

THE AUSTRALIAN EXPERIENCE WITH RESOURCES, INFRASTRUCTURE CORRIDORS AND SUPPLY CHAINS

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SUMMARY

The North of Canada and the North of Australia are alike in many ways, except for climate. Both are resource-rich, but have underdeveloped infrastructure, small, scattered populations and high proportions of inhabitants who are Indigenous. The experiences of developing Australia's North hold lessons for Canada, and vice-versa. Lessons from development of iron ore mining and gas production in the Pilbara region of Western Australia, together with coal and gas development in the Central Queensland coalfields region, can be applied usefully to resources and infrastructure development in Canada's North and elsewhere.

This paper examines the development of supply chains to provide efficient transport and handling of mineral and energy products in the two Australian regions, as well as goods and services inputs to production. Approaches by governments and project developers and operators have changed over the 60 years of modern resources development in the two regions, in response to big increases in scale of production; the constant need to enhance efficiency; and opportunities to accommodate new industries and entrants.

A key conclusion is that had governments in the 1960s and 1970s understood the potential for the scales and patterns of activity to increase and change to what is experienced today, they likely would have made different decisions about policies for development and infrastructure. That said, the economies of both host states and the financial capacities of their governments were much smaller, limiting choices for government. Some decisions, however, limited future options and locked in supply chain inadequacies or economic inefficiencies. The lesson, therefore, is to take an options-based approach to infrastructure planning to allow for uncertainties about the future and to maximize future options and flexibility.

Efficiency of supply chains is imperative for export-oriented resources industries. Supply chains in the Pilbara and Queensland are at, or close to, leading practices in efficiency, but with Central Queensland coal chains lagging iron ore chains. Part of the reason is the trade-off between open-access rail systems that allow multiple producers to enter the market, and the inefficiencies that arise from rail being only loosely integrated with other separately operated components of the supply chain. In the Pilbara, the four privately owned rail systems are fully integrated into "pit to ship" supply chains operated by the producers, but this has acted to exclude other, smaller producers from gaining easy access to the rail systems. The fact that more integrated supply chains are being introduced

into coal production and transport in Central Queensland points to the benefits of closer control by producers of their supply chains. At the same time, new rail systems in the Pilbara operated by single producers are required to provide access to others, with government also requiring sharing of ship-loading terminals.

There is thus some convergence of the approaches to heavy-haul rail systems and terminals between the two regions.

Governments have key roles to play in resources regions through their control of land allocation and responsibilities and abilities for co-ordination. In both Central Queensland and the Pilbara, state governments have planned, created and expanded corridors and development areas to accommodate privately owned infrastructure such as railways, pipelines and handling and processing facilities such as product stockyards and LNG plants. In both states, governments have implemented different, but effective investment co-ordination and facilitation mechanisms.

While discussion in this paper focuses primarily on supply chains for transport of outputs and inputs for minerals and energy operations, another vital consideration is infrastructure for people, without which resources projects cannot be developed and operated. Considerations around social infrastructure can involve making policy and business decisions about whether operations are more feasibly serviced by local towns or by fly-in, fly-out workforces; ensuring towns in resources regions have adequate scale, infrastructure and services to attract and retain skilled people and their families to live there; and ensuring resources regions and their people can derive sustained benefits from development.