growth' issues of oil sands development and address the critical gap in the CEMA mandate (see section on regional planning above).

MULTI-STAKEHOLDER MONITORING, WOOD BUFFALO, ALBERTA, CANADA


The Regional Aquatics Monitoring Program [\[4\]](#) and the Wood Buffalo Environmental Association [\[4\]](#) in Alberta, Canada, are examples of collective approaches to monitoring and reporting. Both of these organisations monitor the regional impacts of the oil sands industry on water- and air-sheds in the region of Wood Buffalo. The Wood Buffalo Environmental Association operates 14 active and 14 passive air monitoring stations with real time air quality data available via the internet. Both organisations have a membership that includes resource companies, environmental, Indigenous and community organisations and government agencies. The data generated from the regional monitoring programs is shared with stakeholders and the public. Both organisations periodically present aggregated data as community updates (RAMP et al., 2008).

UPPER HUNTER AIR QUALITY MONITORING NETWORK, NEW SOUTH WALES

In October of 2009, the New South Wales Government announced an initiative that will develop an independent air quality monitoring network for the Upper Hunter Valley. The network will be developed in response to health and amenity concerns of dust pollution from coal mining and emissions from coal fired electricity generation. The network is the result of an government-industry initiative, led by the NSW Department of Environment, Climate Change and Water (DECCW) and NSW Department of Planning, and consisting of NSW Health, Singleton Council, Muswellbrook Council, Upper Hunter Council, NSW Minerals Council, and the coal mining and electricity generation companies (Coal and Allied, Xstrata Coal, Ashton Coal, Integra Coal, Anglo Coal, Muswellbrook Coal, Hunter Valley Energy Coal, Rix's Creek, Wambo Coal, Macquarie Generation and Redbank Project).

The network will expand an existing state government air quality monitoring network with an additional 14 particulate matter air quality monitoring stations in the Upper Hunter Valley, including in the towns of Singleton and Muswellbrook. Funding for the network will be provided through industry contributions with ongoing management and administration the responsibility of the NSW government. Data will be accessible online through the DECCW's Regional Air Quality Index website. The partnership has been formalised through a Memorandum of Understanding (NSW Government, 2009).

THE HUNTER RIVER SALINITY TRADING SCHEME, NEW SOUTH WALES

The Hunter River Salinity Trading Scheme (HRSTS)  is an example of a regional approach to monitor, mitigate and report on cumulative impacts in New South Wales. The geological composition of the upper Hunter Valley is naturally high in salt, and the potential for mining to increase the salinity of Hunter catchment has been a cause for concern in the local community. The disturbance of ground containing salt increases the potential for that salt to become dissolved in groundwater, and later enter the catchment system. Due to the pressures on the Hunter catchment from mining, agriculture and electricity generation, a comprehensive monitoring and regulation framework, the Salinity Trading Scheme was trialled in 1994, and implemented in 2003.

Under the trading scheme, salty water can only be discharged when the salt concentration in the river is low. Under low river flow conditions, no discharges are permitted; under high flow conditions limited discharges are allowed as determined by a system of tradable salt credits. Under flood conditions, unlimited discharge is permitted (up to a threshold salt level; NSW EPA, 2003). Stakeholders hold a license for a certain number of credits which permits them to discharge salt into a river block in proportion to the number of credits they hold (1 credit allows the holder to contribute 0.1% of the total allowable discharge). There are a total of 1000 credits in the trading scheme; these may be traded among stakeholders in the marketplace (NSW EPA, 2003). The ownership of credits, their price, and the volume and concentration of discharges are publicly reported to the community.

2.7.2 COMPLAINTS AND GRIEVANCE HANDLING MECHANISMS

Complaints and grievance handling mechanisms are becoming more common at the operational level within the mining industry as a means to actively respond to community concerns, and as such SIMPs should be designed to account for this trend. A grievance is a concern, issue or problem that needs to be addressed. A grievance may be expressed (e.g. through a complaint or protest), and may be individual or collective. A grievance ‘mechanism’ may include:

- a dedicated pathway (or pathways) and processes of engagement for handling grievances
- procedural elements e.g. a documented procedure outlining steps to be taken to prevent and handle community grievances
- records e.g. complaints/grievance logs and data, evidence of information and communication about the mechanism or process and outcomes
- dedicated resources e.g. human and financial resources, formally defined responsibilities for grievance handling
- evidence of dialogue with aggrieved parties, and/or use of alternative dispute resolution techniques (e.g. negotiation, mediation, arbitration etc.) where direct dialogue is not possible or does not lead to resolution of issues
- substantive outcomes e.g. improved organisational practice and relationships, conflict resolution (validated by aggrieved parties).

Several major companies now require that operations have a community grievance mechanism in place. BHP Billiton require a mechanism proportional to the operation’s level of risk. Anglo American has developed a complaints and grievance procedure as part of its Socio-Economic Assessment

Toolbox (SEAT [\[4\]](#)). The recently released *Community Relationships Review* by Newmont Mining recommends the development of effective grievance mechanisms for each operation as part of a broader approach to conflict management. Finally, Xstrata's Sustainable Development Standards require grievance handling mechanisms at all operations (Xstrata, 2008).

More information on grievance handling mechanisms in the mining industry can be found in Kemp and Gotzman [\[4\]](#) (2008) and Kemp and Bond [\[4\]](#) (2009), and online on the BASES wiki [\[4\]](#).

Findings

- Where social and economic impacts extend well beyond the geographic location of an operation, and impact systems already affected by other operations, industries, and activities, the monitoring of activities on a site-by-site basis is often inadequate.
- For important issues of high stakeholder concern, regional monitoring can help to address the cumulative impacts of multiple actions. Regional collaborative monitoring approaches and system level indicators, limits and thresholds have been adopted in a number of other jurisdictions, such as Canada and New South Wales.
- In Queensland the Isaac Regional Council is currently leading a multi-stakeholder process to improve the livability of the town of Moranbah through coordinated management and monitoring of dust from multiple mining developments.
- There may be an opportunity for the Queensland Government to encourage such collaborative approaches for issues of high concern in Queensland's resource provinces, and align regulatory systems to accommodate them.
- Several major companies now require that operations have a community grievance handling mechanism in place. There is an opportunity to reference such mechanisms in SIMPs.

2.8 REPORTING

Sustainability reporting has become a significant activity for many resource developers to communicate performance at the operational and corporate levels. Reporting may also be a requirement of participation in management systems, including the various standards of the ISO. In recent years there has been a trend towards standardised reporting requirements, such as the Global Reporting Initiative (GRI). The GRI is a comprehensive sustainability reporting framework that requires reporting on the economic impacts on project stakeholders and systems, environmental inputs, outputs and expenditure, labour practices, human rights, and social risks to communities. The GRI has developed, in collaboration with the ICMM, a mining and metals sector supplement that details specific disclosures and indicators for the industry (GRI, 2009). The final draft of the supplement was released in January 2009 [\[4\]](#).

The Extractives Industry Transparency Initiative (EITI) [\[4\]](#) is another such approach. The EITI is a global standard for transparency in oil, gas and mining that is implemented by both businesses and governments. EITI requires industry to publish what they pay and for governments to disclose the revenues they receive from resource developments. The Australian Commonwealth Government is a signatory to the scheme.

For some operations and issues, reporting is best addressed at a regional scale. In circumstances where multiple mining operations are located in close proximity to a single town or community, there is often an absence of information that provides comprehensive overview of industry investments, activities, aggregate impacts and the state of environment, while at the same time an overload of incomplete information exists. Collective reporting to the community on the economic, social and environmental performance of the industry may be more effective at communicating the overall contribution of the industry and the totality of activities and impacts (Brereton, et al., 2008). Regional organisations and industry bodies are best placed to coordinate such efforts, however, the absence of a representative organisation is not necessarily prohibitive.

Findings

- Sustainability reporting is commonly undertaken by resource developers to communicate performance at the operational and corporate levels.
- A reporting and public review component should be incorporated into the design of SIMPs and could usefully align with the Global Reporting Initiative to facilitate the aggregation of data across operations.

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