Gender and Diversity Analysis in Impact Assessment



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Prepared for:

The Canadian Environmental Assessment Agency
February, 2019

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Introduction

In 2018, the federal government introduced Bill C-69 - An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act, to amend the Navigation Protection Act and to make consequential amendments to other Acts. Provisions in the proposed Impact Assessment Act include the consideration of sex, gender, and diversity in impact assessment (IA) processes. These provisions are made in two sections. First, the preamble of Bill C-69 indicates that the "Government of Canada is committed to assessing how groups of women, men and gender-diverse people may experience policies, programs and projects and to taking actions that contribute to an inclusive and democratic society and allow all Canadians to participate fully in all spheres of their lives." Second, and the key active section related to gender and diversity, the proposed Impact Assessment Act specifies that an impact assessment (IA) of a designated project must take into account "the intersection of sex and gender with other identity factors" (section 22(1)(s)).

These provisions align with broader federal government commitments to gender-based analysis. For example, Canada has been committed to applying gender-based analysis to the development of policies, programs, and legislation since ratifying the 1995 Beijing Declaration and Platform for Action - a United Nations blueprint document for working towards gender equality and women's rights (MCEWH, 1998). Following its ratification, Status of Women Canada clarified that gender-based analysis should also include the consideration of other identity attributes among groups of women and men, such as age, education, language, geography, culture, and income. In 2011, Status of Women Canada rebranded their gender analysis framework as "Gender-based Analysis Plus (GBA+)" to formally recognise the intersections of gender with diverse identity attributes (Status of Women Canada, 2017).

It is important to note that globally, GBA+ is one among many frameworks for conducting gender-based analysis. It is the approach formally adopted by the Government of Canada, including in its 2015 renewed commitment following the release of the Auditor General report, which found that GBA+ implementation was incomplete across government departments and agencies (Auditor General, 2015). A range of other gender analysis frameworks, with varying purposes and approaches, have been adopted by international organizations and nations across the globe. In this report, we draw on a variety of these frameworks to glean lessons about the consideration of gender and other intersecting identity attributes within the context of IA. For this reason, we have chosen to use 'gender and diversity analysis' as a general term to refer to the full suite of frameworks and approaches identified and discussed below.

Though requirements for gender and diversity analysis in Canada are not entirely new, it appears that the Bill C-69 provisions for consideration of the intersections of sex, gender, and other identity factors are a first for environmental, and certainly for IA, legislation at the federal level (Koshan 2018). Consequently, there remains uncertainty around how gender and diversity analyses can or should be integrated into IA policy and practice in Canada. This report, therefore, contributes additional guidance by distilling key insights, directions, good practices, and methodologies from existing academic and grey literature.

Box 1. Key Terms and Definitions

Sex refers to biological and physiological characteristics of a person, including anatomy, physiology, genes, and hormones. Sex can be described as a "multidimensional biological construct," where the conceptualization of sex "usually relies on the female/male binary, [but] in reality, individuals' sex characteristics exist on a fluid and medically or social constructed continuum" (Johnson et al., 2009: 4).

Gender can be described as the "roles, behaviours, activities, and attributes that a given society may construct or consider appropriate for the categories of 'men' and 'women'. It can result in stereotyping and limited expectations about what people can and cannot do" (Status of Women Canada, 2017). Gender is more than a category; it is a social relationship that changes across place and time and is shaped by human activities, social practices, social structures, and power dynamics.

Intersectionality is rooted in Black feminism and has been used to understand the unique experiences and subordinations of women living at the intersection of sexism, racism, and other systems of oppression. It is a framework that is increasingly used to understand the impacts of policies and projects on populations. According to Hankivsky, "intersectionality promotes an understanding of human beings as shaped by the interaction of different social locations (e.g., 'race'/ethnicity, Indigeneity, gender, class, sexuality, geography, age, disability/ability, migration status, religion). These interactions occur within a context of connected systems and structures of power (e.g., laws, policies, state governments and other political and economic unions, religious institutions, media). Through such processes, interdependent forms of privilege and oppression shaped by colonialism, imperialism, racism, homophobia, ableism and patriarchy are created" (2014: 2).

A **feminist intersectional policy analysis** "asks how well public policies, services and programs account for the perspectives, knowledges and experiences of diverse individuals and communities.... The primary goal is to make policies, services and programs more accessible and inclusive for all people" (Manning 2014:1).

Report Purpose and Method

The purpose of this report is to synthesize key literature relevant to the application of gender and diversity analyses in IA, with an emphasis on its application in regions of the global North. It aims to enhance understanding of key sources, tools, opportunities, and challenges associated with this type of analysis within the context of the requirements of Bill C-69. Two key areas of focus include: 1) methodologies or case study examples of the application of gender-based analysis to impact assessment, including analysis of gender-diverse people and other social identity attributes; and 2) methodologies for integrating the analysis of gender and intersecting identities into impact assessments as required by section 22(1) of the Bill. We focus primarily on implications for project-level IA due to the scope of section 22 and the literature's emphasis on projects over policies, plans, and programs. However, gender and diversity analysis is certainly relevant at higher levels of IA. Many of the frameworks discussed below can also provide

direction for gender and diversity analysis as the requirements for regional and strategic assessments are fleshed out in downstream regulations and policies.

The findings in this report are based on a systematic literature review. The literature review included both academic and grey literature databases, and applied sets of search terms related to impact assessment, gender, and diversity (Table 1). Academic databases included Web of Knowledge, Scopus, Gender Studies, Contemporary Women's Issues, Family and Society Studies Worldwide, Sociological Abstracts, and Social Services Abstracts, and Google Scholar. Grey literature databases included a Think Tank Custom Search, International Government Organization Custom Search, and NGO Custom Search.

Table 1. Key search terms used in the literature review

Theme	Search Terms
Impact Assessment	"environmental impact assessment" OR "environmental assessment" OR "impact assessment" OR "social impact assessment" OR "gender impact assessment" OR "sustainability assessment" OR "cumulative effects assessment" OR "strategic environmental assessment" OR "regional strategic assessment"
Gender	gender OR masculin* OR feminis* OR "gender-based analysis"
Diversity	intersectional* OR diversity OR aboriginal OR indigen* OR identity OR sexuality OR Queer OR LGBT

Each search was scoped to include the key search terms in title, abstract, and/or keywords. The authors reviewed the first 100 sources for each search and applied specific inclusion or exclusion criteria. For example, only empirical sources located in the global North and that applied gender or diversity as a central concept were included, while sources that solely relied on sex- or gender- disaggregated data were excluded. Sources containing a detailed methodological framework were included, so long as they provided lessons relevant to the assessment of gender and diversity in impact assessment processes in the global North. Ultimately, 40 key sources were identified and underwent a detailed review, contributing to the main themes discussed below. However, some additional sources that fell outside the search criteria were also used to help us interpret these key sources. These and the 40 key sources are listed in the references section at the end of this report. The following discussion summarizes findings related to: the rationale for gender and diversity analysis in impact assessment; trends in the literature; frameworks and methodologies; key principles for good practice gender and diversity analysis in IA; and, challenges and considerations going forward.

Rationale and Trends

In many ways, the integration of gender and diversity analysis is not a significant departure from best practice Social Impact Assessment (SIA), which has long recognized that communities are not homogenous entities. Community profiling is a key component of SIA that aims to identify the differing needs, interests, and values of diverse sub-groups within communities as relevant to the potential social impacts of the proposed project (Vanclay, 2003; Esteves et al., 2012; Vanclay et al., 2015). Vanclay (2003:6) defines social impacts as the "consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any

social change processes invoked by those interventions". These can include changes to people's ways of life, culture, communities, political systems, environments, health and well-being, personal and property rights, and fears and aspirations that are experienced either perceptually (cognitively) or a corporeally (bodily, physically) (Vanclay et al., 2015).

Identifying the range of concerns and interests of, and impacts on, diverse groups based on social characteristics like gender, age, ethnicity, occupation, and length of residency, for example, can help foster the development of more comprehensive mitigation and enhancement strategies. However, recent studies also indicate that this must be more than an "add-womenand-stir" checkbox activity that views differences in experiences and perceptions as inherent to specific groups (Lahiri-Dutt and Ahmed, 2011:119). Serje (2017) critiques the dominant understanding of social impacts as direct or indirect causal outcomes of a policy, plan, or project (PPP) (as in the definition above). When conceptualized in this way, she argues that SIA reduces social complexities into categories, variables, and matrices, while tending to overlook complex and evolving local histories, social relations, and power dynamics that a PPP simultaneously shapes and is shaped by. In a similar vein, Ey (2018) argues that whether certain consequences of resource development, such as impacts to emotional connection to local place, are counted (or not) as social impacts have much to do with gendered assumptions that underpin the natural resource development sector (See Case Study 1). Ultimately, such studies agree that there is a need to move beyond simply identifying the impacts upon various groups towards a fuller understanding of why diverse groups and individuals experience PPPs differently. This broader understanding is consistent with feminist policy analysts who argue that policy makers must move beyond simply identifying static categories (e.g., men, women) and differences between them, towards an understanding of how PPPs shape or reinforce unequal power dynamics and gender relationships. To move in this direction, attention must be given to the existing social relationships and power dynamics that both influence how a PPP may be experienced and how these relationships and dynamics are either challenged or reinforced (even inadvertently) by proposed developments and IA processes. The consideration of such relationships and power dynamics is a key purpose of gender and diversity analysis in IA.

The key sources from our literature search – both industry and academic – recognize multiple rationales for considering gender and diversity in IA, from making good business sense to fostering social equality and advancing the UN Sustainable Development Goals. Gender and diversity analysis is most frequently cited as a mechanism to empower marginalized groups. enhance diverse participation in decision-making process, and move towards greater social equality (e.g., Bacchi & Eveline, 2010; Colfer et al., 2017; Hill et al. 2017). When conducted with normative equality goals in mind, what sets gender and diversity analysis apart from other forms of assessment is its emphasis on the identification of the social structures, relationships, and institutions that are the root causes of vulnerability and inequality in the relevant location of study. When these root causes are recognized, proponents can then assess how their proposed PPP may either reinforce or challenge these context-specific inequalities, and adjust the proposals to ensure more equitable outcomes. Other reasons for integrating gender and diversity into project development, many of which align with standard SIA, include fostering better public engagement and more effective mitigation strategies; contributing to health and well-being; avoiding costly conflict, providing local employment opportunities; and enhancing growth, profitability, and the social license to operate (e.g. Eftimie et al., 2009; NCEA, 2017; Kemp & Keenan, 2009).

CASE STUDY 1. What is counted as a social impact?

Experiences of coal development in New South Wales, Australia (Ey, 2018)

Ey (2018) provides one example of how gendered assumptions that underpin, yet are often largely invisible in, the resource development sector can influence how certain social impacts raised by local residents are either counted as legitimate or dismissed as outside the scope of project-level IA. While there are multiple masculinities and various ways in which they intersect with other identity factors, Ey noted that the resource development sector is typically infused with a hegemonic type of masculinity that prioritizes 'hardness', 'objectivity', 'measurability', 'rationality', and 'emotional restraint' (see also Cox & Mills, 2015; Kojola, 2018; Pini et al., 2010). Due to the high value placed on such attributes, in impact assessment the "consequences of resource extraction that fall outside a reductionist rationale continue to be dismissed as 'soft, airy fairy stuff'... In viewing emotional consequences as intangible, 'airy fairy' and irrelevant, the very real, tangible and embodied emotions and affects experienced in transformed places and communities are dismissed" (Ey, 2018:4).

The Hunter Valley in New South Wales is a major coal exporting region, with over 30 coal mines in operation. In her study, Ey conducted 16 semi-structured interviews with women about their experiences of living in the region. Participants described their deep connections with place – a reciprocal relationship where the places and landscape shape those who live there, and where people shape places into homes – what Ey refers to as the co-constitution of people and place. She stated that "the co-constitution of people and place means that harm experienced by one is profoundly harmful for the other" and found that that the coal extraction projects in the region resulted in a "transformation of loved places into something utterly unrecognisable, [and] participants were deeply affected by profound grief and loss" (p. 6).

Despite the very real physical, emotional, and mental consequences of this grief and loss, participants expressed frustration at their inability to express the consequences of these impacts to government and industry in ways that might be seen as legitimate, and often felt that their concerns were either ignored or not taken seriously. The way in which social impacts are recognized and prioritized "is an immensely power infused process, and whilst it could be argued that this is a matter of 'practicality', the way in which such impacts are perceived to 'matter' is embedded within the predominant discourses informing extractive norms and practices. Particularly, the ways in which emotions themselves are understood (or not understood) within this process similarly reflects relations of "power and privilege" (p. 4). It became apparent through her interviews that "the capacity for participants to offer up their emotions and relationships to place as a significant and legitimate impact is clearly constricted to more 'acceptable' impacts such as 'dust' and 'noise'" in social impact assessment processes at the project level (p.7).

Though her research participants were women, Ey pointed out that the erasure of emotional connection to place in social impact assessment can be just as harmful for men as for women. Ultimately the study aimed to draw attention to the "masculinist erasure of emotion" in the resource development sector in hopes of fostering a shift in "the way in which 'social impacts' that 'matter' are determined" (p.7).

The rationale for integrating gender and diversity lenses into IA not only provides the foundations on which any work is undertaken, but also has a bearing on the type of analysis frameworks used. Some frameworks, for example, focus primarily on identifying potential impacts upon certain groups, while others place more emphasis on the interactions between the proposed PPP and broader social structures, institutions, and power relationships. For this reason, it is important to identify a clear purpose for gender and diversity analysis early in an IA process. Understanding key trends in contemporary literature may help clarify why and how gender and diversity analysis can be conducted effectively in Canadian IA processes.

Trends

Two key trends relevant to gender and diversity analysis in the context of assessing impacts of resource development projects are apparent in literature: 1) movement away from a primary focus on the gendered differences between men and women to a greater emphasis on diversity within and across those categories; and, 2) attention to the need for cross-scale analysis that can reveal structural issues that contribute to inequitable outcomes (i.e. understanding the relationships between diverse experiences and impacts of resource development and relevant social institutions, structures, norms, and power dynamics from local to global scales).

From solely gender to a suite of diverse social identity factors

There is significant evidence that resource development projects impact men and women in different ways, largely because of gendered norms that shape social roles in households, workplaces, and communities. These impacts relate to a number of areas such as employment, health, social services, and participation in decision-making. For example:

- Access to employment and training opportunities in resource development industries is uneven and possibly inequitable. Women continue to be under-represented in resource industries; when they are employed they are often relegated to feminized positions (e.g., cooking, housekeeping, and administration) that are fewer in number, lower paid, and less stable. Women in 'non-traditional' roles within hierarchal workplace structures characterized by masculinized work cultures often face harassment or discrimination, and barriers to advancement and training (Cox & Mills, 2015; Parmenter, 2011; Mills et al., 2013). Opportunities for training in resource industries do not typically consider barriers most commonly faced by women who are heads of households such as lack of transportation or child care during training (Cox and Mills, 2015).
- Inflation, higher costs of living, and stretched social services associated with the influx of
 workers during resource development can contribute to health, food, housing insecurity
 within local communities (Amnesty International, 2016; Dalseg et al., 2018). These have
 the greatest impacts on those who already experience poverty, often female-headed
 households.
- Resource development is often associated with increases in gender-based violence, sex work, rates of sexually transmitted infections and HIV/AIDS, and human trafficking (Clow et al., 2016; Hill et al., 2017). These social impacts typically fall more heavily on women than men, particularly women of lower socio-economic status.
- Resource development can change or reinforce gender relationships and inequalities in communities. Higher rates of employment and wages often accrued by men in resource industries may mean less control for women over the financial benefits of projects, and less influence in decision-making around how resources and revenues are used (Eftimie

- et al., 2009; Kemp & Keenan, 2009; Hill et al., 2017). It can also mean more pressure on women to take on a greater proportion of caring and domestic responsibilities as men are often undertaking extended shift work schedules away from the home community (Koshan, 2018; Mills et al., 2013).
- Potential environmental impacts of resource development may impact cultural and spiritual connections to the land, which can affect men and women in different ways (Koutouki et al., 2018). Some studies note that IAs, particularly those conducted in northern communities, often focus on concerns and impacts associated with what are typically considered male land-based activities, such as hunting, trapping, and fishing. Activities more typically associated with women, such as berry picking and medicine gathering may be marginalized or omitted altogether (Joly and Westman, 2017; Mills et al., 2013; Kojola, 2018; Staples and Natcher, 2015). The choice of focus shapes who and what knowledges are included or excluded from decision-making processes.

While such gendered impacts of development are important and should be considered in all phases of IA from early planning to follow-up and monitoring, many of these studies are rooted in contemporary feminist theory and also recognize that gender is not the only aspect of identity that influence how people experience resource development projects. This literature, often drawing intersectionality, cites the need to move away from conflating 'gender' with 'women,' which can lead to simplistic, stereotypical men-versus-women dichotomies through which the impacts of resource development are assessed (Colfer et al., 2018; Lahiri-Dutt and Ahmed, 2011; O'Shaughnessy and Krogman, 2011). Earlier scholarship in gender and resource development tended to broad-brush women's interests as relatively uniform and related, for example, to topics like childcare and community health, which were then contrasted with dominant male interests and experiences related to employment and decision making (O'Shaughnessy and Krogman, 2011). Such dichotomies result in lack of attention to differing priorities and needs among diverse groups of women, men's concerns and perspectives on such topics, and the social structures and institutions that create or reinforce gendered and other social inequalities. From an intersectionality perspective, resource development and impact assessment requires "a fundamental shift away from emphasizing only broad-scale trends among men and women as groups, and assuming that what members of these groups hold in common is most analytically salient" (O'Shaughnessy and Krogman, 2011:136).

In addition to gender, recent literature emphasises that experiences of resource development projects are also shaped by social identity factors such as race, ethnicity, age, socioeconomic class, sexuality, education, and (dis)ability among others (Manning, 2014; Koutouki et al., 2018; Nightingale et al., 2017; Parmenter, 2011). For example, overstretched health infrastructure associated with influxes of workers into communities with new resource developments may disproportionately affect men and women with special health needs or disabilities. The experience of overall under-representation of women in resource development sector employment can also be different for Indigenous women and non-Indigenous women. In some contexts, while non-Indigenous women are overrepresented in clerical and administrative positions, Indigenous women may be excluded from those positions and over-represented in the lowest status jobs such as housekeeping and cooking. Such jobs place Indigenous women particularly at risk of sexual harassment or sexual violence due to the time spent in maledominated living spaces (Cox and Mills, 2015). Thus, Indigenous women may experience the 'double burden' of intersecting forms of gendered and racialized discrimination.

However, many sources in our literature review clarify that it is not enough to simply identify the sub-groups in a community that are the most marginalized or potentially adversely impacted by a proposed PPP or project. This would contribute to what Djoudi (2016: S253) refers to as the "Olympics of vulnerability" - the creation of marginalization hierarchies and focusing policy, programs, and mitigation strategies on lifting those at the bottom, rather than critically examining the structures and power relationships that created those positions in the first place. In other words, the causes of vulnerability and marginalization, not just their symptoms, should be considered in a gender and diversity analysis in IA processes. Moreover, while historicallymarginalized groups (e.g., women and girls, Indigenous peoples, seniors, recent immigrants, etc.) are generally more likely to feel the negative impacts of development, many authors note that these groups are often mis-represented as simply passive victims of the impacts associated with resource development (e.g., Dalseg et al., 2018; Lahiri-Dutt & Ahmed, 2012; O'Faircheallaigh, 2013; Roggeband & Verloo, 2006; Stienstra et al., 2017). They explain that people can be simultaneously privileged and marginalized in various aspects of their lives and depending on context. Diverse groups are holders of important and relevant knowledge(s) and in many circumstances actively resist proposed developments, both which must be recognized in IA processes. However, they may also experience barriers to participation and having their voices heard in IA processes due to social factors that are embedded within structures and institutions across scales (Kojola, 2018). This is true even in the global North and especially in rural Canada where the impacts of many large projects are felt. This insight leads to the second key trend identified in the literature relevant to gender and diversity in impact assessment.

Analysis across scales and social structures

Differential use and knowledge of natural resources, as well as access to and influence in decision-making about the resources, are heavily influenced by factors such as gender, race, and class that are embedded within social structures, institutions, and norms across household, community, regional, national, and global scales (Colfer et al., 2018; Kojola, 2018; Roggeband & Verloo, 2006; O'Shaughnessy & Krogman, 2011; Stienstra et al., 2017; Stinson et al., 2016). The ways in which these intersecting factors are expressed vary

"People's use, and knowledge, of natural resources are shaped by gender, race and class, thus perceptions of and exposure to risk vary between and within different social locations." – Kojola, 2018: 4

across culture, place, and time and are shaped by the actions of local women and men as well as broader structures and systems. These dynamics affect how each proposed development project will influence social relationships in a particular place, as well as how projects are supported, challenged, and engaged with by local communities. The context-specific nature of such dynamics indicates the need for strong gender and diversity analysis frameworks that are sensitive and adaptable to local needs.

The interactions of factors such as gender, race, and class in social structures and institutions profoundly affect access to resources, opportunities to influence decision-making, and whose and what types of knowledge are considered valid (Archibald & Crnkovich 1999; Ey, 2018; Kojola, 2018). In an early example, Archibald & Crnkovich (1999) demonstrated the implications of gendered exclusions from an environmental assessment of a proposed nickel mine at Voisey's Bay in Labrador. More recently, Kojola (2018) examined the ways in which race, class, gender and indigeneity intersected in formal state institutions to influence which types of

knowledge were considered and how they informed the engagement processes associated with environmental impact assessments of proposed copper-nickel mines in Minnesota (see Case Study 2 for further information on these two studies). Kojola argues that analyses acknowledging identity factors across scales can uncover taken-for-granted assumptions and systems of power - whiteness and dominant masculinity, for example - that maintain environmental and social inequalities and injustice. Similarly, Reed and Davidson (2011) found that gender, class, and race play significant roles in how (and which) individuals are selected to participate, what they bring to the table, and how they behave and share knowledge on forest advisory committees in Canada. They showed that strong gendered divisions of labour characterize forestry communities, which means that women are less likely to be employed directly in the forestry industry and thus less likely to be invited to participate on committees. Policies indicate that forest advisory committee representatives are selected based on their formal interests. These interests often reflect dominant economic and industrial priorities (such as those of forestry operators, business associations, and hunting and trapping organizations). to the general exclusion of social organizations in which women are more likely to be employed or participate. If forest managers seek advice from rural communities in which they operate, they are likely, then, to hear from a narrow segment of the local population. Scientists and industry representatives (often positioned in certain gendered and classed positions) are viewed as the most trusted sources of information, which contributes to the marginalization of certain knowledges, such as Indigenous land-based knowledge and organizations that represent nontimber uses of forests. As Reed and Davidson conclude, drawing attention to the ways in which gender, class, and race are embedded in norms, policies, and structures "helps create opportunities for more inclusive concepts, analyses, and ultimately more inclusive policies and practices that place equal value on the contributions of a wide diversity of people" (2011:214).

Considering broader histories, such as colonization and its continuing effects, is also vital for resource development planning and impact assessment in Canada. In their recent study, for example, Joly and Westman (2018) suggest that the impacts of Alberta oil sands developments on women and youth in Indigenous communities cannot be fully understood apart from the legacies of colonization. Colonization, racism, and patriarchy have worked together to systematically suppress Indigenous cultures, through residential schools, for example, and to rearrange gender relationships in many Indigenous societies, which has resulted in lasting impacts in the form of continued discrimination, poverty, and violence against Indigenous women (Amnesty International, 2016; Gibson et al., 2017; NWAC, 2007). Resource development becomes situated within these on-going legacies, and without explicit attention to their gendered, classed, and racialized dimensions, proponents risk reinforcing these historical inequalities. Some authors suggest that we must also consider how other broader systems, such as Western capitalism, neoliberal policy formulation, globalization, and economic restructuring affect diverse groups, including their effects in shifting gender roles and reproducing raciazliaed oppression within local communities (O'Shaughnessy and Krogman, 2011; NWAC, 2007). This would include, for example, considering the power relationships between corporations and communities, and the assumptions underlying the motivations of companies including development for profit and economic growth.

"When gender and diversity are not considered in EA processes and related research, women and other marginalized populations in Canada's Northern communities continue to bear the burden of resource development while others reap the rewards" – Stienstra et al., 2016: 4

Ultimately, these studies suggest that gender and diversity analysis in impact assessment should move beyond surface level assessments of the potential impacts upon various groups within communities, especially in the case of large projects and undertakings. Deeper analysis would bring complex intersections of identity into view by identifying how identities are embedded in social structures and institutions and how they are influenced by broader power structures and expressed in people's lives. This deeper analysis of structures and institutions within

which identities are embedded can contribute to more inclusive and transformative processes instead of reinforcing pre-existing social inequalities and environmental injustices. We have identified a number of frameworks that have been developed and applied to support this kind of analysis.

CASE STUDY 2. Participation in environmental assessment processes

Nickel mining project at Voisey's Bay, Labrador (Archibald and Crnkovich, 1999)

The first Environmental Assessment in Canada to require a gender-based analysis was that of a nickel mine at Voisey Bay. Assessments of the public participation processes associated with this mine revealed that gender-based analysis was incomplete and did not inform how public participation might take place. Several shortcomings and observations were revealed that demonstrated how women and those of diverse identities and social affiliations were excluded from deliberations. These included:

- Women's involvement tended to be incidental rather than planned;
- give rise to and reinforce local leadership elites that defined and exercised collective rights that appeared to move away from traditional cultural values. Many Aboriginal women's organizations were not recognized or eligible for funding to participate in associated negotiations. Hence, these processes both formally and informally excluded women and other diverse interests;
- Women were notably absent in negotiations leading up to the EA MOU;
- Women had more opportunity to speak out about project concerns during the public processes associated with the EA;
- Women's knowledge and experience was ignored in research methods and results;
- Women need to be involved in monitoring and evaluation. They provide Indigenous knowledge and can explain how gender intersects with culture and race.

The most comprehensive review of the process argued that the consequence of the process was that "the Aboriginal male becomes the standard or norm while the Aboriginal female becomes invisible" (Archibold and Crnkovich 1999: 12).

Copper-Nickel Mining project in Minnesota (Kojola, 2018)

More recently, public hearings during an EA of a proposed copper-nickel mining project in northern Minnesota in 2013 suggests that many of these inequalities have been reproduced, not redressed in the interim. Kojola found no mention of gender in the ES report. His research reported on the public hearing phase and drew attention to four characteristics:

- Power dynamics in interactions at public hearings
- Lack of attention to intersectional health risks
- · Incorporation of indigenous knowledge
- Gendered and raced assumptions in socio-economic benefits

Kojola found that masculine/bureaucratic norms and assumptions resting on patriarchal and Western-scientific ideas resulted in exclusions of certain groups and knowledge types. He explored the norms of public hearings, arguing that power relations place middle-class and expert voices, and technocratic language that frames fact-based arguments and evidence in a privileged position relative to political or moral claims. He also drew attention to logistical issues that made it more challenging for Indigenous people and those of lower socio-economic status to participate including the location and timing of meetings and lack of support (such as for child care or time to prepare). He explained that inclusion of Indigenous knowledge was largely a technical affair. Ojibwe communities' critiques were placed into a separate appendix, excluded from the main conclusions of the EIS. This shows that because concerns of tribal community members and Indigenous wild rice harvesters and fishers did not fit Western-science driven norms, they were largely invisible in the EA process. Instead, "assessments of impacts to wild rice was largely based on government data and modeling, not the direct experiences of wild rice harvesters and elders, although these also vary by gender and class – such as commercial versus subsistence harvesters" (p.10). There was also no discussion of gender, race, class, education, or location in discussions of socio-economic risks and benefits. Without attention to such factors. Kojola noted that employment benefits were implicitly for predominantly white men, as there were no plans for affirmative action in hiring, no calculation of the potential negative effects to the livelihoods of women, indigenous people and servicesector workers, and no attention to how the livelihoods of Ojibwe rice harvesters and fisher people might be affected.

The study also noted that the EIS analysis focused on impacts to water, wetlands, land, and plants with much less attention to the social and cultural risks, especially human health. Appeals to complete a health impact assessment were not heeded, although a 5-page summary of health effects was included in the final document. Nevertheless, Kojola (2018) found no baseline data on intersectional differences in health and no analysis of how mining might exacerbate regional health inequalities. He identified that the cumulative effects of toxins or the chronic impacts of the lack of access to healthcare for some members of the community might have differential impacts for children, pregnant women, and low-income people. Nevertheless, these differences were not considered in the EIS. Ultimately, Kojola concluded that "without assessment of how multiple forms of social difference shape expo-sure to risk and perceptions of environmental hazards, regulatory decision-making procedures are likely to reinforce status quo power dynamics and reproduce environmental injustices" (p. 13).

¹ The Canadian firm, PolyMet, was the proponent

Frameworks and Methodologies

A variety of frameworks for gender and diversity analysis have been developed, both for broad application at regional, national, or international scales and for specific application to impact assessment and natural resource research and development projects. The broad-scale frameworks are most often meant for use at the policy level, but also hold lessons for conducting gender and diversity analysis in the context of both strategic and project IA, as in the context of section 22 Bill C-69 requirements (see for example Bacchi & Eveline, 2010; Crawley & O'Meara, 2002; EIGE, 2017; NWAC, 2007; Status of Women Canada, 2017; Verloo & Roggeband, 1996). Six frameworks that apply specifically to impact assessment of development projects are identified (see Appendix 1 for summary table), two of which have been applied in the Canadian context (Case Study 3).

General frameworks

While there is no clear country leader in terms of implementing gender and diversity analysis in IA, European countries generally appear as forerunners in gender-mainstreaming and gender-based analysis in policy and practice. The European Institute for Gender Equality (2016), for example, recently created a gender mainstreaming toolkit for Gender Impact Assessment that focuses on three assessment stages: gender relevance assessment; gender impact assessment; and gender equality assessment.

In 2002, Ireland introduced a handbook for "gender-proofing", a strategy designed to ensure "that all policies and practices within organisations have equally beneficial effects on men and women" (Crawley & O'Meara, 2002:6). It proposed 5 steps:

- 1. Establish the different experiences and roles of men and women which might affect how they benefit from or get involve in specific objectives or actions;
- 2. Consider the implications of the differences for this objective;
- 3. Decide what needs to be done to ensure gender quality:
- 4. Decide who will assume responsibility for actions; and
- 5. Set indicators and targets to measure success (pp. 18-20)

Two key critiques of this approach are that (a) it considers gender as a static characteristic rather than a dynamic one that is subject to change over time and place; and (b) it tends to overlook the role of public policy (and policy-makers) in creating, reinforcing, or retaining gender differences (Bacchi & Eveline 2010). For example, a statement that "increased representation of women in decision-making positions will of course be based on merit" (Crawley & O'Meara, 2004: 63), assumes that there is an objective method of evaluating merit and omits consideration of how gender biases may enter into the merit criteria. Bacchi and Eveline (2010: 113) determined that "it therefore rests upon an assumption that 'gender equality' means integrating women into the social and political status quo" but does not reflect on whether or not state policies or practices should seek to alter the status quo. Globally, gender-based frameworks that emphasize the facilitation of more equal access for women (and other typically marginalized groups) to existing social and economic structures and institutions are the most prevalent and similar approaches have been adopted by a number of international and national organizations and governments, including Ireland, New Zealand, and Canada (Bacchi 2017; Bacchi & Eveline 2010).

In the Netherlands, a framework for gender impact assessment, sometimes described as emancipation impact assessment, was introduced in 1992 (Verloo & Roggeband, 1996). In contrast to the Irish example, the policy problem was not defined as differences between men and women, but as one of unequal power relations between these groups. According to this conceptualization, two key processes were viewed as producing structures that shape gender relations – the distribution of resources and the operation of rules. Specific criteria, then, were necessary to assess whether a policy or project should be judged positively or negatively. A three-part framework, focused on both structure and agency, was proposed including consideration of:

- 1. Structures referring to the foundations of gender relations, showing which institutions and organizations are most crucial in the constitution of gender inequality;
 - a. Gendered division of labour
 - b. Organization of intimacy and sexuality
- 2. *Processes* focusing on the mechanisms that constitute and reproduce gender relations; and
 - Distribution of and access to resources
 - b. Use of gender rules, interpretations and norms that deal with gender in interaction and at an institutional level
- 3. *Criteria* a normative element necessary to decide whether a certain situation is judged positively or negatively.
 - a. Equality before the law and equal treatment in similar circumstances
 - b. Pluriformity (a society where differences are not hierarchical)
 - c. Autonomy (the possibility for women to decide for themselves what life is good for them)

This framework supports a more dynamic definition of gender and is rooted in an assumption that gender may be created and reinforced by policies, programmes, and projects. Implementation of this framework, however, has been partial. Issues about sexuality, intimacy and reproduction have been contentious and have not typically been included in gender impact assessments. However, Roggeband and Verloo (2006: 627) suggested that while its direct effects in policy may be marginal, "its indirect effects, such as increased gender-awareness and support for gender mainstreaming may be considerable."

Similarly, Bacchi and Eveline (2010: 111) argue that policies do not simply resolve problems 'out there', but rather, "policy proposals 'imagine' 'problems' in particular ways that have real and meaningful effects." This process has been described as "framing" in other literatures and explains that the ways in which problems - or impacts, in the context of IA - are perceived shapes the solutions (e.g., policies, mitigation strategies, etc) that are considered and the effects that those solutions will have once they are enacted (Jerneck & Olsson, 2011). Framing may deliberately or inadvertently reinforce certain ways of being or patterns of behaviour. For example, policies relating to social services, employment, family benefits, marriage and so on may reinforce assumptions about gender, heterosexuality, family formation, and ability. With respect to IA, provisions for (and explanation of) employment associated with a proposed development may similarly be generated with gendered and cultural assumptions about who the employees will be and what kinds of accommodations they may require. If these assumptions are not questioned, the introduction of new employment opportunities into a community may reinforce local inequalities, giving some sectors within the community greater access to employment than others and placing the social fabric of the community at risk. Jerneck and

Olsson (2011: 259) encourage researchers and policy analysts to actively engage in reframing – "a process of shifting one's thinking into a different system and structure of concepts, language and cognitions.... Reframing can help us redefine problems and identify new opportunities for resolving policy dilemmas" (Jerneck & Olsson, 2011: 259).

With specific reference to an intersectional approach related to framing, Bacchi and Eveline (2010) argued for a "What's the Problem Represented to be" approach. They suggest that this approach fosters critical self-scrutiny during the process of policy formulation to determine how the problem is framed and whether other possible framings might lead to different kinds of policy formulations. While the authors specifically apply this approach to policy development, ideas from their framework could also help IA teams critically reflect on assumptions that underpin how impacts and mitigation strategies are thought about and developed. The "What's the Problem Represented to be" approach specifically tasks policy makers with addressing the following questions:

- 1. What's the 'problem' represented to be in a specific policy?
- 2. What presuppositions or assumptions underlie this representation of the problem?
- 3. How has this representation of the "problem" come about?
- 4. What is left unproblematic in this problem representation? Where are the silences? Can the 'problem' be thought about differently?
- 5. What effects are produced by this representation of the 'problem'?
- 6. How/where has this representation of the 'problem' been produced, disseminated, and defended? How could it be questioned, disrupted and replaced? (p. 210)

Frameworks for impact assessment and resource development

Gender and diversity analysis frameworks have also been developed for specific application to the context of IA and natural resource research and development projects (see Appendix 1 for summary). As for the broad-scale frameworks noted above, this set of IA and resource-specific frameworks adopt a variety of purposes, approaches, components, and suggested methods. The frameworks, for example, treat gender and other identity factors in different ways. The World Bank's framework for Mainstreaming gender into extractive industries projects (Eftimie et al., 2009) primarily focuses on "women as a particular sub-group of relevance" (p. 4) in order to identify how women and men are differentially impacted by extractive industries and to create equitable opportunities for women and men. A criticism of this approach is that it tends to disregard structures that underpin gendered roles and statuses and fails to account for diverse interests among women (Lahiri-Dutt & Ahmed, 2011). Other frameworks explicitly cite the need to consider intersecting identity factors (Colfer et al. 2018; Hill et al., 2017; Manning, 2014a; Nightingale et al., 2017; Kemp & Keenan, 2009). Comprehensive analysis of multiple intersecting identity factors can be a daunting task. For this reason, Colfer and colleagues (2018: 3) suggest that it is "useful to begin with gender because it is the most ubiquitous of the many social differentiating variables. A gender focus grants access to all other marginalizing and empowering categories of social identity (youth, old age, handicap, non-heteronormative sexuality, despised ethnicity, lower caste, poverty and more) in a way that none of the other identities can."

Some frameworks also situate gender and other forms of inequality within broader structural relations of power, and integrate consideration of these structures into gender and diversity analysis in the context of Canadian environmental assessment processes. For example, Nightingale and colleagues (2017) noted that the experiences of Inuit women in northern

Canada are "both broadly and deeply impacted by resource extraction activities, particularly at the intersection of gender with race, class, culture, and language" (p. 380), and showed how these intersections operate within broader structural factors associated with colonization. The Canadian Research Institute for the Advancement of Women's (CRIAW) FemNorthNet project produced several policy briefs related to analyzing gender and diversity in sustainable economic development in northern Canada. They have observed that there is now "compelling evidence that the negative effects of resource development are experienced most often and profoundly by women, Indigenous peoples, people living in poverty, people with disabilities, and other marginalized groups" (Clow et al., 2016:1) and "resource development that destroys or pollutes land also harms Indigenous communities by diminishing food sources and interfering with cultural and family practices" (p. 2). Their framework specifically draws attention to how associated power relationships have or have not been considered in decision-making. See Case Study 3 for background and applications of these two frameworks.

CASE STUDY 3. Frameworks applied in Canadian IA

Culturally-relevant gender-based analysis

In 2007, the Native Women's Association of Canada¹ prepared an Issue paper for the National Aboriginal Women's Summit entitled "Culturally-relevant gender-based analysis" (NWAC, 2007). This paper explained that structural factors such as "colonization, patriarchy, paternalism and gender generated an economic and social environment that marginalizes Indigenous women" (p. 4). It goes on to explain how a broad range of structural inequalities interact with local conditions and give rise to extreme marginalization and inequalities experienced by Aboriginal women and girls. Issues faced include "family violence, racialized and sexualized violence, gendered violence, poverty, lack of access to adequate housing, including the lack of access to matrimonial property rights, lack of access to justice, low education and employment rates, low health status and little or no political participation" (ibid). They argued that gender-based analysis had failed to be sensitive to the needs of Aboriginal women. The authors drew attention to racism and discrimination of Two-Spirit women based on their sexual orientation and women with disabilities.

A year later, the National Aboriginal Health Organization argued the need for a gender-based approach that was culturally-relevant. Like the NWAC's framework, the NAHO's framework focuses on broad structural concerns associated with colonization. Their analytical tool (NAHO 2008: 3-4) focuses on:

- Holism, through recognizing the importance of all interconnected aspects of the individual and the community.
- Cultural diversity, through respecting the distinct identity of different cultural groups, Nations and communities.
- Equity, through recognizing historical injustices that have occurred and ensuring that disadvantaged communities are provided with services and resources in keeping with the human rights of all individuals.
- Ownership and voice, through ensuring that communities control their own research

agenda and identify their own priorities, and that all voices are actively engaged in decision-making processes.

Nightingale and colleagues (2017) built on the NAHO framework, working with Pauktuutit Inuit Women of Canada to better understand the effects of resource extraction on Inuit women and their families in relation to the Qamani'tuaq and Meadowbank gold mine. Their analysis concentrated on four dimensions (p. 372):

- 1. The Inuit way (elders, culture, language, family, community, and spirituality);
- 2. Traditional influences on the Inuit way (land, weather, animals, and country food);
- 3. Contemporary influences on the Inuit way (institutions, policies, law, climate change, globalized, and capitalist economies); and
- 4. Assessing gender impacts in an Inuit cultural context (pulling it all together)

Their analysis is a broad one, with efforts to locate impacts of resource extraction in structural factors associated with colonization and cultural loss. They documented increased domestic violence and substance abuse as a result of mining, shift schedules that strained relationships and gave rise to increases in single-parent families. They noted that women's jobs often came with lower income, security and status (see also Cox and Mills, 2015), and they noted local concerns expressed for employment opportunities for youth. They drew attention to the fact that the associated Impact Benefit Agreement did not discuss that social impacts might affect women and men differently within Inuit communities. Importantly, they asked how resource extraction companies can ensure that cultural needs of their workers, associated families and communities can be imbued into the philosophies and operations of the company. They concluded:

Women must be directly involved in consultations, negotiations, and planning processes around resource extraction projects in order to bring forward their needs and to plan for how these needs will be impacted by the project. Inuit women's lack of direct involvement in planning to address the impact of mining in Qamani'tuaq resulted in them experiencing many challenges that could have been mitigated through policies, programmes, or even services developed in advance of the mine opening (380-381).

Feminist Intersectional Policy Analysis

FemNorthNet's² "Feminist Intersectional Policy Analysis: Resource Development and Extraction Framework" (Manning, 2014) situates gender inequality within broader structural relations of power. Their framework offers a series of questions that can be posed at any stage of a project development (See Appendix 1 for summary).

A follow-up policy brief applied this framework to the EA of the Maritime Link in 2013-14 (subsea hydro-electrical transmission infrastructure upgrade in Newfoundland and Nova Scotia involving) (Manning, 2014b). They reviewed publicly-available documents including the associated EA, submissions to the Maritime Link hearings, decisions from the Nova Scotia Utility and Review Board, and statements from relevant stakeholders.

By systematically applying the framework, they found that the EA sought to include Mi'kmaq knowledge and values in the assessment process, involved the completion of a Mi'kmaq Ecological knowledge study, and conducted consultations with Qalipu and Nova Scotia Mi'kmaq community members and organizations. The EA included an intention to create a Gender Equity and Diversity Plan to promote the employment of women and other marginalized groups. Nevertheless, they found that the report did not provide any specifics,

explain why a specific plan was needed, provide any information about how gender and other identity categories interact, or explain how the plan would be implemented or monitored. Further, while some Indigenous peoples were described in the EA (Qalipu), others (Mi'kmaq) were not. Hence, there was no consideration of how Mi'kmaq people might experience different effects than non-Indigenous peoples. The framework did identify that the company, Emera, was negotiating an Impact Benefits Agreement with the Assembly of Nova Scotia Mi'kmaq Chiefs and Qalipu First Nation, but there was no information about whether women or people within other social groups who have traditionally been excluded from such negotiations might have access to or participate in these negotiations. There were concerns expressed that "only those with extensive time and research resources are able to prepare submissions and statements" (p. 3)

¹ The Native Women's Association of Canada (NWAC) was founded in 1974 to address discriminations associated with the Indian Act. The NWAC now has a broader mandate to enhance, promote, and foster the social, economic, cultural and political well-being of First Nations, Métis and Inuit women, girls and gender-diverse people within First Nations, Métis and Inuit Canadian societies. From website: https://www.nwac.ca/
² "FemNorthNet is a network of researchers within and outside of universities and colleges together with representatives of community—based organizations, in northern Canada as well as working across Canada....Using an intersectional gendered analysis and participatory action research, FemNorthNet focuses on sustainable economic development in the North by exploring similarities and differences among and between different groups of women." (cited directly from: http://fnn.criaw-icref.ca/en/page/femnorthnet-about)

To ascertain how social structures interact with local experiences and generate impacts across social groups, two other frameworks explicitly integrate an institutional analysis as a key component of gender and diversity analysis (Colfer et al., 2018; Hill et al., 2017). For Colfer and colleagues (2018), this means considering how global and local structures and institutions operate to marginalize or empower diverse groups in context-specific ways. Their framework identified six steps that integrate institutional analysis throughout, with an ultimate goal of influencing the development of more equitable policies and institutions. Hill et al. (2017) noted that diverse social institutions "discriminate against women (deliberately or not) and perpetuate gender inequality. Through their interactions with these institutions, mining, oil and gas companies may inadvertently condone or tolerate discrimination against women" (p. 12). They suggested a two-part institutional analysis where the proponent: 1) identifies relevant institutions (e.g., family, community, market, state, religion) and, 2) asks the following questions about each institution and the proponent, policy, or project's interactions with it:

- Whose interests does the institution serve, and as a result, who gains and who loses (which women and which men)?
- If these institutions are to serve the interests of all women and all men in the community (or all their own members) what needs to change?
 - o The institution's priorities and objectives?
 - The formal and informal rules that govern how decisions are made and by whom? The way that decisions are implemented?
 - o How resources are allocated and used?
 - O Who does what in the institution?

- How might the company's interaction with the institution exacerbate gender inequality and women's marginalisation?
- What could the company do differently to ensure that the relevant institution better serves the interests of all women and all men from the project-affected community? (p. 13).

Although planning and adopting an intersectional framework in advance of conducting any assessment of impacts (i.e. at the early planning phase) is the best option, there may be reason to review how gender and diversity were considered once an assessment has been prepared. This may be particularly relevant for Agency staff who are reviewing IA reports for completion and effectiveness, thus aiding their recognition of insufficient gender and diversity analysis. Manning (2014a), for example, provided a framework comprising a set of guiding questions for identifying how power relationships and intersecting identities were considered in a resource development project (Appendix 1). In another case, Johnson et al. (2009) offered a suite of questions that can inform such a post-hoc assessment. We have adapted them here for consideration in IA:

- 1. Does the PPP take one sex or gender as the norm, rather than stating explicitly who the research is applicable to? Does it make generalizations based on the findings of some groups?
- Does the IA assume that women and men are uniform within their sex/gender groups? If so, consider that there are multiple differences between individuals of the same sex or gender and be mindful when reporting the findings to acknowledge the differences among groups of women or groups of men.
- 3. Revisit the research that informed the assessment and examine how sex and gender are used in supporting studies. Are the terms *sex* and *gender* used accurately? How might the study have employed a more accurate portrayal of sex and gender?
- 4. Are the measures for both sex and gender appropriate?
- 5. How were the data collected and how did it affect the results?
- 6. Does the analysis account for differences between the sexes and genders and also within these groups? Were any structural issues raised (e.g., policies, laws, norms that influence how people interact and make decisions)

A common theme running throughout all frameworks is the need for inclusive engagement throughout the lifecycle of a PPP. This includes, but goes well beyond, representation in meetings or hearings called during an IA review. Eftimie and colleagues (2009: 8) maintain that representation in stakeholder engagement processes alone "does not necessarily fulfill obligations to gender sensitivity – women may not always actively participate, and may be hesitant to contradict men, or to break with traditional gender roles for participation." Similarly, Kojola (2018) argues that representation of typically marginalized groups in common IA procedures, such as public hearings, do not necessarily translate to influence within decisionmaking processes (see Case Study 2). Inclusive engagement can ensure diverse groups have more than token representation, but rather real voice in the IA process, which helps to prevent the reinforcement of existing social and environmental inequalities and to identify ways to maximize the benefits of developments for diverse groups. Kemp and Keenan (2009: 26) included "inclusive engagement" as a central component of its gender analysis framework in recognition that "gender intersects with other diversity aspects, including age, class, ethnicity, disability, family, economic and marital status ...[and] must be taken into account during the process of stakeholder identification and engagement, including company responses to

complaints and grievances" (see Figure 1). Their model for "inclusive engagement" seeks a culturally-appropriate approach to engagement that requires early and on-going discussion with local and Indigenous communities throughout the life-cycle of a mining operation. This means engaging during early planning and implementation, reporting, and monitoring and evaluation. Importantly, social identities, social relationships, and power dynamics are fluid – shifting social, economic, cultural, and ecological contexts can change how the project is experienced by diverse groups across time. Therefore, participatory follow-up and monitoring is especially vital to ensure that commitments made during IA process are honoured and that appropriate indicators are applied; this is a component that has not always been prioritized in the past (Archibald & Crnkovich, 1999; Cox & Mills, 2015; Stinson & Levac, 2016).

The frameworks described above promote mixed methods approaches for gender and diversity analysis, drawing on a combination of quantitative and qualitative methods. Quantitative methods, such as the collection of sex-disaggregated data (e.g., census data) and household surveys, are sometimes recommended as a component of baseline studies. However, while presentation of sex-disaggregated data is an important starting point, it remains incomplete. Stopping at this point risks reifying categories and may also serve to reproduce inequalities when impacts are considered. For example, Archibald and Crnkovich (1999: 25) found that the environmental assessment of a Voisey's Bay nickel project used existing studies on reported and non-reported rates of gender-based crime to essentially build the case that "rates of violence against women are so high already that the mining project could not possibly make things worse." Such use of data clearly reinforces harmful stereotypes and closes doors for more productive assessments of a PPP's contextual position and potential impact on existing social relationships and power dynamics. Unless there is critical reflection on within-group differences and experiences, and the institutions and contexts that give rise to these differences, evaluation of a PPP will not explain or mitigate the underlying concerns of social inequality that gender and diversity policy is intended to address.

While quantitative tools can provide an initial indication of gender and other social inequalities, qualitative methods "enable a more in-depth examination of gender relations that are not easily quantified" (Kemp & Keenan, 2009: 68). For example, quantitative methods can identify inequalities in employment, such as in a recent publication that indicates only 6% of senior management positions in Canada's forest sector are held by women (Gelowitz, 2019). This is an important problem indicator, but it does not shed light on the specific barriers that hinder diverse groups of women's employment in the sector. For this reason, many frameworks consistently promote meaningful participation throughout IA and project planning and implementation. Qualitative methods can produce richer data that is rooted in people's lived experiences, which can help to identify more effective strategies for inclusive development. The frameworks promote a diversity of qualitative methods, including interviews and focus groups (Hill et al., 2017; Kemp & Keenan, 2009; Nightingale et al., 2017), workshops (Nightingale et al., 2017), indepth ethnographic studies (Colfer et al. 2018), and participatory monitoring (Kemp & Keenan, 2009). Nightingale et al. (2017) also identify the need to build community ownership over the process by building capacity for conducting research and monitoring, and collaboratively developing research instruments. In some contexts, it may be useful to hold participatory sessions specifically for groups identified as marginalized (e.g., women, youth) to better ensure these voices are heard (Colfer et al., 2018; Eftimie et al., 2009; Nightingale et al., 2017); however, in such fora women, for example, "should not be marginalized to speak only on 'women's issues'" (Eftimie et al. 2009: 8).

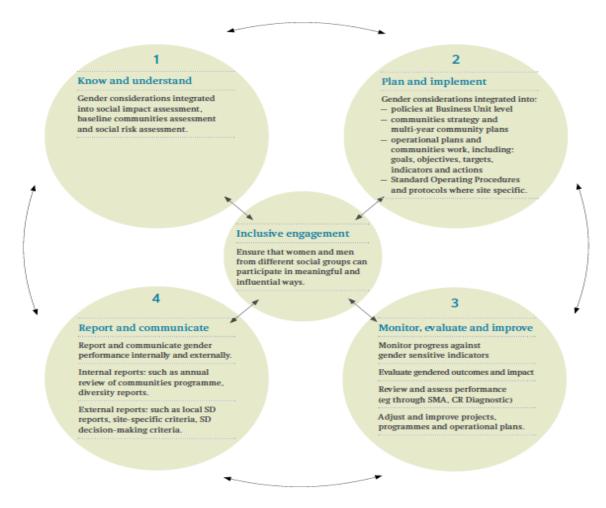


Figure 1. Kemp & Keenan (2009) framework for inclusive engagement

Principles for Gender and Diversity Analysis in IA

Based on our literature review and the above discussion, we have identified a number of key principles that guide good-practice gender and diversity analysis in IA, which are suitable for consideration in terms of implementing section 22 provisions. We distinguish between 'guiding principles' and 'operating principles'. Guiding principles refer to overarching concepts that apply to IA across all PPPs. The operating principles specifically indicate how these principles should be applied to various stages of IA for designated projects as referenced in section 22 of Bill C-69. Despite this focus, we recognize that some principles may also be relevant at other levels of IA (i.e. regional and strategic assessment).

Guiding principles

A comprehensive gender and diversity analysis in the context of Canadian IA as envisioned in the preamble of Bill C-69 will be:

Contextual

- Understanding the context will help proponents assess how PPPs might shape or reinforce unequal power dynamics and social relationships in local contexts and beyond. IA is undertaken in various locations where the experiences and impacts of PPPs have and will continue to be diverse. Understanding the social, cultural, economic, and ecological context within which the proposed PPP will be introduced is critical to successful assessment of potential impacts.
- IA is not introduced in isolation. Many IAs are undertaken in regions where Indigenous rights and territories will be affected. Factors such as colonization, Treaties (contemporary and historical), Aboriginal rights, Impact Benefit Agreements, and the requirements of CEAA 2012 itself have influenced who is involved in IAs and who have been excluded. Careful consideration of this context will be important for understanding the needs and interests of diverse groups when PPPs are assessed.

Inclusive and Enabling

- Identifying and recognizing groups that are not part of the normal hierarchy of voice
 (e.g., not considered 'experts') is essential to effective gender and diversity analysis. A
 good gender and diversity analysis in IA seeks out opportunities for broadening inclusion
 by providing support (logistical, financial, educational, other) to enable under represented groups to participate and have an influential voice throughout the process.
- Providing opportunities for citizens and proponents to learn about IA by becoming
 involved is an important element of citizen engagement. This should also include citizen
 contributions to on-going learning through 'citizen' involvement in monitoring and
 communication of environmental/social change with the proponent.
- Implementing interactive methodologies (e.g. site visits, workshops, World Cafés, participatory mapping, sharing circles, arts-based methods, informal discussions) in which proponents work directly with community members throughout the life cycle of the PPP will be the most effective strategies for inclusion, communication, and relationship building.

Appreciative and capacity-enhancing

Seeking to identify and learn from local conditions, strengths, knowledges, and collaborations will support resilience and adaptive capacity in communities. Indigenous and local communities, and the diverse groups within them, have strengths that enhance resilience in the face of rapidly changing environmental, economic, social, and cultural circumstances. Engaging with these diverse strengths and knowledges helps to avoid narratives that represent historically-marginalized groups (e.g., women and girls, Indigenous peoples, seniors, recent immigrants) as simply passive victims of development.

Flexible

Recognizing that a single universal approach to gender and diversity analysis will not be
appropriate, a key goal of gender and diversity analysis is to promote a shift towards
social and environmental equality for diverse groups. This means avoiding viewing
gender and diversity analysis as a checkbox activity, but rather adopting strategies and
methods that respond to the context in which each PPP occurs.

Respectful

- Commitment to include diverse Indigenous and local knowledges, including knowledge that is not derived from western scientific methods (e.g. experiential knowledge) can demonstrate respect.
- Appropriate timelines are needed to allow local people to learn about and understand
 the scope of the project under review and to ask and address new questions. Ensure
 information is accessible to people across language, age, (dis)ability, income, education
 level, etc.
- Respect also means being receptive to learning from local and Indigenous communities
 and the diverse groups within them. Companies and agencies working in Indigenous and
 rural communities involves building relationships with the people who live and derive
 their livelihoods from those territories.

Committed

 Commitment to on-going consideration of gender and diversity implications and inclusive engagement through the IA lifecycle is critical. Research and company guides (e.g. Kemp & Keenan, 2009) have demonstrated that these considerations enhance social licence and support sustainable development objectives.

Operating Principles

In following from the above guiding principles, gender and diversity analysis as required under section 22 of Bill C-69 and as applied to major projects as captured in regulation should aim to:

- Initiate early. Identify the purpose and strategy for conducting the gender and diversity analysis early in the IA process. This could be accomplished during the proposed early planning phase of the IA. During this phase it will be critical to identify groups that are not part of the normal hierarchy of voice, conduct initial engagements with these groups, and identify requirements for baseline studies, including the comprehensive context analysis suggested above. Attention should be given to groups that have been underrepresented in IA and resource development research and practice, such as people with disabilities, recent immigrants, homeless populations, and LGBTQ2 communities.
- Determine and understand the context. Examine how social structures and institutions (e.g., laws, policies, government, decision-making structures, family organization, economic systems, globalizations, etc.) and systems of power (colonization, sexism, patriarchy, capitalism, heterosexism, etc.) shape gender (and other social) relationships and differential experiences at the local level. These dynamics are not always easily identified; therefore, a comprehensive contextual analysis should include multiple strategies, such as reviewing gender-disaggregated data and relevant studies/documents, applying a structural/institutional analysis framework, spending time and developing relationships in communities, and drawing on participatory and ethnographic approaches.
- Think big during impact assessment. The impact assessment phase must not only
 assess and document how projects might adversely impact diverse groups, but also how
 a designated project may reinforce and/or challenge existing inequalities and power
 relationships (based on earlier contextual analysis and participant feedback). An impact
 assessment should also analyze how expected positive impacts may be distributed
 differently across diverse groups.

- Ensure openness and transparency. Clearly document and share gender and diversity issues identified throughout the IA process (e.g., potential adverse impacts on diverse groups and social relationships/power dynamics, project alternatives and mitigation strategies that respond to these impacts, how diverse knowledges and feedback were sought and considered, etc.). Develop a gender and diversity action plan that makes clear connections among impact assessment, mitigation strategies, and follow-up and monitoring. This information should be accessible to diverse groups across language, age, (dis)ability, income, education level, etc. (a full draft report posted online may not reach, or be accessible to, certain groups). Ensure a mechanism is in place for on-going communication with communities throughout the IA and entire project lifecycle, including accessible ways for individuals and communities to provide feedback, questions, and concerns.
- Follow-up and Monitor. Follow-up and monitoring processes should be participatory
 and aim to work with communities to evaluate the effectiveness of the implemented
 mitigation strategies and identify any unexpected impacts to diverse groups, social
 relationships, and power relationships. Proponents should be willing to work with
 community partners to adjust mitigation strategies as needed.
- Prioritize inclusive and frequent engagement. Help local participants choose from a vast toolbox of engagement techniques during the early planning phase (as the public participation plan is developed) and be sure the process of implementation is flexible. Hearing panels must also more effectively engage diverse groups' needs, knowledges, and abilities. This may include, but is not restricted to, undertaking informal hearings, meetings, or other forms of engagement (particularly if requested by communities). In all cases, approaches to participation must promote the consideration of a range of social identities and ensure inclusivity of groups that have historically been excluded from IA processes, such as people with disabilities, recent immigrants, and LGBTQ2 communities. Consider methods that better promote inclusion of diverse knowledges and experiences (e.g., emotive experiences of resource development), such as arts-based and participatory action research. Ask, listen, and act on diverse groups' preferences for engagement.
- Be reflexive. Actively consider any assumptions underlying the IA process itself that might reinforce historical inequalities (e.g., Does it value some types of knowledge over others? Certain economic, cultural, or social values over others? What are considered legitimate social impacts and what are not? What assumptions underpin these perspectives?). Also consider how one's own social position and assumptions might influence how various knowledge types are valued, how participants are identified and engaged with, and whether/how participants are willing to share their knowledge and experiences.

Challenges and Considerations

Through this literature review, it is apparent that gender and diversity analysis in the context of IA, particularly in regions of the global North, is still a point of discussion and requires continual learning. Many frameworks, both for broad application to policy across scales and for specific application to IA and resource development projects, have been developed. We note three key considerations that are important for IA as practitioners seek to more effectively address gender and diversity in their analyses.

Firstly, despite the number of frameworks, there are still very few examples of how these frameworks have been applied to actual IA processes. Empirical studies most often conduct expost assessments related to how gender and diversity have (or have not) been integrated into IA processes, either by examining IA reports and related documentation (e.g., Dalseg, 2018; Kojola, 2018), by conducting collaborative research with those impacted by developments (e.g., Ey, 2018; Nightingale, 2017), or a combination of both (e.g., Archibald & Crnkovich, 1999; Cox & Mills, 2015). Through our literature review, we identified a number of studies that emphasize the experiences of women, and often specifically Indigenous women, in relation to resource development and IA processes. However, we agree with Stienstra and colleagues' (2017: 6-7) observation that "the literature does not significantly address several groups including people with disabilities, immigrants, homeless populations, people who identify with LGBTQ or twospirit communities, and men." Nonetheless, it will be important to consider how these identity factors (and related social structures and power relations) might be relevant in the context of each IA study. For the Agency, proponents and their consultants, this will mean keeping apprised of emerging research, and facilitating partnerships with academia and IA practitioners (e.g., through MITACS Canadian Science Policy Fellowships).

Secondly, we identify several considerations related to how the gender and diversity component of Bill C-69 interacts with other sections and components. For example, in:

- The early planning phase. Subsection 18(1.1) indicates that "the Agency must take into account the factors set out in subsection 22(1) in determining what information or which studies it considers necessary for it to conduct the impact assessment," where subsection 22(1) includes "the intersection of sex and gender with other identity factors." This requirement may facilitate more substantial studies related to intersectional impacts and structural/institutional baseline analysis going into the impact assessment phase; however, Section 18 only comes after the decision about whether or not an impact assessment is required has already been made (see sections 16 & 17), where many projects may have already been excluded from a full assessment based on the scope of the designated project list regulation. This means that gendered and intersectional impacts (and initial concerns of diverse groups) may not be explicitly considered before an IA is formally triggered. Where an IA is required, the early planning phase includes an obligation for public participation and the development of a participation plan (section 11). Therefore, future policy and guidance documents should recommend that gender and diversity considerations be integrated at this phase (including stakeholder and rights holder analysis and public participation) to ensure all relevant voices are heard as early as possible in the IA process.
- Allowances for substitution. The proposed legislation provides some allowance for substitution of federal impact assessment with those of other jurisdictions (e.g., provincial). Among other conditions for substitution, Bill C-69 indicates that "the Minister may only approve a substitution if he or she is satisfied that the process to be substituted will include a consideration of the factors set out in subsection 22(1) "(see s 33(1)), where subsection 22(1) includes "the intersection of sex and gender with other identity factors." Clow et al. (2016) recently note, however, that there is currently very little integration of gender-based analysis with impact assessment processes in provincial jurisdictions in Canada. Therefore, explicit attention to the capacity of other jurisdictions to fulfill the requirement for gender and diversity analysis will be needed when a substitution is considered.

- Public participation. 'Meaningful' public participation is required in early planning
 (section 11), impact assessment (section 27), conditions for substitution (section 33),
 review panels (section 51), and in strategic assessments (section 99), but is never
 defined. From a gender and diversity analysis perspective, meaningful participation
 means moving beyond just representation of diverse groups in public participation
 processes. It also means identifying how social structures, institutions, and power
 relations may influence whose/what knowledge types are valued in decision-making and
 developing strategies to overcome these barriers.
- Regional assessments and strategic assessments. Requirements for regional and strategic assessments have not been fully fleshed out in the proposed IA legislation. Hence, there is no direction with respect to gender or diversity analysis at these levels. Any future regulations, policies, and guidance pertaining to regional and strategic assessments should consider requirements for gender and diversity analysis, as these higher-level processes would feed into section 22 considerations for project IA and are at a level most conducive to influencing development in a way that moves towards social equality.
- Decision-making. In her evaluation, Jennifer Koshan (2018: 7) points out that "the
 overarching criterion for project approvals is the public interest, the definition of which
 does not explicitly include gender (see s 63 of the proposed Impact Assessment Act)."
 She therefore asks, "Will large extractive projects with adverse gender (and other
 intersectional) impacts nonetheless be permitted where they have significant economic
 benefits seen to be in the public interest? And if they are, to what extent can these sorts
 of decisions be challenged?" (ibid.).

Thirdly, integrating gender and diversity analysis in ways that move beyond a 'check box' activity or 'add-women-and-stir' approach will require a great deal of leadership, commitment, support, policy, and guidance from the Agency. As our literature review makes apparent, such analyses should not just identify static categories (e.g., men, women) and differences between them, but move towards an understanding of how PPPs play a role in shaping or reinforcing unequal power dynamics and social relationships. As O'Shaughnessy and Krogman (2011: 137) note, however, the "development of analytical strategies which allow researchers to provisionally use gender "categories" to explore divisions in society while simultaneously recognizing the fluidity and transience of what constitutes these categories, has been a ... challenging endeavor." This indicates the need for strong training programs and guidance for IA practitioners and internal staff. We suggest a four-part strategy for the integration of gender and diversity assessment into practice within the context of section 22 of Bill C-69:

- Development of a gender and diversity analysis policy statement. This policy document would provide: background and rationale for gender and diversity analysis in IA within federal jurisdiction; circumstances under which the policy applies; guiding principles for gender and diversity analysis; and, the roles and responsibilities of relevant parties (e.g. the Agency, proponent).
- 2) Guidelines for undertaking gender and diversity analysis. The guidance document(s) would provide a detailed overview of the IA process components to which gender and diversity analysis applies (drawing on the operating principles). Importantly, this document should allow flexibility in how the gender and diversity analysis is conducted; it should not prescribe a single process, but should demonstrate a variety of good practice approaches, frameworks, and methodologies available for conducting the analysis.

- 3) An approach for internal evaluation. Drawing on post-hoc frameworks for gender and diversity analysis (e.g., see above references to Johnson, 2009; Manning, 2014), develop guidance, including guiding questions, that can be applied by internal staff to determine completeness of the gender and diversity analysis.
- 4) Training programs. A diversity of training programs will be needed. These should include, for example: education/training for groups historically marginalized from IA processes on their roles and opportunities for participation in IA (this could be a requirement of proponents in the policy/guidelines); training for the general public and IA proponents, such as a gender and diversity '101' course; workshops and one-on-one support for proponents/pracitioners by Agency staff as requested; and, unconscious bias training for Agency staff.

As there is still limited experience of gender and diversity analysis within IA processes in Canada, these strategies should provide space for review and adaptive learning as this component becomes more integrated into policy and practice.

Conclusion and Next Steps

A requirement for gender-based analysis in the context of Canadian IA has been a long time coming. Archibald and Crnkovich (1999: 34) drew early attention to the issue when they pointed out that "with guidelines in place, the application and use of gender-based analysis would not be something left to the discretion of each panel. Such guidelines should set out the obligation for the panel to incorporate gender-based analysis as an integral part of the process" (p.34). Thus, the proposed requirement for impact assessments to consider "the intersection of sex and gender with other identity factors" (section 22(1)(s), proposed *Impact Assessment Act*) is a welcome step forward in facilitating movement towards greater social equality in relation to development, and particularly resources development.

As established throughout this literature review and report, there are many impacts and considerations a gender and diversity analysis in IA can help to identify. Resource development projects can influence employment practices and the extent to which they reinforce or challenge gendered and racialized norms relating to what has been considered appropriate work for women and men, Indigenous and non-Indigenous peoples, as well as those with differing abilities. As well, a focus on gender and diversity may reveal a broader set of social impacts and needs of receiving communities, identify potential biases in public engagement and the means to address them, and provide proponents and governments with greater awareness of cultural expressions and livelihood practices of host communities that may be affected by proposed projects and policies. A summary of some of the specific types of impacts a gender and diversity analysis can help identify is provided in Box 2.

There are, however, many different purposes, frameworks, approaches, and methodologies for conducting gender and diversity analysis. Integrating contextual, inclusive, appreciative, flexible, and respectful analysis in the context of Canadian IA will require a great deal of commitment from the Agency, proponents, and IA practitioners. Strong policy, guidance, internal evaluation frameworks, and training programs will be integral to moving beyond a 'checkbox' activity towards an approach that potentially improves the outcomes for all people living with and near development projects. An important next step will be to tease out the components of the reviewed gender and analysis frameworks that can contribute to guidance for implementation of the above operating principles, such as in: early planning; understanding the context; recognizing and engaging with diverse groups, knowledges, and experiences; the impact

assessment phase; developing mitigation and enhancement strategies; and, follow-up and monitoring. Also, further review of academic and grey literature could foster the development of a toolbox of methods that that promotes inclusion, dialogue and active engagement in IA. This type of toolbox would would make a valuable contribution to future guidance documents as it would promote the inclusion of diverse knowledges and experiences and would also maintain flexibility in approach to ensure sensitivity to local context.

Box 2. Summary: What can a gender and diversity analysis identify?

Employment Considerations

IA often focuses on resource development projects. Good baseline studies can reveal how women and men are currently employed in the wage workforce and in customary livelihood occupations. This is particularly important for rural and Indigenous communities where "pluri-activity" (multiple activities in the formal and informal economies) often characterize household incomes. Understanding how the community's economy and livelihoods are structured can elucidate impacts related to the types of jobs that the resource activity will bring and who will benefit both by income and by status. Most of the most highly paid employment options within the resource sector have typically gone to men, often brought in from outside the community. Examination of employment can help to identify:

- Division of labour which jobs go to what people within and outside of the community
- What training opportunities are made available for prospective workers
 - How accessible these opportunities are for different groups youth and older workers; men and women; prospective employees with families; prospective employees without private transportation
 - Whether training might be tied to larger affirmative action
- Affirmative action planning
 - o Ensure that employers understand the requirements for affirmative action
 - Consider whether there are barriers for different groups to take up employment (e.g., women who have child or elder-care responsibilities may not be as able to take on shift work that often accompanies higher paid employment at work sites)
 - Create targets that are monitored and communicated back to communities
- Ensuring health and safety of the workforce
 - Men working on resource extraction sites have experienced hazards on site for which they are now many regulations. Often unions have successfully lobbied for workplace safety in resource extraction. Women working in these locations have typically been hired in administrative or service positions (e.g., cleaning, food provision) that have less status. Women report workplace harassment and sexual violence; however, individuals are less likely to report incidents as they occur because they fear reprisals, including job loss and these kinds of safety issues have not historically been taken up by male-dominated unions.
- Consider how the primary resource extraction activity may affect employment in other business sectors (e.g., procurement) and whether there are opportunities for these sectors to be used by the primary company and/or if these opportunities are available for under-represented groups.

Social needs and impacts

While increased wage employment and associated income is often considered a "general good", several other effects are associated with this that must be considered. Increased household income and time away from family (for fly-in/fly-out shifts) and land-based activities in rural and Indigenous communities may give rise to family stress and disruptions, requiring careful consideration of social needs and impacts such as:

- Child care likely more flexible child care arrangements that can correspond with shift schedules
- Social services to address family disruption and stress, including:
 - Youth and elder needs possibly including recreational and cultural needs
 - o Services to address substance abuse and family violence
- Health services (including mental health services)
 - Note that health risks associated with resource extraction may different for different groups depending on the relative reliance on country foods that may be affected, age, relationships, etc.

Public engagement in decision making

Involvement of all groups – elite and marginalized – should be planned, not incidental. A gender and diversity analysis can reveal some aspects of public engagement including:

- How to involve people at all phases of planning from scoping to monitoring. IA
 processes often involve the most people at the public hearing phase, but this is typically
 too late to make meaningful adjustments in the proposal to address the impacts and
 concerns.
 - Consider working with local people from early planning stages to determine the best means of public engagement in different phases.
 - Recognize that meetings are often:
 - physically inaccessible to diverse peoples and should be set at times and places where people can easily attend
 - 'discursively' inaccessible structured around western norms that value some kinds of knowledge over others. Identify how meetings can be mechanisms for inclusion of diverse local and Indigenous knowledges.
 - Consider how different kinds of knowledge (e.g., scientific, cultural, 'emotive', story)
 will be brought into IA processes.
 - Consider the context in which IAs occur. In relation to Indigenous communities, IAs
 often take place where contemporary or longstanding treaty rights have been
 negotiated and/or where Impact-Benefit Agreements have been established.
 - Consider multiple ways to engage local people, beyond formal public meetings and hearings throughout the lifespan of the project.
 - Consider engagement through all stages of an IA, from scoping to monitoring.
 Establish clear mechanisms for communication back to communities so that they can participate in the implementation of the project.

Cultural and Contextual Considerations

- Gender and diversity analysis can help explain roles and relations of diverse women and men in affected communities. These relationships are context-specific; we cannot assume that they will be the same from one locality to another.
- Women and men from local and Indigenous communities may interact with formal (external) processes differently knowing the local norms for communication and cultural traditions may help explain cultural "losses."

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Appendix 1: Gender and diversity frameworks for IA and resource development projects

Framework	Framework Purpose and Description	Key Components	Tools and methods
Colfer et al., 2018	 Purpose – more effectively incorporate diverse voices, gender, and other equity concerns into forest management and research Suggests six steps for conducting an intersectional analysis 	 Steps of analysis are: Understanding how the local system works Identifying the marginalized and the institutions that sustain that marginalization Estimating the level/significance of discrimination those with multiple marginalizing identities Analyzing how the institutions, norms and narratives function to sustain inequitable systems Strengthening collaboration Changing plans, policies and inequitable systems. 	 Mapping out study locations, major social groups and their relationships; collaborate with social scientist, spend time in community, read ethnographies of relevant systems In-depth ethnographic work, using indicators to identify power structures Collaborative and participatory approaches with communities
Hill et al., 2017	 Purpose – guidance for identifying and understanding the gender impacts of extractive industry projects, in order to work towards gender equality Provides a four-step gender impact assessment framework that includes templates and guiding questions 	 Collect baseline data and understand context, includes gendered (and intersections of age, class, Indigeneity, etc.) of division of labour and access to resources Dialogue and analysis - understand likely impacts on women, men, and the relationships between them Planning - document actions and recommendations in a gender action plan Review and improve – monitor and evaluate implementation of plan 	 Collect identity disaggregated data; participatory collection methods with diverse individuals and organizations Institutional analysis; inclusive dialogue about strategic/practical needs and potential impacts

Framework	Framework Purpose and Description	Key Components	Tools and methods
Nightingale et al., 2017	 Outlines Inuit-specific gender-based analysis, a tool for understanding unequal relationships between men and women in Inuit cultural contexts. The framework is situated within the ongoing socio-cultural and historical effects of colonization Applies framework to examine the gendered social impacts of resource extraction in Qamani'tuaq, Nunavut 	Assesses gendered and social impacts of mining in an Inuit cultural context as related to: • the Inuit way (elders, culture, language, family, community, and spirituality) • traditional influences on the Inuit way (land, weather, animals, and country food) • contemporary influences on the Inuit way (institutions, policies, laws, climate change, globalised, and capitalist economies)	 Participatory action research methods, fostering community ownership over process Mix of qualitative (interviews, focus groups) and quantitative methods (surveys)
Manning, 2014	 Purpose – help identify different impacts on women and other marginalized members of communities living at the intersection of multiple inequalities Outlines a framework for conducting a feminist intersectional policy analysis of a resource development or extraction project (primarily expost evaluation based on review of documentation) Provides sensitizing questions and sub-questions about how relationships of power operate within policy and decision-making processes 	 Ask key questions during the: Entire project cycle – e.g. How are women and other marginalized groups included? Is power seen as structural in the context of the project? Assessment processes – e.g. What types of knowledge were included? Who was involved in consultation and negotiation? What are the impacts or costs across multiple levels? Decision-making Monitoring After analysis – e.g. Was social justice a consideration in decision-making? 	Examine available documents from governments, corporations, communities, the media, and advocacy organizations.

Framework	Framework Purpose and Description	Key Components	Tools and methods
Eftimie et al., 2009	Purpose – guidance for identifying ways that World Bank extractive industry projects impact men and women differently and understanding whether the benefits of a project outweigh the risks for both men and women	Design and preparation: evaluate country gender context, identify and consult with key women stakeholders, determine likely distribution of benefits and risks between men and women, determine indicators for measuring differential impacts	Literature review, social assessment, community mapping, stakeholder analysis, focus groups, key informant interviews, household surveys
	 Provides checklists of gender- sensitizing of questions to ask throughout all project phases 	 Project implementation: measures to enhance benefits and mitigate risks of the project on women, monitoring and evaluation 	 Site visits and interviews with women in communities, stocktaking of available information, data, and data sources
Kemp & Keenan, 2009	 Purpose - 'how-to' guidance for integrating gender considerations through all stages and functions of Rio Tinto's work and projects Provides four-part conceptual framework, where inclusive 	 Know and understand – develop accurate community profiles and identify potential gendered impacts of all project stages Plan and implement – integrate gender issues in strategic and operational plans 	 Inclusive engagement and consultation with women's and men's groups Collect gender-disaggregated data
	engagement is a cross-cutting theme. Includes sensitizing questions and checklists for guidance	Monitor, evaluate, improveReport and communicate	 Measure progress against gender-sensitive indicators; Inclusive participatory monitoring