

THE ROLE OF NATURAL RESOURCES IN BRITISH COLUMBIA'S ECONOMY

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THIS ESSAY QUANTIFIES THE IMPORTANT ROLE natural resources play in British Columbia's economy. It looks at their impact on both Gross Domestic Product (GDP) and employment. In addition, it examines the connection between natural resources and other industries via the purchase of inputs, and also the effects of primary industry wages with regard to spending on goods and services.

Under the title 'natural resources' fall all primary industries (agriculture, forestry, fishing, and mining) plus utilities (mostly electricity), pipelines, and any manufacturing using natural resources as a significant share of inputs. According to Statistics Canada's Input/Output tables, these manufacturers include food, wood, paper, petroleum refining, chemicals, non-metallic minerals, and primary metals. (See Cross, 2015, for more on the methodology of defining natural resources.)

In nominal terms, natural resources contributed \$31.6 billion of the total value of British Columbia's GDP in 2019 (table 1). (Data are available for 2020 but the results are distorted by the COVID pandemic.) This places them among the largest sectors in the province, along with government and housing. Within natural resources, the largest industry contribution comes from resource-based manufacturers at \$9.1 billion, representing just over half (51.5%) of all manufacturing in British Columbia. Mining's GDP share is the same at \$9.1 billion, split between metal mines and the oil and gas sector. Agriculture, forestry, and fishing account for \$6.5 billion, followed by utilities at \$5.9 billion and pipelines at \$1.0 billion.

By any measure, natural resources make a significant contribution to British Columbia's economy. The \$31.6 billion of GDP from natural resources compares with \$25.4 billion from all construction; \$19.8 billion from professional, scientific, and technical services; \$16.1 billion from transportation (outside of pipelines); and it dwarfs the \$9.6 billion in accommodation and food, \$9.3 billion in information and culture, and \$2.9 billion from arts, entertainment, and recreation.

Production of natural resources in British Columbia has risen steadily over time. The current dollar value of natural resource output rose from \$19.7 billion in 1999 to \$23.4 billion in 2009 and \$31.6 billion in 2019, an expansion of 60.4 percent over two decades. Growth was led by mining, reflecting the development of natural gas fields in Northeastern British Columbia. Other industries posting rapid growth included utilities, primary metals, pipeline transport, and petroleum refining—all at least doubling in size since 1999. Overall growth in the resource sector was tempered by smaller gains in forestry, partly due to the devastating impact of the pine beetle infestation. Consequently, there were declines of 54 percent in the manufacture of lumber and 22 percent for paper products.

Table 1 GDP in British Columbia Resource-based Industries, 2019, millions of dollars*

Total GDP	\$286,182	Share of GDP
Total Resource-based GDP	\$31,611	11.0%
Agriculture, forestry, fishing	\$6,477	2.3%
Mining	\$9,108*	3.2%
*\$3,944 oil and gas (including services) \$5,164 other mining		
Utilities	\$5,850	2.0%
Manufacturing of:		
• food	\$2,123	0.7%
• wood	\$2,065	0.7%
• paper	\$1,200	0.4%
• petroleum	\$1,078	0.4%
• chemicals	\$817	0.3%
• non-metallic minerals	\$847	0.3%
• primary metals	\$1,003	0.4%
Pipeline transport	\$1,043	0.4%

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The share of British Columbia's GDP held by natural resources has decreased over the past two decades, mostly due to the explosive growth in the dollar value of residential housing construction and related transactions. Natural resource production directly accounted for 17.2 percent of the province's GDP in 1999, 12.8 percent in 2009, and 11.1 percent in 2019. Meanwhile, the value of residential construction and real estate (including owner-occupied housing) tripled between 1999 and 2019. This rapid growth raised housing's share of GDP from 17.2 percent to 21.1 percent, curtailing the share of almost all other industries.¹

Statistics Canada calculates that each dollar of GDP from British Columbia's resource sector has a multiplier effect of 0.93 on the rest of the economy.² This multiplier effect reflects the way British Columbia's resource industries purchase inputs from each other and non-resource industries like business services and transportation. Higher mining output, for example, requires more power from utilities. Additionally, this effect reflects the indirect impact of higher wages and salaries on consumer spending.

It is noteworthy that the multiplier effect from resource production in British Columbia has increased over time. The multiplier of 0.93 for 2019 is up from its value of 0.85 in 2014. This increase likely reflects increased specialization within firms in their core competencies, especially in industries such as natural gas where prices remained low. Furthermore, labour shortages likely led some firms to increase outsourcing to other companies in the province or across Canada.

Natural resources accounted for 5.8 percent of jobs in British Columbia in September 2023 (see table 2). This is lower than its share of GDP because of the capital-intensive nature of resource extraction—especially in mining, manufacturing, and pipelines—once the infrastructure is constructed.³ Natural resource jobs are about evenly-split between the primary sector and manufacturing. Agriculture and mining dominate employment in the primary sector, while food and lumber processing account for over half of all resource-based manufacturing jobs. Indeed, forestry and lumber mill jobs used to be more plentiful before the pine beetle infestation. Conversely, natural gas led the expansion of mining employment in recent years, along with solid growth in metal mining.

The role of natural resources in BC's economy will increase significantly as soon as work nears completion on two major resource projects. The first is the imminent start-up of the Trans Mountain pipeline, which will double the capacity of oil exports passing through the port of Vancouver. The second is the long-delayed completion of the massive LNG Canada investment in exporting liquified natural gas (LNG).⁴ This involves liquifying natural gas sourced from Northeastern British Columbia at an export terminal in Kitimat for shipment to export markets abroad. On top of the increase in export volumes of both oil and gas, these projects will help Canada secure higher prices for these commodities than are currently being paid in the US Midwest. ❖

Table 2 Employment in British Columbia Resource-based Industries, September 2023 (000s)

Total Employment	2,605,204
Total Resource-based GDP	151,768
Agriculture	25,200
Forestry, fishing and trapping	15,853
Mining	25,477
Utilities	12,154
Manufacturing of:	
• food	28,069
• wood	22,410
• paper	5,639
• petroleum	599
• chemicals	7,590
• non-metallic minerals	6,148
• primary metals	2,629
Pipeline transport	Not available