OVERVIEW

LEVEL OF OPERATION:
National; industry

GOVERNMENT ROLE:
Regulator, funder, program facilitator

LINK TO POLICY ADOPTED:

KEY COMMODITIES:
Coal (world leader), bauxite, alumina, iron ore, uranium, zinc, LNG

TOTAL NATURAL RESOURCE RENTS (AS % OF GDP) (2015):
4.8 per cent

NATIONAL EXTRACTIVES COMPANY:
N/A (although a number of large multinational mining firms are based in Australia, including BHP Billiton, Rio Tinto, Fortescue Metals Group and Newcrest Mining)

UNDP HUMAN DEVELOPMENT INDEX VALUE (2016):
0.939 (Global Rank 2)

DIRECT EMPLOYMENT IN MINING SECTOR (2016):
267,700 (2.3 per cent of total workforce)

Mining in Australia is a major driver of the country’s economy, adding more value per unit of labour than any other industry. Almost all mining jobs are full-time (95 per cent). Regional and remote areas of the country are particularly dependent on the employment opportunities generated by the industry, with up to 50 per cent of the workforce in...
some communities employed at mining sites. The industry is also the biggest private sector employer of Indigenous people, with more than 6 per cent of the workforce identifying as Aboriginal.

Local content provisions are defined at both the national and state level within Australia and are included in a number of Indigenous Land Use Agreements. All policies are based on the principle of “full, fair and reasonable” access to tendering and employment opportunities for Australian firms and individuals. There are, however, no standard local content targets mandated for the Australia’s mining industry. Rather, mining companies are required to prepare and implement an Australian Industry Participation (AIP) plan on how they will align procurement and employment practices with this principle, but targets are negotiated on a case-by-case basis. Contracts usually come with strict reporting requirements, which contributes to the country’s high levels of transparency and public accountability. The country’s “centrally-driven and cross-industry approach” to encouraging local content has led to a “high degree of national consistency and clear focus and defined goals.”

Educational initiatives

Programs at primary and secondary school help to broaden students’ knowledge of the mining industry and the available training pathways to access employment opportunities.

The Queensland Minerals and Energy Academy (QMEA) is the country’s largest partnership between industry and the education sector, overseen by the Queensland Resources Council and the Queensland Government. The organization works in collaboration with industry partners and schools across the state to build students’ and teachers’ understanding of the resources sector and support a talent pipeline of employees who are interested in pursuing extractives-related careers. A number of interactive workshops and practical training programs aimed at different age demographics allow students to engage with issues such as energy production, geology, mining engineering, and robotics and technological innovation. Some programs offer the opportunity for students to take “industry tours” by visiting prominent Queensland mining locations such as Mount Isa and Moranbah to engage directly with people working on those projects. A 4Girls2 program for female students showcases a number of women working in the industry, who talk to the students about their experiences and what they can do to start a career within the sector. Practical activities run in these forums are aligned to tertiary (university) and training (trade-related) pathways.

Interactive workshops and practical training programs are aimed at different age demographics.

The success of local content within the industry is arguably facilitated by a “nationally consistent approach to maximising Australian industry participation in investment projects.” Public–private partnerships, integration of policies across different levels of government, and strong links between industry, education and research sectors, contribute to an “enabling environment” that generates significant benefits for Australian communities.

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Other education initiatives designed to promote awareness of the mining industry as a career include:

- Mining Education Australia (MEA) a collaborative education venture between four prominent Australian universities that supports students in Mining Engineering.
- Mining Leaders Program run by the world-renowned Sustainable Mining Institute (SMI) to train technical specialists to take up management positions on mining sites.
- Oresome Resources: A suite of free educational resources and professional development programs to assist teachers in building students’ awareness of the minerals and energy sectors. This venture is supported by state Minerals Councils across the country.

Significant investment from the government as well as industry partners means that education programs are high quality and targeted to the needs of the domestic mining industry. With access to support at early and later stages of their education pathways, students are well equipped to take advantage of employment opportunities in the mining sector.

**WELL-CONNECTED INDUSTRY NETWORK AND CADRE OF PROFESSIONALS**

A well-connected industry network and cadre of mining professionals helps to maintain a fertile industry environment through strong channels of communication and information sharing. Mining Councils in various states keep up to date with global industry news, provide input to policy development, develop guidance for the domestic industry and host talks and networking events. A number of large multinational mining firms (such as Rio Tinto and BHP Billiton) have their headquarters within the country, which helps connect the domestic industry to the global sector. High-quality mining degrees are also offered at universities such as the University of Queensland and the University of Western Australia.

**POLICY ORIENTATION FOR, AND INVESTMENT INTO, THE DEVELOPMENT OF MINING EQUIPMENT, TECHNOLOGY AND SERVICES (METS)**

Australia’s mining production, research and innovation activities have been critical to the success of the industry and are described as an area of “international strength.” The links between organizations working in this area are seen to form a “dynamic minerals complex” that drives a number of successful partnerships for impact on the local industry. A report from the Minerals Council of Australia claims that “the rise of the METS sector has multiplied and diversified the benefits Australia derives from its natural resource endowment.” A report by Deloitte Access Economics has revealed that mining and METS activities support a total of 1.1 million jobs across Australia (10 per cent of total employment).

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11. Ibid.
As the knowledge required for the extractives industry becomes increasingly specialized, research and development (R&D) will become more important in order to adapt to changing industry conditions. In this sense, employment in the METS sector is an important preoccupation for the Australian government, and perhaps equally as important as promoting direct employment in mining operations.

A government-funded METS Growth Centre launched recently in Brisbane, Australia, and seeks to increase the efficiency and agility of METS to drive the competitiveness of the local resources sector. The Austmine’s Women in STEM: METS Career Pathway program works to build awareness in women studying science, maths and technology subjects in school of the possibility of careers opportunities in the METS sector.¹⁴

**KEY LESSONS**

- Creating an enabling environment of this nature requires collaboration between governments and educational institutions (such as QMEA), and is served by the active engagement of an informed state mining council.

- Building awareness of the industry in schools and other education institutions can spark early interest in the industry, and encourage students to see mining and its associated sectors as viable career paths.

- Early awareness programs are more likely to work effectively when reinforced by targeted support structures and clear tertiary/training-to-employment pathways.

- Integration of policies across different levels of government helps create consistency in responding to local challenges.

- METS activities can provide valuable support to the local extractives industry and generate additional, meaningful employment opportunities.

- This facilitative approach may not be as effective in less developed countries that are still building capacity in their governance and educational institutions. The approach requires high levels of existing communication, collaboration and institutional function to operate in the absence of regulation.


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