

# Gender Based Analysis Plus: A knowledge synthesis for the implementation and development of socially responsible impact assessment in Canada

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# Executive Summary

## Background

The need for gendered and culturally sensitive analyses of the impacts of resource development is being echoed across Canada. Such an imperative is especially significant in rural, remote, and Indigenous communities where individuals, including women and girls, bear the embodied burden of the impacts of resource development. While the need for gender sensitive impact assessment is clear, what is less clear is how to design and conduct assessments which meaningfully include the impacts on sex, gender, and diversity. This review of literature that concerns gender and culturally sensitive impact assessment is particularly significant given Section 22 (s) of Canada's *Impact Assessment Act* which states that sex, gender and other identity factors must be taken into account during impact assessment processes. Such a clause is an overdue response to increasing awareness of the need for improved regulation and the development of social and cultural impact assessment processes that relate to important factors such as gender, class, ableism, and racialization. This knowledge synthesis project reviews key literature on gender-based analysis and impact assessment in relation to equity, to improve processes that account for inequities amplified across the lifespan of resource development activities.

## Objectives

This project lies at the intersection of impact assessment and Gender Based Analysis Plus (GBA+) in Canada and builds on previous research that has illuminated challenges in implementing a GBA+ lens in impact assessment and proposes solutions to address this gap. Centrally, this work highlights the need for an equity informed approach to the integration of indicator frameworks in GBA+ and the need for further resources to fill a major gap of knowledge and practice in relation to gender-based violence, project appraisal and resource development. This contribution to knowledge is based a systematic and critical literature evaluation (n=56) and provides an evidence base upon which to improve the tools and methods used to integrate GBA+ practices into impact assessments in Canada.

## Results

Indicator frameworks are described in two ways in the literature. On the one hand, indicator frameworks are useful when informed by particular recommendations and approaches, such as analyzing disaggregated data and collecting baseline data to address GBA+ on a case by case basis. Yet an indicator framework approach sits in opposition to meaningful engagement with sex and gender on a local level, from a community-based standpoint. Our results indicate the need for increased funding for community-based and Indigenous organizations and the need to employ third-party, independent researchers with training in community-based and qualitative research, in relation to sex and gender to facilitate independent monitoring, that where appropriate, is Indigenous-led.

## Key Messages

- 1. An equity informed approach is needed in the development and implementation of sex and gender indicators**, as communities are unique and require context-specific frameworks that avoid a check-box approach.
- 2. Attention to colonialism, including violence against women in association with resource development** is needed. There is a failure in the literature and practice to attend to gender-based violence within impact assessment. Emphasis on employment equity is a more common approach to gender analysis than an examination of sexual violence. The Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls has a direct call to justice in terms of impact assessment and project appraisal—this call is not being addressed in current research or policy.
- 3. A bottom up approach** is needed in gender policy research. Gender mainstreaming in Canada tends to focus on the work of policy experts. Our findings indicate the need to work directly with impacted communities from the early planning phase through to project closures. Current guidance recommends this, however there are obstacles to implementation including a lack of funding for Indigenous and women’s organizations.
- 4. Current impact assessment methods lack deep engagement with the ‘plus’ in GBA+** including a failure to engage with queer and Two- spirit communities. Women and men are by and large understood through a binary lens within impact assessment, even when a gendered analysis within impact assessment and GBA+ is used.
- 5. Methodological innovation** is needed, including the inclusion of third-party researchers with expertise in gender-based violence and Indigenous-led research methods at a community level. Inclusion in research will improve how impact assessment processes in Canada address gender and diversity, beyond analyses of employment equity, beginning in the early planning stages of impact assessment. This includes further work to implement GBA+ and Indigenous GBA+ as a mandatory planning phase in impact assessment to take sex, gender and multiple axes of difference into account.

## Methodology

This report presents findings of a systematic review of grey and academic literature, focused on social sciences works on gender and impact assessment. Results were imported into NVivo 12 where literature was thematically analyzed using guiding coding questions.

## Acknowledgements

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# 1. Background

The disproportionate impacts of resource development on women are well demonstrated (See Gibson et al., 2017; Final Report of the Missing and Murdered Indigenous Women and Girls [MMIWG], 2019; Sweet, 2014) and have been historically underrepresented in the Canadian context. When considered, gender impacts tend to be assessed ad hoc, as processes differ across jurisdictions and projects (Clow et al., 2018; Hamilton, 2018; Manning et al., 2018b). In addition, there is a gap between Indigenous and practitioner reporting and a paucity of current federal tools and methods that adequately account for culturally relevant analysis, including Indigenous-led gender-based analysis (Bond & Quinlan, 2018; Walker et al., 2019). This includes a gap in terms of the development of methods that incorporate best practices to guide the development of safe, inclusive project sites and industry interactions with local communities, particularly for women, girls, gender diverse, and non-binary people. For example, in British Columbia, there is a provincial conversation taking place that stems from regional pressures to better assess gender issues; these pressures have mounted in response to the reporting of sexual violence and discrimination, indicated by the Minister’s Advisory Council on Indigenous Women for example (also Gibson et al., 2017; Native Youth Sexual Health Network [NYSHN] & Women’s Earth Alliance, 2016). In this project we ask, based on a robust literature review and engagement with policy guidance, and research on gender and environmental assessment in British Columbia: *What are the key indicators of an inclusive, diversity focused, gender sensitive Impact Assessment process?*

## The GBA+ Approach

Status of Women Canada defines Gender Based Analysis Plus (GBA+) as:

An intersectional analytical process for examining how various intersecting identity factors impact the effectiveness of government initiatives. It involves examining disaggregated data and research, and considering social, economic, and cultural conditions and norms. Using GBA+ means taking a gender- and diversity-sensitive approach ... Considering all intersecting identity factors as part of GBA+ – not only sex and gender – is a Government of Canada commitment” (2019).

The new generation of commitments to gender mainstreaming and the GBA+ approach in Canada necessarily activates an intersectional lens in federal initiatives (Clow et al., 2018; Stienstra et al., 2016; Walker et al., 2019) that is culturally relevant (National Aboriginal Health Organization [NAHO], 2008; Native Women’s Association of Canada [NWAC], 2010; Pauktuutit Inuit Women of Canada et al., 2012). Now is an opportune time to address tensions within the politics and business of resource development through innovative approaches, to improve Canada’s impact assessment process by making it more gender inclusive and equitable (Hankivsky & Mussell, 2018). Bringing equity informed practices into environmental and impact assessments requires

solutions to knowledge and practice challenges; and, cultivation of widespread understanding of the importance of the GBA+ approach is part of this process (Hamilton, 2018).

## 2. Objectives

To answer our primary question around how a gender sensitive impact assessment operates, we provide a knowledge synthesis that offers an evidence base upon which to improve GBA+ tools and processes, and which also interrogates “indicator frameworks” as a lens used to implement GBA+ practices into impact assessments in Canada. In conclusion, we identify strategies for improving methods and offer methodological insight into implementing a GBA+ lens in the Canadian context.

Our primary objectives of this study are to:

1. Systematically summarize and critically evaluate the national and international literature (n=56) and to provide a knowledge synthesis that offers an evidence base upon which to improve the tools and processes used to interrogate how indicator frameworks can or cannot be used to integrate GBA+ in impact assessment in Canada.
2. Disseminate the findings and report on current tools and processes for GBA+ implementation within impact assessments in Canada, grounded in results from our review. Based on this report, we will seek feedback on findings, to improve and integrate tools and methods which are equity informed in order to further a nuanced approach to indicator development frameworks which will include independent qualitative research in order to advance culturally sensitive and context relevant GBA+ approaches in impact assessment federally.

## Questions

1. What does evidence (from national and international studies) suggest are the most significant gender and equity-based indicators of resource development, as demonstrated through impact assessment literature, including that on GBA+? What are the implications for potential indicator frameworks?
2. What are the key differences between what the literature suggests are important and the GBA+ factors currently proposed to inform impact assessment in Canada?
3. What tools and processes allow for an analysis of GBA + that integrates gender violence and the impacts of colonialism within impact assessment frameworks?

To answer these questions, we examine guiding frameworks and tools that can be used to inform a systematic and nuanced GBA+ tool to be used in Canadian impact assessments. Impact

assessment seeks to understand the impacts of resource development and major project activity. The consideration of cumulative impacts, for example, through GBA+ frameworks, identify measurement weaknesses that are tolerated within siloed approaches to impact assessment (see Czyzewski et al., 2014). Through a review of methods in impact assessment, this work builds on current federal momentum examining the practice of equity-derived analysis to foster stronger and more inclusive project reviews.

The need for GBA+ informed approaches to impact assessment in Canada can be illustrated through examples drawn from across the country. For example, racism and sexism within major project appraisal and at project sites is well documented (eg. Sweet, 2014). Project sites have been analyzed in terms of racialization and gender in many cases, including the Red Dog mine in Alaska (Prno 2013; Haley & Fisher, 2012), and the Meadowbank mine in Nunavut (Bernauer 2011; Nightingale et al., 2017) for example. Resource development and environmental assessment processes in the Canadian North are another longstanding site of inquiry and analysis (Archibald & Crnkovich, 1999; Cox & Mills, 2015; Dalseg et al., 2018; Jones & Southcott, 2015; Manning, 2014) applied FemNorthNet's Feminist Intersectional Policy Analysis for resource development framework to the EA process of the Maritime Link, a hydro-electrical transmission infrastructure upgrade. There have also been retrospective public participation processes associated with the Voisey's Bay EA to understand how women and individuals with diverse identities and social affiliations were excluded (Archibald & Crnkovich 1999). Also, at Voisey's Bay, Cox & Mills (2015) compared Indigenous women's submissions to the environmental assessment process to EA regulations and the IBA. Nightingale et al. (2017) built on the National Aboriginal Health Organization's (NAHO) framework in their work with Pauktuutit Inuit Women of Canada to understand the effects of the mine on Inuit women and their families. Whereas Bernauer (2011) interviewed Baker Lake, Nunavut community members to identify barriers to working in the Meadowbank mine, and found childcare needs and a lack of access to childcare services was an obstacle faced by some because of the two weeks on/two weeks off shift schedule. Further, cultural training initiatives have been demonstrated to not fully live up to the expectation of a culturally sensitive working environment (Ewing et al., 2017). Given these circumstances, research to promote, improve, and "mainstream" understandings of cultural and gender-based impact assessment practices in Canada is crucial.

### 3. Methods

This research produces a Knowledge Synthesis of GBA+ approaches to impact assessments with a goal of contributing evidence that can inform the development of a new generation of processes for assessing the impacts of resource development that takes sex and gender into account. Through a review of methods in impact assessment, we build on current federal momentum examining the practice of equity-derived analysis to foster stronger and more inclusive project reviews. In this study, evidence was gathered through a systematic review of both grey and academic research, with our approach described in detail below.

## Literature Review

Research was overseen by Co-PIs Drs. Hoogeveen and Gislason with assistance and input from three research assistants at Simon Fraser University. Literature in all languages was searched between the dates of 2000-2019. The review process used is consistent with the standard for systematic reviews and focused on social data related to equity issues: definition of eligibility criteria; a broad search identifying possibly eligible titles and abstracts; selection of titles and abstracts that might possibly be eligible; selection of eligible reports from review of full documents; and abstraction of descriptive information, validity, and outcome data.

### Grey Literature

With advice from our practitioner colleagues, we searched public domain grey literature sources. We examined guiding frameworks and tools to inform a systematic and nuanced GBA+ tool to be used in Canadian impact assessments. Public domain grey literature sources, including Google Scholar, Government of Canada Publications, Web of Science, and des Libris (alternatively known as Canadian Electronic Library or Canadian Public Policy Collection) were searched between December 2019 and March 2020. Although unpublished studies were included to avoid publication bias, none were present among the final 25 grey literature documents analyzed. We actively excluded publications that did not provide primary data such as commentary pieces, newspaper or other media release documents, with the exception of policy analyses from research institute affiliated groups and Indigenous advocacy organizations. These organizations provide analytical insight into the state of GBA+ in Canadian impact assessment processes and relevant case studies.

Databases were searched using the following keywords: “gender based analysis” or “gender analysis” or “gender and diversity analysis” and “environmental assessment” or “environmental impact assessment” or “impact assessment” or “health impact assessment” or “social impact assessment.” Abstracts were reviewed for their relevance to key ideas: gender based analysis and environmental assessment or impact assessment or environmental impact assessment processes.

In instances when abstracts were unavailable, the executive summaries and introductions were reviewed. Through the gathering of results, more reports were discovered and included. A total number of 25 grey literature sources were collected and reviewed in full. Content relevant to the study’s guiding questions and objectives, as well as key quotes, were used to create a robust annotated bibliography which was shared and discussed by team members over a series of weekly meetings. The annotations were then divided into discrete word documents, uploaded to NVivo 12, and thematically analyzed (see Appendix 1).

Thematic analysis was chosen as an appropriate method for the type of information sourced in this knowledge synthesis (see section on thematic analysis Onwuegbuzie et al., 2012). The preliminary analysis was reviewed by our team and the original 59 coding questions were distilled down to create seven overarching themes. Using these seven themes, we reviewed the grey

literature codebook a second time and re-organized nodes where necessary, according to these seven themes. Our review contributes to policy studies on GBA+ as well as academic literature that examines resource extraction in light of critical equity issues relating to gender, race, socio-economics and difference, broadly conceived.

### Academic Literature Review

Academic databases used for this research were Medline (OVID and PubMed); Web of Science; Women’s Studies International; Global Health; and Social Science using keyword searches to yield a total of 230 peer-reviewed articles and relevant book chapters to undergo abstract review. Relevant search terms also included “Social Justice”, “health impact assessment”, “health policy”, “policy making”, “public policy”, policy, and “evaluation studies”. A detailed list of keywords can be found in the chart below. Subsequent bibliographic reviews were conducted on the search results to locate an additional 15 peer-reviewed articles that were not results of the initial database search for a total of 245 articles.

All 245 articles underwent abstract review to ensure gender and/or diversity were discussed as a central concept, and an indication that gender and/or diversity were considered within some form of impact assessment or analysis. Articles that discussed theoretical approaches or relevant methodologies for gender- or diversity- focused impact assessments were also included. For book chapters, in lieu of abstract reviews, introductions were reviewed. Results from this initial search included literature primarily from Canada with some relevant articles included from The Netherlands, the UK, and New-Zealand. Articles were actively excluded if they did not consider gender and/or diversity, and some form of impact assessment as central concepts. In total, the abstract review process excluded 177 articles and the remaining 68 articles underwent full text review. After the initial thematic analysis, 39 articles were excluded as impact assessment was no longer determined to be a central concept in the article. Following deliberation of the initial analysis’ results by the team, we revisited 31 articles to re-organize nodes according to the refined list of seven overarching themes.

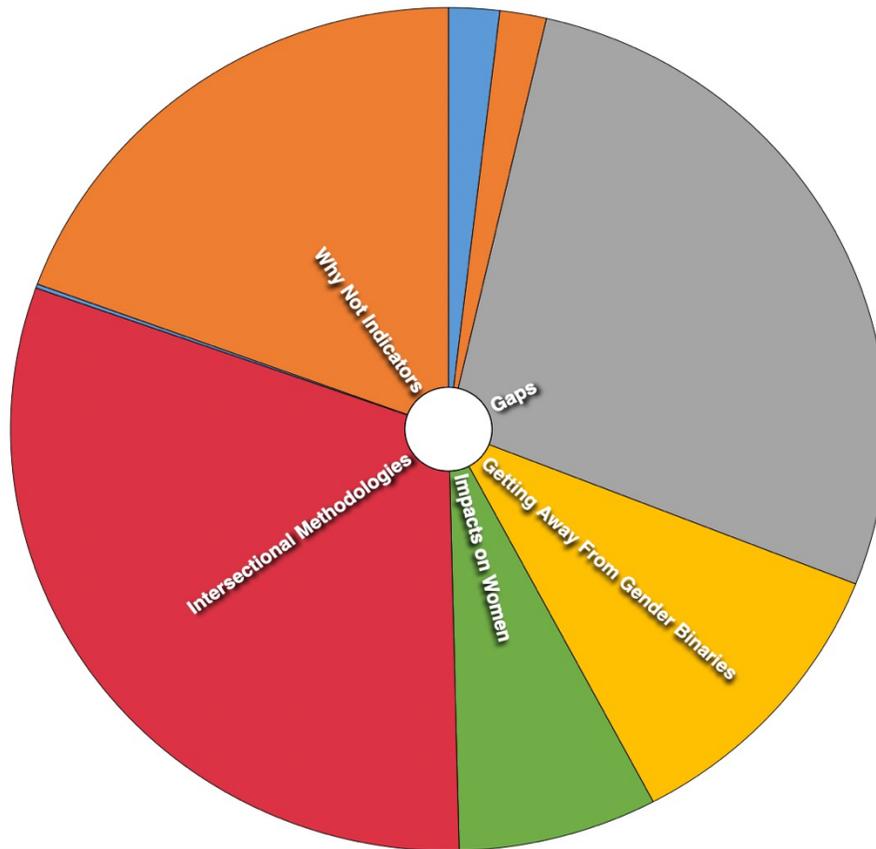
Figure 1: Detailed list of keywords used to identify both academic and grey literature sources

Theme	Terms
Impact Assessment	“impact assessment” OR “social impact assessment” OR “gender impact assessment” OR “equity impact assessment” OR “diversity impact assessment” OR “indigeneity grounded analysis” OR “Indigenous-based analysis” OR “intersectional based analysis”

Gender/Diversity	Gender or diversity: (gender OR “gender policy” OR intersection* OR diversity OR equity OR “equality” OR inclusion OR aboriginal OR indigen* OR “missing and murdered Indigenous women and girls” OR MMIWG)
Diversity/Intersectionality	intersectional* OR diversity OR equity OR “equality” OR inclusion OR aboriginal OR indigen* OR “Indigenous women” OR “culturally-relevant” OR “culturally safe” OR vulnerable OR “vulnerable groups” OR equitable OR equity
Indicators	Indicators, theory, methodologies: (policy OR policies OR “policy making” OR policymaking OR “health policy” OR evaluation OR theory* OR method*)
Inclusion Criteria	Literature should apply gender, sex, or diversity as a central concept

Along with the academic literature, the team performed a targeted review of the interim guidance and compared this guidance with the Canadian Environmental Network (RCEN) caucus recommendations on GBA+ (see Appendix 2). Further to this, we also worked with a team of researchers at the University of British Columbia who conducted a review of Environmental Assessments on the British Columbia Environmental Assessment Office’s registry. This review examined mining projects in BC since 1995 and looked for an analysis on gender in the EAs, relying primarily on Environmental Impact Statement as a site of analysis. These results augment our literature review and knowledge synthesis, by providing a review of the state of GBA+ implementation in BC provincially (See Appendix 3).

Figure 2: Academic literature review coding analysis



This chart shows the overarching coding and characterization of academic literature as categorized using Nvivo software (see Appendix 1). The size of each section represents the proportion of total data—quotations extracted from academic papers—that was coded under each theme. As our analysis process continued and our results clarified, the seven initial categories were re-formed into five, representing our key findings: Indicator Frameworks, Gender Violence, Policy as Discourse, Escaping Gender Binaries, and Emerging Methods. The red section refers to “Intersectional, EDI, Indigenous and GBA+” methods. We did not find any specific references to Impact Assessment in light of the Missing and Murdered Indigenous Women and Girls National Inquiry and is not represented here although is further discussed in the gaps section.

## 4. Results

The results section in this report highlights our key findings. To identify common threads, we examined results from the literature review with attention paid to gaps in current policy and implementation, derived from policy reports as well as complementary recommendations (see Appendix 2) and research specific to British Columbia (see Appendix 3). Findings build on work that indicates the need for improved gender sensitive and culturally relevant research and consultation across the lifespan of projects, beginning at the onset or planning phase of impact assessment and project appraisal through to project closures and even decommissioning of sites (Indigenous and Northern Affairs Canada [INAC], 2013; Manning et al., 2018; NAHO, 2008; Pauktuutit Inuit Women's Association of Canada et al., 2012; Peletz & Hanna, 2019; RCEN Caucus, 2019; Stienstra et al., 2016; Walker et al., 2019).

Our findings reaffirm that there are serious gaps and lack of follow up after project approval within assessment processes and protocols. For example, Stienstra et al. (2016) discuss how communities are left to deal with long term impacts of projects, once proponents leave. There is also discussion in the literature of the inconsistency of impact assessments and how their comprehensiveness and duration differ between projects (Arnold & Hanna, 2017). Further, Manning et al., 2018 write of the many shortcomings of the current EA process, such as how environmental impact assessments primarily serve proponents by focusing on project approval. There is also epistemic inequity at play in the (de)valuation of Indigenous Knowledge and the emotional and cultural costs of extractive projects are largely ignored and remain unaccounted for (Ey, 2018; Mills et al., 2014). It is within this context that we begin the discussion of our findings around impact assessment and GBA+ and consider the challenges in the development and implementation of recommendations and regulations needed to guide a gender sensitive and culturally safe impact assessment process in Canada.

Results are summarized in the following sub-sections: The first concerns indicator frameworks and the need to employ equity informed methods when utilizing indicator frameworks in regard to GBA+, including Indigenous gender-based analysis. Secondly, building on data representing the gendered impacts of resource extraction, our findings indicate the lack of a systematic approach to addressing violence against women, including violence against Indigenous women and girls. Thirdly, there are limitations around employing feminist policy frameworks within government, and Canada's approach to gender mainstreaming tends to focus on the work of policy experts as opposed to community. Fourth, gendered analysis within impact assessment and GBA+ lacks deep engagement with the 'plus' including with LGBTQ2S+ communities. In other words, impact assessments have tended to stop at an examination of resource project impacts on women and men, understood through a binary lens, and have tended to emphasize employment and not extended an analysis to include impacts to other aspects of gendered impact. Lastly, we review emerging methods in regard to GBA+ and culturally safe impact assessment before summarizing gaps we found in our study.

## 1. INDICATOR FRAMEWORKS

Our primary finding is that an equity informed approach to the development and implementation of indicators to address sex and gender is needed. Communities are unique and require context specific frameworks that cannot be adequately characterized through the check-box approaches often associated with indicators or numeric measures used to identify impact. Yet, a standard set of tools and methods can ensure GBA+ is meaningfully addressed, creating an opportunity in the development and implementation of indicator frameworks. Measurements and indicators are useful for proponents and government to assess impact and therefore their use will persist. Our review of the literature has led us to the conclusion that indicator frameworks are a double edged sword, in that on the one hand they are necessary for implementation, but on the other hand, gender and sex are not easily assessed through the creation of an indicator, understood as a ‘gauge’ or ‘measurement.’

Guidance in regard to indicator development includes the significance of centering community-based strategies and self-determination of Indigenous peoples over their bodies, lands and nations. The significance of an examination of positive and negative impacts are useful when developing indicators, for an inclusive and diverse impact assessment process (NYSHN & Women’s Earth Alliance, 2016). Researchers have also pointed out that communities often find indicator frameworks create narrow examinations of how impacts are defined. For example, Mills, Dowsley and, Cameron (2014) note the Denesoline community of Luset K’e Dene First Nation saw the government established socio-economic and human health indicators developed during the EA for the Ekati Diamond Mine as too narrow. They worked to develop their own framework and indicators to monitor the impacts of mining on their community and especially community health. In this framework, health and healing were connected to spiritual, mental and emotional health which were connected to traditional lifestyle and the health of the land (Mills et al., 2014).

This finding is consistent with other federal departmental tools. For example, Crown-Indigenous Relations and Northern Affairs Canada, formerly INAC, have noted, in regard to GBA “indicators have their own limitations, including a lack of clarity about what observed changes should be compared to (who or what constitutes the comparator?); indicators are often created by experts in a non-participative process, which means indicators may not be culturally relevant ...)” (2013). Cultural relevance is also pointed out by Peletz and Hanna who write about the significance of context: “cultures, geographies, histories, languages, politics, and other values can all influence the indicators/determinants required for the analysis” (2019, p. 22). Further research on this point alone is required, in order to augment methods that currently tend to stop at recommendations for baseline studies and disaggregate data.

## 2. GENDER VIOLENCE

Qualitative and quantitative evidence clearly indicates an increase in violence against women in areas of resource development including mining camp settings (Aalhus et al., 2018;

Amnesty International, 2016; Bond & Quinlan, 2018; Clow et al., 2016; Gibson et al., 2017; NAHO, 2008; NYSHN & Women's Earth Alliance, 2016; Stienstra et al., 2016). Yet this evidence is often ignored during environmental assessment and project appraisal processes. New guidance on GBA+ and impact assessment begins to address gender violence by suggesting the importance of collecting baseline data on relevant issues, including gender-based violence (IAAC Interim GBA+ Guidance, 2019). Research on gender and mining in BC also found that proponents in some (notably few) cases referenced gender violence in impact statements (see Appendix 3). Yet these references in both IAAC's GBA+ guidance and EIS statements on the EAO registry in BC are not *after* the onset of resource development projects that are being appraised. Rather they are in reference to gender violence as a condition already present in communities.

While pre-existing violence is relevant, this emphasis erases the potential impacts of gender violence during the onset of projects caused by an influx of transient workers, as has been noted in the literature. This is a problem, in that gender violence is not recognized as a potential outcome, or impact of resource development. Building on this erasure, our research found that proponents and governments privilege equity employment measures as a method for the evaluation and inclusion of gender criteria. For example, the Environmental Assessments for the Voisey's Bay Mine, Meadowbank Mine, and the Mackenzie Gas Project, all restricted their analysis of gendered effects of the project to ensuring equal economic benefits and access to work for women but did not otherwise consider social impacts women might experience (Dalseg et al., 2018). This finding is echoed in the research on EA in BC (Appendix 3).

In these cases, scope of economic analysis also falls short of considering Indigenous subsistence economies within Indigenous communities. As Dalseg et al. argue, gendered effects must go beyond participation in employment to include community well-being. In an Indigenous context, this includes traditional harvesting activities (a part of Indigenous mixed economies), among other components of northern livelihoods. Without examination of these larger issues, GBA+ conducted by proponents can reinforce gender hierarchies and “undermine Indigenous mixed economies” (Dalseg et al., 2018; see also Walker et al., 2016). While mixed economies do not necessarily directly co-relate to violence against women, there is a significant point to be made around how economics are understood more broadly, within the orthodox lens most often considered within impact assessments.

Government and proponents could meaningfully address violence against women during impact assessment processes through the recommendation of employing third-party, independent researchers to engage with local women's organizations, for example (see Bond & Quinlan, 2018; RCEN, 2019). The current proponent-led process can skew the collection of baseline data in the proponent's favour and, in regard to community consultation, limits capacity for handling the sensitivity of GBA+ issues regarding gendered violence. (Bond & Quinlan, 2018; RCEN, 2019).

As a way of putting GBA+ into practice, the Caucus recommends that the Agency set up an independent office responsible for creating guidelines for research methods and information gathering from a GBA+ perspective. Current practices include a proponent-

heavy role in the collection and analysis of information, which is problematic because the baseline data – which informs much of the ensuing IA – is skewed to one stakeholder’s perspective. We recommend that the Agency take an active role in overseeing the information gathering and analysis processes so that knowledge from communities, academics, and civil society can inform the GBA+ analysis. (RCEN, 2019, p. 23 see also Appendix 2)

In addition, IAAC guidance could better incorporate more exact guidelines around assessing the potential for increased gendered violence in communities near extractive projects (see Appendix 2, RCEN, 2019). It was noted in the literature that there is discomfort around discussing violence against women, and industry is apprehensive to provide social provisions because they are concerned the government might download this responsibility to them:

This demand to include all members of the community, not just those who will be gaining employment, is an important one, but one that often gets ignored due to industry concerns of being responsible for what governments are traditionally responsible for ... industry is reluctant to provide social measures (such as funding for child care, housing, social services etc.) as they fear government wants to download their responsibilities onto industry. This acts to further disadvantage women, as they are the ones who receive a majority of the social burdens due to development. (Mills et al., 2014. p.14)

There are significant studies on gender, including on GBA+ in the North, including with and by Inuit and Aboriginal organizations (NAHO, 2008; Nightingale et al., 2017; Pauktuutit Inuit Women’s Association of Canada et al., 2012). This research recommends that there are mechanisms to ensure Indigenous women are involved throughout the impact assessment consultation and planning processes so that impacts that affect predominantly women, including a potential rise in domestic and sexual violence, can be identified early and policies and social services established in advance of a project opening, if sufficient social infrastructure is not already available (NAHO, 2008; Nightingale et al., 2017). Existing studies also recommend that impact assessments require proponents to create work environments where management and employees receive cultural safety and awareness training, both for reducing discrimination of Indigenous employees and for encouraging greater understanding and respect towards neighboring Indigenous communities (Bond & Quinlan, 2018, Gibson et al., 2017; Nightingale et al., 2017). Though, as noted these programs often have shortcomings in terms of meaningful and long-term prevention measures to address racial and gender based discrimination (James & Southcott, 2015).

### 3. POLICY AS DISCOURSE

There is a robust literature on gender and policy discussing themes including gender mainstreaming and the limitations of employing feminist policy within government frameworks.

Fewer works are specific to GBA+ and impact assessment (Sauer, 2018) while policy studies range in applicability and scope. Feminist policy research indicates that Canada's approach to gender mainstreaming tends to focus on the work of policy experts, although findings indicate that the need and importance of working directly with communities, including women's groups, and building community capacity to meaningfully participate in impact assessment (Peletz & Hanna, 2019; Walker et al., 2019). Nightingale et al. (2017) also identify the need to build community ownership over impact assessment processes by building capacity for conducting research and monitoring, and the collaborative development of research instruments. Though this is addressed in IAAC's GBA+ Interim Guidance (2019) that suggests "early, meaningful engagement and consultation" it remains to be seen if problems with lack of follow-up and implementation will remain.

In general, through our review of academic literature, we found little research that lay at the intersection of Environmental Assessment and GBA+ (see Ey, 2018; Manning et al., 2018; Sauer, 2018; Stienstra et al., 2016; Walker et al., 2019 for exception). There is, however, a body of work that examines gender policy more broadly, including in Canada. For example, Paterson discusses barriers to implementation of GBA+ that include having to transform societal relations and the problematizing processes for bureaucrats and analysts as they attempt to operationalize GBA+ (2010). Paterson suggests that, "gender mainstreaming constructs a new form of worker: the "gender expert" who is then given authority to analyse, monitor and suggest interventions based on "expert analysis"... gender analysis becomes a "technology of rule," constructing gender experts whose power ultimately goes unscrutinised in the context of the organization, thereby obscuring the ways in which gender systems are reproduced or fractured by gender mainstreaming itself" (2010, p 397). Hankivsky has done similar work and writes that "by virtue of being 'gender' mainstreaming and 'gender-based' analysis, these analytical lenses are based on an assumption – either made implicitly or explicitly - that gender is the most frequently-occurring, structural and important inequality for consideration (2005). This is because GBA "prioritizes a coherent category of gender in which race and class, among other factors, are considered as an add-on to gender" (Hankivsky, 2005, p. 986).

Results showed that the feminist and intersectional underpinnings of GBA+ are met with resistance in government spaces where technocrats assume i) gender equality already exists, and/or ii) that policies should be gender neutral (which denies the idea that policies reproduce inequitable gender relations and social locations in the first place). In impact assessment processes, policy experts often come from outside community and their input is weighed disproportionately to that of community members, notably women's groups, whose input is most often not sought out. Lastly, there is epistemic inequity in that impact assessment processes value quantitative data rooted in western science. In sum, a bottom up approach to counter the limitations of implementing GBA+ is needed, as is highlighted by gender policy research. Though gender mainstreaming in Canada tends to focus on the work of policy experts, our findings indicate the need to work directly with impacted communities from the early planning phase through to project closures. Current guidance recommends this, however there are obstacles to implementation including a lack of funding for

Indigenous and women's organizations and a lack of capacity to take part in regulatory processes without the assistance of independent researchers or monitoring boards.

#### 4. ESCAPING GENDER BINARIES

While there is mention of LGBTQ2S+ in impact assessment literature, work on Two-spirit and queer theory and/or the impacts of resource extraction on LGBTQ2S+ populations is largely absent (for exception see Sauer & Podhoa; Farrales et al 2020). Gendered analysis within impact assessment and GBA+ lacks deep engagement with the 'plus'. This is not unique to EA and applies to critiques of GBA more generally (Hankivsky & Mussell, 2018). Hankivsky criticizes GBA for its lack of inclusion and nuance. Because gender becomes the most important factor of equality analysis, race, culture, ability, etc. can be marginalized. Further, it has been noted that Aboriginal women feel GBA+ has done little for their particular challenges.

A lack of nuance in addressing queer and Two-spirit issues was also evident in the review of mining EAs in BC (See appendix 3). GBA+ within impact assessment processes tends to prioritize gender as opposed to intersectional considerations of identity and lived experience. Beyond considering cis-women's experiences, there is also a need to look at how impact assessment can become more sensitive to experiences of gender-diverse people, men, masculinities, and axes of inequality like sexualities, class, gender, and the interplay of colonization and Indigeneity (Farrales et al 2020; Aalhus et al., 2018). This is significant, as Indigenous Two-spirit peoples are vulnerable to sexual violence due to transphobia as well as systemic discrimination within justice, health, and education systems. There is a need "to utilize Indigenous gender analyses which account for the specificity of gender within Indigenous cultural practices and teachings, and to account for the intersecting forms of violence experienced by Indigenous people of all genders and specifically targeted at women and Two-Spirit people" (Barkaskas & Hunt, 2017, p. 31). A gap in impact assessment research, discuss further below, is engagement with Indigenous studies and LGBTQ2S+ peoples, literatures and practices.

#### 5. EMERGING METHODS

Another primary finding of our work is our review of emerging methods in regard to GBA+ and impact assessment. While we recognize the interim Guidance by the Agency offers methodological innovation, including references to the Native Women's Association's "Culturally Relevant Gender Application Protocol," the question remains as to how this guidance will move towards successful implementation. The purpose of this final finding is to provide an overview of the frameworks and guiding principles academics and advocacy groups have created. Analytically, through our knowledge synthesis and review, we looked at methods as a key theme. There is evidence that suggests, methodologically, researchers who have done work at the intersection of impact assessment and GBA+ have not used indicator frameworks but rather have suggested employing qualitative methods in tandem with baseline studies.

Gender considerations, now a part of the federal IA process, aims to create more holistic understandings of a project's impacts on communities. Taking a gendered approach involves collecting more expansive baseline data to include social and identity factors not previously examined, so that a broader perspective on how communities are understood is achieved (Peletz & Hanna, 2019). Yet we urge an approach that moves beyond the collection of baseline data, and towards not just “knowing” the impacted community (see IAAC Interim Guidance, 2019) but also gathering information that will be used to develop plans to address impacts before, during, and after project appraisals (see Appendix 2). For example, Walker, Thiessen & Reed reviewed frameworks that “promote a diversity of [culturally appropriate] qualitative methods, including interviews and focus groups (Hill et al., 2017; Kemp & Keenan, 2009; Nightingale et al., 2017), workshops (Nightingale et al., 2017), in depth ethnographic studies (Colfer et al., 2018), and participatory monitoring (Kemp & Keenan, 2009)” (2019, p. 19). One of the major criteria of success for Indigenous participation in environmental monitoring processes identified by Mackay and Richardson is “meaningful participation by Indigenous peoples that goes beyond statutory or enhanced consultation during environmental permitting and approvals process, to involve Indigenous people at the community level during the construction, operations, closure and/or post-closure phases of projects (2012, p. iii).

Indigenous notions of health and wellness in relationship to land indicate reasons for more holistic framing of projects: “Resource development that destroys or pollutes land also harms Indigenous communities by diminishing food sources and interfering with cultural and family practices that are central to Indigenous identity and the well-being of both current and future generations” (Clow et al., 2018, p. 2). Further, GBA+ may have unique meaning to people with Indigenous worldviews (RCEN caucus, 2019) because of the interconnectedness of land, spiritual, physical, ceremonial, mental and emotional health (Bond & Quinlan, 2018). It is also significant to situate GBA+ in the context of colonization in order for EA to effectively respond to the calls to action of the MMIWG Inquiry (in regard to extractive industry's impact on the health and well-being of Indigenous women and girls). IAAC Interim GBA+ Guidance references sexism and colonialism as factors to consider in order to “know the impacted community” which is a starting point, but lacks clear mandatory guidance in terms of implementation, despite the reference to follow up programs in the guidance document itself. NWAC created a Culturally Relevant Gender Application Protocol designed with the acknowledgement that conventional processes need to shift to include a cultural framing that reflects Indigenous ways of knowing, Indigenous histories (both pre and post contact) and contemporary Indigenous realities in Canada (NWAC, 2010; CR-GAP Protocol).

### **IAAC GBA+ interim guidance**

We conclude this section with a note on some of the strengths of IAAC's Interim guidance for GBA+ in IA (2019) and recommendations for how these might be best implemented. In terms of methodologies of conducting GBA+, it is noted GBA+ is an analytical tool, and not a specific set of prescribed methods. Community and project appropriate methods are context specific, and

proponents should provide rationale for their methodologies, including reference to relevant literature, research and input from affected communities.

Best practices for application of GBA+ to IA include (drawn from IAAC interim guidance): use of multiple sources of information, collected through methods that are flexible and responsive to community needs; “identification of outcomes and measurement methods that reflect local knowledge”; critical analysis “about social roles, relationships, relative power in communities and intersections among these factors that create disparities”, as well as the inclusion of contextually-explained statistics; the use of best available evidence when data is missing or limited, which means in some cases, proponents may need to collect primary data; following robust “ethics protocols when dealing with primary data, its collection and reporting within Indigenous communities”; use of “an interdisciplinary approach”; and, awareness of unintended consequences. Critical analysis “about social roles, relationships, relative power in communities and intersections among these factors that create disparities,” as well as inclusion of contextually-explained statistics are proposed by IAAC’s Interim Guidance document (2019).

Gendered violence is mentioned in the current Impact Assessment Agency of Canada interim guidance for the implementation of GBA+, which was issued with the explicit intention of guiding Impact Assessment under the newly expanded requirements of social and gender analysis established under the 2019 *Impact Assessment Act* (IAAC, 2019). It is suggested that establishing a baseline through gathering baseline data on gender-based violence etc. and this has suggestions for statistical data sources that can be used to identify community baseline studies. Building on this, we suggest that women’s centres and organizations, when appropriate, should be provided with funding and capacity to respond to impact assessments, including in follow up and monitoring, through the engagement of qualified third-party qualitative researchers, who understand gender violence. In Indigenous communities this work should be Indigenous-led.

### *Gaps*

There are two primary gaps indicated by this knowledge synthesis:

1. The first is the challenge of meaningfully accounting for colonialism and the integration of an analysis of violence against women in regard to the impacts of resource extraction. Further, little research in impact assessment engages with critical Indigenous studies. Work on women and indigeneity, especially by Indigenous authors (eg. Barker, 2017; Goeman, 2017) could help inform future work in the domain of impact assessment and gender. Building on this, there is a major gap in that we did not find any research that addressed the Missing and Murdered Indigenous Women and Girls Inquiry in relation to resource policy and impact assessment. As settler researchers, this raises further questions around how to account for the impacts of colonialism, including Indigenous critiques of reconciliation into impact assessment research. Future work that brings Indigenous studies and into conversation with impact Assessment could prove fruitful.

- There is a lack of examples of GBA+ application in EA to draw from (see Appendix 3 for case in BC). This is an ongoing critique and as Manning et al write, “It is notable that [the Women’s Committee] participation in the Voisey’s Bay development is one of very few positive examples of including gender in environmental assessment found in the academic literature” (2018, p. 19). Walker, Reed, and Thiessen further suggest that while a variety of GBA+ impact assessment frameworks have been created, there are still few examples of how they have been applied (2019). Our work echoes this result.

Figure 3: Summary of literature in relation to key findings

Key Finding	Sub-themes	Key Authors
<b>1. GBA+ Indicator Frameworks</b>	GBA+ implementation issues + conceptual limitations	Bacchi & Eveline, 2010 Ey, 2018 Hankivsky, 2005 Hankivsky, 2008 MacRae, 2013 Manning et al., 2018 Paterson, 2010 Sauer, 2018 Stienstra et al., 2016 Vanclay & Esteves, 2013 Walker et al., 2019
	Community specific frameworks	INAC, 2013 Manning et al, 2016 Mills et al., 2014 NYSHN & Women’s Earth Alliance, 2016 Pauktuutit Inuit Women’s Association of Canada et al., 2012 Peletz & Hanna, 2019 Walker et al., 2019

	Intersectionality	Hanivsky, 2013 Manning, 2014 Peletz & Hanna, 2019 Walker et al., 2019
	Best practices/guidelines	Archibald & Crnkovich, 1999 Bacchi, 2010 Gibson et al., 2017 Hill et al, 2017 INAC, 2013 Jones et al., 2014 MacRae, 2013 Manning et al., 2018 Nightingale et al., 2017 NAHO, 2008 Paterson, 2010 Peletz & Hanna, 2019 RCEN Caucus, 2019 Sauer, 2018 Scala & Paterson, 2018 Walker et al., 2019
<b>2. Erasure of gender violence related to resource development projects</b>	No studies specifically refer to the MMIWG though many acknowledge inequitable and negative impacts of projects on Indigenous women and girls	Barkaskas & Hunt 2017 (on the colonial limitations of quantifying impact) Fleras & Maaka, 2010 (on how GBA fails to consider legacies of colonialism) Jones et al., 2014
	EA process as a form of violence against Indigenous people	Ey, 2018 Kojola, 2018 Manning et al., 2018
<b>3. Policy as discourse</b>	Feminism v. bureaucracy	Sauer, 2018 Scala et al., 2017 Scala & Paterson, 2018 Vanclay & Esteves, 2013

	People and knowledges centered by EA processes	Dalseg et al., 2018 Ey, 2018 Hankivsky, 2005 Jones et al., 2014 Kojola, 2018
<b>4. Escaping gender binaries</b>	Lack of attention paid to (+) groups outside gender binary	Bond & Quinlan, 2018 Hankivsky, 2013 Paterson, 2010 Walker et al., 2019
<b>5. Emerging methods</b>	Narrow definitions of gender in EA and HIA	Austin et al., 2007 Bacchi & Eveline, 2010 Dalseg et al., 2018 Lin et al., 2007 Peletz & Hanna, 2019 Roggeband & Verloo, 2006 Sauer, 2018
	Indigenous principles	Ey, 2018 Mills et al., 2014 NAHO, 2008 NWAC, 2007 NYSHN & Women’s Earth Alliance, 2016 Gibson et al., 2018
	The need for cumulative impact assessment	Dalseg et al., 2018 Gibson et al., 2017 Koutouki, 2018 Stienstra et al., 2016
	Frameworks for critical GBA+ in EA work	Clow et al, 2008 Hankivsky, 2013 NWAC, 2007 Pauktuutit Inuit Women’s Association of Canada et al., 2012 Sauer, 2018 Walker et al., 2019

## 5. Implications

The primary contribution of this project is the executed evaluation of literature with a focus on methods to assist in the further development and implementation of GBA+ frameworks within the context of impact assessment in Canada. While the focus is building national competency, Canada's advancements in GBA+ work can be improved. Following Manning, we concur that "a feminist intersectional policy analysis makes visible the different impacts on women and other marginalized members of communities living at the intersection of multiple inequalities. It allows policy-makers to see many more of the costs and benefits of these projects" (2014, p. 2).

We reiterate that the erasure of sexual violence in impact assessment regulation and policy is problematic. Others have found similar, for example, Bond and Quinlan write of "the continued prevalence of sexual violence, discrimination, and harassment inflicted upon Indigenous women in relation to, and by, these activities will eclipse the purported benefits" (2018, 6). We link the national with the international in order to identify ways to build on work of the Status of Women Canada (2019) and IAAC (2019), for example, which is of particular significance since Canada is currently implementing a federal tool for the assessment of sex, gender and other identity factors. Such a tool is essential as sex and gender, as well as racialization, ableism and an assessment of socio-economic factors, remain relevant to the onset and development of resource projects in Canada. Data on income, gender and employment, highlights a discrepancy in who receives what benefits from potential projects (Ewing et al., 2017; Gibson et al., 2017). Age, ethnicity and regional geography additionally stratify the benefits and impacts of resource development within and across provinces and territories. As has been pointed out by IAAC and the Status of Women Canada, *GBA+ is not a prescribed method but a way of thinking or a lens*. As such there is a challenge in the implementation of GBA+ analysis and to mainstream understandings and intersecting pattern, to develop indicators that are sensitive to not just sex and gender identity, but also to impacts of racialized gender equity issues that move beyond the limitations of traditional ecological knowledge frameworks, that remain significant (Hoogeveen, 2016).

Given the sensitivity around matters concerning difference, the relevant tools and processes, including indicator frameworks, are not easy to develop, particularly within the settler colonial context and worldviews (MMIWG National Inquiry, 2019; NYSHN & Women's Earth Alliance, 2016). GBA+ tools need to include, therefore, ways of addressing gender non-binary and LGBTQ2S+ populations who have been historically discriminated against (Sauer & Podhora, 2013). Our results indicate there are few impact assessment studies that address gender, beyond the gender binary (Aalhus et al., 2018; Hill et al., 2017; Walker et al., 2019). Deeply descriptive work from, for example, queer and Two-spirit Indigenous writers who make critical links between colonialism and gender and queerness offer insights into the kinds of conceptual nuance needed (Driskill et al., 2011). The reality that these ways of knowing exist in isolation within the context of a largely male dominated mining industry or a "close-knit masculine workplace" where Indigenous people and women face issues of discrimination is informative (James & Southcott, 2015) yet methodological solutions prove to be challenging. In addition, the persistent fact that

women often have lower paying roles and Indigenous people “face negative workplace environments” while some Indigenous new hires leave the workplace after just a week (James & Southcott, 2015) are all crucial considerations. Within this context, research around the meaningful integration of equity in practices of impact assessment is necessary.

In Canada, a shared reality that makes this research significant are the findings of the Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls and especially the section on extractives. There are several calls for justice in relation to gender and resource development, most notably, call 13.2 that demands gender-based socio-economic assessments on all proposed projects:

We call upon all governments and bodies mandated to evaluate, approve, and/or monitor development projects to complete gender-based socio-economic impact assessments on all proposed projects as part of their decision making and ongoing monitoring of projects. Project proposals must include provisions and plans to mitigate risks and impacts identified in the impact assessments prior to being approved.

Given this clear call to action and justice from the MMIWG report, further research, including Indigenous-led research is particularly crucial. The contributions and impacts of this synthesis directly address this call and are contextualized within current literature (eg. Dalseg et al., 2018) and account for previous practical research done (eg. Arnold & Hanna 2017; Czyzewski et al., 2014; Cox & Mills, 2015; Gibson et al., 2017; Goldenberg et al., 2010; Hill et al., 2017; NYSHN & Women’s Earth Alliance, 2016). The end goal is to assist in the mitigation of risks and impacts, prior to project approval, and contribute to the development of a robust federal method within the context specific nature of GBA+ in Canada. Our knowledge synthesis provides an evidence-base and set of resources, that reflect a state of knowledge on GBA+ tools, and which we hope will enhance methodologies and methods via the understanding of paradoxical nature indicator frameworks to understand sex and gender, as well as racialization, across federal, provincial and local contexts.

## 6. Conclusion and Future Research

This Knowledge Synthesis Report has presented findings from a rigorous and systematic review of both academic and grey literature on methodological approaches, frameworks and best practices for operationalizing the GBA+ approach given the royal assent of Bill C 69. Section 22 (s) of Canada's new *Impact Assessment Act* which lists that sex, gender and other identity factors must be taken into account during the assessment process. Such a clause is an overdue response to increasing awareness of the need for improved regulation and the development of social and cultural impact assessment processes that relate to gender, class, ableism, racialization and settler colonization.

This study was guided by the Status of Women Canada definition of GBA+ as “an intersectional analytical process for examining how various intersecting identity factors impact the effectiveness of government initiatives” (2016). The results provided in this knowledge synthesis reflect an examination of how an intersectional lens might better inform federal approaches to impact assessments. This evidence base offers a scientifically grounded approach that cuts through current tensions between business as usual in order to offer evidence for developing a new era of federal mandates and laudable ambitions to develop innovative approaches to making Canada a more gender inclusive and equitable country.

With this research, we have accomplished our first central objective, to systematically summarize and critically evaluate, national and international literature in order to provide a knowledge synthesis that offers an evidence base upon which to improve the tools, processes, and indicator frameworks used to integrate GBA+ practices into impact assessments in Canada.

This research is premised upon a clear call for gendered and racialized analysis on the impacts of resource development. Findings of this research reflect shifts in regulatory processes. As has been demonstrated in this report, the disproportionate impacts of resource development on women (See Gibson et al., 2017; MMIWG National Inquiry, 2019; Sweet, 2014) are underrepresented in impact assessment protocols and practices in Canada and when addressed have tended to be done so in ad hoc ways which have produced uneven practices across jurisdictions and projects (Clow et al., 2018; Hamilton, 2018; Manning et al., 2018). In addition, there has been a gap between Indigenous and practitioner reporting and a paucity of current federal tools and processes that adequately account for culturally relevant gender-based analysis. The intent is that the findings in this report will help to close the gap between research and the development of methods through offering a robust knowledge synthesis of best practices for creating safe, inclusive project sites, and sector-community interactions, particularly for women, girls, gender diverse, non-binary and racialized people.

To deliver on this goal, we have synthesized insights derived from regional, national, and international case studies, policy guidance, practice frameworks and academic literature with a focus on identifying whether there are key indicators that are effectively measuring inclusivity, diversity, and gender that can be used within the impact assessment process. This knowledge

synthesis, informed by the principles of equity, diversity and inclusion within impact assessments, is a step in the direction of strengthening widespread competency on how to best engage in GBA+ practices in relation to all federal sectors including the domain of impact assessment. Future research into gender violence and resource extraction pertaining to the impact assessment process is needed as is systemic change to address the lack of implementation indicated in literature and practice.

## 7. Knowledge Mobilization Activities

This Knowledge Synthesis reviewed GBA+ literature and methods in light of the *Impact Assessment Act* (2019) and Section 22 (s) which lists that sex, gender and other identity factors must be taken into account during impact assessment processes. The primary contribution of this project is an evaluation of literature to assist in the further development and implementation of GBA+ frameworks within the context of impact assessment in Canada. Our findings indicate a need use equity informed principles and methods when using indicator frameworks for GBA+, a lens and approach to impact assessment.

Impact assessment and the move to mainstream and critique GBA+ practice is a national concern for the knowledge users for this knowledge synthesis project, including federal policy makers at IAAC, communities and First Nations governments, resource sector practitioners involved in impact assessments, professional associations, those working with communities and individuals whose wellbeing is impacted by the resource sector, and provincial/territorial impact assessment regulators, such as British Columbia's Environmental Assessment Office.

Evidence gathered during this study around indicators and gaps in implementation is useful for those who are both seeking to understand and advance practices that ensure that the new promise enshrined in Canadian law leads to the production of impact assessments of resource development projects that meaningfully take into account impacts according to sex, gender, identity and a range of intersecting equity factors.

Our primary outputs of this review are, apart from this report, a community targeted state of knowledge report and a peer reviewed journal article, to contribute to literature on GBA+ in Canada that discusses the significance of the emergence of Section 22 (s) to an international audience. We also have a knowledge mobilization workshop planned.

Through preliminary deliberative dialogues we have engaged Northern Health, the First Nations Health Authority, the Union of BC Indian Chiefs, and the RCEN EA caucus co-chairs as well as the Environment Community Health Observatory (Parkes et al. 2019) in this work. This engagement so far has been limited, and we look forward to sharing our finding and beginning a more intensive focus on Knowledge Mobilization as the primary research phase is completed.

We also anticipate an academic paper presentation at the International Association of Impact Assessment (IAIA) Annual Meeting that was scheduled for May 2020 but has been

postponed May 2021 in Seville, Spain. We have a GBA+ Approaches to Impact Assessment Workshop at the ECHO Conference, Prince George, BC (now a virtual meeting) in June 2020 where the research team and knowledge user will facilitate wider engagement with communities in BC's provincial North.

We will invite targeted knowledge users, community members and researchers to a one day event to advance work on GBA+ approaches with a focus on impact assessment. We view workshop events (even if they are virtual) as critical avenues to foster dialogue and solicit input from concerned research partners about the use of GBA + approaches in impact assessment. We will use not only a traditional workshop format but also social media platforms such as webinars to create robust knowledge exchange and communication pathways. This includes a presentation on GBA+ analysis approaches as part of the 'ecohealth knowledge to action' webalogue series that Gislason and Parkes have co-convened since 2014. An Open Access Journal Article will detail the findings of this knowledge synthesis project concerning approaches to GBA+ and recommendations for future developments in impact assessments in Canada. Another key mechanism for sharing information will be a community targeted state of knowledge report with a goal of delivering results from community organizations. We will be using our ongoing interactions to share the findings of our knowledge synthesis, and also to test, refine and receive feedback on the GBA+ knowledge synthesis deliverables.

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## 9. Appendix

### 1. Thematic Codes and Guiding Coding Questions for Academic and Grey Literature Analyses

Key Themes	Initial Thematic Codes (see also Appendix 1)
Getting Away From Gender Binaries	How is gender being assessed  Gender as binary  Factors to ID GBA+, Gender Diversity, LGBTQ2+  Community
Discrimination	Systemic, epistemological, methodological
Gaps	Gaps in the literature or frameworks
	Barriers
	Critiques

	Opportunities
Impacts on Women	Evidence, Data, Measures of effects on Women
	Forms of violence
Methods: Intersectional, EDI, Indigenous, GBA+	Diversity, equity, racialization
	Indigenous perspectives
	Extend to Inuit and Métis Populations
	GBA Best Practices
	Who has a say
	How are Indigenous communities engaged
	Intersectionality
Violence Against Women and Impact Assessment; MMIDWG Report	
Why Not Indicators	Methods-Indicator Frameworks
	Govt or Policymaker Roles
	Feminist
	Theory informed practice

1. Discussion re: important short, medium and long-term gender and equity-based impacts of major projects.

- Temporal question/dimension
- Cumulative impacts/effects and healthy sustainable communities
- How are we finding the *measurement* of short/medium/long term impacts
- Significance in the application of other research contexts
- EDI thinking; whose bodies and lives are being identified?
- Map and impact going into and out of gendered lives?

- Focus on cumulative impacts over time
  - Intergenerational justice and impacts, timeframes matter
2. Discussion re: *methods* for assessing impact on gender/diversity, or lack thereof.
- How is gender being assessed?
  - How are diversity and equity defined?
  - Are groups outside the cis-gender dichotomy considered (is the “+” in GBA+ considered)
  - What/is the nuance in terms of the LGBTQ+ dimension
  - What factors determine the identification of GBA+ Gender diversity and LGBTQ+
  - What data, evidence, measures are being used? (what is missing?)
  - Take note of what is missing, where there are silences in the literature/frameworks
3. Case studies where GBA+ was incorporated into a project’s EA process.
- Consider: what stage(s) of the project the analysis was performed.
4. Consideration of impacts of colonization.
- Are Indigenous peoples/voices/authors centered
  - Is colonization and its ongoing impact considered
  - Who is being measured
  - How are FN communities, Metis, Inuit identified, engaged
  - What is the ‘burden of proof’
  - How do the frameworks link, connect and/or separate and fragment knowledge and experience
  - How does the knowledge and approach in a framework enable or constrain the use of an integrated Indigenous notion of health and wellness (land, people, animals)
  - Forms of violence (structural, procedural, personal, emotional, physical, epistemic, sexual etc).
5. General guidance/methods (ie. guiding and operating principles, frameworks?) What does it say are the roles of project proponent v. gov v. affected parties like womxn’s groups.
- What factors enabled/acted as barriers to participating in this process.
  - Proponent v. gov v. affected parties role. (who has a voice, at what scale, to what end/impact)
  - Who has a say in offer information into the process vs. who has the ability to decide how that information is used and how it impacts decisions and recommendations
  - Lessons learned
  - What is identified as best practices, by whom, why and what instance
6. How is community conceptualized?
- Human communities

- Animal communities
- Ecosystems
- Community boundaries
- Political boundaries
- First nations boundaries
- Municipalities, versus regional districts
- National, provincial, local boundaries
- Jurisdictions, responsibilities, remits,
- Regulatory bodies
- Data as mapped onto boundaries

## 7. Theory

- Draw from theory-informed research annotated bibliography by Angel
- Theory of worldviews, epistemologies, (e.g. settler colonial versus indigenous)
- How theory should inform practice
- How science should inform government practice, policy formation
- Precautionary principle
- Sustainable development
- Informed by climate change realities, carbon futures
- Cumulative impacts, integrative processes, intersectoral collaboration
- Feminist anticolonial
- GBA+
- Intersectionality
- Mixed methods theories (linking living, place based, embodied experience with big data)
- Intergenerational justice, 7 generations
- Indigenous notions of health and wellness (everything connected back to land/water)

## 8. Indicator Frameworks

- Indicators frameworks - what have we found

2. IAAC GBA+ Interim Guidance v. RCEN Caucus Recommendations

**IAAC GBA+ Interim Guidance (2019) v. RCEN Caucus Recommendations (2019)**

**RCEN Caucus Recommendation 1. Review all guidance and methodology documents to incorporate reference to GBA+ where appropriate, ensuring consistency throughout the impact assessment process, including but not limited to:**

RCEN Caucus Sub-recommendations	Recommendation Satisfied in IAAC GBA+ Guidance?	Summary - How or How Not? (References are to IAAC GBA+ Interim Guidance)
<p>The public participation guidelines and particularly, the early planning phase with clear examples of its usefulness and purpose.</p>	<p align="center">Partial</p>	<p>The guidelines advise that GBA+ informed consultation should begin as early as possible in the planning phase and should involve diverse groups within the community to ensure better accuracy and representation of community issues. Community relationship-building is also important for accurate representation, and, when needed, separate consultation in designated safe spaces should be provided. (2.p.1)(3.1p.4)</p> <p>Best Practices section offers three examples of the difference GBA+ can make through thorough and early consultation (does not include an example with gender-based violence). (3.2. p. 6)</p> <p>Methodologies section provides the example of Voisey's Bay Nickle Mine IA to demonstrate how women's participation in public hearings led the province to require a women's employment plan as a condition of the mine approval. (3.1.p.3)</p> <p>No mention of the importance of consistency in application of GBA+ methods.</p>
<p>The inclusion of a requirement to include roles and responsibilities relating to the GBA+ in monitoring and follow up plans.</p>	<p align="center">Yes</p>	<p>According to GBA+ IAAC interim guidance, the Agency supports proponents in Early Planning with the creation of the Tailored Impact Statement Guidelines, which outline expectations for the impact assessment (3.1.p.4 ). The Agency will assess the consistency of the proponent's submitted impact statement according to its adherence to the TISG (5.p.8) The agency will lead compliance and enforcement. (4.1.8)</p> <p>The Proponent implements follow-up requirements, though some follow-up measures may be voluntary. (4.1(p. 7-8) It is also possible for other partners to have requirements and may be involved in the review of follow-up program results (4.1. p.8)</p>

GBA+ should form part of regional and strategic assessments.	No	Not mentioned.
<b>RCEN Caucus Recommendation 2: Include specific reference in the GBA+ Guideline and Methodology documents to:</b>		
<b>RCEN Caucus Sub-recommendations</b>	<b>Recommendation Satisfied in IAAC GBA+ Guidance?</b>	<b>Summary - How or How Not?</b>
Additional practical examples of how the GBA+ can be helpful:	Yes	The Methodologies section gives applied examples of how asking "why" helps uncover different ways diverse people may be impacted by a project (though does not use an example that involves GBA+) (2.p.2). A GBA+ example is used to illustrate who identities and gender identities matter and effect peoples experience of the world (3.p.2)(3.1p.4)  Best Practices Section offers several social, economic, and health-oriented examples of how projects can effect communities, though only one involves GBA+. (3.2p.5)
The importance of avoiding a check-box approach to GBA+.	Yes	Methodologies section states: "GBA+ is an analytical lens that should be used within these standardized methods; it is not a prescribed method in and of itself."(3.p.2) Methodologies section also emphasizes the importance of understanding social and historical context.
Need to move away from dichotomies when referring to gender identities.	No	Not discussed, except for the Key Terms section in Annex 1: "Gender is usually conceptualized as a binary girl/woman and boy/man) yet there is considerable diversity in how individuals and groups understand, experience, and express it." (from CIHR, 2015 in Annex 1. p. 10)
Direct link between colonization and GBA+.	Partial	Methodologies guidelines list colonialism alongside other potential impacts that may need to be understood as part of the context of a community. (3.1. p. 4) However, nowhere do the guidelines describe a direct link.

Direct link between the GBA+, impact assessments, and the Missing and Murdered Indigenous Women and Girls (“MMIWG”) inquiry as an example of why GBA+ is required to ensure the safety and security.	No	Not mentioned.
Importance of involving Grandmothers and other knowledge keepers, including those from the Two-spirit community.	Partial	Interim Guidance Introduction explains how understanding the intersection of different experiences, backgrounds, and identities strengthen analysis: "Indigenous youth and elders... contribute important knowledge about changes to the environment that may be unique based on their age, relationship with the land, knowledge and relative position in their communities". (1.p.2)
<b>RCEN Caucus Recommendation 3. Include acknowledgment in the Guideline and Methodology documents which explicitly recognize that GBA+ may have a unique meaning from the perspective of Indigenous worldviews.</b>		
<b>RCEN Caucus Sub-recommendations</b>	<b>Recommendation Satisfied in IAAC GBA+ Guidance?</b>	<b>Summary - How or How Not?</b>
[N/A]	Partial	The Best Practices section briefly describes how to identify and qualify different community perspectives: “Oral histories, storytelling or song may be the most effective ways to describe the impact on Indigenous communities” and “Identification of outcomes and measurement methods that reflect local knowledge are important to the community.” (3.2 p. 5)
<b>Caucus Recommendation 4. Designate and/or create an independent office/organization responsible for:</b>		
<b>RCEN Caucus Sub-recommendations</b>	<b>Recommendation Satisfied in IAAC GBA+ Guidance?</b>	<b>Summary - How or How Not?</b>

Actively working with organizations responsible and working on the frontline with issues affecting GBA+, including but not limited to rape crisis centres.	No	Not mentioned.
The creation of guidelines for research methods and information gathering from a GBA+ perspective.	No	These are established in the Tailored Impact Statement Guidelines, which are created by the Agency.
Answering questions by proponent and others involved in impact assessments on how to apply GBA+ in practice.	No	The Agency is the designated office for this role.
Receiving and reviewing complaints relating to sexual assault or exploitation.	No	Not mentioned.
Collection of baseline information relating to GBA+	No	This process is up to the proponent.
<b>Caucus Recommendation 5. Outline the roles and responsibilities of the Minister in applying GBA+.</b>		
<b>RCEN Caucus Sub-recommendations</b>	<b>Recommendation Satisfied in IAAC GBA+ Guidance?</b>	<b>Summary - How or How Not?</b>
[N/A]	No	The guidelines describe that the Minister determines if the effects of the proposed project are within federal jurisdiction, and their relationship of these effects to the public interest (4.p.6-7). Guidelines do not specify the Ministers involvement in utilizing GBA+.

### 3. Mining, Environmental Assessment, and Gender Justice in British Columbia

#### **An analysis of BCEAO registered mining projects since 1995**

A team of researchers affiliated with the Ecologies of Social Justice Network at the University of British Columbia<sup>1</sup> set out to understand if and how mining Environmental Assessments in British Columbia consider gendered based impacts. We conducted a systematic review of all BC mining EAs that were listed on the EAO registry since 1995 (n=38) and subsequently analyzed how gendered impacts were considered and evaluated. Main findings are that: 1) the incorporation of gendered impacts remains highly variable across British Columbia projects; 2) there is a lack of standardization in the way impacts are considered and evaluated; and 3) despite the fact that Environmental Assessments are intended to be evidence-based, there is a lack of engagement with peer-reviewed and policy research on gender.

Projects listed in the BC Environmental Assessment Office registry were analyzed when listed as: certificate issued, certificate refused, further assessment required, certificate expired (note one project ‘in progress’ was included). We analyzed how gendered impacts were considered and evaluated through careful inductive reading of primary documents, especially Environmental Impact Statements, and the use of 16 keywords:

- women, woman, gender, work camps, industrial camps, violence, childcare, vulnerable, STDs, sexual, substance/alcohol/drugs abuse, assault, sex work, prostitution, family, spouse.

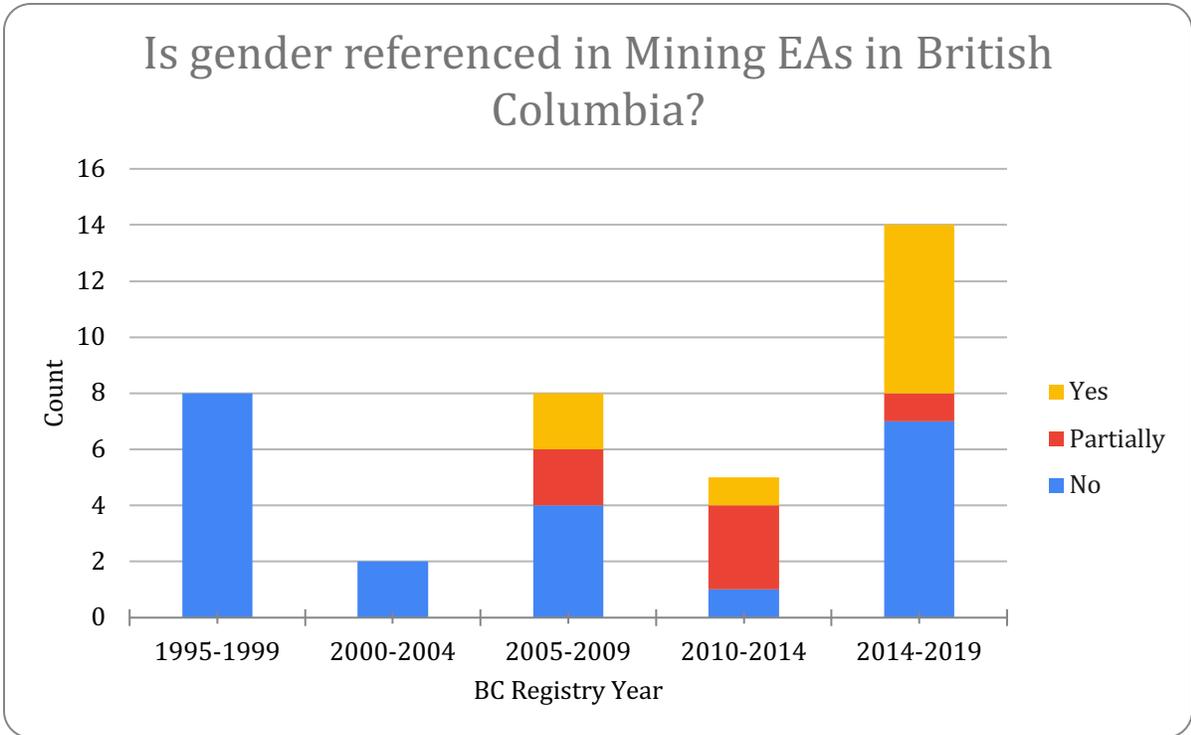
Out of the 38 Environmental Assessments, 15 projects had some mention of gender impacts. These were categorized under the following 8 themes:

- Demographics of labour, domestic violence, substance abuse, women shelter and programs, sex trafficking and sex work, family disruptions and stress, safety, and sexual health.

The following two charts show a preliminary visualization of results.

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<sup>1</sup> Jessica Dempsey, Gabriela Doebeli, Dawn Hoogeveen, Inari Sosa Aranda, AC Quinn, Michelle Koppes, Juanita Sundberg, Leila Harris



\*Partially reflects researchers' interpretation of impacts, not explicitly explained in the EIS as such. For example, if gender violence was mentioned, researchers interpreted this as a gendered impact, whereas it may not have been explicitly discussed as such — ie. It was “partially” considered.

## BC EAO mining projects that list gendered impacts since 1995

