INDIGENOUS PEOPLE IN MINING

a survey of Australian mine sites

Lindsay Hogan and Leanna Tedesco

- Around 91 per cent of indigenous people employed on a full time basis at mine sites in Australia work in areas near indigenous communities, which tend to be in remote areas where there are limited employment options.

- Overall, 58 per cent of mine sites located near indigenous communities negotiated one or more agreements between the mine site and indigenous people for land access at the exploration and/or mining stages.

- Of the mine sites near indigenous communities, 40 per cent spent more than $50,000 on the development of local indigenous communities in 2001-02, with 16 per cent spending over $250,000.

ABARE study on indigenous people in mining

ABARE recently released a study on indigenous people in mining in which mine sites in Australia were surveyed to collect information on indigenous employment and other economic linkages between mine sites and indigenous communities (Tedesco, Fainstein and Hogan 2003). In this article, key survey results are presented with some emphasis on mine sites that are located in the vicinity of discrete indigenous communities.

The study was commissioned by the Australian Government Department of Industry, Tourism and Resources. The information collected through the survey will be used to inform future initiatives under the mining industry – indigenous communities regional partnership program, known as the ‘Working in Partnership Program’. Information on the program is available from the department’s web site (www.industry.gov.au), while some background information is available in the ABARE study (Tedesco et al. 2003).

Mine sites near indigenous communities

Data from the Australian Bureau of Statistics indicate that there are 1216 discrete indigenous communities in Australia, of which 94 per cent are located in remote and very remote regions (table 1). Mineral and petroleum exploration, production and processing activities are potentially important in providing economic opportunities to people in these locations.

Mine sites are located mainly in regional and remote areas of Australia. Survey results based on the 2001-02 financial year were obtained for 46 per cent of mine sites, including onshore oil and gas fields, operated by publicly listed companies. Of these, 53 per cent are located in remote areas (including very remote areas) of Australia, and a further 28 per cent are located in non-metropolitan inland areas.

The majority of publicly listed mine sites are located in Western Australia, Queensland and New South Wales, including a relatively large...
broadly consistent with the actual distribution of publicly listed mine sites. Notably, 40 per cent of mine sites are located in the vicinity of one or more discrete indigenous communities — the majority of these mine sites are located in Western Australia, the Northern Territory and Queensland.

Indigenous people employed at mine sites

Employment

An indigenous person is defined as a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives. It should be noted that the managers of some mine sites were not able to respond to the survey as this information was not collected by the company.

From the survey results, a relatively large proportion of mine sites (39 per cent) did not employ any indigenous people on a full time basis at the end of 2001-02, at least to their knowledge (table 3). However, a third of mine sites employed one to five indigenous people and a further 28 per cent employed six or more indigenous people. These results are substantially influenced by the location of coal mines that draw on the available labor force in relatively large regional centres.

Mine sites near indigenous communities are the major employees of indigenous people in the industry. For these mine sites, only 10 per cent did not employ any indigenous people while nearly half employed six or more. Based on the survey results, these mine sites accounted for 52 per cent of full time employees in the industry and 91 per cent of full time indigenous employees. Indigenous employees at mine sites near indigenous communities, on average, represent 4 per cent and 6 per cent of full time and all employees respectively. Nearly a quarter of these mine sites draw more than three-quarters of their indigenous work force from their local indigenous communities.

Indigenous employment, on average, represents a relatively low share of total employment at all mine sites (2–3 per cent). There is some...
3 Employment at mine sites in Australia as at 30 June 2002

Indigenous employment

<table>
<thead>
<tr>
<th>Mine sites near indigenous communities</th>
<th>All mine sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 people</td>
<td>% 10</td>
</tr>
<tr>
<td>1–5 people</td>
<td>% 43</td>
</tr>
<tr>
<td>6–10 people</td>
<td>% 23</td>
</tr>
<tr>
<td>Over 10 people</td>
<td>% 25</td>
</tr>
<tr>
<td>Total</td>
<td>% 100</td>
</tr>
</tbody>
</table>

Total indigenous employment

<table>
<thead>
<tr>
<th>Survey coverage – full time employees</th>
<th>persons</th>
<th>Survey coverage – all employees</th>
<th>Industry estimate – all employees</th>
<th>persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 people</td>
<td>% 505</td>
<td>555</td>
<td>2 460</td>
<td></td>
</tr>
<tr>
<td>1–50 people</td>
<td>% 761</td>
<td>816</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51–200 people</td>
<td>% –</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 200 people</td>
<td>% –</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>% 100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total employment

<table>
<thead>
<tr>
<th>Survey coverage – full time employees</th>
<th>Industry estimate – all employees</th>
<th>persons</th>
<th>Industry estimate – all employees</th>
<th>persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 people</td>
<td>% 12 401</td>
<td>23 704</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–50 people</td>
<td>% 12 561</td>
<td>23 941</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51–200 people</td>
<td>% –</td>
<td>53 590</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 200 people</td>
<td>% –</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>% 12 401</td>
<td>23 704</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tendency for mine sites near indigenous communities to be larger, as indicated by total employment, but the differences are not substantial and these results may need to be interpreted with some caution since the response rate for gold, where there are some smaller mines, is 34 percent. The survey results also indicate that 3 percent of all mine sites did not employ any people at the end of 2001-02 although production was positive during the year, suggesting a temporary mine closure occurred in these cases.

Long distance commuting

Long distance commuting, often referred to as fly in – fly out, has become an increasingly important aspect of mining operations in Australia over the past two decades (see, for example, Hogan and Berry 2000). Long distance commuting allows employees to live in an alternative location, usually an established city or town, and commute to the mine site on a rotational basis. Long distance commuting may be based on air, rail or road transport.

Long distance commuting has enabled ore deposits in more remote locations to be commercially viable mining operations.

The last new mining town to be established in Australia was Roxby Downs, which was first occupied in 1987 and was developed to service mining and processing operations at the Olympic Dam mine in South Australia. The Naborale uranium mine (Northern Territory, production commenced in 1980), the Kidston gold mine (Queensland, 1985) and the Argyle diamond mine (Western Australia) are early examples of long distance commuting in mining other than offshore oil and gas extraction. Few, if any, coal mines in Australia are based on long distance commuting.
Based on the survey responses, 43 per cent of all mine sites commenced production after June 1992, while 8 per cent of mine sites have been producing for over fifty years. For mine sites near indigenous communities, 46 per cent employ more than three-quarters of their workforce based on long distance commuting and 54 per cent employ some workers on the basis of long distance commuting (table 4).

Of the mine sites that are located near discrete indigenous communities, 36 per cent employ over three-quarters of their local indigenous workforce on a long distance commuting basis. Reluctance of local indigenous people to travel and be employed on a long distance commuting basis was identified by several respondents as an impediment to employing more indigenous people at the mine site. (Impediments to indigenous employment are discussed further later in this article.)

Income, work experience and other labor market indicators

Information on selected labor market indicators for full time indigenous employees at mine sites in Australia is provided in table 5. On average, income, number of hours worked per week and age of indigenous employees at mine sites near indigenous communities is lower than for all mine sites.

The average number of years worked at the mine site was six in each case, which — particularly given the age of a significant proportion of mines — indicates that indigenous employees gain useful work experience through full time employment at mine sites in remote and other locations.

Annual income earned by full time indigenous employees in the form of wages and salaries was close to $59 000 for all mine sites and, similar to average weekly earnings in 2001-02, around $44 000 for mine sites near indigenous communities (see, for example, the web site for the Reserve Bank of Australia, www.rba.gov.au, for information on average weekly earnings). Notably, the annual income of 23 per cent and 17 per cent of indigenous employees at all mine sites and mine sites near indigenous communities, respectively, is over $70 000.
The relatively high share of indigenous employees at mine sites near indigenous communities that have an annual income under $40,000 is likely to reflect a range of factors such as previous work experience and qualifications. Access to employment as part of agreements between mine sites and indigenous communities is also likely to be an important influence.

**Economic contribution of mine sites to indigenous communities**

**Agreements**

The information presented in table 6 provides an indication of the importance of agreements between mine sites and indigenous people in negotiating land access at both the exploration and mining stages.

For mine sites near indigenous communities, during the exploration stage, the proportion of mine sites with zero, single or multiple agreements was close to a third in each case. At the mining stage, half of mine sites near indigenous communities did not require any agreement to proceed with mining operations, while nearly a quarter negotiated a single agreement and the remainder negotiated multiple agreements.

Overall, 58 per cent of mine sites near indigenous communities negotiated one or more agreements between the mine site and indigenous people for land access at the exploration and/or mining stages.

**Key aspects of the contribution of mine sites to indigenous communities**

Mine sites near indigenous communities were asked to provide an indication of the importance of various aspects as they relate to the contribution of the mine site to local indigenous communities. The degree of importance is measured on a scale of 1 to 5, with 1 indicating not important (or not applicable) and 5 indicating very important.

The three most important factors underlying the economic relationship, from a mining industry perspective, are:

- supporting cultural heritage surveys as part of land access (average rating of 4.1);
- investing in goodwill between the mine site and local indigenous communities (4.0); and
- human capital development through education and training (3.7).

Other fairly important factors, on average, include:

- providing assistance to cultural programs (3.3), community development programs (3.2) and environmental programs (2.9);
- human capital development through work experience (3.2);
- compensation payments (3.1);
- higher income earning opportunities through direct employment at the mine site (3.1); and
- sourcing inputs from indigenous small business (2.9).

Other factors — such as providing assistance to indigenous small business (2.6), investing in economic and/or social infrastructure for indigenous services (2.6), facilitating communication between indigenous communities and government (2.5) and providing indigenous people with greater choice in consumer goods and services (1.6) — were not as important on average, but were to varying degrees relatively important aspects of the relationship for some mine sites.

**Education and training programs**

The importance of education and training programs provided by mining companies is indicated...
by the qualifications of indigenous employees (table 7). Around half of indigenous employees at mine sites have attended or completed 1–4 years of secondary school, a further 12–13 per cent have only attended or completed primary school and 1 per cent have no formal education.

Mine sites near indigenous communities indicate the most important aspects of education and training programs used by indigenous people at the mine site are on the job training (4.1), mine familiarisation courses for new entrants to the industry (3.3), mentoring schemes (3.2), financial and/or other support to complete trade apprenticeship, technical or vocational education (3.1), and workplace literacy and numeracy courses (2.8).

### Indigenous development expenditure

Indigenous development expenditure by mine sites near indigenous communities is indicated in figure A. Of these mine sites, 40 per cent spent more than $50,000 on the development of local indigenous communities, with 16 per cent spending over $250,000.

Based on the survey results, total indigenous development expenditure by mine sites near indigenous communities was $12.6 million in 2001-02. These results represent an underestimate of actual expenditure since only around 57 per cent of these mine sites provided responses to this question. PricewaterhouseCoopers (2002) estimates that indigenous development expenditure relating to the minerals industry was $26 million in 2001-02, although it should be noted that the minerals industry excludes oil and gas but includes some mineral processing activities.

It should be further noted that there are other activities that are closely related to mining operations in Australia that are excluded from the survey but where there may be significant economic relationships with indigenous communities. For example, the survey excludes ports, railway and other transport infrastructure associated with the mining industry, offshore oil and gas facilities and nearby onshore operations such as the North West Shelf Venture, gas pipeline infrastructure and mineral processing not located at the mine site.

### Impediments to indigenous employment and related issues

In general, mine sites that were located close to discrete indigenous communities had a higher level of awareness of government programs that relate to indigenous employment and community issues, and tended to use those programs more than did other mine sites. Comments by survey

---

**Highest education level of full time indigenous employees at mine sites in Australia**

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Mine sites near indigenous communities</th>
<th>All mine sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed university, other tertiary</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Completed trade apprenticeship, technical, vocational</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Completed secondary school</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Attended or completed 1–4 years of secondary school</td>
<td>52</td>
<td>51</td>
</tr>
<tr>
<td>Attended or completed primary school</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>No formal education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

a Percentage distribution of indigenous employees according to the highest education level attained. b Survey results.
Survey respondents also provided comments on impediments, from the perspective of the mine sites, to employing more indigenous people. Several comments indicate that a number of mine sites have not experienced specific issues related to indigenous employment — for example, there are no impediments, impediments exist that are applicable to both indigenous and nonindigenous people, there is no or a very small local indigenous community from which to draw candidates, and there are no indigenous applicants.

However, several other comments indicate that there are very specific issues associated with increasing indigenous employment, and that these are most likely to be from mine sites that are located in remote areas near discrete indigenous communities — for example, lack of work fitness (including drug, alcohol and other health issues), low education levels (particularly low literacy and numeracy skill levels), inadequate skills and poor work experience, inconsistent and unreliable attendance at work (including lack of adjustment to a roster based work system, and failure to return to the mine site after work breaks) and, related to the previous points, no support network (including funding) to facilitate the transition phase into the work environment.

The major issues that mine managers indicated should be considered by government as part of the Working in Partnership Program reflect the broad nature of the identified impediments. Although some of the comments are beyond the scope of the specific program, all comments provide useful feedback to governments based on actual experience.

Some major issues identified by the mining industry are:

- development of, or increased funding for, community based programs and education and training programs that provide indigenous people with essential skills required for employment — such programs would aim to facilitate the transition of indigenous people to move into the paid work force;
- development of alcohol and drug education programs for indigenous communities and, more generally, increased funding for indigenous communities;
- development of initiatives to improve communication between industry and indigenous communities; and
- provision of better information on available government indigenous programs.

More detailed survey results, including information on the relatively extensive comments provided by mine managers, are provided in Tedesco, Fainstein and Hogan (2003).

ABARE appreciates the responses by mine managers who provided very useful information and comments, from a mining industry perspective, on indigenous employment, the economic relationship between mine sites and indigenous communities and policy issues. To complement this study, it would be useful at some stage in the future to undertake an economic research project to gain insights from the indigenous perspective.

References


