COLUMBIA BASIN RDI RURAL DEVELOPMENT INSTITUTE

Applied Research Brief

Industrial Clusters and the Columbia Basin-Boundary Region

A Mining and Metallurgy Sector Case-Study

Principle Researcher(s) & Affiliations

Jonathan Buttle, M.A.

Research Field

Industrial Organization
Economic Development

Student Involvement

N/A

Partners & Collaborators

Lower Columbia Community Development Team Society (LCCDTS) Metallurgical Committee
Kootenay Association for Science & Technology (KAST)

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Introduction

Interest in industrial “clusters” has grown under the realization that productivity and innovation seem to blossom in an environment where multiple interests operating within the same sector are arranged in a geographically condensed area. Promotion of industrial clustering has resulted in productivity booms and general improvements in economic conditions for the hosts. Prominent examples of strong clusters include: California’s Silicon Valley, the Swiss banking system, and the Japanese electronics cluster (Porter, 1990).

The Columbia Basin Rural Development Institute (RDI), together with the Lower Columbia Community Development Team Society (LCCDTS) Metallurgical Committee commissioned a "cluster" focused literature review / case study. The purpose of the paper is to summarize the pertinent industrial cluster literature and to consider the “cluster” conditions as they apply to the Mining and Metallurgy sector in the Columbia Basin-Boundary region.

Methods

The literature review was conducted by scanning peer-reviewed journals, industry and government publications and through discussions with the LCCDTS Metallurgical Committee membership.

Results

The Basin-Boundary region has been recognized as a “cluster” by the Mining Association of Canada. The Basin-Boundary region’s Mining and Metallurgical sector constitutes a high concentration of activity and a significant component of the region’s economy. The “Diamond Conditions” (as defined by Michael Porter's seminal work on industrial clusters) affecting the Mining and Metallurgical sector in the Basin-Boundary region are weakly favourable. It is recommended that the regional interests pursue policies to strengthen these conditions and leverage the region’s advantages where possible.

Discussion

The line of clusters research shows linkages between labour markets, supply chain gaps, industrial networks and improvements in productivity, wages and economic growth. The framework of cluster analysis provides a good structure to examine the inter-connections of these elements of the region's economy. While there are few industrial concentrations in the Basin-Boundary that are on the verge of 'cluster' status, all of the concepts are applicable to the development of any sector.

The LCCDTS Metallurgical Committee is planning a suite of activities and projects aimed at enhancing the various elements of the cluster conditions, including: labour market development, business incubation, development of an applied research centre, network analysis and enhancement activities and supply chain analysis.

STRUCTURED ABSTRACT

Practical Applications
This line of research can be applied to any sector in any jurisdiction; the concepts are universal. Any industrial sector can be analysed through the lens of cluster conditions. Understanding these conditions as they exist in any sector, point to areas of potential improvement for the sector, generally, and all of its stakeholders. Analysis of cluster conditions may point to efforts in:

- Improving infrastructure (physical, social, scientific and political)
- Expanding education opportunities (basic and specific skills)
- Developing increasingly sophisticated relationships with downstream clients
- Developing increasingly sophisticated relationships with upstream suppliers
- Searching for collaborative opportunities (between ANY stakeholders)
- Creating conditions to promote healthy competition and technological advance

PUBLICATIONS/PRESENTATIONS/REPORTS

PUBLICATIONS AND REPORTS:
Industrial Clusters and the Columbia Basin-Boundary Region: A Mining and Metallurgy Sector Case Study

PAST PRESENTATIONS AND INFORMATION SHARING EVENTS
LCCDTS Metallurgical Committee
Lower Columbia Initiatives Corporation (LCIC)

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301 Frank Beinder Way, Castlegar, BC V1L 4L3 Canada
1.888.953.1133 cbrdi@selkirk.ca www.cbrdi.ca
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