Indigenous Services Canada's Economic Impact Estimator Tool

Methodology & User Guide

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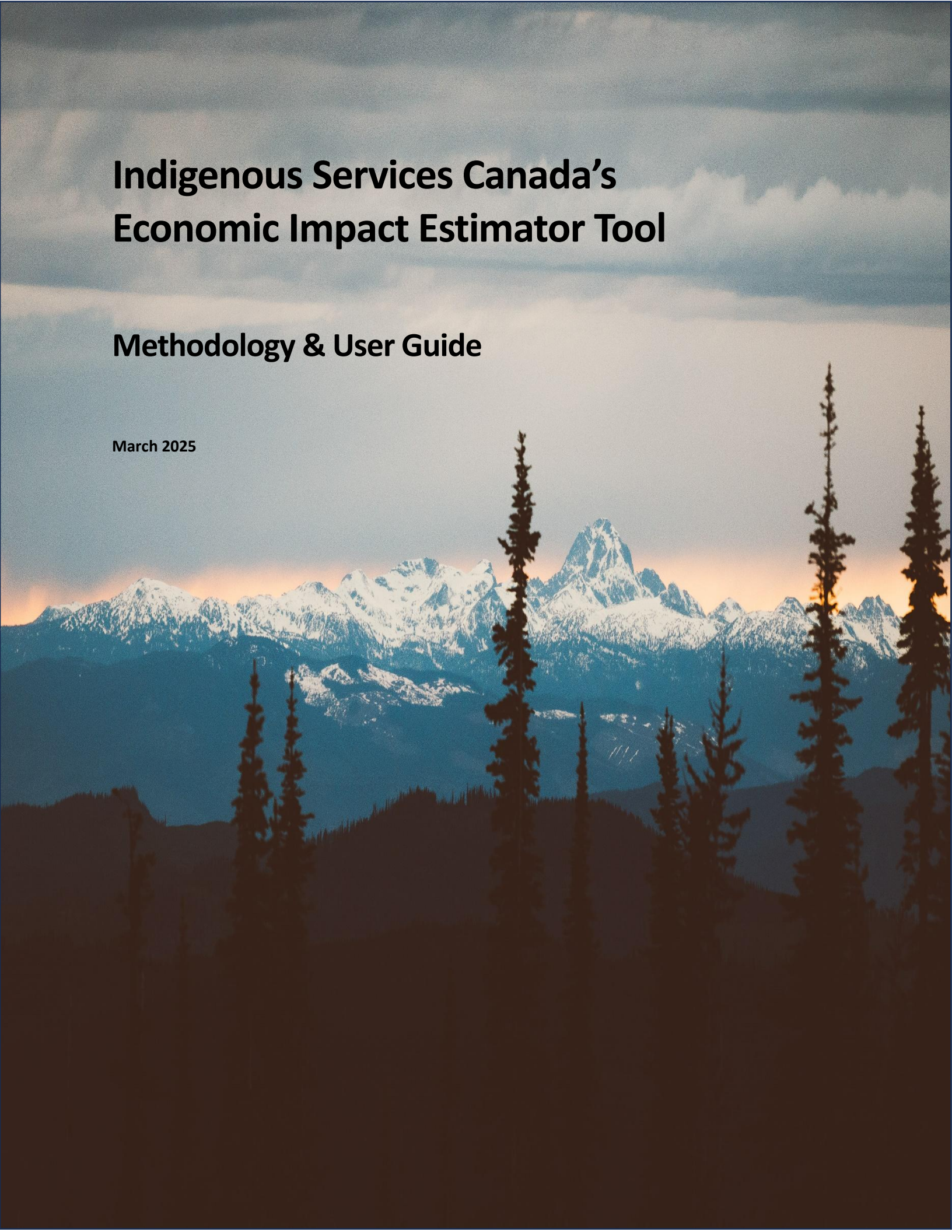

This document accompanies the application located at https://isc-impact-estimator.ca.

This document contains:

1. The **Methodology** upon which the app is built; and
2. A **User Guide** to assist in understanding required inputs and support interpretation of results.

The app and supporting documents have been prepared by Fiscal Realities Economists.

Methodology

Background

Statistics Canada's input-output accounts are the best available framework for measuring the productive structure of the Canadian economy. The supply and use tables trace production of commodities by domestic industries, combined with imports, through their use as intermediate inputs or as final consumption, investment or exports. They also provide the basic information to derive industry-by-industry input-output tables, or simply I-O tables. The StatsCan Input-Output Model uses these tables to track and quantify the economic activity generated by changes in consumption or production and simulate economic impacts in one or more industries resulting from a shock. This allows analysts to investigate "what if" questions, exploring the impact of exogenous changes in final demand while accounting for the interdependencies between different industries. The I-O Model also enables the calculation of corresponding economic multipliers, enabling analysts to estimate changes in a variety of economic variables associated with a change in output of a specific industry. Statistics Canada's supply and use tables, input-output tables and economic multipliers represent the most complete and detailed accounting framework of the Canadian economy available.

The challenge is this valuable and powerful data isn't terribly accessible. Statistics Canada does provide updated data annually (published approximately two and a half years after the reference year), but it can be difficult to effectively utilize in a variety of relevant applications. The purpose of this project is to develop a tool that utilizes the best available economic data within the government's framework, in manner that is easily accessible and meaningful for ISC's purposes.

- Accessible – The app will dramatically improve usability of this data for ISC. The methodology supporting the estimator tool will be consistent with industry best practices for estimating potential economic impacts by utilizing economic multipliers from Statistics Canada.
- Meaningful – The added value of the app is not only improving access to the data, but in making it meaningful to ISC through the methodology upon which the tool is based. The methodology (described below) will employ Indigenous-specific success factors for investment facilitation and economic opportunity realization and adjust estimates of potential economic impacts accordingly. Summary descriptions of the Indigenous-specific elements to be incorporated into the estimator tool are provided in the last section of this document. It's these elements that will make the estimator tool much more applicable for use by ISC staff.

Methods Overview

The app generates estimates of economic impacts that could potentially be realized by Indigenous populations resulting from proposed investments or projects within their territories. The app generates estimates of employment, labour income, and gross domestic product (GDP). To do so, the app follows a seven-step process described below:

(1) In the first step, the user defines possible changes in output within one or more industries. These are projected out over time by the app in accordance with start dates and durations entered by the user.

(2) Then, based on a number of investment facilitation success factors, the app estimates anticipated changes in output for each of the industries identified.
(3) The app then applies economic multipliers from Statistics Canada to estimate potential economic impacts associated with the anticipated changes in output, in the third step.
(4) In the fourth step, the app calculates the share of these potential economic impacts that could be available to Indigenous workers through one of two methods.
    a. The first approach is based on economic reconciliation, whereby the app assumes the share of potential economic benefits available to Indigenous workers is consistent with the Indigenous share of the labour force.
    b. However, the project proponent and the Indigenous group may have completed an impact benefit agreement or similar, in some cases. Such agreements can specify Indigenous employment targets. The app allows the user to input this target to represent the amount of potential economic impacts that will be available to Indigenous workers.
(5) The app estimates the portion of available economic impacts actually captured by Indigenous workers, in the fifth step, based on certain economic impact realization success factors.
(6) The app also estimates the remaining economic impacts, assumed to be realized by non-Indigenous workers, in the sixth step.
(7) In the final step, the app sums estimates of expected or realized benefits, based on timeframe of analysis inputs entered by the user.

Detailed Description of Methods

The app generates a detailed report so that users can see estimates and calculations from each of these steps. These are described in greater detail below.

Step 1 – Changes in Output Projected Over Time

The user is able to specify multiple possible impacts associated with a given proposed project or planned investment. Each possible impact can be either a one-time impact, such as those associated with the construction or development phase of a proposed project or planned investment, or a recurring impact, such as those associated with ongoing operations. In both cases, the user is able to specify a commencement year and expected duration. The app projects the values over time, based on commencement and duration information entered by the user.

The ability to project anticipated changes in output over time enables two key features of the app. First, economic impact estimates are able to be displayed in present value terms, accounting for the time value of money. Second, this enables the ability to estimate the added value of facilitating faster investments or implementing projects sooner. This is described later in a section on estimating the Cost of Delay.

Step 2 – Anticipated Change in Output

Every project or investment represents a potential change in economic output in one or more industries. But, how much of the potential change in economic output that actually takes place can vary greatly from one project to another. The app utilizes a set of ten Investment Facilitation Success Factors to help estimate the amount that actually occurs. The app relies on a methodology in which the probability of

the potential change in output occurring begins at a base level of 50%; then, for each of the success factors present,[1] the probability increases by a certain amount (shown below). If all investment facilitation success factors are present, the probability equals 100% and the anticipated change in output equals the potential change in output.

- Infrastructure and Services, 10.0%
- Close to Markets, 7.0%
- Administrative / Human Resource Capacity, 6.0%
- Community Support / Participatory Decision Making, 5.0%
- Own Source Revenues, 5.0%
- Land Management, 5.0%
- Accountability / Transparency / Financial Management, 5.0%
- Comprehensive Strategy / Vision / Planning, 3.0%
- Good Governance, 2.0%
- Separation of Business and Politics, 2.0%

These success factors are based on Fiscal Realities' prior work with ISC from 2016/17, in which a set of potential success factors was identified. The list drew heavily on three sources, including (i) an ISC (then-INAC) report entitled *Creating the conditions for economic success on reserve lands* (based on information from community leaders in 25 economically successful First Nations); (ii) A National Indigenous Economic Development Board paper entitled *Addressing the Barriers to Economic Development* (based on information from six projects in three First Nations communities); and (iii) Fiscal Realities Economists significant past research on First Nation economic development (including numerous papers written in support of the 15-year research partnership between the federal government and the First Nations Tax Commission (and its predecessor, the Indian Taxation Advisory Board). The initial list of possible success factors was then compared with the 2014 work of Janice Esther Tulk, who wrote a paper for the Purdy Crawford Chair in Aboriginal Business at Cape Breton University, which included an extensive review of all the major research contributions on the key factors associated with Indigenous economic development and a major roundtable discussion to identify key success factors. Those elements identified in our initial set were all among the measurable key success factors from Tulk's work. Those elements were then presented to an ISC-assembled panel, which agreed with our set of success factors (as well as our estimation methodology).

The success factors and associated methodology from the prior work helped to inform the development of an economic impacts model for the Tulo Centre of Indigenous Economics (Tulo). That model, including the success factors, was incorporated into curriculum in Tulo's Applied Economics Program and its Tax Administration Program. Both are university-accredited certificate programs. The success factors have been discussed with students in courses on Investment Facilitation on First Nations Lands (APEC 2650), Resource Development on First Nations Lands (APEC 2660), and Economic Feasibility and Impact Analysis on First Nations Lands (APEC 2700). Tulo's model has also been utilized in the Indigenous MBA program delivered through a partnership between Thompson Rivers University (TRU) and the Nicola Valley Institute of Technology (NVIT). In all cases, discussions in these classes among

[1] Often success factors are not present or absent (i.e. completely on or off). The user interface will utilize sliders, so the user can input any value from 0% to 100% (in increments of 1%).

students has confirmed the belief in the significance and influence of these success factors and strongly supported their continued inclusion in the model.

In the bulleted list above, the weights assigned to each success factor are preliminary at this point. They have been assigned by Fiscal Realities based on our extensive experience, including experience in curriculum delivery and discussions with Tulo and TRU-NVIT students, but also on the findings of the recent Regulatory Gaps Research being simultaneously prepared for ISC.

Each of the Investment Facilitation Success Factors is discussed below:

Infrastructure and Services – Infrastructure designed and sized in accordance with current and future development (both level and type of development) and services of a quality high enough to support the type of desired, planned or potential investment.

Potential Considerations: Consider elements specific to the type of proposed project or planned investment. Is year-round road access, internet access, and hydro grid connectivity important? Also consider whether or not the community has completed a long-term capital plan that is integrated with economic objectives and the use of lifecycle infrastructure plans for different types of infrastructure.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Development site is already prepped. All required services and utilities are available at the lot line. Sufficient excess capacity already exists. Taxes and fees for services are known. There may be a tax-based service agreement with an adjacent local government. Investors could begin development today.
- Closer to the 0% End of the Scale: The development site is not prepped. Services are not available. No additional water or wastewater capacity to support development. No service agreement. Inadequate road access, no power, no communications network available. Cost or time to get services to the site are unknown. Viability of completing infrastructure required to provide services is unknow. Future tax rates or fees are unknown.

Close to Markets – The proposed project's distance to markets influences the viability of proposed projects or planned investments.

Potential Considerations: Note that distance to markets can mean different things for different types of projects. For example, consider a proposed leasehold-based commercial / retail park on a reserve neighbouring a large urban centre and a proposed major resource project within a remote northern community's traditional territory.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Location is within a population centre of tens of thousands of people. There are a sufficient number of potential customers near by. There are a sufficient number of potential employees near by. Close to relevant transportation network (i.e. highway, rail, or port for manufactured goods, input materials, etc., as appropriate for the circumstances).
- Closer to the 0% End of the Scale: Location is remote, users / customers would have to drive more than a couple of hours, or couldn't even drive there all year. Labour market is also over a couple of hours away. Truck and rail shipping options are also far enough away that it would add significant cost for businesses to choose that location.

Administrative / Human Resources Capacity – A professional and capable administration efficiently facilitates investment by lowering transaction costs and leads to better decision-making through better information and better reporting.

Potential Considerations: Consider factors such as: (i) whether or not the economic component of the community's website provides information and tools to facilitate investment and business development; (ii) whether or not the indigenous government's financial management system has been certified by the FMB; and (iii) whether or not the community's land managers, tax administrators, economic development officers and / or financial managers have received professional certification from their respective professional bodies.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Potential investors enjoy easy access to required information. The First Nation's website has needed information on the First Nation labour force and lands and leasing opportunities, including tax rates. There is also accessible information on how the First Nation makes decisions on development projects such as its development approval processes and decision-making framework. Staff in the First Nation's lands, taxation, and public works departments are very responsive and have the skills required to efficiently facilitate investment on reserve.
- Closer to the 0% End of the Scale: Potential investors struggle to obtain required information to make investment decisions. The First Nation's staff take a very long time to respond to inquires. The First Nations's lands department staff are unfamiliar with leasing process. Staff in taxation department aren't available, or there isn't a taxation department. The public works manager doesn't know what services are available or when upgrades might occur, how much they'll cost, or if they're even feasible. There is no clear development approval process or framework to handle development proposals and make decisions on them.

Community Support / Participatory Decision Making – Use of community discussions, meetings, information sessions and forums to gain general support by well-informed community members for leadership's overall economic strategy formed on the basis of community members actually realizing economic benefits from investment.

Potential Considerations: Consider the presence of a band council resolution, band member resolution or some other publicly available demonstration of community support for the particular proposed project or planned investment whose impact is being forecast.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Community processes are unique, but one example could include First Nation staff holding information sessions at the direction of Chief & Council to provide the community with details on significant proposals. Community concerns are discussed and appropriately addressed in these forums. Potential economic benefits are also presented in these forums. Community feedback at these events influences Chief & Council decision whether or not to proceed with proposals. Community feedback could be through a vote with a specific threshold for positive support. It could also include a scenario where there is ongoing communication approaches that inform the community at all times.

- Closer to the 0% End of the Scale: Decisions on significant proposals made solely by Chief or by Chief & Council, without consulting or even informing membership. Little to no concern for building or obtaining broad-based community support for proposals. No opportunity for public feedback in decision-making processes.

Own Source Revenues – Own source revenue streams allow planning over longer time frames and enable Nations to participate in economic opportunities with fewer restrictions and possibly within shorter time periods.

Potential Considerations: Consider the presence of any of the following revenue sources: property tax system under the FMA or the Indian Act, FNGST, FACT, other taxes under the FMA (like property transfer tax, business activity tax), IOGC royalties, leasing revenue, independent power project revenues, gaming revenue sharing, forestry revenue sharing, or other revenue sharing agreements.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: The First Nation already has a number of OSR streams that provide unencumbered revenues available to support improved long-term planning and to help take advantage of additional economic opportunities when they arise. Having multiple OSR streams and revenue jurisdictions helps the First Nation to respond to potential investors and economic opportunities in a timely manner – allowing the First Nation to move at the speed of business, rather than the speed of government. The First Nation could already be collecting Property Tax, for example.
- Closer to the 0% End of the Scale: Transfers from other governments make up 100% or nearly 100% of the First Nation's annual budget. The First Nation has no unencumbered funds or revenue raising powers to pursue any economic development opportunities, or support investment climate improvements. The First Nation must always first make an application to another government for funding when economic opportunities arise, which are often no longer viable by the time approval decisions are made.

Land Management – The authority to manage lands (including the making of rules respecting the use and occupation of land and granting individual interests in land); and the ability to offer secure, long-term land tenure in a timely fashion.

Potential Considerations: Consider the presence of a community approved land code and the development of laws using the authority of that land code.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: The First Nation has enacted its own land code and potentially other land-related laws under the Framework Agreement on First Nations Land Management (FA) to manage its lands. Or the First Nation is exercising land management powers under a modern treaty or self-government agreement. It has developed a land use plan, describing the nature of permitted land uses. The First Nation is highly responsive and can approve an interest in land in a matter of days entirely on its own, without the requirement for involvement or approval of the Minister. The First Nation's development approval process is transparent and effective, and approvals can be issued in a timely manner.

- Closer to the 0% End of the Scale: The First Nation manages its lands under the Indian Act and is unable to offer secure, long-term tenure on its own in a timely manner, without the involvement of the Minister. The First Nation lacks a formal development approval process.

Accountability / Transparency / Financial Management System – A system by which management processes and financial information are open and readily available and individuals are held to account.

Potential Considerations: Consider the presence of a financial administration law. Consider if the First Nations Financial Management Board has approved the financial administration law, and whether or not the Nation has achieved Financial Performance or Financial System Management certification from the FMB.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: There is a formal financial management system in place that is clear and transparent and ensures accountability. Financial information is open and readily available. The First Nation has enacted a Financial Administration Law (FAL), which has been approved by the First Nations Financial Management Board (FMB). It has achieved Financial Performance (FP) certification from the FMB. It has put in place a number of policies and procedures around its financial management systems and processes and achieved Financial Management Systems (FMS) certification from the FMB.
- Closer to the 0% End of the Scale: Financial information is not open and not readily available. There is no formal financial management system in place. In practice, the financial management framework offers no accountability. Financial management policies and procedures are not clear. Financial decision-making processes lack transparency.

Comprehensive Strategy / Vision / Planning – A long-term community development vision coordinated with integrated land use plans, economic plans, capital plans, and financial plans designed and developed to achieve the Nation's objectives.

Potential Considerations: Consider whether or not the Nation has completed some or all of these integrated planning processes and how or if the proposed project aligns with the strategies identified in existing planning documents and if the project contributes to the achievement of the Nation's overall vision and objectives defined through those planning processes.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: The First Nation has a consistent long-term vision for the community with clear economic development, social and environmental objectives, which are articulated in a recently updated Comprehensive Community Plan (CCP) or similar. The CCP informs the First Nation's Land Use Plan that clearly describes types of allowable development and permissible uses for each area of the reserve lands. There is a Capital Plan that provides for infrastructure assets sized and located specifically to support required services for land uses described in the Land Use Plan. The Capital Plan contemplates required new projects and needed improvements to existing assets. There is a Financial Plan that considers the capital, operations, routine maintenance and periodic asset rehabilitation costs of infrastructure and services set out in the Capital Plan. All these planning processes are fully integrated and routinely updated on pre-determined schedules.

- Closer to the 0% End of the Scale: There is no clear development vision for the community. The First Nation's CCP has not been updated in 15 years or more. Permitted uses of reserve land are not known. There are significant gaps in planning processes. Or planning processes are incomplete or not effectively integrated with one another. The result is any development proceeds in an uncoordinated, ad hoc manner, which increases infrastructure and servicing challenges and makes effective long-term financial planning difficult or nearly impossible.

Good Governance – Strong governance has a pronounced effect on the ability to attract investment. Strong governance is the establishment of structures that enhance markets and reduce transaction costs.

Potential Considerations: Consider the history of third party or co-management or the turnover frequency of elected leaders. Also consider whether or not strong governance policies are place, ensuring good governance practices and arrangements are respected through leadership changes.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Infrequent turnover of elected leaders. Generally, roles and responsibilities are well-defined, and decision-making processes are clear and transparent. There are mechanisms in place to hold elected leadership accountable. Establishment of a governance framework that builds trust with partners, including private and public sector partners. The governance framework supports elected leaders to foster productive working relationships with other governments, including federal, provincial and local. Establishment of governance structures to effectively represent the interests and objectives of membership and to share meaningful information and effectively communicate with membership. Effective performance evaluations and reporting to ensure accountability of leaders, which can build trust in leadership among membership. The presence of an effective development approval process or investor code. These governance structures enhance markets and help to lower transaction costs and increase the ability to facilitate greater investment.
- Closer to the 0% End of the Scale: Frequent turnover of elected leaders. Governance structures allow the exercise of private or personal interests over the interests of membership. Roles and responsibilities are not well-defined. Decision-making processes are unclear or not well understood. General lack of openness and transparency between elected leaders and membership. The established governance framework does not ensure accountability of elected leaders, does not promote effective working relationships with other governments, and does not support cooperative partnerships with the private sector. In general, the governance structure increases transaction costs and reduces the ability to facilitate greater investment.

Separation of Business and Politics – Mechanisms in place that separate politics from government administration, including entities like economic development corporations. These can contribute to greater consistency in the leadership of the community's economic development and improve political stability as well.

Potential Considerations: Consider the presence of an arm's length community economic development corporation or other similar separation mechanism. Also consider the absence of political representatives on the board of the economic development corporation.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: There are mechanisms in place to separate political considerations from business decisions of any corporate and for-profit ventures or entities in which the First Nation is involved. This can be accomplished with the establishment of an arm's length legal entity responsible for operating the First Nation's business interests and pursuing the First Nation's economic development objectives. The arm's length legal entity has clear processes, with well-defined roles and responsibilities. The board of the separate legal entity does not include any of the First Nation's elected leaders. In general, there is mechanisms that creates a business environment in which investors and partners are willing to participate.
- Closer to the 0% End of the Scale: There are no mechanisms in place to separate political considerations from business decisions. There is always the potential for political interference in any of the First Nation's business interests. The lack of separation creates an environment of uncertainty, in which potential investors lack the confidence required to participate.

Step 3 – Full Potential Economic Impact Estimates

The app generates estimates of full potential economic impacts for these anticipated changes in economic output.[2] The app utilizes economic multipliers provided by Statistics Canada.[3] The app references both summary level multipliers (from Statistics Canada Table 36-10-0113-01) and detailed level multipliers (from Statistics Canada Table 36-10-0595-01). The app uses multiplier data for 2019. At the time of original app development multiplier data was available for 2020; and while developing the app, multiplier data became available for 2021. However, the structure of the economy was significantly altered by response to the COVID-19 pandemic in 2020. Statistics Canada states that 2020 multipliers should only be used for analysis of economic impacts in 2020 and recommends the use of 2019 multipliers, as they are more reflective of current economic structures.[4] Our view is this warning could be interpreted to extend to 2021 multiplier data as well, and therefore, the app relies on 2019 multiplier data.

[2] Output is a measure of the value of all the products produced by an industry. Output is measured in dollars. Statistics Canada provides a more detailed description of output in the User Guide: Canadian System of Macroeconomic Accounts (specifically in section 4.2 Key Concepts Related to Supply and Use Accounts) at https://www150.statcan.gc.ca/n1/pub/13-606-g/2016001/article/14619-eng.htm. Because, in many cases, the value of a firm's output is essentially its sales and service revenues, users of the app may find Industry Canada's Financial Performance Data site helpful, at https://www.ic.gc.ca/app/sme-pme/bnchmrkngtl/rprt-flw.pub?execution=e1s1. This tool can assist users in identifying average revenues for all businesses within a specific industry in a specified province or territory. Care should be taken by users of the app, as this tool follows the North American Industry Classification System (NAICS), which is similar to the IOIC, but not identical.

[3] A multiplier is a quantitative measure derived from the Statistics Canada input-output tables. Multipliers are used to measure or quantify how a particular shock to the economy (i.e. an anticipated change in economic output of a specific industry) is expected to affect the levels of key industry variables. In this model, the effects being measured are changes in jobs, labour income, and gross domestic product generated by a given change in output.

[4] Please see StatsCan's The Daily release notice for 2020 multipliers at https://www150.statcan.gc.ca/n1/daily-quotidien/231208/dq231208f-eng.htm.

The app uses economic multipliers specific to the province / territory in which the change in output is anticipated.[5] The user must specify the industry in which the anticipated change in output will occur.[6] The app identifies the appropriate economic multipliers and applies those to the anticipated changes in output.

Rounds of Impacts

In general terms, a project can generate three rounds of economic impacts, including direct, indirect, and induced.

- Direct impacts are those directly associated with the activities involved in the production of the additional output. This includes expenditures on labour, materials, supplies, etc. directly associated with the increase in output (i.e. processes of making those products or services that account for the increase in output).
- Indirect impacts are often thought of as the second round of impacts. These include additional expenditures made by the array of businesses supplying goods and services to those enterprises directly responsible for the production of additional output, that would not have otherwise occurred. This includes suppliers' expenditures on labour, materials, supplies, services, etc. required to meet the demand associated with those initial enterprises that are directly responsible for the additional output.
- Induced impacts are those resulting from the spending of wages on consumption. This is sometimes called the household round of spending. Portions of the directly and indirectly generated incomes are spent on a variety of items in the broader economy, like food, clothing, entertainment, etc. This is the induced effect of the initial increase in output.[7] Models that include induced effects are sometimes criticized for overstating economic benefits.[8]

The app provides estimates of direct and indirect economic impacts. Estimates of induced impacts are also included in the app specifically because the Statement of Work indicated this as a requirement for ISC's purposes.

Geographical Coverage

Economic impact estimates are broken down by geographic coverage, including those realized within the same province or territory in which the anticipated change in output occurs, and those realized

[5] How the shock (change in output) transmits throughout the economy is not the same in each part of the country. Therefore, the app uses provincial and territorial level multiplier data.

[6] The app's user can select from 238 industry sectors and sub-sectors at the detailed level and 32 industries at the summary level. These are categorized according to Statistics Canada's Input-Output Industry Classification (IOIC) system. Please see https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=137240&dis=1 for an expandable classification structure. FC Fictive industries have been removed from the app. Fictive industries aren't actual industries producing actual products; they only exist as an accounting tool to reconcile discrepancies between actual industries.

[7] The additional jobs created (among the food, clothing, entertainment, etc. businesses) resulting from the spending of increased household income by those people directly responsible for the production of additional output and the spending and those indirectly employed within the supplier businesses is the induced employment impact.

[8] In fact, multiplier data and input-output models from Statistics Canada often include cautionary notes on model limitations and the potential for misinterpretation related to the inclusion of induced effects.

within the rest of Canada. This distinction can become important in cases where proposed projects have the potential to generate large economic benefits, but those benefits may flow primarily to labour force participants in other provinces or territories.[9]

Statistics Canada provides economic multiplier data based on geographic coverage, including (i) within province and (ii) all provinces. The app calculates estimated economic impacts within the same province or territory as the anticipated change in output using multipliers for within province geographic coverage. And the app calculates estimated economic impacts in the rest of Canada as the difference between those impacts in all provinces and those impacts within province.

Negative Potential Change in Output

The app can be used in cases of potential positive changes in output, such as scenarios involving planned investments or proposed new projects that will increase output. But, the app can also be used in cases of potential negative changes in output, such as scenarios involving an economic contraction, perhaps associated with a pandemic, wildfire, flooding, trade war, or other negative output events. In such cases, the user simply enters the anticipated change in output as a negative value and the app can generate estimates of declines in jobs, labour income, and gross domestic product.

Multiple Province / Territory Scenarios

Certain types of planned investments or proposed projects may be expected to result in changes in output in more than one province or territory. Long, linear infrastructure projects for example, such as gas or oil pipelines or electrical transmission lines, can generate economic impacts in multiple provinces. Or, numerous projects in multiple provinces may be undertaken as a result of a change in government policy, as another example. In these cases, changes in output in multiple provinces can generate economic impacts in multiple provinces, and the app is designed to accommodate these types of scenarios. The user must only specify how much of the anticipated change in output is expected to occur in each affected province, but the app follows the same estimation methodology for each anticipated change in output.

Step 4 – Estimates of Economic Impacts Available to the Indigenous Labour Force

Full potential impact estimates (above) represent all impacts. In the case of employment and labour income, some of the full potential impact will be captured by Indigenous workers, while some will be realized by non-Indigenous workers. In the case of GDP impact, some will be generated by Indigenous workers, while some will be associated with non-Indigenous workers. The question is how much of these generated benefits will be available to Indigenous workers. The app can use one of two approaches to estimate this.

Approach 1 – Indigenous Share of Provincial / Territorial Labour Force (Automatic Value)

The first approach relies on the concept of economic reconciliation. This implies the portion of potential economic impacts that will be available to the Indigenous labour force is equal to the Indigenous share of the labour force. This is province / territory specific and the input field within this section

[9] This is an issue known all too well by the labour force in Canada's North, related to economic benefits of major resource development.

automatically generates a value (as a percentage), based on the province or territory selected, using 2021 Census data from Statistics Canada (Table 98-10-0451-01).[10]

Approach 2 – User Specified Value

Users can adjust the value in this field by simply typing in the replacement value. Three circumstances are described below where this might be necessary, but there may be others:

- It is important for users to keep in mind that the Indigenous portion of the labour force can vary significantly in different sub-regions of any one province or territory. For example, if the user indicates the proposed project will result in a change in output in BC, the app automatically sets the share of economic impacts potentially available to Indigenous workers at 5.15%, which is the Indigenous share of labour force for all of BC. However, suppose the user knows the project is proposed for a region or area in northern BC in which the Indigenous share of the labour force is actually 35%. The user can change the value the app uses from 5.15% to 35% by typing 35 into the input field.
- In some cases, there will be an agreement between the project proponent and the Indigenous group in which a target for economic benefits is specified within the agreement (such as an Indigenous employment target within an impact benefit agreement). The app will need a new input from the user for this approach. If this is the case, the user can adjust the default value by simply entering the appropriate value (as a percentage).
- In the case of an Indigenous-owned project, the automatically generated share of the Indigenous labour force value may not be appropriate. It may be necessary for users to input a higher, more appropriate value for the Indigenous share of generated benefits. Again, users need only type the appropriate value (as a percentage) into the input field.

The app then applies the percentage, either the automatically generated value or the user-defined value, to the estimates of full potential economic impacts, which yields the estimates of economic impacts potentially available to Indigenous workers.

Step 5 – Estimates of Economic Impacts Expected to be Realized by Indigenous Workers

In general terms, an expected impact is the value of a particular outcome, multiplied by the probability of that outcome occurring. The app estimates the amount of available economic impacts that will actually be realized by Indigenous workers based on a set of Economic Impact Realization Success Factors. The methodology assumes the probability of realizing economic benefits begins at a base level of 25%; then, for each of the Economic Impact Realization Success Factors present, the probability increases by the amount shown below.

- Educated Labour Force, 25%
- Close to Markets, 15%
- Relationships and Partnerships, 12.5%
- Separation of Business and Politics, 10%
- Comprehensive Strategy / Vision / Planning, 7.5%

[10] BC = 5.15%; AB = 5.60%; SK = 12.05%; MB = 13.52%; ON = 2.55%; QC = 2.19%; NB = 3.97%; NS = 5.06%; PE = 2.07%; NL = 9.20%; YK = 18.64%; NT = 39.59%; and NU = 73.26%.

- Community Support / Participatory Decision Making, 5%

These success factors were also identified by the same process as described above for the Investment Facilitation Success Factors. And similarly, the weights assigned above are preliminary at this point.

Some potential considerations for each of these success factors are briefly discussed below.

Educated Labour Force – Education and training strongly influences the ability to obtain employment and realize economic benefits.

Potential Considerations: The completion of at least high school education is often a pre-requisite for participation in newly generated employment opportunities. Users could consider high school completion rate or the education component of the Community Well Being (CWB) Index.[11] Users should also carefully consider the portion of the Indigenous labour force that possesses the type of training required to take advantage of employment opportunities expected to be generated.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Overall, the Indigenous labour force is at least as well-educated as the non-Indigenous labour force in the area, if not more so. A significant portion of the Indigenous labour force has the specific skills, capacities, experience, or certifications required to fill employment opportunities that will be generated by the proposed development.
- Closer to the 0% End of the Scale: The Indigenous labour force is less educated than the non-Indigenous labour force in the area, and lacks the skills, capacities, experience or certifications to fill many or all of the jobs that will be generated by the proposed development.

Close to Markets – In this case, the user should consider labour markets. The proposed project's distance to the supply of labour (i.e. workers) influences the Indigenous population's realization of potential economic benefits.

Potential Considerations: Consider not just the proximity of the Indigenous labour market, relative to the project location, but also the size of the available Indigenous labour market, relative to the potential number of employment opportunities that might be generated.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: The Indigenous labour force is close enough to the location of the proposed project to be able to take advantage of associated job opportunities that will be created and is of a sufficient size with enough underutilized capacity to fill generated employment positions.
- Closer to the 0% End of the Scale: The Indigenous labour force is too far from the location of the proposed project to be able to take advantage of any employment positions that will be created. Or it could be the case that the Indigenous labour force simply doesn't have enough

[11] The education score is comprised of the high school completion rate plus the university completion rate; with the high school completion rate accounts for two-thirds of the score given the importance of at least a high school education.

underutilized capacity to be able to fill many of the employment opportunities to be generated by the proposed project.

Relationships and Partnerships – The ability to form relationships with the private sector and other partners (including other orders of government), both formal and informal, influences the realization of economic impacts by lowering transaction costs, building trust, and improving the ability to resolve disputes.

Potential Considerations: Consider any partnerships the Indigenous group is party to, including partnerships with the private sector in business ventures; with educational institutions for training purposes; with local governments for service agreements or regional planning processes; with financial institutions for accessing capital; or with industry associations for specific employment training programs. Keep in mind these partnerships can include informal relationships and that the indigenous group may participate in these partnerships via a separate entity, like an economic development corporation.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: The First Nation or its economic development corporation (or similar) already participates in a number of successful partnerships with the private sector, increasing the willingness among the Indigenous labour force to participate in newly generated employment opportunities associated with the proposed project.
- Closer to the 0% End of the Scale: The First Nation has a history that includes a number of failed partnerships with the private sector, contributing to a general lack of confidence among the Indigenous labour force with respect to the sustainability of employment opportunities that might be generated by the proposed project, thereby decreasing the willingness to pursue those employment positions.

Separation of Business and Politics – Mechanisms that separate politics from government administration can contribute to more equitable distribution and broad-based realization of generated economic benefits.

Potential Considerations: Consider the presence of an arm's length community economic development corporation or other similar separation mechanism. Also consider the absence of political representatives on the board of the economic development corporation.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: There are mechanisms in place to separate business decisions from politics. Individuals within the Indigenous labour force believe they are able to compete for newly generated job opportunities associated with the proposed project on a fair basis, without the potential for interference, thereby increasing the likelihood of their participation.
- Closer to the 0% End of the Scale: There are no mechanisms in place to separate business decisions from politics and, based on past practice, there is the belief among the Indigenous labour force there will be a high likelihood of political interference when awarding employment opportunities that might be generated by the proposed project, significantly decreasing the Indigenous labour force's willingness to participate.

Comprehensive Strategy / Vision / Planning – Indigenous workers will be more likely to be in positions to be able to take advantage of generated employment opportunities if projects and investments are consistent with the long-term community development vision, especially if that vision is integrated with the community's land use, economic, capital, and financial planning processes.

Potential Considerations: Consider whether or not the Indigenous group has completed some or all of these integrated planning processes and how or if the proposed project aligns with the strategies identified in existing planning documents and if the project contributes to the achievement of the Indigenous group's overall vision and objectives defined through those planning processes.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: The proposed project is consistent with the First Nation's long-term vision and strategy. As a result, the Indigenous labour force has had time to prepare themselves to take advantage of the employment opportunities that could be generated by the proposed project. Thereby increasing the likelihood of their realization of those opportunities.
- Closer to the 0% End of the Scale: The proposed project is inconsistent with the First Nation's long-term vision and strategy. The Indigenous labour force has not had time to prepare for the types of economic opportunities that could be generated by the project and, as a result, is far less likely to be able to take advantage of those opportunities.

Community Support / Participatory Decision Making – Use of community discussions, meetings, information sessions and forums to gain general support by well-informed community members for leadership's overall economic strategy formed on the basis of community members actually realizing economic benefits from investment. Indigenous workers are far less likely to fill new employment positions generated by projects that are widely opposed by membership.

Potential Considerations: Consider the presence of a band council resolution, band member resolution or some other publicly available demonstration of community support for the particular project whose impact is being forecast.

General Guidance for Users on Assessment of Success Factor:

- Closer to the 100% End of the Scale: Membership is far more likely to support a proposed project if they expect to be able to realize some of the economic benefits to be generated by the project. And the Indigenous labour force is far more likely to be motivated to obtain employment opportunities generated by broadly supported projects. The Nation has a history of following good overall communications practices and that groundwork means that community support and often comes faster and easier because trust has been established.
- Closer to the 0% End of the Scale: The Indigenous labour force is far less likely to pursue employment opportunities generated by a widely opposed project. Decisions on significant proposals made solely by the Chief or by Chief & Council and the economic benefits of previous projects have not accrued broadly to membership.

The user interface again utilizes sliders here, because success factors are not always completely present or completely absent. The app requires users to enter a value from 0% to 100% (in increments of 1%) for each of these success factors.

Users will note that four of the success factors appear on both the list of Investment Facilitation Success Factors and the list of Economic Impact Realization Success Factors, including Close to Markets; Separation of Business and Politics; Comprehensive Strategy / Vision / Planning; and Community Support / Participatory Decision Making. Users will have the freedom to enter different values for these repeated success factors to accommodate those circumstances where different values make sense. For example, the Close to Markets success factor appears on both lists. In the case of its influence on the realization of economic impacts, users should consider the project's distance from the labour market. But, in the case of investment facilitation, the user should consider the type of project and its distance to appropriate markets, which can mean different things depending on the type of project (i.e. the distance between retail project and its customers; or a resource project's distance to the resources being extracted or harvest and distance to processing facilities; or a tourism project's distance to attractions and distance to transportation hubs).

Present Value

After the app has estimated the labour income impact captured by the Indigenous labour force in each year in the analysis time period, those estimates must be discounted to present value terms.

Present Value = Future Value / [(1 + Discount Rate)^number of time periods], where

Future Value is the estimate of additional labour income earned by the Indigenous labour force;

Discount Rate is the average annual change in the relevant province's Consumer Price Index (CPI) over the previous 15-year time period; and

Number of time periods changes with each year of the analysis time period. For example, in Year 12, the number of time periods to get back to present value is 12 years.

This approach is applied to estimates of labour income and GDP, but not jobs.

Step 6 – Estimates of Economic Impacts Expected to be Realized by Non-Indigenous Workers

The app estimates the economic impacts expected to be realized by non-Indigenous workers simply by subtracting the economic impacts expected to be realized by Indigenous workers (above) from the full potential economic impact estimates (previously estimated).

Again, estimates of labour income and GDP are presented in present value terms.

Negative Changes in Output

In scenarios in which the anticipated change in output is negative, the app calculates the probability of realizing economic losses by the missing success factors, rather than those present. The rationale is that in cases in which most or all success factors are present, the investment climate is stronger, more robust, more resilient and better capable of weathering economic downturns and negative output events with fewer declines and losses. In such cases the probability of actually realizing potential economic losses must be lower. Conversely, in cases in which fewer success factors are present, the investment climate is weaker, less robust, and less resilient, and therefore less capable of weathering economic downturns and negative output events. In such cases the probability of actually realizing potential economic losses must be greater.

Step 7 – Sum of Estimates Based on Timeframe of Analysis

The app sums all one-time impact estimates for a given timeframe of analysis, as identified by the user. It also sums all recurring impact estimates for the same time period.

Indigenous Specificity

What will make this estimator tool unique and highly applicable for ISC users is the inclusion of three Indigenous-specific elements in the methodology:

- Investment Facilitation Success Factors
  The ability for any jurisdiction to actually capture potential investment depends on the attractiveness of the investment climate. As described in Step 1 above, the app relies on ten Investment Facilitation Success Factors commonly believed to strongly influence the amount of investment attraction as identified in economically successful First Nations.
- Economic Opportunity Availability
  In general, any project can be expected to generate some level of economic impacts – additional jobs, for example. A portion of those additional jobs will be available to Indigenous workers and a portion will be available to non-Indigenous workers. As described in Step 4 above, the app employs two approaches to calculate the portion available to Indigenous workers (the economic reconciliation approach or the specified-target approach) and gives ISC users the ability to utilize the most appropriate approach. It also gives ISC users the opportunity to adjust values, as necessary.
- Economic Opportunity Realization Success Factors
  After the app estimates the economic impacts available to the Indigenous workforce – additional jobs, for example – it calculates a probability of Indigenous workers actually filling those newly created employment opportunities. As described in Step 5 above, the app relies on six Economic Opportunity Realization Success Factors believed to strongly influence the portion of available economic benefits actually captured.

User Guide

This User Guide contains two sections: Entering Inputs and Interpretation of Estimates

Entering Inputs

This section outlines tasks required for users to enter inputs to describe a proposed project or planned investment.

Task #0 – Non-Essential Tasks

Users can enter their Name and the Project Name in the About Project section.

Task #1 – Identify the Province / Territory

Users must select the province / territory in which a change in economic output associated with the project is predicted. To do this, users must simply select the appropriate province / territory. The selected province / territory will be added to the project (next section of the app). For projects in which a change in output is predicted in more than one province / territory, it is possible for users to select multiple provinces / territories in the app.

Task #2 – Identify the Industries

Within the appropriate province, users must select all industries in which a change in output associated with the proposed project or planned investment is predicted. To do this, users must first click on the Select Industry field. A dropdown list appears. To filter the list, users simply begin typing the name of the industry. Or, users can also scroll to browse the list.

Statistics Canada provides a complete listing of the Input-Output Industrial Classification (IOIC) hierarchy at this link:

https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDStruct&TVD=137240&CVD=137241&CPV=IND&CST=01011960&CLV=1&MLV=7&dis=1

Users may find it helpful to review the list when identifying the industries in which a change in output is predicted.

Unfortunately, the list only contains the name (title) of each industry, but does not include a definition of the activity within the industry. Statistics Canada provides definitions for industries organized within the North American Industry Classification System (NAICS). The 2017 Version 3.0 is available at this link:

https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=1181553

The NAICS and the IOIC classification structures are very similar, but not identical. Users will note similarities in the number codes for industries in the two classification structures. Statistics Canada provides a type of concordance table at this link that users are likely to find helpful to find corresponding NAICS codes for given IOIC codes, and vice versa:

https://www.statcan.gc.ca/en/statistical-programs/document/1303_D7_T9_V1

Once a user has confirmed the predicted change in output associated with a proposed project or planned investment is consistent with the type of activity described by the NAICS definition, the table enables the user to identify the corresponding IOIC industry for selection in the app. The table identifies IOIC industries and their corresponding NAICS industries within 2007 version of the NAICS structure. In most cases, users will find this sufficient.[12]

To remove an industry, users can click Remove link on the right side across from the industry title.

Task #3 – Identify the Potential Change in Output

There are three parts to this task:

Part 1 – For a given industry, users must determine if the potential change in output is a one-time change or a recurring change.

> A one-time change in output is typically associated with the development phase or construction phase of a project. One-time changes in output occur only once. This doesn't mean the change in output occurs only in one year. One-time changes in output may occur over multiple years.
>
> A recurring change in output is typically associated with the ongoing operations phase of a project. A recurring change in output reoccurs annually.

Part 2 – Users must enter the magnitude of the potential change in output.

> Output is a measure of the value of all the products produced by an industry.[13] Output is measured in dollars. Because, in many cases, the value of a firm's output is essentially its sales and service revenues, users may find Industry Canada's Financial Performance Data site helpful.[14] This tool can assist users in identifying average revenues for all businesses within a specific industry in a specified province or territory. Users will note this tool follows the NAICS classification structure.[15]
>
> For one-time changes, users must enter the potential change in output for the entire development phase. It is not necessary for users to breakdown the change in output for each year of the development phase of the project.
>
> For recurring changes, users must enter the potential change in output for a single year, which should be the average change in output over the entire operational phase of the project.

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[12] In rare cases when this is insufficient, the NAICS 2007 to NAICS 2012 concordance table, then the NAICS 2012 to NAICS 2017 Version 2.0 concordance table, then the NAICS 2017 Version 2.0 to NAICS 2017 Version 3.0 concordance table, and finally the NAICS 2017 Version 3.0 to NAICS 2022 Version 1.0 concordance table can be utilized to trace the industry of interest from the 2007 version to the 2022 version. All of these concordance tables are made available by Statistics Canada at this link https://www.statcan.gc.ca/en/concepts/concordances-classifications.

[13] Statistics Canada provides a more detailed description of output in the User Guide: Canadian System of Macroeconomic Accounts (specifically in section 4.2 Key Concepts Related to Supply and Use Accounts) at https://www150.statcan.gc.ca/n1/pub/13-606-g/2016001/article/14619-eng.htm.

[14] Please see at https://www.ic.gc.ca/app/sme-pme/bnchmrkngtl/rprt-flw.pub?execution=e1s1.

[15] IOIC and NAICS concordance in discussed in the task above.

Part 3 – Users must enter the year in which the potential change in output is expected to commence and the duration of the change.

> For one-time changes in output, users must enter the year in which the change in output is expected to begin. Users must also enter the expected duration of the one-time change in output. This is the length, in years, of the development phase of the proposed project.
>
> For recurring changes in output, users must enter the year in which the annual change in output is expected to begin. In some cases, this would be immediately (i.e. Year 1). In other cases, this would be the year after the completion of the development phase. Users must also enter the duration of the recurring change in output. If the change in output is expected to last for ten years, users enter 10. If the change in output is expected to be ongoing for the foreseeable future, users can enter a value beyond the timeframe of analysis (discussed later).

Task #4 – Assess Investment Facilitation Success Factors

An underlying premise in the methodology is that every project or investment represents a potential change in economic output in one or more industries. The probability of that potential investment occurring multiplied by the value of the potential investment yields the anticipated investment. This result represents the amount expected to occur.

Through the previous tasks, users have defined a potential change in output that could be generated by a proposed project or planned investment. To determine the anticipated change in output, the app applies a probability that the user-defined change in output will occur to that potential change. The app calculates this probability based on the users' assessment of the investment climate. The presence, including partial presence, of certain success factors improves the investment climate, and therefore, increases the probability that the potential change in output will occur.

The app identifies ten Investment Facilitation Success Factors and users must indicate whether each is present, or how much of each is present, in the particular investment climate for the specific project. In many investment climates, any particular success factor may not be completely present or completely absent and the app uses sliders to accommodate this. If a success factor is completely present, the user simply moves the slider button completely to the right. If a success factor is completely absent, the user simply moves the slider button completely to the left. If the user determines the success factor is partially, but not completely present, the slider button can be moved as far as necessary to reflect the assessment of the element given known conditions and circumstances.[16] Users must use their judgement in making these assessments. The Methodology document provides explanations of each success factor, things to consider, and some general guidance in making assessments (descriptions of factors closer to a 100% assessment, and those closer to a 0% assessment). The Methodology also describes how the list of success factors was assembled.

[16] Keyboard arrow keys can also be used to adjust the slider buttons in one percentage point increments.

Task #5 – Define Share of Impacts Available to Indigenous Workers

A proposed project or planned investment can generate potential economic impacts. Some will be available to[17] Indigenous workers (or generated by[18] Indigenous workers), while some will be available to non-Indigenous workers (or generated by non-Indigenous workers). The app includes a field in which users can define the portion of potential economic impacts available to Indigenous workers (or generated by Indigenous workers).

Indigenous Share of Labour Force: The app automatically includes a default value, based on the selected province / territory, from Census 2021 data. The automatically generated value, based on the principle of economic reconciliation, is equal to Indigenous portion of the overall labour force.

Sub-Region-Specific Alternative: Because the Indigenous portion of the overall labour force can vary significantly within the different subregions of a province / territory, users can simply type in a more appropriate value into the Share Available field. The greater the Indigenous portion of the labour force, the greater the portion of economic benefits available to Indigenous workers (or generated by Indigenous workers).

Indigenous Owned Projects Alternative: In other cases, such as in the case of Indigenous owned projects, the Indigenous employment goal for the project may exceed the Indigenous share of the sub-regional labour force. In this case, users can simply enter a more appropriate value in the Share Available field, overwriting the default value.

Specified Target Alternative: In some cases, the proposed project might include an agreement (or other mechanism) between affected Indigenous groups and the project proponent that may specify an Indigenous employment target. Users can enter the value specified in the agreement into the Share Available field, if that is appropriate.

Task #6 – Assess Economic Realization Success Factors

To estimate the economic impacts actually realized by Indigenous workers, the app applies a probability that economic opportunities will be captured to the estimate of economic impacts available to Indigenous workers. The app calculates this probability based on the users' assessment of certain economic impact realization success factors. The presence, including partial presence, of these success factors improves the likelihood of Indigenous workers realizing available economic benefits.

The app identifies six Economic Impact Realization Success Factors and users must indicate whether each is present, or how much of each is present, for the particular Indigenous labour force and the specific project. In many cases, any particular success factor may not be completely present or completely absent and the app uses sliders to accommodate this. If a success factor is completely present, the user simply moves the slider button completely to the right (i.e. 100%). If a success factor is completely absent, the user simply moves the slider button completely to the left (0%). If the user determines the success factor is partially, but not completely present, slider button can be moved as far as necessary to reflect the assessment made by the user given known conditions and circumstances.

[17] In the case of jobs and labour income.
[18] In the case of GDP.

Users must use their judgement in making these assessments. The Methodology document provides explanations of each success factor, some things to consider, and some general guidance in making these assessments.

Users will note that four of the success factors appear on both the list of Investment Facilitation Success Factors and the list of Economic Impact Realization Success Factors, including Close to Markets; Separation of Business and Politics; Comprehensive Strategy / Vision / Planning; and Community Support / Participatory Decision Making. Users will have the ability to enter different values for these overlapping success factors to accommodate those circumstances where different values are appropriate. For example, Close to Markets appears on both lists. In the case of its influence on the realization of economic impacts, users should consider the project's distance from the labour market. But, in the case of investment facilitation, the user should consider the type of project and its distance to appropriate markets, which can mean different things depending on the type of project.

Task #7 – Define the Project Timeframe

Users must specify the timeframe of analysis. Although a proposed project or planned investment may generate changes in output for a number of years, there may be circumstances in which users are interested only in estimated impacts during a certain time period. The estimates reports generated by the app will contain a table with a column for every year within the analysis timeframe.

Use of the Potential Delay field will be described later in the Additional Features section.

Task #8 – Generate Report

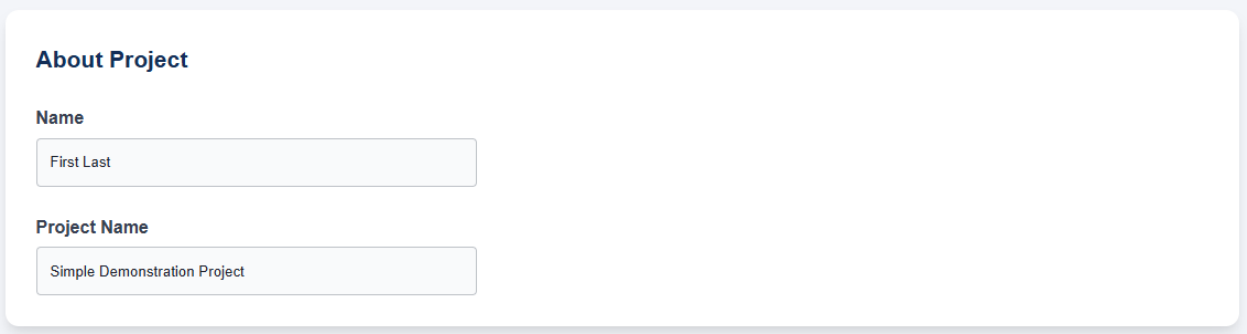
With all inputs enter, user need only click the Generate Report button to produce a summary report and detailed report of estimates. The button is located at the bottom of the narrow navigation menu on the left side of the project inputs. in order.

Simple Example

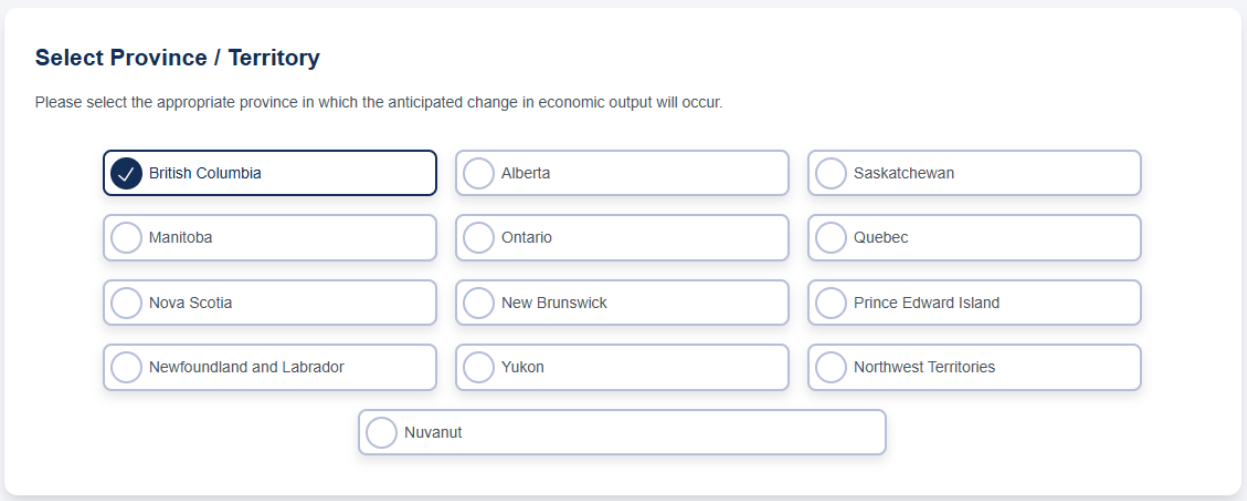
A simple example is offered to assist users in entering inputs according to the tasks defined above.

Assume a proposed project involves the construction and subsequent operation of a new manufacturing facility on the reserve land of a First Nation in British Columbia. Assume the proposed project might generate a $10 million one-time increase in the non-residential building construction industry over a two-year development phase, beginning in Year 1, associated with the construction of the new facility. Assume further the proposed project might generate a $2 million recurring increase in output of the manufacturing industry, beginning in Year 3 and ongoing thereafter. Also assume users are interested in a 25-year period of analysis.

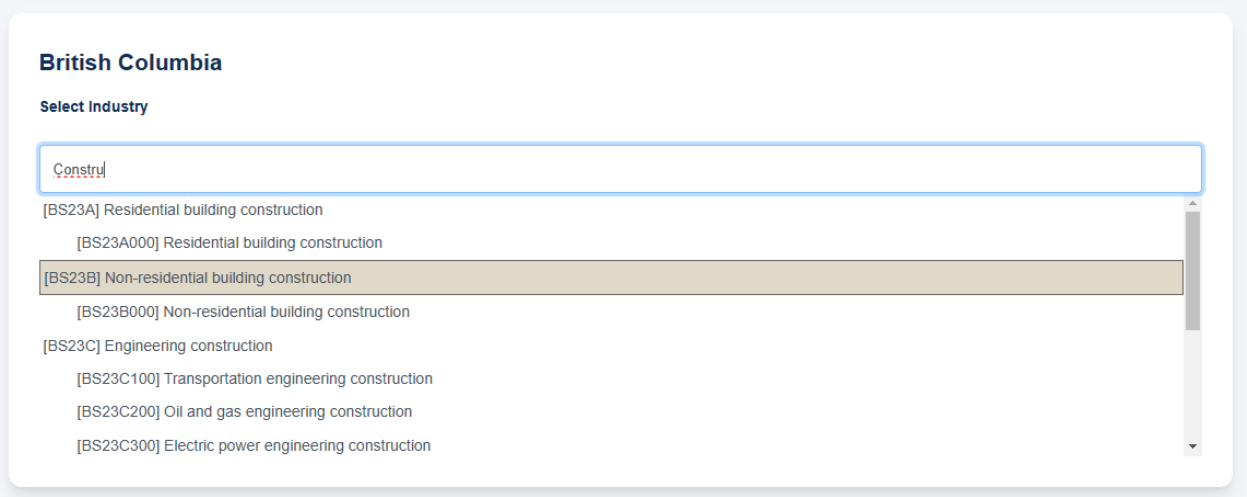
In **Task #0**, users can name the project.



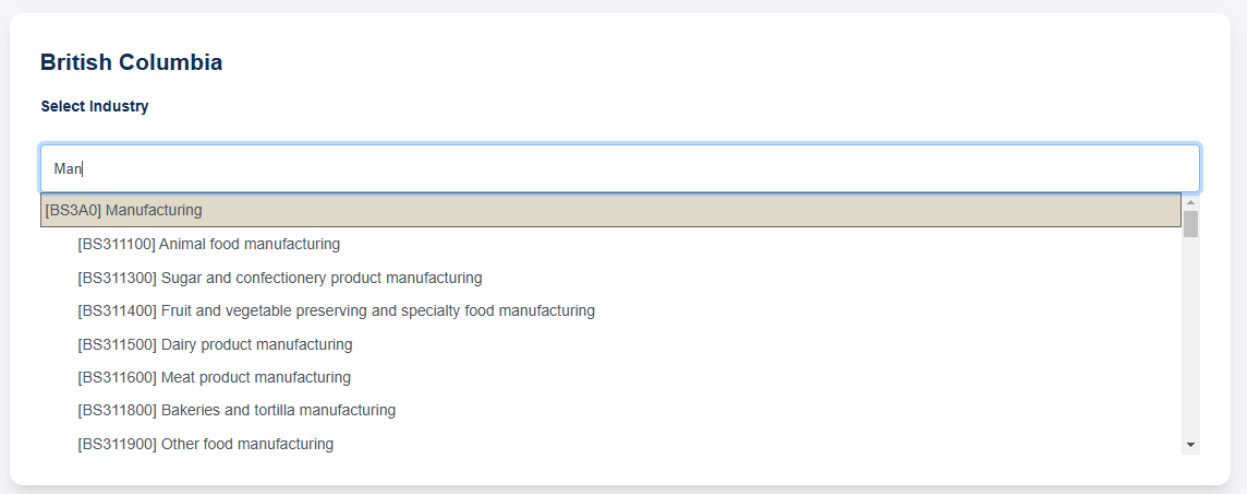
In **Task #1**, users can select BC.



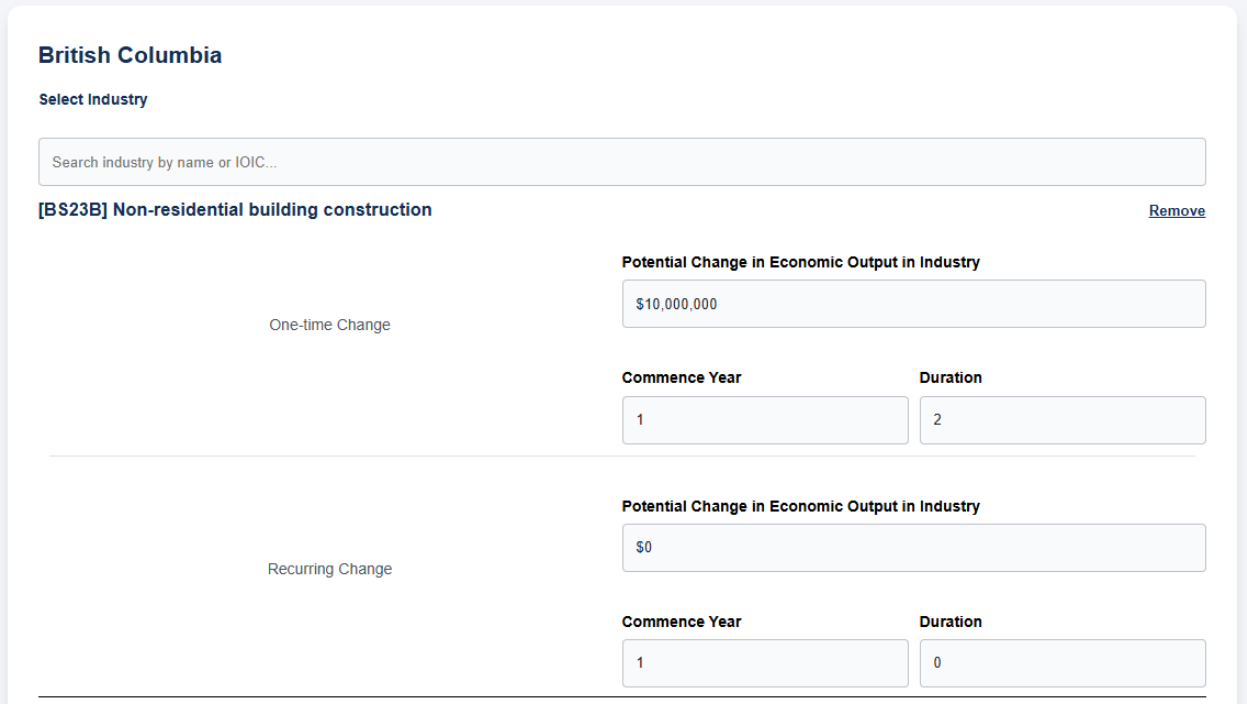
In **Task #2**, users select the BS23B Non-Residential Construction industry...



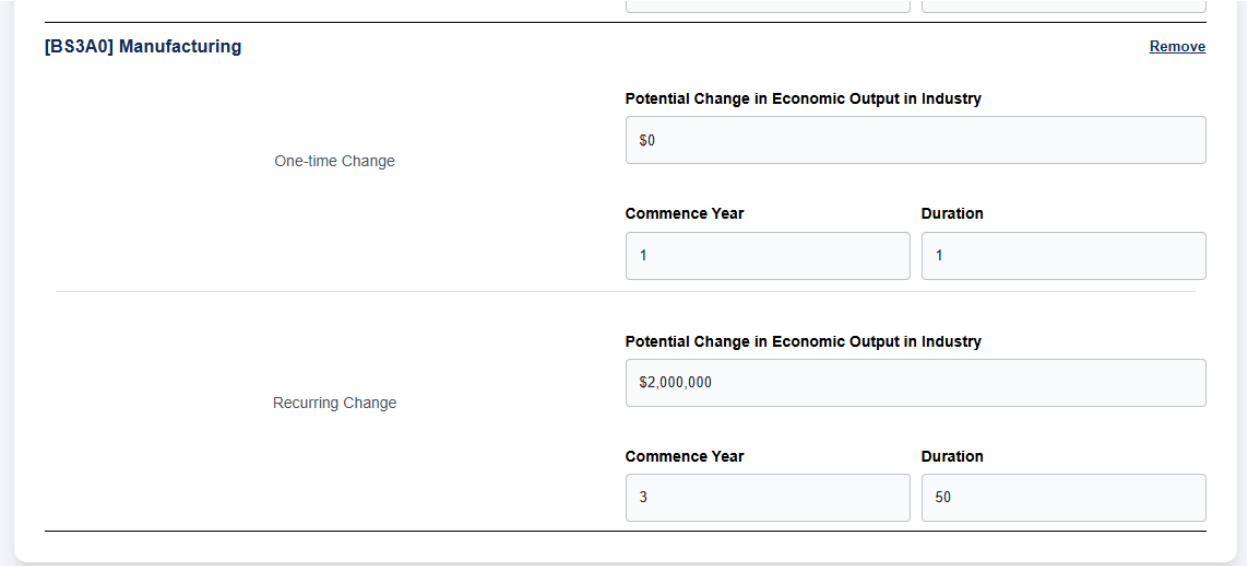
…and the BS3A0 Manufacturing industry.



In **Task #3**, users identify the predicted one-time change in output of the Non-Residential Building Construction industry ($10 million), as well as the year in which that change is expected to commence (Year 1) and the anticipated duration of the output change in years (2 years). Note the recurring change in output field remains at $0.



Continuing with **Task #3**, users identify the predicted recurring change in output of the Manufacturing industry ($2 million), as well as the year in which that change is expected to commence (Year 3) and the anticipated duration of the output change in years. In this case, 50 has been entered, which far exceeds the Project Analysis Timeframe that will be entered later (25 years).



In **Task #4**, users enter their assessment of the ten Investment Facilitation Success Factors. For the sake of the simple example, assume the following:

Infrastructure and Services – Assume the proposed development site is directly adjacent to the existing transportation network. The road is in reasonably good condition and capable of handling the type and increased volume of vehicles anticipated. Assume further there is sufficient existing water and wastewater capacity to accommodate the new facility. Also, assume power and telecommunication networks are nearby and service connections are possible. The only infrastructure upgrade required is a simple right in / right out to access the development site, which does not need a traffic signal.
Assumed User Assessment: 75%

Close to Markets – Assume the proposed project's location is reasonably close to appropriate transportation methods (highway and railway), such that the manufacturing facility will be able to obtain its required input materials and also ship its products / outputs to their target markets at a cost that is believed to be fairly competitive, relative to alternative sites.
Assumed User Assessment: 90%

Administrative / Human Resources Capacity – Assume the First Nation's administrative team is responsive and highly capable, with key personnel in lands, leasing, finance, taxation, and economic development departments with various training and certifications from the First Nations Land Management Resource Centre, the First Nations Financial Management Board, the Tulo Centre of Indigenous Economics, AFOA Canada, and others. Assume further the First Nation's website provides much of the relevant information potential investors require when making investment location decisions (land use / zoning, public services, tax rates, etc.).
Assumed User Assessment: 100%

Community Support / Participatory Decision-Making – Assume the First Nation hosted a series of community engagement events a number of years ago in order to receive member feedback on proposed land uses, including the decision to set aside a large parcel of commonly held land for economic development purposes. The site of the proposed project is within this larger economic development area for leasing for non-residential / commercial / light industrial purposes. The proposed manufacturing project is consistent with the member approved land use plan. Some members have had questions about traffic impact and noise and dust related to the proposed project, but it is believed that the majority of membership will not oppose the proposed project.
Assumed User Assessment: 100%

Own Source Revenues – The First Nation has a number of own source revenue streams, accounting for a larger portion of total revenues than federal funding. Sources including leasing, provincial gaming revenues, property taxation, forestry agreements, and net revenues from various Nation-owned businesses, via the economic development corporation. These revenue streams support the First Nation to take a longer term approach to planning, enhance access to improved financing options, and generally help to ensure the First Nation is able to take advantage of economic opportunities when they arise. The First Natin also has the option to utilize fiscal powers under the FMA to help fund the small infrastructure upgrade required at the project site.
Assumed User Assessment: 100%

Land Management – Assume the First Nation manages its lands under its own community approved land code, passed under the Framework Agreement on First Nation Land Management. Assume further, the

First Nation can provide a long-term, secure leasehold interest for the development site in the time required for the project proponent to proceed with their planned investment.
Assumed User Assessment: 100%

Accountability / Transparency / Financial Management Systems – Assume the First Nation has created a framework of good financial practices within a Financial Administration Law certified by the First Nations Financial Management Board, which establishes provisions related to roles and responsibilities, risk management, planning and budgeting, and financial reporting. But assume the First Nation hasn't yet established the polices and procedures to implement all aspects of its FAL, and has not yet achieved financial performance certification from the FMB.
Assumed User Assessment: 70%

Comprehensive Strategy / Vision / Planning – Assume the First Nation has and continues to work through an integrated planning process. It has described its long-term community development vision in a comprehensive document that was prepared in coordination with its economic development strategy. The First Nation has an approved land use plan intended to support its development and economic vision. Further, assume the First Nation is currently revising its capital plan to support the land use plan, which is being integrated with a financial planning process to ensure the First Nation can fund its capital projects in a sustainable manner.
Assumed User Assessment: 80%

Good Governance – Assume the First Nation has established a strong governance framework in which roles, responsibilities, authorities, and expectations of council, officers and employees are all clearly defined and well understood. Assume further that procedures and policies governing council and committees have also been well-described. The governance framework supports council and staff to make well-informed decisions.
Assumed User Assessment: 100%

Separation of Business and Politics – Assume the First Nation has not mechanism in place to effectively separate business and politics. The First Nation has not established an arm's length body to be responsible for the economic development initiatives of the First Nation. In fact, economic development initiatives and leasing decisions are directly by the First Nation administration, at the direction of chief and council.
Assumed User Assessment: 0%

Investment Facilitation Success Factors - 92.70%

Infrastructure and Services — Potential: 75 % - Weighted: 7.5%

Infrastructure designed and sized in accordance with current and future development (both level and type of development) and services of a quality high enough to support the type of desired, planned or potential investment.

Close to Markets — Potential: 90 % - Weighted: 6.3%

The proposed project's distance to markets influences the viability of proposed projects or planned investments.

Administrative / Human Resources Capacity — Potential: 100 % - Weighted: 6.0%

A professional and capable administration efficiently facilitates investment by lowering transaction costs and leads to better decision-making through better information and better reporting.

Community Support / Participatory Decision Making — Potential: 100 % - Weighted: 5.0%

Use of community discussions, meetings, information sessions and forums to gain general support by well-informed community members for leadership's overall economic strategy formed on the basis of community members actually realizing economic benefits from investment.

Own Source Revenues — Potential: 100 % - Weighted: 5.0%

Own source revenue streams allow planning over longer time frames and enable Nations to participate in economic opportunities with fewer restrictions and possibly within shorter time periods.

Land Management — Potential: 100 % - Weighted: 5.0%

The authority to manage lands (including the making of rules respecting the use and occupation of land and granting individual interests in land); and the ability to offer secure, long-term land tenure in a timely fashion.

Accountability / Transparency / Financial Management — Potential: 70 % - Weighted: 3.5%

A system by which management processes and financial information are open and readily available and individuals are held to account.

Comprehensive Strategy / Vision / Planning — Potential: 80 % - Weighted: 2.4%

A long-term community development vision coordinated with integrated land use plans, economic plans, capital plans, and financial plans designed and developed to achieve the Nation's objectives.

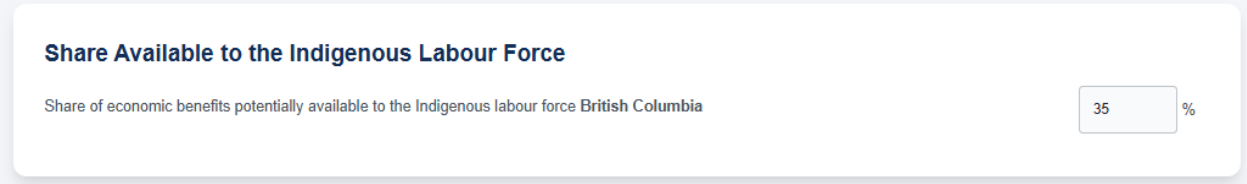
Good Governance — Potential: 100 % - Weighted: 2.0%

Strong governance has a pronounced effect on the ability to attract investment. Strong governance is the establishment of structures that enhance markets and reduce transaction costs.

Separation of Business and Politics — Potential: 0 % - Weighted: 0.0%

Mechanisms in place that separate politics from government administration, including entities like arm's length economic development corporations. These can contribute to greater consistency in the leadership of the community's economic development and improve political stability as well.

In **Task #5**, users select the approach the app will use to calculate the portion of generated economic impacts that will be available to Indigenous workers. In this simple example, assume the project proponent has indicated to the First Nation, the desire to see 35% Indigenous employment. Users type 35 into the share available field.



In **Task #6**, users enter their assessment of the six Economic Impact Realization Success Factors. For the sake of the simple example, assume the following:

Educated Labour Force – Assume the First Nation has education data that shows about 85% of the 15+ local Indigenous population possesses a level of education consistent with the employment opportunities expected to be generated by the project. Assume further that this portion is very similar to the portion of the non-Indigenous 15+ population in this area.
Assumed User Assessment: 85%

Close to Markets – Assume a portion of the local Indigenous labour market possesses the required training, skills and experience to fill many of the anticipated employment opportunities. Assume further the local Indigenous labour market is located close enough to the proposed project site and many members of the local Indigenous labour market are believed to have an interest in filling these available employment opportunities. It is believed that there is sufficient underutilized capacity within the local Indigenous labour market to fill many of the employment opportunities that will be available.
Assumed User Assessment: 100%

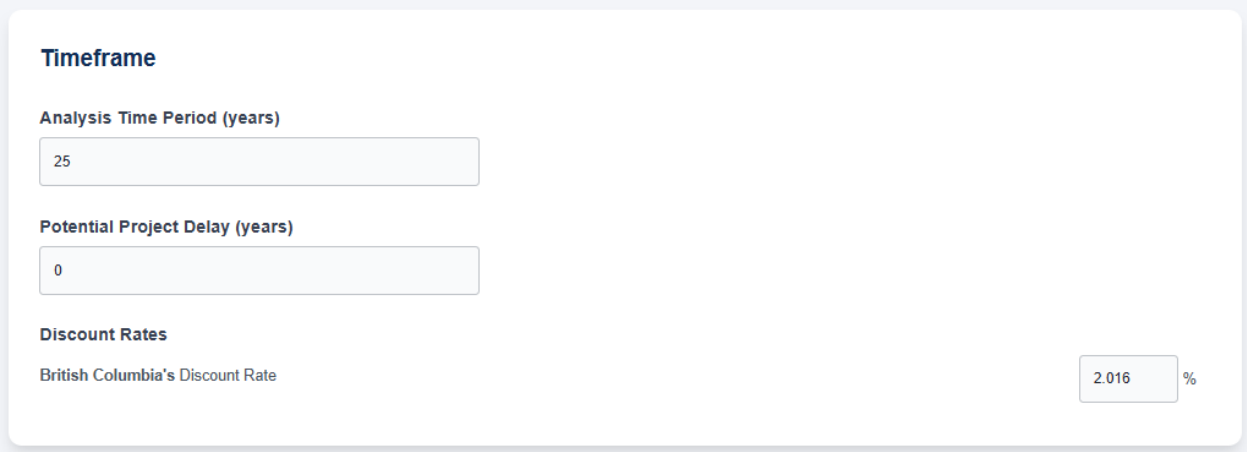
Relationships and Partnerships – Assume the First Nation has demonstrated the ability to form relationships with the private sector in business ventures and with a regional educational institution for training. This lowers transaction costs and builds trust, which can support more Indigenous workers filling generated employment opportunities.
Assumed User Assessment: 100%

Separation of Business and Politics – Assume the First Nation has no formal mechanism to separate politics from government administration. As a result, there may be a perception among the underutilized portion of the local Indigenous labour market that generated employment opportunities may not be equitably distributed. If this is the case, this might reduce that some or all of the underutilized portion of the local Indigenous labour force pursues generated employment opportunities, resulting in less than broad-based realization of generated economic benefits.
Assumed User Assessment: 50%

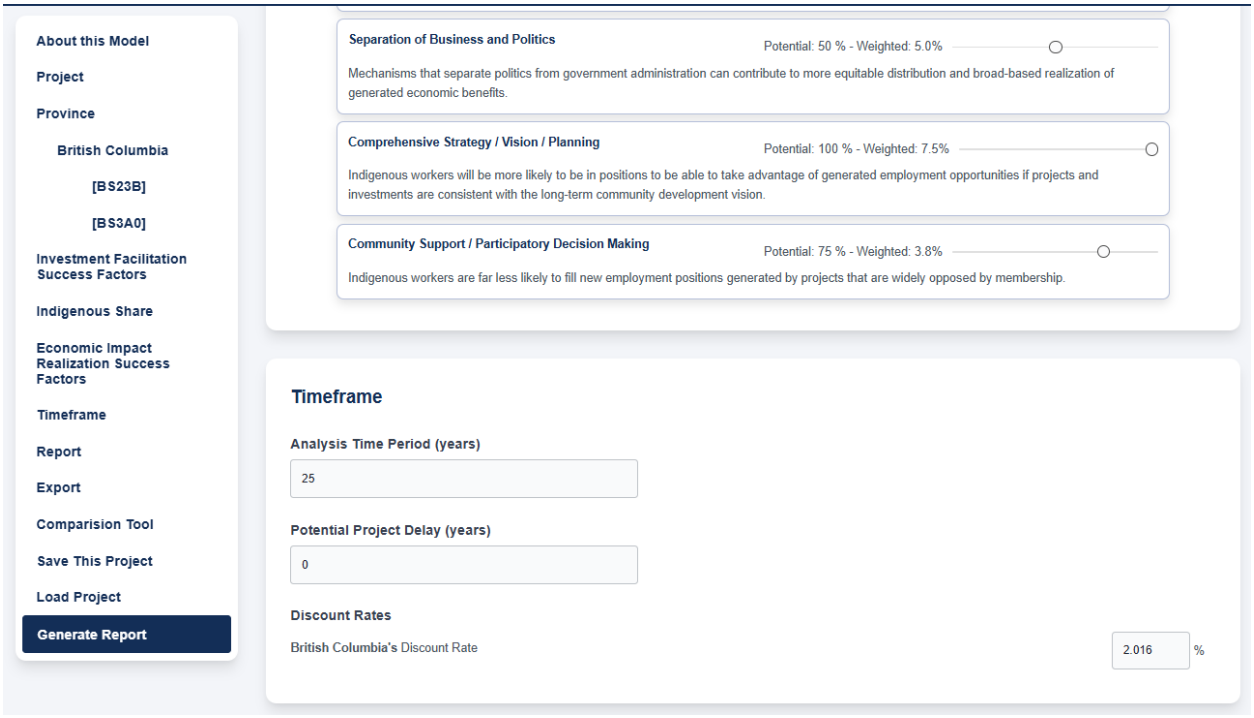
Comprehensive Strategy / Vision / Planning – Assume the proposed project is consistent with the long-term community vision, and this isn't the first time the First Nation has successfully attracted business investment onto the reserve. As such, members of the local Indigenous labour market are more likely to be in positions to be able to take advantage of generated employment opportunities.
Assumed User Assessment: 100%

Community Support / Participatory Decision Making – Assume the First Nation held a series of information sessions, community meetings, and a vote while developing its land code and land use plan. Although there is general support among membership for the overall economic strategy, there was no direct engagement on this specific proposed project. However, the proposed project is consistent with the approved land use plan and includes no obvious reason it would be widely opposed by membership. Thus, increasing the likelihood that the underutilized portion of the local Indigenous labour force will want to participate in the economic opportunities generated by the project, if it proceeds.
Assumed User Assessment: 75%

In **Task #7**, users enter 25 in the Analysis Time Period (years) field. The Potential Project Delay field is left at 0 for the time being. This will be described later in the Additional Features section. BC's discount rate is automatically generated in the field in the lower right of the section.



With all inputs entered, the final job in Task #8 is simply to click the Generate Report button. This is located at the bottom of the narrow navigation menu on the left of the project inputs. The app preforms the estimates of economic impacts in accordance with the methodology and a report is automatically generated.



Interpretation of Estimates

The app presents estimates in three reports, with increasing level of detail.

Summary Report (Simple and Expanded)

The app displays the Summary Report provides estimates in five sections:

- Changes in Output
    - Potential change in output, by year, as defined by the user, for the given timeframe of analysis. An estimate of the total change in output is provided in the last column of the table (right hand side).
    - Estimates of the anticipated change in output, by year. As described in Step 1 of the methodology, the app estimates this anticipated change by applying a probability to the potential change. The probability is determined by the user's assessment of the Investment Facilitation Success Factors. An estimate of the total anticipated change in output is provided in the last column of the table (right hand side).
- Estimates of Full Potential Economic Impacts Associated with Anticipated Changes in Output
    - Estimates of potential employment impacts associated with anticipated changes in output, by year. As described in Step 3 of the methodology, the app applies the appropriate Statistics Canada economic multipliers to the anticipated changes in output. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total potential employment impact is provided in the last column of the table (right hand side).
    - Estimates of potential labour income impacts associated with anticipated changes in output, by year. As described in Step 3 of the methodology, the app applies the appropriate Statistics Canada economic multipliers to the anticipated changes in output. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total potential labour income impact is provided in the last column of the table (right hand side).
    - Estimates of potential GDP impacts associated with anticipated changes in output, by year. As described in Step 3 of the methodology, the app applies the appropriate Statistics Canada economic multipliers to the anticipated changes in output. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total potential GDP impact is provided in the last column of the table (right hand side).
- Estimates of Economic Impacts Available to the Indigenous Labour Force
    - Estimates of potential employment impacts available to the Indigenous labour force, by year. As described in Step 4 of the methodology, the app applies either a user-defined Indigenous share, or an automatically generated portion based on the Indigenous share of the labour force in the province / territory, to the estimates of economic impacts associated with the anticipated change in output described above. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total potential employment impact is provided in the last column of the table (right hand side).

    - Estimates of potential labour income impacts available to the Indigenous labour force, by year. As described in Step 4 of the methodology, the app applies either a user-defined Indigenous share, or an automatically generated portion based on the Indigenous share of the labour force in the province / territory, to the estimates of economic impacts associated with the anticipated change in output described above. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total potential labour income impact is provided in the last column of the table (right hand side).
    - Estimates of potential GDP impacts generated by the Indigenous labour force, by year. As described in Step 4 of the methodology, the app applies either a user-defined Indigenous share, or an automatically generated portion based on the Indigenous share of the labour force in the province / territory, to the estimates of economic impacts associated with the anticipated change in output described above. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total potential GDP impact by is provided in the last column of the table (right hand side).
- Present Value of Estimates of Economic Impacts Expected to be Realized by the Indigenous Labour Force
    - Estimates of employment impacts captured by the Indigenous labour force, by year. As described in Step 5 of the methodology, the app applies a probability to the estimates of economic impacts available to the Indigenous labour force, described above. The probability is determined by the user's assessment of the Economic Impact Realization Success Factors. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total realized employment impact is provided in the last column of the table (right hand side).
    - Estimates of labour income impacts realized by the Indigenous labour force, by year. As described in Step 5 of the methodology, the app applies a probability to the estimates of economic impacts available to the Indigenous labour force, described above. The probability is determined by the user's assessment of the Economic Impact Realization Success Factors. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total realized labour income impact is provided in the last column of the table (right hand side).
    - Estimates of GDP impacts generated by the Indigenous labour force, by year. As described in Step 5 of the methodology, the app applies a probability to the estimates of economic impacts available to the Indigenous labour force, described above. The probability is determined by the user's assessment of the Economic Impact Realization Success Factors. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total realized GDP impact is provided in the last column of the table (right hand side).
- Present Value of Estimates of Economic Impacts Expected to be Realized by the Non-Indigenous Labour Force
    - Estimates of employment impacts captured by the non-Indigenous labour force, by year. As described in Step 6 of the methodology, the app calculates the difference between the estimates of potential economic impacts and realized economic impacts. The

estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total employment impact realized by the non-Indigenous labour force is provided in the last column of the table (right hand side).

- Estimates of labour income impacts realized by the non-Indigenous labour force, by year. As described in Step 6 of the methodology, the app calculates the difference between the estimates of potential economic impacts and realized economic impacts. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total labour income impact realized by the non-Indigenous labour force is provided in the last column of the table (right hand side).
- Estimates of GDP impacts generated by the non-Indigenous labour force, by year. As described in Step 6 of the methodology, the app calculates the difference between the estimates of potential economic impacts and realized economic impacts. The estimates provided in Summary Report sum the direct, indirect, and induced impacts into the values displayed. An estimate of the total GDP impact generated by the non-Indigenous labour force is provided in the last column of the table (right hand side).

Detailed Report

Detailed Reports are provided by province / territory. The app generates a detailed report for each industry in which a change in output is expected. For each industry, the app generates four individual sub-reports:

- Report 1 provides estimates of anticipated changes in output, by year. One-time and recurring changes are shown separately. This report also shows the results of the assessment of Investment Facilitation Success Factors. This probability is applied to the potential changes in output to estimate anticipated changes in output.
- Report 2 provides the economic multipliers used by the app in the estimate of economic impacts. The report shows estimates of full potential impacts associated with the anticipated change in output for the given industry. The table provides estimates associated with anticipated one-time changes in output and anticipated recurring changes in output separately. Estimates of direct, indirect, and induced impacts are also shown separately.
- Report 3 provides the user-defined Indigenous share of generated economic impacts. The report shows estimates of economic impacts available to the Indigenous labour force, by year. Again, estimates are shown in a manner that breaks down direct, indirect, and induced, as well as impacts associated with anticipated one-time and recurring changes in output.
- Report 4 provides the results of the assessment of the Economic Realization Success Factors. The report shows estimates of economic impacts realized by the Indigenous labour force. Again, estimates are shown in a manner that breaks down direct, indirect, and induced, as well as impacts associated with anticipated one-time and recurring changes in output.

Additional Features

Comparison Tool

The Comparison Tool is used to quickly estimate the expected impacts that could result from changes in the assessment of Investment Facilitation Success Factors or the Economic Impact Realization Success Factors. After entering all required inputs and generating an estimates report, users can click the Comparison Tool button, which generates a new pop-up window on top of the existing estimates display. By expanding either the Investment Facilitation section or the Economic Impact Realization section, users can adjust the assessment of relevant success factors, then click the Compare button. The app follows the same estimation method as described above, with the original assessment of success factors as well as the adjusted assessment of success factors. The app displays a table that provides estimates of economic impacts in present value terms, including those expected to be realized by the Indigenous labour force as well as those expected to be realized by the non-Indigenous labour force. There are three columns of estimates. The first summarizes the base case from the original inputs. The second provides the estimates under the new scenario with adjusted success factors. The final column on the right displays the change from the base case to the new scenario. Adjusted assessment of success factors are not saved by the app. After the Comparison Tool window is closed, the app displays only the original estimates under the base case scenario.

Cost of Delay

Proposed projects can be delayed for any number of reasons. Estimating the cost of that delay can be challenging, but the app provides a tool to quickly generate preliminary estimates in terms of lost economic impacts. Within the Timeframe section, users must enter the number of years by which project commencement could potentially be delayed. After generating an estimates report, the app displays a table below the Summary Report called Estimated Cost of Project Delay. Estimates in this table follow the same methodology as describe above.
The table provides estimates of economic impacts in present value terms, including those expected to be realized by the Indigenous labour force as well as those expected to be realized by the non-Indigenous labour force. There are three columns of estimates. The first summarizes the base case from the original inputs. The second provides the estimates under the delayed scenario, in which the project is the same as originally entered, only it commences the specified number of years later. The time period of analysis is not extended. The final column on the right displays the change from the base case to the delayed scenario. Estimates are negative and reflect lost economic impacts, or the opportunity cost of the delay. Users should note the project delay is not captured in the Summary Report or the Detailed Reports. The project delay is only reflected in the Cost of Delay table.

Saving Projects

Users can save all inputs as entered for a particular project by clicking the Save This Project button. The app generates a .json file (a text file) with the inputs as entered by the user. The user can select where to save this file. Projects are saved with the name entered in the Project Name field of the About Project section, but can be renamed by users as desired.

By clicking on the Load Project button, users can select a saved .json file to load either by dragging and dropping the file into the Upload File box, or by selecting a location using the Select a File button.

Clicking the Load button will load the saved inputs for the particular project. Users will note the app only saves inputs; estimates reports will still need to be re-generated after loading.

Exporting Estimates

Users may wish to conduct additional or more detailed analysis on specific timeframes, generate different tables for summary or communications purposes, or perform other tasks with the inputs and estimates produced by the app. By selecting the Export feature, users can quickly generate an Excel file of inputs and estimates. After clicking Export and selecting the Summary Report, an Excel file is generated with two worksheets. One sheet, titled Inputs, includes all inputs entered by the user. The second sheet, titled Summary, is an Excel version of the Expanded Summary Report showing estimates for each year of the analysis period as well as the total over the timeframe. Detailed Reports can also be exported to Excel. After clicking Export and selecting the specific province or provinces, an Excel file is generated with additional worksheets. The first sheet, titled Inputs, includes all inputs entered by the user. After that, one worksheet is generated for each industry in which a change in output is expected for each province / territory specified. Sheets are named automatically with the provincial code and the IOIC industry code. These sheets include the same four sub-reports described in the Detailed Report section. Users will need to spend some time formatting column widths, number formats, text alignments, and other characteristics, if important for their purposes.

Appendix 1 – Note on Indigenous Peoples Economic Account

In developing the proposal for the work on the Economic Impact Estimator Tool, ISC asked Fiscal Realities Economists to consider the data within Statistic Canada's Indigenous Peoples Economic Account (IPEA) for potential incorporation. This short appendix is a response to that request.

Indigenous Peoples Economic Account (IPEA) is a suite of economic statistics intended to help measure the economic contribution of Indigenous peoples to the Canadian economy, in terms of gross domestic product (GDP). In developing IPEA, the goal of Statistics Canada is to provide a more comprehensive picture of Indigenous participation in the Canadian economy.

Currently, the core of IPEA is the Indigenous Peoples Economic Indicators (IPEI), which provides estimates of GDP, output and total number of jobs. These estimates are calculated based on the share of Indigenous labour income and the share of gross operating surplus attributable to Indigenous-owned businesses.

After review, there appears to be some potential to utilize IPEI data within an enhanced version of the Economic Impact Estimator Tool developed for ISC:

1. Geography: IPEI data is provided by province and territory. This is consistent with the approach utilized in the current app.
2. Reference Period: IPEI data is available for 2019, the reference year for economic multiplier data utilized by the current app.

However, there also appears to be three challenges that would need to be overcome in order to incorporate the IPEI data into an enhanced version of the app:

1. Different Industrial Classification Systems: IPEI data is provided by industry using the North American Industry Classification System (NAICS), while the economic multiplier data utilized by the current app follows the Input-Output Industry Classification (IOIC) system. These classification systems are similar, but not identical. Statistics Canada provides a concordance table[19] to reconcile IOIC industries with NAICS industries. Further investigate to identify any gaps and overlaps would be required to improve understanding around the potential utilization of this table to facilitate the inclusion of IPEI data into an enhanced version of the app. As just one example, the table shows that NAICS industry 11 (Agriculture, Forestry, Fishing and Hunting) concords with four IOIC industries, including BS11A (Crop and Animal Production), BS113 (Forestry and Logging), BS114 (Fishing, Hunting and Trapping), and BS115 (Support Activities for Agriculture and Forestry). A method would need to be developed to reconcile the economic multiplier data for the four IOIC industries (at appropriate weights) with the IPEI data for the single industry for this and any other overlaps.
2. Different Levels of Detail: IPEI data is provided by industry, but only at the 2-digit level of detail. This includes IPEI data for 20 NAICS industries. The current version of the app includes both Summary Level and Detailed Level economic multiplier data organized by IOIC industries. The Summary Level includes 32 industries and the Detailed Level includes 238 industries and sub-

[19] See https://www.statcan.gc.ca/en/statistical-programs/document/1303_D7_V3.

industries.[20] A method would need to be developed to reconcile the economic multiplier data for many more industries with the IPEI data for far fewer industries.

3. Different Variables: There are two key differences between estimates within the IPEI and those generated by the current app.

   Firstly, the IPEI provides estimates of gross domestic income (GDI), while the current app provides estimates of GDP. Theoretically, GDI and GDP should be equivalent. However, they often are not, and a component is added to GDP estimates called Statistical Discrepancy to make the necessary adjustment. GDI is comprised of four components, including (i) compensation of employees, plus (ii) gross operating surplus, plus (iii) gross mixed incomes, plus (iv) taxes less subsidies on production. GDP at basic prices is the sum of (i) wages and salaries, (ii) supplemental labour income, (iii) mixed income, (iv) other operating surplus, and (v) taxes on production less subsidies on production.[21] There may be slight differences between the two variables. For example, compensation of employees (the first component of GDI) includes both (a) wages and salaries and (b) employers' social contributions, while GDP at basic prices includes only the first sub-component, wages and salaries.

   Secondly, the current app incorporates estimates of labour income, but the IPEI does not include labour income estimates. Only three variables are available within the IPEI estimates, including GDI, number of jobs, and output.

   A method to reconcile these and other identified differences in variables would need to be developed to incorporate IPEI data into a future version of the Economic Impact Estimator Tool.

For Phase 2 of the current project, IPEI data will not be incorporated. However, if ISC wishes to further investigate the potential incorporation of IPEI data into an enhanced version of the estimator tool, Fiscal Realities Economists would be pleased to prepare a proposal to work with ISC and Statistics Canada to improve our understanding of these and potentially other challenges and to devise methods to address identified challenges to maintain greater confidence in resulting estimates.

[20] Fictive industries have been removed from the app.

[21] See https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1282052.