



Economic Contributions of the Seafood Sector in Prince Edward Island

Department of Fisheries
and Communities

2021

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Executive Summary

Executive Summary

Ernst & Young LLP (“EY”) has been engaged by the Prince Edward Island (“PEI”) Marine Science Organization to perform an economic contribution analysis of the PEI seafood industry. The outcome of the report is an estimation of the economic footprint of the seafood industry in the province while also highlighting challenges and opportunities faced by the seafood sector as described by stakeholders engaged.

The PEI seafood sector, which is comprised of aquaculture, commercial fisheries and processing plants, contributes **\$495M/\$377M** in GDP to the national/provincial economies

Key statistics*

Mussels	Oysters	Lobsters
<ul style="list-style-type: none"> In 2019, nearly 45M pounds were produced;¹ 77% of aquaculture production in PEI comes from mussel activity². 	<ul style="list-style-type: none"> In 2019, over 10M pounds were produced;³ PEI contributed 31.7% of the total national economic value from oysters.⁴ 	<ul style="list-style-type: none"> In 2019, over 42M pounds were harvested;⁵ 72% of exports are bound for the United States.⁶

*While the report highlighted the three main production species, economic contributions are calculated for all seafood production and species.

Economic Contribution	Output	GDP	Wages	Jobs	Taxes
National	\$1.20 billion	\$495 million	\$214 million	4,849	\$32 million
Provincial	\$938 million	\$377 million	\$151 million	3,708	\$21 million
Other Provinces	\$262 million	\$118 million	\$63 million	1,141	\$11 million

*Output is defined as the value of all sales of goods and services

Challenges

Lack of integration within supply chains

Retention of workers of all types

Domestic market saturation

Distance to international Asian markets

Opportunities

Data Collection and Analytics

Developing a centralized sector specific database can support the seafood sector implement data analytics to help facilitate strategic business decisions

Repurposed By-Products

Repurposing seafood waste can maximize the economic benefits derived from the value chain.

Technology

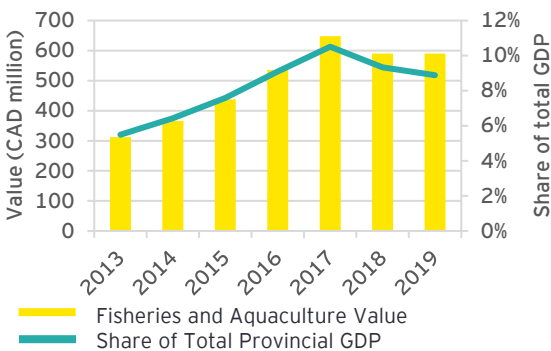
Small business subsidies & grants to support cutting edge research into new aquaculture & fishery techniques can improve margins to enter new markets

Seafood Sector at a Glance

Overview of PEI Seafood Sector

The PEI seafood sector is comprised of the commercial fishery, aquaculture, and processing sectors, and is of major importance to the Prince Edward Island ("PEI") economy. Nestled in the rich fishing grounds of the Gulf of St. Lawrence, PEI is known for producing some of the best seafood in the world.⁷ Most of the seafood produced in PEI is marketed within Canada or exported to international markets, generating millions of dollars of revenue for the province. With a significant number of harbours scattered around the PEI coastline, shelter and services are provided for fishing fleet, including modern vessel-berthing areas, bait and equipment facilities, repair shops and modern plants that process the catch and provide cold storage. The clean, food-abundant waters ensure high shellfish productivity in PEI's bays and estuaries, and innovative technologies partnered with a long history in fish rearing has led to a small, but significant land based finfish production.

PEI Seafood Sector^{8,9}



Canadian Contribution

18% of Canadian aquaculture production¹⁰



Output

117 million lbs in total landings in PEI¹¹



Employment

8,000 people employed in peak season in PEI¹²



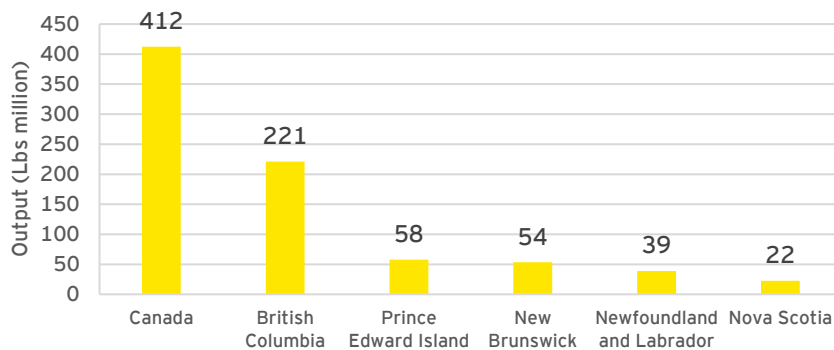
Fisheries

3% of Canada's fisheries production¹³

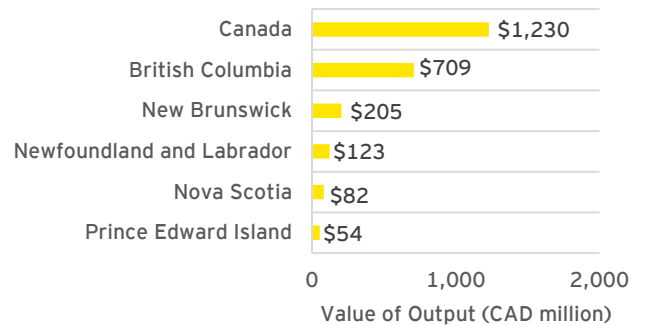
PEI Aquaculture Sector's National Competitive Positioning

In 2019, PEI's contribution to aquaculture production (by weight) was second in Canada, and fifth by value due to the different species harvested and their relative values.¹⁴

Aquaculture Production by Weight (2019)¹⁵

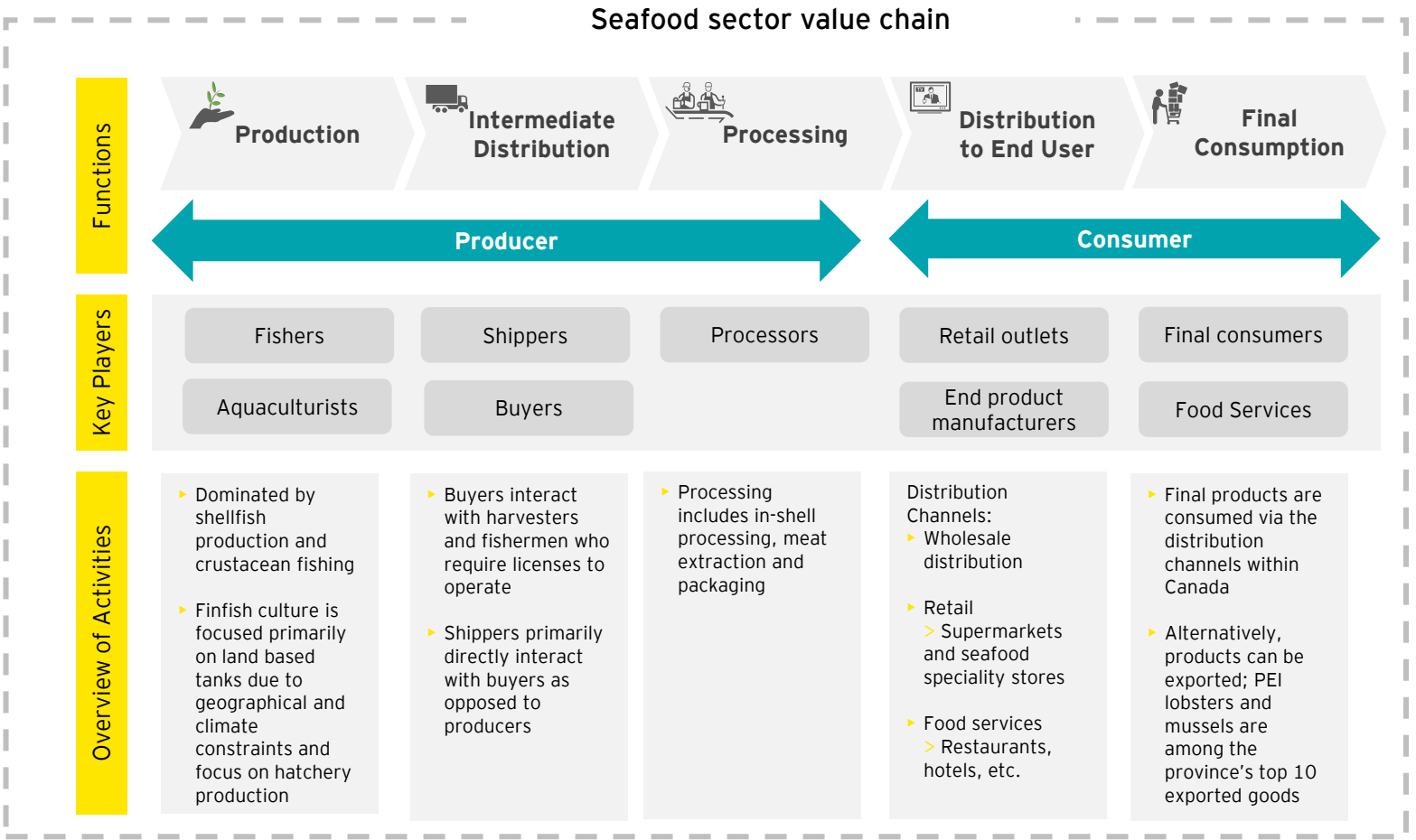


Aquaculture Production by Value (2019)¹⁶



PEI Seafood Sector Value Chain

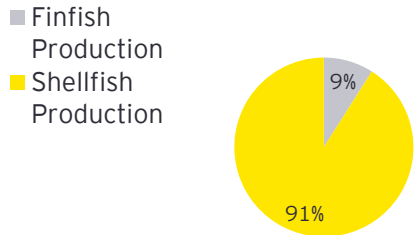
PEI seafood sector value chain consists of production, intermediate distribution, processing, distribution, and final consumption in domestic and international markets.



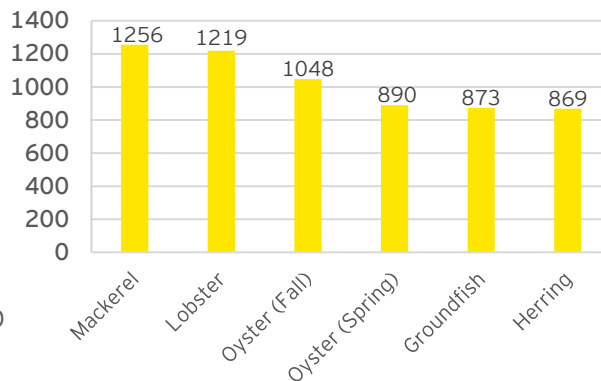
Selected statistics representing key facts from various steps in the value chain are summarized below.

Key statistics

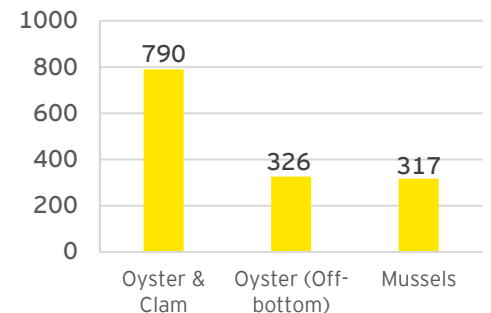
Aquaculture Production Value PEI (2018)¹⁷



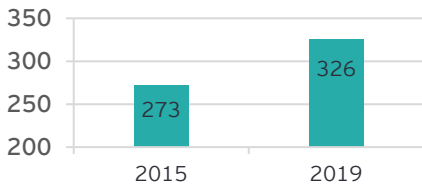
PEI Licenses¹⁹



PEI Lease Holders²⁰



PEI's Seafood Export Value (CAD million)¹⁸

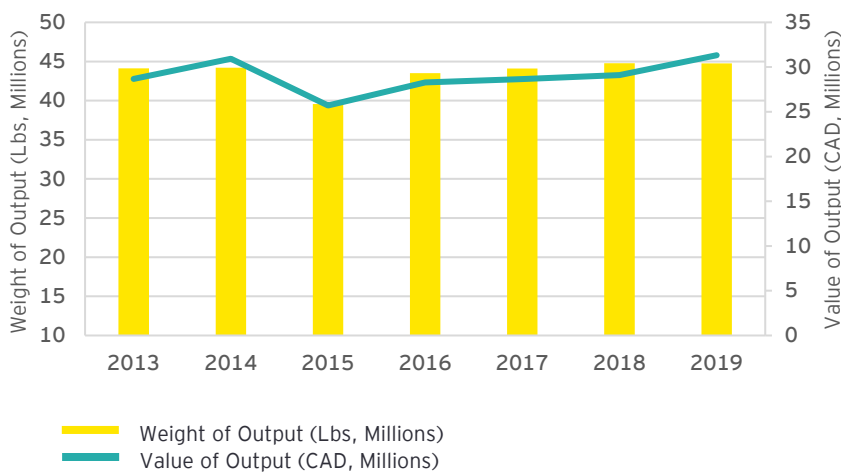


The PEI fisheries sector is composed of multi-species license holders, who opt in or out of a fishery depending on various factors, including market conditions and catch rates. It is difficult to capture the true number of active fishers. For instance, there are more than 1,900 oyster fishing licenses, but typically less than 500 are active per year.²¹

3.1 Mussels in PEI

Accounting for nearly 80% of Canadian mussel production and farming on 11,000 surface acres²², PEI is Canada's top producer²³ and exporter²⁴ of mussels.

PEI Mussel Production and Value²⁵



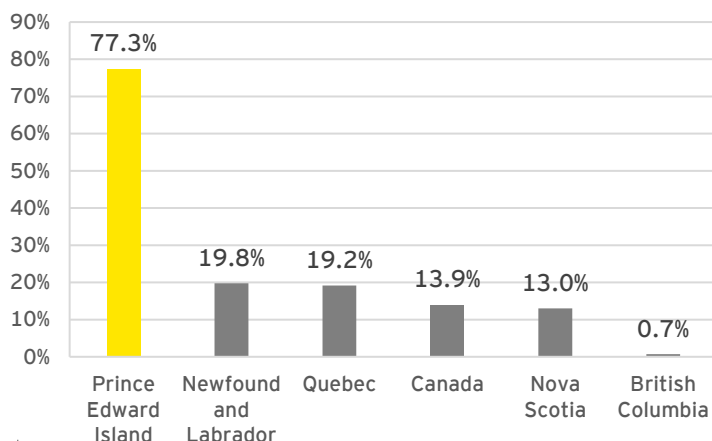
In 2019, the total value of output that Canada realized from mussel aquaculture activities is over \$43 million from approximately 58 million pounds of production. PEI contributions towards these metrics was 72% and 76%, respectively. The next biggest producer of mussels in Canada is Newfoundland and Labrador. In 2019, it produced approximately 7.7 million pounds of output.²⁶

Comparing PEI's Mussel Production Across Canada

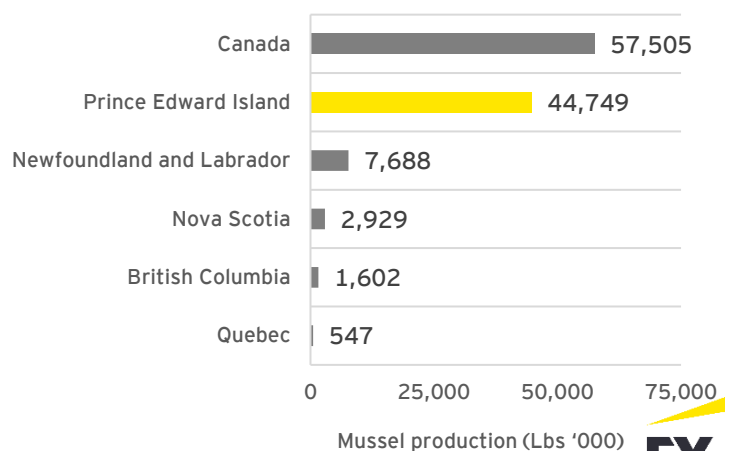
77% of PEI's aquaculture related output is a result of mussel farming. This is significantly higher than any other mussel farming province in the country, and demonstrates the importance of this sector in PEI's aquaculture activities.

PEI is Canada's top producer of mussels. On a population adjusted basis, PEI produces nearly 280 pounds of product per person. This is nearly 20 times higher than the next most efficient province, Newfoundland.

Mussel Production's Share of Total Aquaculture Production [2019]²⁷



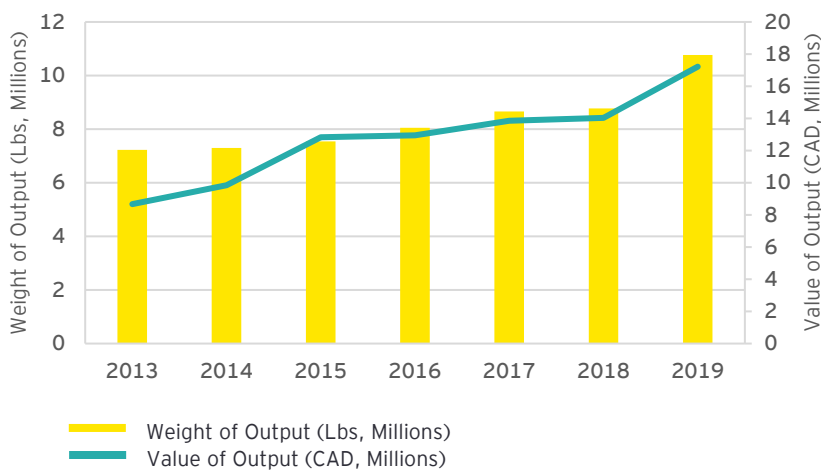
Mussel Production by Jurisdiction [2019]²⁸



3.2 Oysters in PEI

Comprised of both the wild oyster fishery and aquaculture farming, oysters are the second most valued shellfish species in PEI.²⁹ PEI is the leading oyster producer in Eastern Canada as it is responsible for approximately 70% of total output.³⁰

PEI Oyster Production and Values³¹



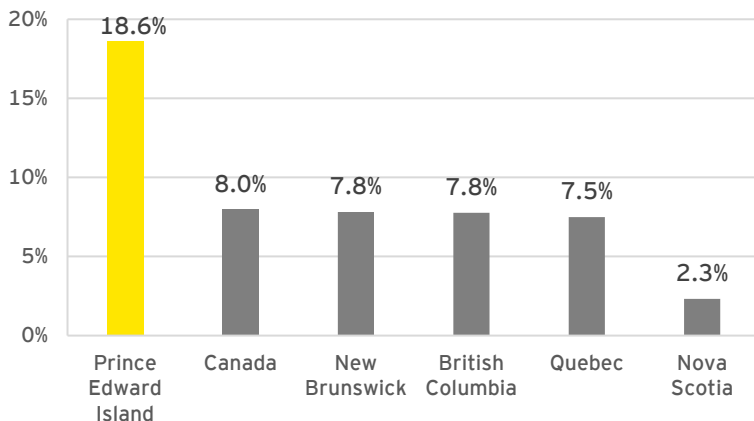
In 2019, 31.7% of the national economic value of oysters (\$54.24 million) came from PEI. This makes it one of Canada's most important oyster producers in dollar terms despite being the second biggest producer in quantity produced, behind only British Columbia. Notably, New Brunswick is the third largest producer of oysters in Canada with 4.18 million pounds produced that translated to 31.6% of the national economic value.³²

Comparing PEI's Oyster Production Across Canada

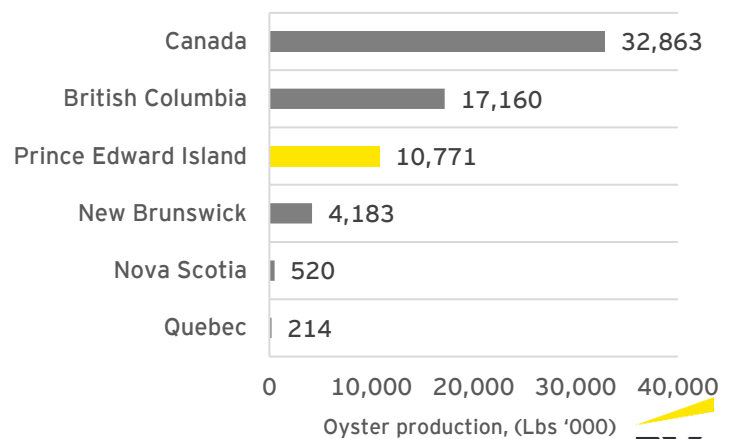
A significant portion of PEI's aquaculture output comes from oyster production. PEI's oyster activities contributes twice as much towards total aquaculture output than it does on an aggregated level across Canada.

While PEI stands in second place, after British Columbia (BC), in terms of oyster production in Canada, on a population adjusted basis, PEI's oyster production amounts to about 68 lbs per person, which is 20 times greater than that of BC.

Oyster Production's Share of Total Aquaculture Production [2019]³³



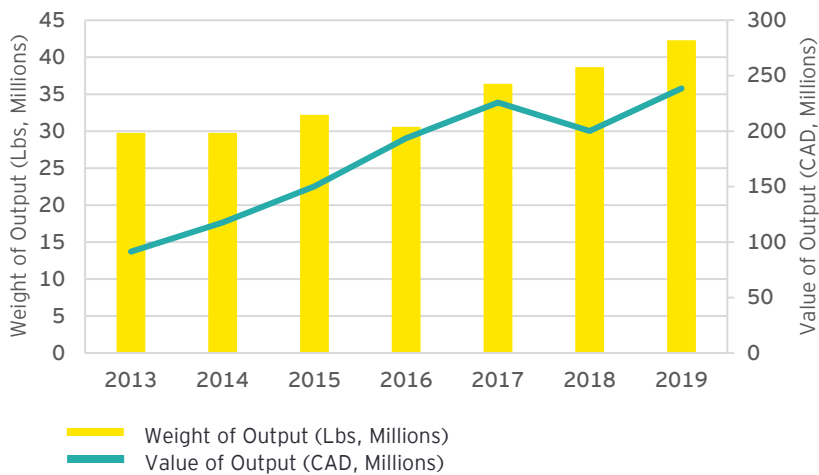
Oyster Production by Jurisdiction [2019]³⁴



3.3 Lobsters in PEI

Between 2015 - 2019, the lobster industry in Canada grew by a compound average rate of 6.2%.³⁵ Last year, it grew by 16.5% which can be partially attributed to the trade-war between the U.S and China.³⁶

PEI Lobster Production and Value³⁷

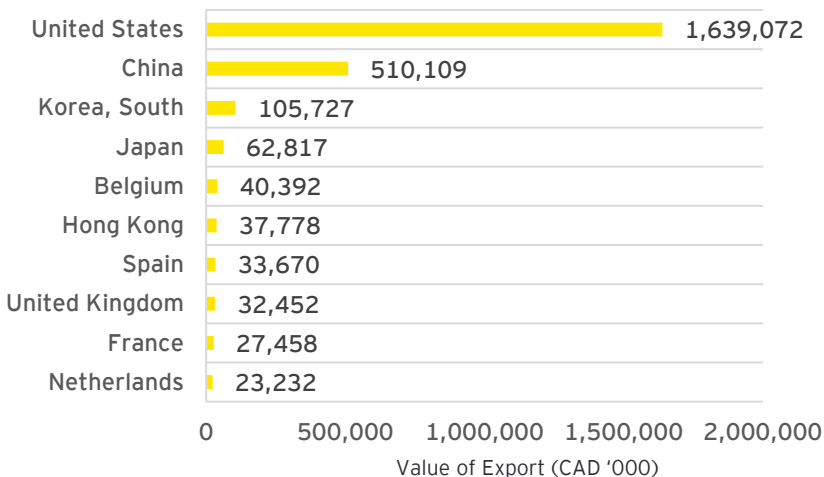


The lobster industry in PEI has grown at a similar rate as the national industry. Between 2015 - 2019, the compound average growth rate was approximately **5.6%**.




Comparing PEI's Lobster Activities Nationally

While the most important export market for PEI is the United States, China is quickly emerging as a top destination as favourable exchange rates drive up demand for Canadian lobster in Asian countries.³⁸

Canada's Top Lobster Export Destinations [2019]³⁹



PEI's contribution to Canada's lobster exports is small compared to neighboring provinces⁴⁰:

-  Nova Scotia - 45.9%
-  New Brunswick - 37.1%
-  Prince Edward Island - 9.2%

In 2019, PEI exported \$238M worth of lobster, of which 72% was exported to the United States.⁴¹

4 Seafood Sector Economic Contribution

4.1 Methodology Overview

Approach and Methodology

Direct contributions:
This refers to the contributions of seafood sector supported through sectoral spending on suppliers of inputs, such as baits and equipment and manufacturers/fabricators and labour force required to produce seafood products.

Indirect Contributions :
Seafood sector spending on its suppliers lead to additional level of economic activity. Indirect contributions are those supported by spending of suppliers of seafood sector on their own inputs.

Induced Contributions:
Wages and salaries obtained through direct and indirect involvement in the seafood sector will be partially spent on domestic consumption, e.g., food & beverage and banking services resulting in further economic activity.

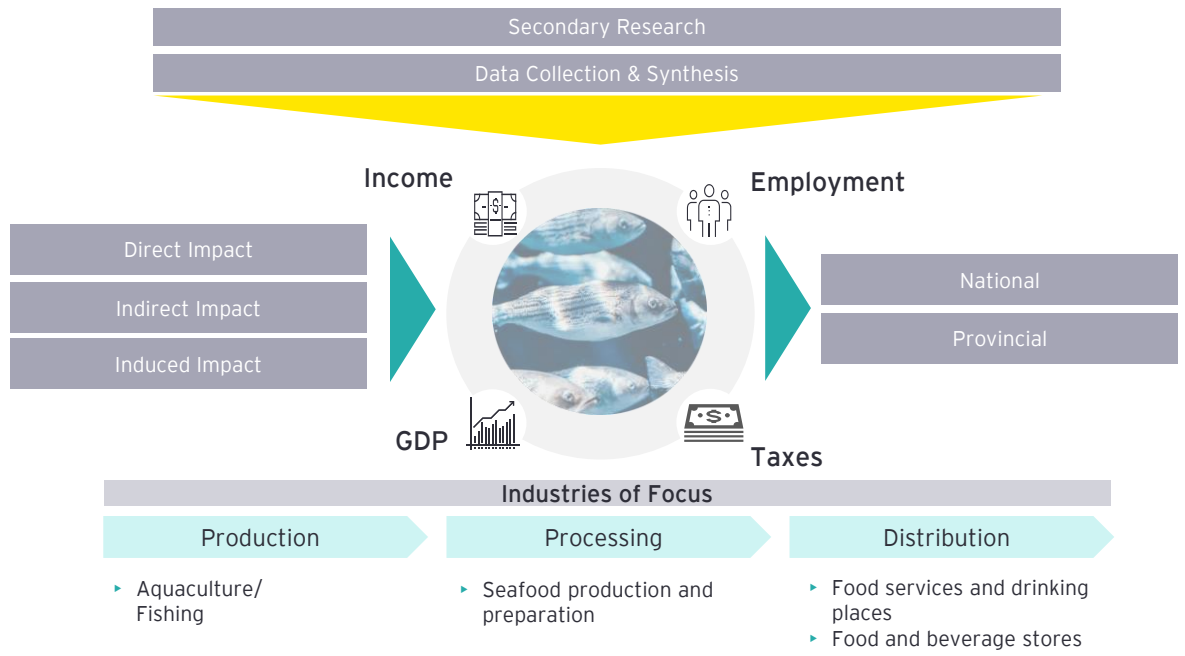
GDP
Measure of all final goods and services produced in a specific region

Wages or Labour Income
Measures total employee compensation and proprietor income

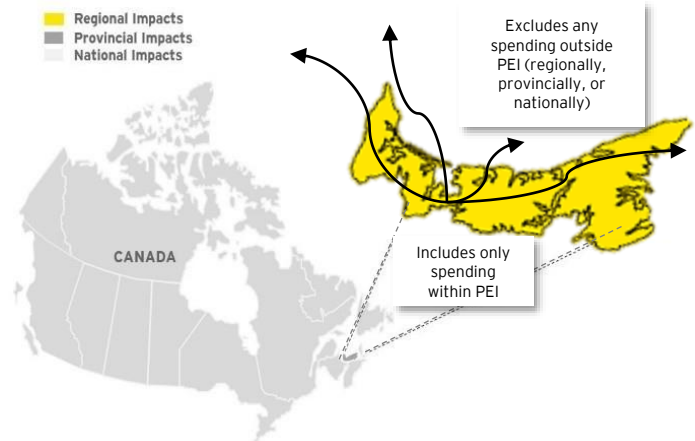
Full-time equivalent employment
Used to convert employee jobs to full-time equivalence based on average full-time hours worked

Taxes
Includes federal, provincial, municipal taxes (taxes on product and production)

EY performed an economic contribution assessment (“ECA”) for the seafood sector in PEI using inputs from Statistics Canada data sources combined with EY proprietary economic model tools. In this analysis, EY calculated the economic contributions of PEI’s seafood sector on provincial and national GDP, wages, employment and taxes by industries engaged across the value chain.



The contributions of PEI’s seafood sector grew beyond provincial borders and support Canada’s economy through supplying inputs from other regions and contributing to employment at the national level.



4.2 Economic Contribution Results













Overview of Economic Contributions

Organizations and businesses within the industry, as well as public and private sector investments in the sector, support the provincial and national economy through contributions to GDP, labour income, jobs, and taxes. The figure below displays a summary of the aggregate economic contributions at direct, indirect, and induced levels.

On both provincial and national level, the direct, indirect, and induced impacts were assessed across the industries in the seafood value chain, including aquaculture, fishing, hunting, and trapping, seafood product preparation and packaging, retail, and food services. Economic activity in these sectors generates tax revenues for municipal, provincial, and national governments which has also been estimated in this study.

The results suggest that the industry’s activities annually contributed **\$495 million** in gross domestic product, **\$214 million** labour income, sustained **4,849 FTE jobs** and generated **\$32 million** in tax revenue at the national level. At the provincial level, the industry contributed to an annual **\$377 million** in gross domestic product, **\$151 million** labour income, sustained **3,708 FTE jobs** and generated **\$21 million** in tax revenue.

Total Economic Contributions of the PEI Seafood Industry

	GDP	Labour Income	Jobs	Taxes
National	 <p>GDP \$495 m (\$ 235 m/194 m/65 m)</p>	 <p>Wages \$214 m (\$ 97 m/88 m/\$29 m)</p>	 <p>FTEs 4849 (2434/1765/650)</p>	 <p>Taxes \$32 m</p>
Provincial	 <p>GDP \$377 m (\$ 235 m/115 m/27 m)</p>	 <p>Wages \$151 m (\$ 97 m/43 m/\$16 m)</p>	 <p>FTEs 3708 (2434/997/277)</p>	 <p>Taxes \$21 m</p>
Other Provinces	 <p>GDP \$118 m (\$0 m/79 m/38 m)</p>	 <p>Wages \$63 m (\$ 0 m/45 m/\$13 m)</p>	 <p>FTEs 1141 (2434/768/373)</p>	 <p>Taxes \$11 m</p>

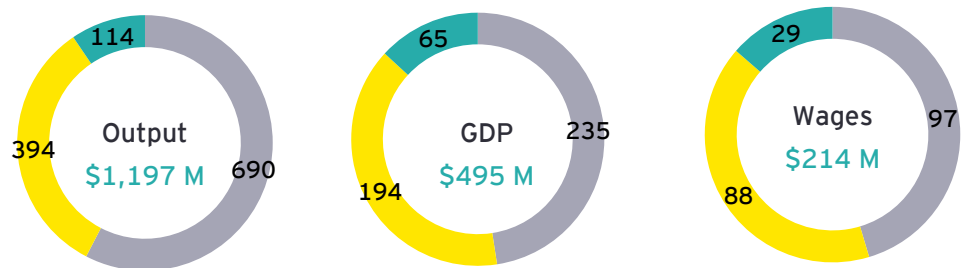
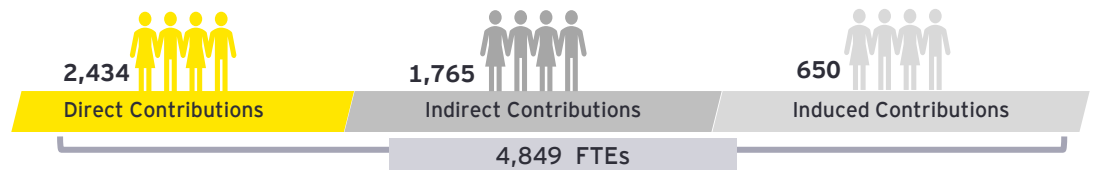
Figures show aggregate contributions to the respective economy, including direct, indirect, and induced based on 2020 CAD. Figures in parentheses show the breakdown of contributions by direct, indirect and induced levels. National figures include impacts on PEI’s economy and the rest of Canada.

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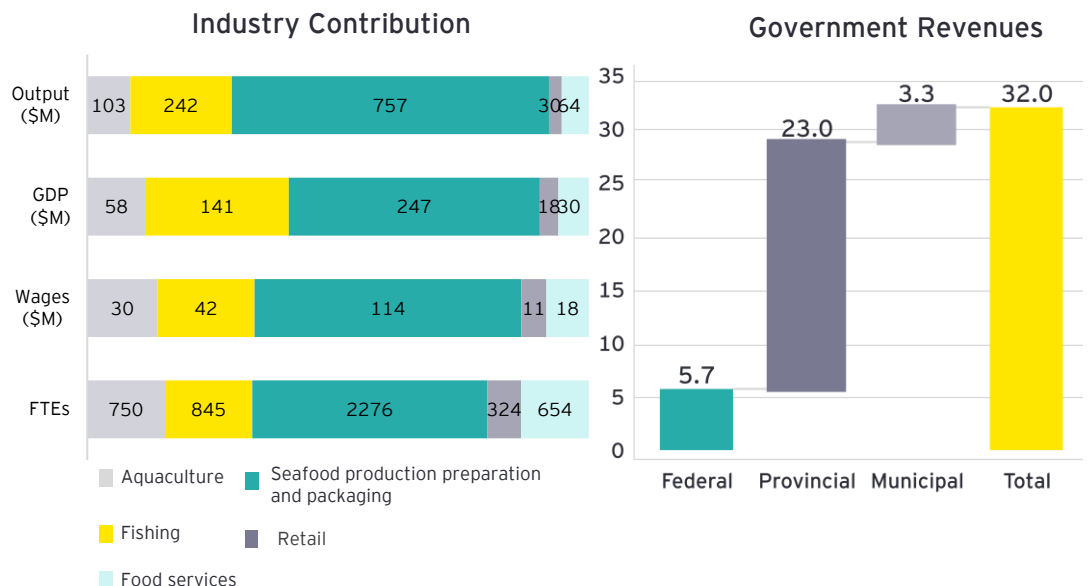
The PEI seafood sector annually supports Canada's economy by contributing \$1.20 billion in output, \$495 million in GDP, \$214 million in wages, \$32 million in taxes, and sustains 4,849 jobs. Moreover, the aquaculture (\$58M), commercial fishery (\$141M) and processing (\$247M) sectors contribute \$446M in GDP

Seafood Sector Economic Contribution to Canada's Economy

- ▶ Economic activity in PEI's seafood sector generates contributions across a range of sectors not only in PEI but also in other provinces.
- ▶ To estimate direct seafood industry output, a variety of data was used, including statistics and information on labour productivity, and labour cost expenditures, among others.
- ▶ Given the industry linkages with sectors outside of PEI, there are certain leakages from the province into the national economy.
- ▶ The national contributions account for the value of these leakages occurred throughout the supply chain due to PEI imports from other provinces.



Legend: Direct (Grey), Indirect (Yellow), Induced (Teal)

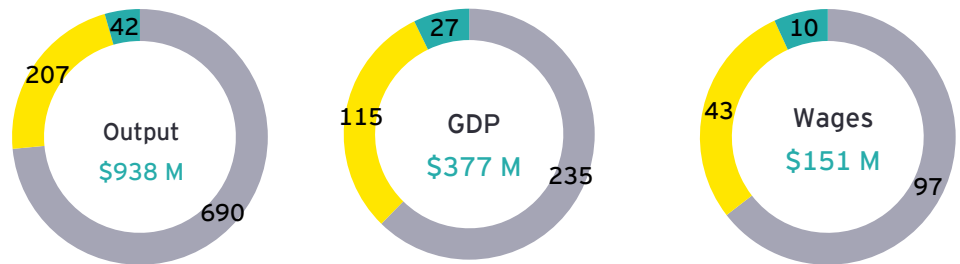
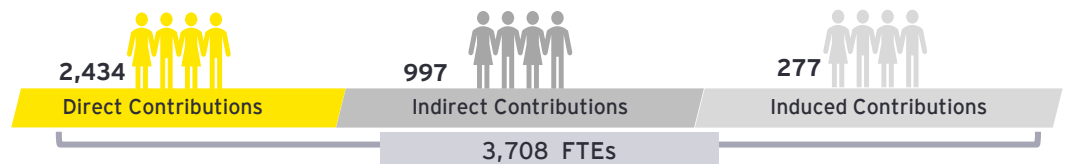


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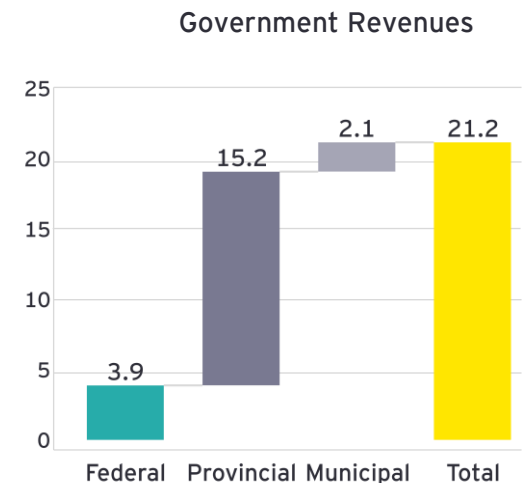
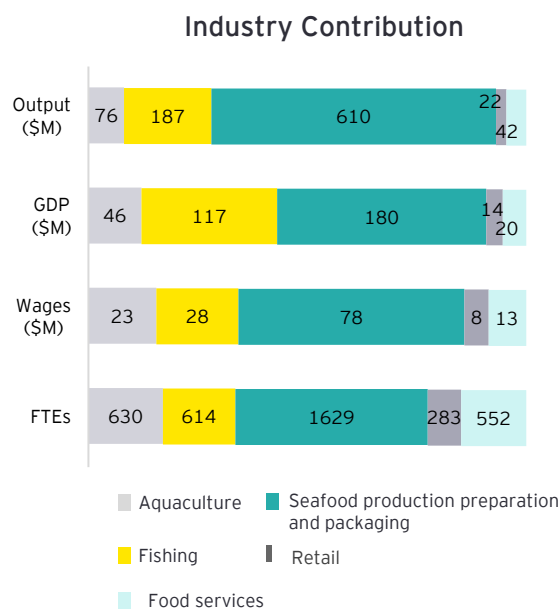
The PEI seafood sector annually supports the provincial economy by contributing \$938 million in output, \$377 million in GDP, \$151 million in wages, \$21 million in taxes, and sustains 3,708 jobs. Moreover, the aquaculture (\$46M), commercial fishery (\$117M) and processing (\$180M) sectors contribute \$343M in GDP.

Seafood Sector Economic Contribution to PEI's Economy

- ▶ The results presented are the estimated economic contributions that are expected to remain in PEI and do not include the leakages of activity from PEI to the rest of the country.
- ▶ The economic benefits at the provincial level are derived by direct activity in the sector, as well as through the supply chain impacts by the industry inter-linkages.
- ▶ Economic contributions are supported by activity in a ranges of sub-sectors in the seafood value chain; fishers gather raw inputs for seafood harvest, preparation, and packaging while aquaculture operators utilize local fabricators and supplies for farming infrastructure inputs prior to harvest/maintenance of product going to processors; and the final product



Legend: Direct (Grey), Indirect (Yellow), Induced (Teal)



Looking Ahead

5.1 Challenges & Opportunities

Several interviews were conducted with various stakeholders representing the lobster, oyster and mussel, industries to gain insights on the challenges and opportunities for the sector.

Challenges & Opportunities

Turning challenges into opportunities

Lack of integration within supply chains

Retention of all types of labour

Domestic (within Canada) market saturation

Distance to international Asian markets

Challenges

Data Analytics

The compilation and dissemination of industry and supply chain insights derived from descriptive statistics, predictive analytics, and data mining can be used to better inform strategic business decisions and for forecasting future requirements.

Repurposed By-Products

Canada could adopt similar strategies as the EU where the waste would be repurposed for use as additives.

Technology

Grants to support small business owners undertake investments in cutting edge technology and subsidies for researchers to develop new techniques is necessary to continue to gain the upper hand globally. The EU, for example, is funding aquaculture related research projects to improve transportation and storage of mussels. In addition, automation can improve margins and reduce reliance on labour, alleviating pressures as a result of retention challenges.

Opportunities

1



Data Analytics

Informed investment decisions
Predicting, planning, and reacting

2



Repurposed By-products

Maximizing economic benefits
Realizing cross-industry synergies

3



Export Supports

Increasing customer base
Developing industries

4



Technology

Increasing output
Decreasing costs/reliance on worker

5.2 Takeaways

Seafood Sector: Current State

PEI Seafood Sector: How Things Stack Up



Overview

- ▶ The seafood sector contributed \$590M towards PEI's GDP in 2019, up 89% since 2013
- ▶ PEI is Canada's second largest aquaculture producer by weight



Product Portfolio

- ▶ 121 million pounds of product was produced in 2019 translating into \$349M of value
- ▶ Across the seafood sector lobster and mussels accounted for 35% and 37%, respectively, of total output.



Economic Contribution

- ▶ Nationally, contributions include \$1.20B in output, \$495M in GDP, \$214M in wages, \$32M in taxes, and 4,849 jobs
- ▶ Provincially, it contributes \$938M in output, \$377M in GDP, \$151M in wages, \$21M in taxes, and 3,708 jobs.



Challenges

Some challenges faced by the sector relate to:

1. Supply chain integration
2. Retention of temporary foreign workers
3. Domestic (within Canada) market saturation
4. Distance to international Asian markets

Seafood Sector: Future State

To ensure sustainable growth into the future, the seafood sector can look towards investing in new opportunities. These include initiatives such as the introduction of data analytics, by-product repurposing, export market development, and the adoption of new technologies.

PEI Seafood Sector: Vision for the Future

More informed and integrated stakeholders

- ▶ Collecting and disseminating key data points to producers, including data relating to climate change.

Maximum economic value extracted from the industry

- ▶ By-product repurposing to turn waste into economic benefit
- ▶ Marketing initiatives to develop customer base, both within Canada and outside (i.e. Asia)

New solutions to solve common challenges

- ▶ Automation and other emerging technologies to reduce reliance on labour
- ▶ Storage facilities to smooth out production and shipping logistics

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Appendix

Economic Contributions
of the Seafood Sector
in Prince Edward Island

Appendix 1 - Economic Contribution Assessment Methodology

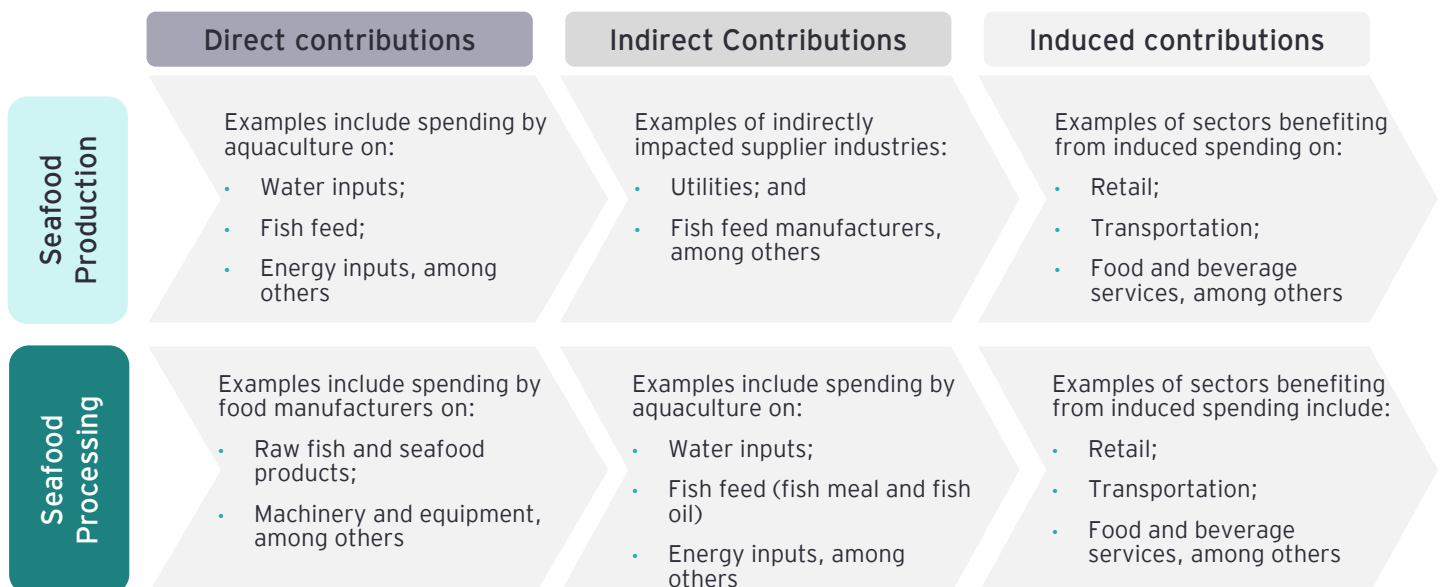
Economic contributions were assessed for the Seafood sector. Economic contributions were estimated across four economic indicators (GDP, wages, taxes, and jobs), and impacts were estimated at the direct, indirect and induced levels.

To assess the economic contribution from the Seafood industry's activities, EY performed an economic contribution assessment ("ECA"). The estimation relied on data relating to industry output, labour productivity, industry value added, employment by sector, and more, which are founded on the principles of the Input-Output ("I-O") model.

Direct, Indirect and Induced Contributions

Economic contributions associated with activities supported the Seafood industry were captured through three distinct channels: direct, indirect, and induced contributions. These contributions individually and collectively represent how these economic activities ripple throughout the economy.

- ▶ **Direct contributions:** account for the "incremental" economic impacts supported directly by the sector activity and output.
- ▶ **Indirect contributions:** include the economic contributions from business activities supporting the operation of direct economic activities. These include, among other things, the contributions from suppliers' spending when purchasing goods and services from other suppliers. This could encompass, for example, supplier spending on goods and services, such as material, equipment and labour.
- ▶ **Induced contributions:** include the economic contributions that occur when benefited employees from the stimulated direct and indirect economic activities associated with the industry's operations and projects spend their wages and salaries on consumer goods and services. The induced activities are assumed to be primarily in service or consumer-related industries, such as retail, transportation, accommodation, food and beverage services, and banking and finance. Consumer spending circulates in the economy and, in turn, results in additional jobs and salaries that are also considered part of the induced contributions. Induced contributions can be estimated based on any number of rounds or iterations of additional income resulting in increased spending, economic activity, and further additional income.



Appendix 1 - Economic Contribution Assessment Methodology

The I-O Economic Framework

A static I-O model was used to assess the economic contribution of the industry's operations and projects delivered. The I-O model was selected based on its flexibility in providing a reliable method of assessing regional contributions. Fundamentally, the I-O model translates direct contributions into indirect and induced economic contributions, which collectively define the total economic contributions from economic activity supported by the industry. The contributions are expressed in terms of the following economic indicators:

- ▶ Gross Domestic Product ("GDP");
- ▶ Wages or labour income;
- ▶ Jobs or Full-time equivalent ("FTE") employment; and
- ▶ Taxes.

The table below provides descriptions of each of the four indicators along which economic contributions were assessed:

Impact	Description	Indicator
GDP	GDP contributions generated through stimulated economic activity due to the operating and capital spending of the industry	GDP
Labour Income	Includes contributions to wages and salaries sustained as a result of the economic activity and forms part of GDP	Wages and salaries
Employment	Includes jobs created and supported as a result of operating and capital spending of the industry	Number of full-time equivalent (FTE) jobs
Taxes	This refers to the total revenues collected by various levels of government through taxes imposed on economic activity. These include taxes on products, and taxes on production	Municipal, provincial, and federal taxes

Estimation of Provincial Economic Contributions

To estimate the total economic contributions of industry's operations and projects, EY proprietary I-O model was employed, which is based on Statistics Canada's most recent economic multipliers from 2017. These multipliers reflect how the interdependency among all industry sectors in the economy is tracked. Specifically, each of these multipliers is a number that describes the size of the total economic contributions for a given level of spending. Statistics Canada's I-O tables are used by both public and private sector organizations and other research institutes and is based on a widely accepted methodology for estimating economic contributions.

Appendix 1 – Economic Contribution Assessment Methodology

The Input-Output Model: Assumptions and Restrictions

The following section outlines the assumptions and restrictions associated with the I-O model used to perform the economic impact analysis in this Report. The I-O model is subject to limitations both in concept and implementation. Like any economic model, the I-O model is conceptually an abstraction that attempts to be complex enough to accurately capture and estimate the most significant impacts to the real-life economy caused by economic activities, yet simple enough to be analytically and intuitively meaningful.

An I-O model reflects the observed interdependency between all sectors of the economy. For Canada, Statistics Canada reports for the 236 industrial sectors in the economy: (1) how each sector relies on the other 235 sectors for inputs to their production; and (2) how each sector supplies its products and services to each of the remaining 235 sectors. While an I-O model provides a consistent and innovative way of measuring the economic effects of an economic activity, one should be aware of the assumptions and limitations imposed on the model's underlying approach. Some of these assumptions include:

- ▶ The relationship between industry inputs and outputs is linear and fixed, meaning that a change in demand for the outputs of any industry will result in a proportional change in production;
- ▶ The model assumed constant returns to scale, and cannot account for economies/diseconomies of scale or structural changes in production technologies, an assumption that does not necessarily hold in the actual economy;
- ▶ Prices are fixed in the model; thus, the model is unable to account for elasticities, or more formally, how one economic variable changes in response to another;
- ▶ I-O models are static, and therefore, do not consider the amount of time required for changes to happen. Changing the timeframe would not affect the magnitude of the estimates;
- ▶ There are no capacity constraints, and all industries are operating at full capacity. This implies that an increase in output results in an increase in demand for labour (rather than simply re-deploying existing labour). It also implies that there is no displacement that may occur in existing industries as new projects complete;
- ▶ I-O models assume that the technology and resource mix (ratios for inputs and production) is the same for all firms within each industry, i.e., the 236 industry categories reported in Statistics Canada's input-output table. As such, our analysis describes industry average effects;
- ▶ The model assumes that the structure of the economy remains unchanged, and any structural changes in the economy since 2017 will, therefore, lead to changes to the multipliers, which could be implemented once Statistics Canada release updated input-output tables. As such, the further the year of analysis is away from the year of the input-output tables used, the greater the uncertainties;
- ▶ The model does not consider the economic impacts or opportunity costs associated with using resources elsewhere. In the case of this analysis for example, funds used to purchase lab equipment may be allocated to other areas. Using these funds for alternative uses would generate their own economic impacts, which could potentially be larger or smaller. However, the model will not be able to capture this difference;
- ▶ Results from the I-O model should not be interpreted as causal impacts, that is, one should not take the economic impacts presented in this report at verbatim. We cannot say with certainty that X dollars of capital or operational spending will produce X number of FTE jobs or have an X amount of impact on GDP;

Appendix 1 - Economic Contribution Assessment Methodology

- ▶ The model does not consider substitutions amongst inputs, and that each industry in the model is regarded as having a single production process; and
- ▶ As per the assumptions above, the structure and limitations of I-O models lend themselves to measuring the impacts of projects that are shorter term in nature; generally, they are used to look at shocks to the economy. For long term analysis, time series and general equilibrium models are more appropriate.

Appendix 2 - Stakeholder Engagement Approach

Stakeholder consultations were performed to understand the potential challenges and opportunities businesses face in a globally changing business environment. In February of 2021, 10 organizations in different segments of the market and of various sizes were engaged to discuss the following topics:

- ▶ Strengths and assets of PEI's seafood sector that provides a competitive advantage;
- ▶ Challenges and risks faced by PEI's seafood sector;
- ▶ Government actions that have been taken/can be taken to assist the sector;
- ▶ Opportunities for expansion of the sector; and
- ▶ Impact of COVID-19 on operations/industry (immediate, short-term, long-term).

The stakeholder consultation process consisted of primarily 45 minute phone calls with players in the industry over a one month period. The players were typically experienced service providers with intimate familiarity and practical experience on the seafood sector as a whole. An interview guide was shared ahead of the scheduled interview to provide the players with sufficient time to formulate their thoughts. The stakeholders agreed to express their views under the condition of anonymity. As such, all outcomes of the interviews were aggregated.

Each topic of discussion outlined above was asked using a combination of open and close-ended questions, allowing for the stakeholder to expand on their responses as appropriate. The questions were formulated to be objective and independent to minimize response bias. As part of any stakeholder consultation process, certain challenges arose from maintaining consistency on the topics discussed while also maintaining a focused response when asking open-ended questions. Further, closed ended questions where the respondent was asked to rank certain factors or ascribe a value to their views are subject to increased uncertainty and measurement bias. This uncertainty is heightened further by factors related to an interviewee's experience, previous and current roles within the organization, the current organization's mission statement and culture, the organization's global footprint and market access, in addition to the specific products the organization specializes in.

Overview of stakeholders consulted

	Affiliation
1	Lobster company owner
2	Oyster company owner
3	Oyster company owner
4	Oyster and mussel company owner
5	Mussel company owner
6	Finfish company owner
7	PEI Seafood Processor
8	PEI Fishermen's Association
9	PEI Aquaculture Alliance
10	BJ Trading