

PROGRAM EVALUATION IN A NORTHERN ABORIGINAL SETTING

Assessing Impact and Benefit Agreements

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ABSTRACT

Over the past two decades, a number of Impact and Benefit Agreements (IBAs) have been established between mining firms and Aboriginal communities in support of some familiar projects across the Canadian North. Negotiated directly between mineral developers and Aboriginal communities with limited state interference, IBAs serve to manage impacts associated with the mine project and deliver tangible benefits to local communities. Notwithstanding their increasing use and potential significance, limited research has been undertaken to address a fundamental question — are they working? The dearth of research on IBA effectiveness is undoubtedly a function of its methodological

complexity. In an effort to help overcome this challenge, this paper reports on the strategies employed to assess IBA effectiveness in two northern, Aboriginal locales. Drawing on insights from the program evaluation literature, the strengths and limitations of the field exercise are reflected upon with an aim of refining a procedure for future, more widespread use.

INTRODUCTION

The Canadian North is undergoing rapid and significant change environmentally, economically, politically, and culturally (Royal Commission on Aboriginal Peoples, 1996; Arctic Climate Impact Assessment, 2004; Mining Association of Canada, 2007). As with program evaluation generally,

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assessing the precise impacts of these changes, be they due to global warming or a massive mine development, has long been regarded as an important yet methodologically difficult task. This is especially true for Aboriginal communities, who have a long and difficult relationship with research conducted "on them", and yet recognize its importance for achieving goals like self-governance and economic self-sufficiency (Weir & Wuttunee, 2004).

This paper focuses on one contemporary research challenge facing a growing number of northern Aboriginal communities — assessing the effectiveness of private agreements that they have signed with mine developers to address outstanding impacts from mine developments and secure tangible benefits. As introduced to readers of this Journal by O'Faircheallaigh (2006), these supra-regulatory contracts are commonly termed Impact and Benefit Agreements or IBAs. Provisions that could be negotiated and included in an IBA are virtually limitless, but for Aboriginal signatories they commonly include: recognition of rights; financial incentives; opportunities for employment and training; opportunities for community economic development; and additional environmental and cultural protection measures (Kennett, 1999a; Sosa & Keenan, 2001; Klein et al., 2004; Public Policy Forum, 2005; O'Faircheallaigh, 2006).

For industry signatories, IBAs serve many aims. Firstly, when surrounding communities are satisfied with the design of a mine development and are seen to benefit from it, there is generally greater social acceptance for the project both locally and afar; this acceptance is often referred to as a "social license to operate" and it is increasingly becoming as significant to resource developers as are regulatory permits. In the absence of such a license, mine developers risk

project delays during the permitting phase and possible shutdowns during the operations stage.¹ In some cases, such as in Nunavut, firms' negotiation and establishment of IBAs also meets various legal requirements. Even in the absence of explicit legislation requiring an IBA, political pressures from governments and regulators typically compels industry to pursue agreements with local Aboriginal communities. In short, in regions like the Canadian North, it is generally accepted that no new mine can proceed without the signing of IBAs.

While this fact has been welcomed by many who see IBAs as generally progressive, especially when paired with "best practice" Environmental Assessment, it is also widely acknowledged that IBAs have to be systematically evaluated in order to determine if — to put it most simply — they are working (O'Faircheallaigh, 2000, 2004; Keeping, 2000; O'Reilly & Eacott, 2000; Galbraith et al., 2007).² That is, are IBAs meeting their explicit aims, and perhaps, more broadly, the implicit expectations of their signatories?

This question has received limited treatment in the nascent scholarship on IBAs notwithstanding Sosa and Keenan's (2001: 18) charge that "the [IBA] literature is fairly recent and includes little analysis regarding the success of these agreements." Beyond describing the phenomenon, scholarship has focused on the development and negotiation of IBAs (e.g., ICME, 1999; O'Reilly, 2000; Wolfe, 2001; Couch, 2002; O'Faircheallaigh & Corbett, 2005), their legal standing (e.g., Keeping, 1997; Kennett, 1999b; Klein et al., 2004), their aims or rationale, especially in reference to regulatory mechanisms (e.g., O'Faircheallaigh, 1999; Fidler & Hitch, 2007; Galbraith et al., 2007), and their possibilities especially with respect to Aboriginal Economic Development (e.g., O'Faircheallaigh,

¹ The history of Canadian resource development is rife with project shutdowns and slow-ups due to Aboriginal resistance. For example, the first proposed Mackenzie Valley natural gas pipeline was halted largely because of Aboriginal concerns (Page, 1986), and the Great Whale River Project in Quebec was put on hold in 1994 partly because of local Aboriginal protest (Bone, 2003). More recently, the Mackenzie Valley Environmental Impact Review Board formally rejected proposed uranium exploration in the Thelon Basin of the Northwest Territories, largely because of local Aboriginal concerns and the potential the project had to impact upon their culture (CBC, 2007). These kinds of slowdowns can be costly for project proponents, as the mining industry relies on massive injections of capital to develop a potential mine site. If a project is halted in mid-course, revenue is not being generated and loan obligations accumulate.

² There is interest in this topic from within the mining sector as well, as seen in the well-attended 2005 "Do IBAs work?" and 2006 "Making Impact and Benefit Agreements work" plenary sessions of the Canadian Aboriginal Minerals Association conference, and sessions touching on IBAs at other major industry conferences.

2006). Research examining IBA effectiveness has recently begun to appear (e.g., Dreyer & Myers, 2004; North-South Institute, 2006; Hitch, 2006); however, it is evident that a significant knowledge gap remains.

This persistent gap likely reflects the difficulties associated with answering the question "are IBAs working?". Indeed, Kennett (2003, pers. communication) calls this the "million-dollar question". His reasoning is two-fold: this knowledge is of vital interest to many; and the uncovering of this knowledge is methodologically complex. This latter point is undoubtedly true. For starters, most if not all of these agreements are confidential, which hinders efforts to identify their contents and evaluate the degree to which specific objectives are reached. Further, evaluating IBA effectiveness commonly requires the selection of evaluative criteria that few stakeholders will agree upon. Finally, any fieldwork completed by "outsiders" needs to be conducted in an intercultural setting, which brings with it another set of unique challenges. Nevertheless, given their increasing use and significance, determining whether IBAs are working is a necessary task.

This paper aims to contribute to one key part of this larger task—to help overcome methodological challenges associated with IBA impact evaluation. More specifically, the paper: provides a review of past and comparable research efforts aimed at assessing IBA effectiveness, as well as more general scholarship focused on the conduct of research in intercultural contexts; reports on the strategies employed to assess the effectiveness of a number of IBAs in support of three diamond mine developments in the Northwest Territories; and reflects upon the strengths and limitations of the research exercise with an aim of refining a procedure for future, more widespread use. To be clear, rather than focus on the results of this research exercise, this paper takes the necessary time and space to present, reflect upon, and seek to refine the approach to assessing IBAs in a northern, Aboriginal setting. This exercise not only has significance for those focused on the narrow task of assessing whether IBAs are working, but also

the larger community of Aboriginal and non-Aboriginal scholars engaged in participatory research with Aboriginal communities.

LEARNING FROM OTHERS

Given the methodological challenges associated with assessing IBA effectiveness, considerable review was undertaken of: the program evaluation literature; others' efforts to assess IBA outcomes; and emerging scholarship focused on the conduct of research, and especially fieldwork, in intercultural contexts. Insights from these three bodies of work are offered here.

Insights from the Program Evaluation Literature

The implementation of an IBA within an Aboriginal community is arguably akin to the execution of any number of government or band-initiated programs. Hence, methodological insights can be gained from the program evaluation literature,³ one significant aspect of which focuses on the importance and challenge of establishing cause and effect when assessing a program's impact. This challenge derives from the need to identify and control for extraneous, contextual variables that may generate impacts that are far more significant than those generated by the program under review (Hogwood & Gunn, 1984). While evaluation based on the use of control and experimental groups is widely considered the most reputable method to manage this challenge, practical and political considerations often limit its use (Hogwood & Gunn, 1984). Fortunately, a number of other evaluation methods are well described in the literature.

In cases of program implementation where coverage of a program is non-uniform over space, it may be possible to observe variations in impacts from one select portion of the population to another. For example, an IBA might direct benefits to one community but not another similar one. While observed differences between the two communities could be attributed to the IBA, there are clearly many other variables that may have contributed to these dif-

³ This literature is also recognized by the title 'policy evaluation'; our use reflects both foci.

ferences as well. In before-and-after studies, relevant conditions are measured for a study population eligible for a program both before and after a program is implemented, with the difference between the two taken to be the program's impact. Of course, the problem with this type of study is that many rival events and factors beyond the new program could be responsible for the observed difference; for this reason, a single before-and-after study is considered weak in terms of validity (GSRU, 2005). The potential value of such studies can be substantially increased, however, if multiple measurements before, during, and after the implementation of a program are completed in order to understand what changes might have occurred naturally within the population regardless of the implemented program, and therefore reduce the risk of misattribution of cause and effect (Hogwood & Gunn, 1984).

A characteristically different approach to program evaluation relies on the judgements of experts, administrators, and/or program participants to assess the impacts of implemented programs. Despite their obvious limitations, due to time, cost or other constraints, they may be the only feasible approach. More importantly, in situations where program participants are the intended beneficiaries of the program, the solicitation of their opinions is easily justified. Such efforts are usually employed in *naturalistic* settings rather than the contrived environments of controlled trials, with the goal of capturing as closely as possible the understandings, interpretations, and experiences of ordinary people in their everyday lives and environments (GSRU, 2004). Methods that can be employed in such situations are numerous, but have commonly included document review, individual interviews, focus group research, and participant observation (Kitchin & Tate, 2000).

Rather than settle on one approach to evaluate a program, some contributors to the program evaluation literature advocate use of a large repertoire of research approaches and associated methods (e.g., Patton, 1987). Such a strategy can help address a variety of evaluation questions and meet the sometimes idiosyncratic needs of stakeholders (Patton, 1987). More significantly, the use of multiple approaches and methods of data collection can help to achieve "triangulation" (Baxter & Eyles, 1997); that is, by

answering a question through a variety of means and cross-checking results, the validity of the results is strengthened (Winnchester, 2005).

Another fundamental focus of the program evaluation literature, beyond issues of approach or method, pertains to the purpose of the evaluation. While convention suggests that evaluations should assess a program's outcomes relative to its stated objectives (O'Faircheallaigh, 2002), in practice this is not always done. Indeed, evaluations have commonly been undertaken to measure a program's impacts irrespective of its objectives, or relative to an ideal external set of evaluative criteria with limited connection to the program's objectives. In the case of IBAs and their evaluation, it is understandable that certain stakeholders want to hold an IBA up to standards of their own choosing; however, where this is done, results should be presented with explicit recognition and consideration of the purpose of the evaluation.

Insights from Existing IBA Effectiveness Research

O'Faircheallaigh (2006, pers. communication) has raised a number of concerns with respect to assessing the effectiveness of an IBA. For one, any IBA assessment that is conducted without access to the particular contents of that IBA, given confidentiality rules, is inevitably compromised. Additionally, he notes that any would-be causal outcomes of a particular IBA reflect a whole suite of activities from its negotiation through to its implementation, as well as a great number of complicating contextual variables. For this reason, much of the author's evaluative research on IBAs has focused on IBA content (e.g., O'Faircheallaigh, 2004; O'Faircheallaigh & Corbett, 2005), arguing that it represents a more reliable way of analyzing IBA success.

The first formal evaluation of post-implementation IBA *outcomes* was conducted by Dreyer and Myers (2004). The authors sought to assess the effectiveness of two IBAs in the Yukon Territory from the perspective of their Aboriginal signatory, the Ross River Dena. More specifically, Dreyer and Myers (2004) sought to determine whether the IBAs negotiated by the Ross River Dena Council had been successful in providing short and long-term benefits to Aboriginal residents by (1) identifying commu-

nity members' perceptions of the benefits they had received from the IBAs; and (2) comparing the negotiated and actually received benefits. Data collection was accomplished through a combination of archival review, semi-structured interviews, open-ended interviews, community member surveying, and participant observation. A second similar review of IBA effectiveness, undertaken by the North-South Institute (2006), solicited community members' perspectives on the implementation and outcomes of one IBA established between the community of Lutsel K'e, Northwest Territories, and BHP Billiton, the developer of the region's first diamond mine. This was accomplished through semi-structured interviews with community members, a focus group comprised of community youth, and participant observation. A third study tangentially focused on IBA effectiveness, conducted by Hitch (2006), sought to answer the question: "Can mining contribute to the development of sustainable communities through the application of IBAs?" A case study approach was used, with a focus on the Tahera Diamond Corporation's *Jericho* mine IBA in Nunavut. IBA effectiveness was assessed through the application of a set of normative sustainability criteria. Twelve interviews, conducted with key informants from industry, government, NGOs, local communities, and the local Inuit association, were used as the basis to generate scores as per these normative criteria.

All three of these studies constituted groundbreaking efforts to gauge IBA effectiveness. Furthermore, at least in the case of Dreyer and Myers (2004) and North-South Institute (2006), an impressive suite of data collection methods was used to solicit community members' opinions, and community representation was strong. Yet, with respect to systematically assessing the effectiveness of the respective IBAs, some limitations were evident. IBA outcomes, as perceived by community members, were assessed with limited reference to the specific objectives of the IBA under review. In the case of the North-South Institute (2006) study in particular, community views of what the IBA had delivered, and especially what it had not delivered, were effectively identified, but it was unclear if this necessarily constituted a failing of the IBA. Furthermore, in both cases IBA outcomes were identified without explicit reference to a pre-IBA baseline; that is, limited effort was made to mea-

sure change from the pre- to the post-IBA implementation period, which might then be reasonably ascribed to the IBA. While these limitations are understandable, they should ideally be addressed in any future efforts to evaluate the effectiveness of an IBA.

Additional Considerations Associated with the Conduct of Aboriginal-focused Research

An added complication for research that seeks to evaluate IBA effectiveness is that it commonly occurs in an intercultural setting, requiring the solicitation of Aboriginal viewpoints. This can be challenging for a variety of reasons, not the least of which is the impact of past research with or on Aboriginal peoples. Quite commonly, the purpose and meaning of Aboriginal-focused research undertaken by academics has been alien to Aboriginal peoples and the outcomes misguided and even harmful (Brant-Castellano, 2004). More recently, however, a shift in practice is evident among researchers, which mirrors a surge in scholarship directed at improving the conduct of intercultural research (e.g., Kowalsky et al., 1996; Gallois & Callan, 1997; Dodd, 1998; Sarbaugh, 1998; Letendre & Caine, 2004; Weir & Wuttunee, 2004). While this scholarship is generally insightful, in the context of conducting research within Aboriginal communities, Weir and Wuttunee's (2004) charge that the scholarship offers little practical methodological guidance is a fair one. Thankfully, researchers can, and indeed in some case are required to, draw on a growing number of "best practice" guides for conducting Aboriginal-focused research (e.g., RCAP, 1996; AIATIS, 2002; Ellerby, 2005; TCPS, 2005; ITK & NRI, 2007).

Drawing on these and other sources, a number of practical insights are discernable. First, it is evident that one must become familiar with the history, worldview, and customs of a culture with which one intends to work (Brislin and Yoshida, 1994; Gallois & Callan, 1997; Dodd, 1998). More so, it is widely argued that researchers must hold respect for the culture, traditions, and knowledge of the researched society or community, as this undoubtedly contributes to better results (AIATIS, 2000; TCPS, 2005; ITK & NRI, 2007). In studies located principally in Aboriginal communities, researchers should also

establish collaborative procedures⁴ to enable community members to participate in the execution, if not planning, of research (RCAP, 1996; ITK & NRI, 2007). Indeed, an increasing number of authors have argued for Aboriginal people to be *partners* in research, as opposed to mere participants (e.g., Brant-Castellano, 2004; Weir & Wuttunee, 2004; TCPS, 2005). This is a view wholly different from that seen in earlier times, where researchers assumed control of knowledge production, collected information in brief encounters, and promoted the merits of "outsider" research concerning Aboriginal communities (Brant-Castellano, 2004).

Once research plans are developed and Aboriginal "subjects" are solicited, informed consent must be obtained from all participants (RCAP, 1996; Schnarch, 2004). Consent ensures that participants are cognizant of the purpose and nature of the research, aware of their rights to withdraw, and informed of the degree of confidentiality that will be maintained in the study. Another common aspect of consent relates to accessing research data and broader results. It is now a given that Aboriginal peoples should have access to research results, including raw data (Schnarch, 2004). The Royal Commission on Aboriginal Peoples (1996) in their *Ethical Guidelines for Research* notes that "results of community research shall be distributed as widely as possible within participating communities, and reasonable efforts shall be made to present results in non-technical language and Aboriginal languages where appropriate". Important also is the advancement of draft research reports to community members. This allows for challenges of and modifications to the report should they be necessary (Weijer et al., 1999).

Evidently the basis for most if not all of these considerations associated with the conduct of Aboriginal-focused research is the firm belief that a community subjected to research should benefit from it rather than be disadvantaged (AIATSIS, 2000). In the past, researchers have profited professionally and economically from

Aboriginal research without employing local people, compensating research subjects, or providing tangible community benefits (Schnarch, 2004; Weir & Wuttunee, 2004). It is now widely recognized that in setting research priorities and objectives for community-based research, researchers shall always give serious and due consideration to the benefit of the community concerned (RCAP, 1996). Where possible, research should also support the transfer of skills to individuals and increase the capacity of the community to conduct its own research (RCAP, 1996; Weijer et al., 1999; ITK & NRI, 2007).

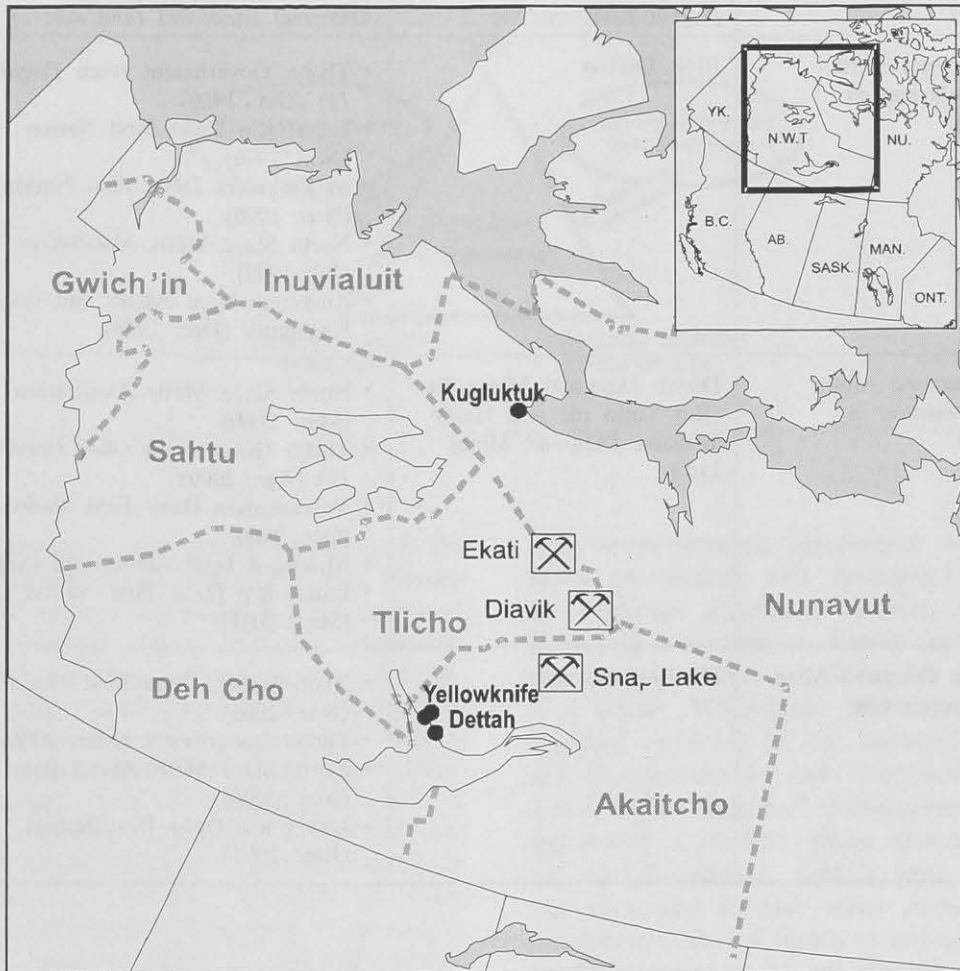
These various insights on conducting research in intercultural settings were coupled with those generated from the review of the program evaluation literature and past research focused on IBA effectiveness in order to develop a novel approach for evaluating the effectiveness of IBAs. This approach, as applied in the context of three diamond mine developments in the Northwest Territories, is described in the next section.

A MULTI-METHOD APPROACH TO ASSESSING IBA EFFECTIVENESS

Mining represents a significant component of the economy of the Northwest Territories; in 2007, mineral production was thought to be worth over \$1.41 billion (NRCAN, 2007a). Diamonds have been a relatively recent addition to the region's mineral portfolio. The first diamond mine, BHP Billiton's *Ekati*, began production in 1998. A second mine, Rio Tinto/Harry Winston's *Diavik*, began production in 2003. A third mine, De Beers' *Snap Lake*, is slated to begin production in 2008. These three mines are clustered in an area approximately 200–300 km northeast of Yellowknife (see Figure 1). In all three cases, a suite of IBAs were signed with regional Aboriginal groups (see Table 1). While IBAs have been signed with other mines in the Canadian North, the IBAs associated with these three developments were selected for assessment for a number

⁴ Of course, the establishment of these collaborative procedures first requires a working relationship with a host community. Relationship building is a task in itself, as "entry" into Aboriginal communities is not without its challenges. Quite commonly, outside researchers are required to complete a "waiting" stage, with "entry" only offered once trust is established (Johnson, 1984; Hutchison, 1985).

FIGURE 1
Location of the Ekati, Diavik and Snap Lake mines, and field research sites



of reasons. For one, they were all negotiated under the same territorial legislative framework, and were negotiated with the same Aboriginal signatory groups. Additionally, they produce the same product (i.e., diamonds) and thereby generate similar concerns and opportunities. Finally, the three operations were the subject of prior related research (see Galbraith et al., 2007), which was drawn upon for completion of this research.

Drawing on the insights offered in the previous section, a culturally sensitive, multi-method

approach was developed to try to assess the effectiveness of these IBAs. More specifically, the approach entailed three distinct tasks: (1) organizing and assessing regional scale secondary socio-economic data in time series; (2) key informant interviewing; and (3) community focus group interviewing (see Figure 2). The use of secondary socio-economic data in time series served to capture an aggregate picture of socio-economic change in the impacted Aboriginal communities, whereas the key informant and community focus group interviews aimed to pro-

TABLE 1
List of IBA signatories to the IBAs studied for the case study

<i>Project for which IBAs were signed</i>	<i>Proponent(s)</i>	<i>Aboriginal signatories (and date of signing)</i>
Ekati Diamond Mine (begun production in Oct. 1998)	BHP Billiton	<ul style="list-style-type: none"> • Tlicho Government (<i>then Dogrib Treaty 11</i>) (Oct. 1996) • Lutsel K'e Dene First Nation (Nov. 1996) • Yellowknives Dene First Nation (Nov. 1996) • North Slave Métis Association (Jul. 1998) • Kitikmeot Inuit Assoc. and the Inuit of Kugluktuk (Dec. 1998)
Diavik Diamond Mine (begun production in Jan. 2003)	Diavik Diamond Mines Inc. (Rio Tinto plc and Harry Winston Diamond Mines Ltd.)	<ul style="list-style-type: none"> • North Slave Métis Association (Mar. 2000) • Tlicho Government (<i>then Dogrib Treaty 11</i>) (Apr. 2000) • Yellowknives Dene First Nation (Oct. 2000) • Kitikmeot Inuit Association (Sept. 2001) • Lutsel K'e Dene First Nation (Sept. 2001)
Snap Lake Diamond Mine (to begin production in 2008)	De Beers Canada	<ul style="list-style-type: none"> • Yellowknives Dene First Nation (Nov. 2005) • Tlicho Government (Mar. 2006) • North Slave Métis Association (Aug. 2006) • Lutsel K'e Dene First Nation (June 2007)

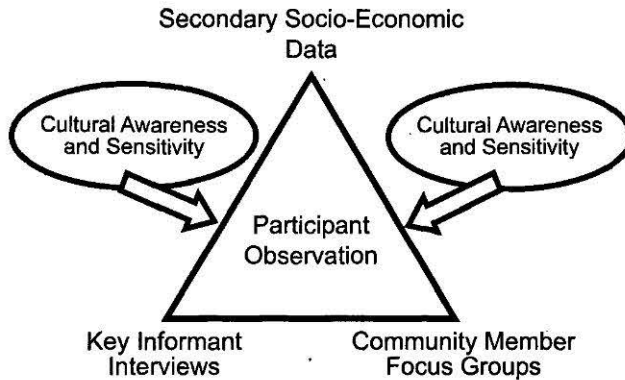
vide more specific insights. In combination with general participant observation,⁵ these three approaches delivered distinct but complimentary data thereby allowing for triangulation of research results. Finally, the approach stressed intercultural awareness and sensitivity.

Before offering details regarding the execution of each of the three primary tasks, two additional noteworthy aspects of the approach need to be highlighted, especially in comparison to other research efforts to assess IBA effective-

ness (e.g., Dreyer & Myers, 2004; Hitch, 2006; North-South Institute, 2006). Firstly, IBA outcomes were assessed with explicit reference to the objectives of the IBAs under review. While the authors were unable to identify the exact objectives of each signed IBA owing to confidentiality provisions, general objectives for the suite of IBAs signed in the region in support of the three diamond mines were identified through a prior research exercise (see Galbraith et al., 2007). More exactly, based on a evaluation of

⁵ While it is acknowledged that the term "participant observation" itself remains "ill-defined" (Evans, 1988: 197) and "difficult to describe" (Hay, 2005: 195), some generalizations can be made. For example, Hay (2005) notes that the goal of participant observation is to develop an understanding through being part of the spontaneity of everyday interactions. Furthermore, he states, it involves strategically placing oneself in situations in which systematic understandings of place are most likely to arise.

FIGURE 2
A schematic of the multi-method approach used to assess IBA effectiveness

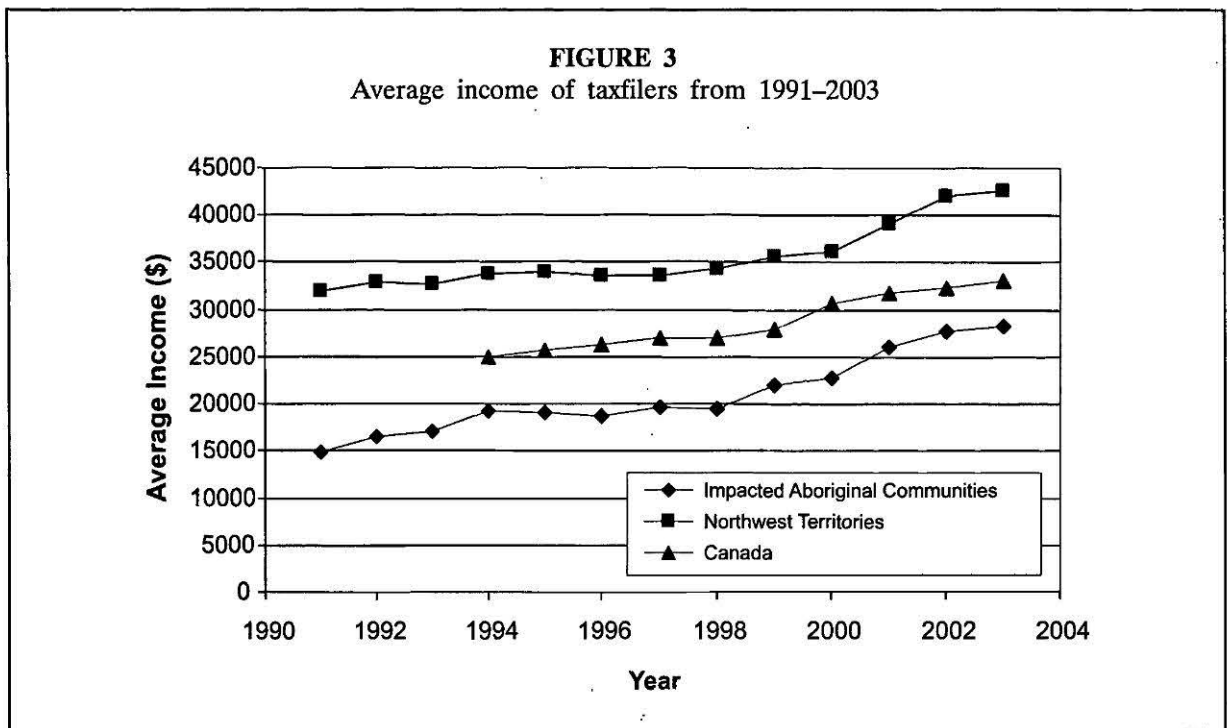


the Environmental Assessment process of the Mackenzie Valley Environmental Impact Review Board — the agency responsible for the review of the three diamond mines — and the completion of interviews with key informants from Aboriginal organizations and communities, government officials, and consultants in and around Yellowknife, the IBAs identified in Table 1 were identified as having been established in order to (i) ensure adequate “follow-up” to the environmental assessment (EA) process; (ii) build positive relationships and trust between the mine developers and regional Aboriginal communities; (iii) relieve capacity strains in these Aboriginal communities; and (iv) secure local benefits for Aboriginals. With these objectives identified, the assessment of IBA effectiveness was afforded targets against which success could be determined. The second noteworthy aspect of the approach was its explicit identification and use of a pre-IBA baseline against which change, whether attributable to the IBA or not, could be assessed. This was particularly beneficial for the analysis of temporal change based on available socio-economic data.

Organization and Assessment of Secondary Socio-economic Data

In addition to the establishment of IBAs, the three diamond mine developers were required to

sign “socio-economic agreements” with the territorial government, with Aboriginal communities as occasional signatories as well. Among other things, these agreements require reporting of various socio-economic conditions for the territories as a whole, Yellowknife, and seven small communities impacted by the diamond mines (e.g., see Government of the Northwest Territories, 2006); these “impacted” communities are all IBA signatories. Data from these annual “Communities and Diamonds” reports were drawn upon and organized in time series format to enable the identification of trends in key socio-economic conditions relevant to the benefit provisions of the signed IBAs. More exactly, indicators pertaining to income, employment, education, and registered businesses were selected. While the researchers were not privy to the specific terms of the signed IBAs, common IBA practice and regional knowledge support the use of these indicators. For example, provisions regarding employment of Aboriginals in a mining project are usually a central focus of IBAs (Sosa & Keenan, 2001) and might include employment target-setting for Aboriginal peoples, preferential hiring policies, and the establishment of apprenticeship and other educational programs (Kennett, 1999a). For these reasons, the socio-economic indicators pertaining to income, employment, and education were chosen. Provi-



sions for community economic development are often included in an IBA as well, and might include ensuring Aboriginal contracting and subcontracting opportunities are made available and in target setting for the purchase of mine goods and services from Aboriginal-owned businesses (Kennett, 1999a). For this reason, a further indicator pertaining to registered businesses was chosen, although the income and employment indicators are also relevant here.

Once organized, the data were analyzed for general trends (increasing, decreasing, and no change) and simple inferences were made with respect to the delivery of benefits from the IBAs to the Aboriginal communities. For example, Figure 3 displays changes in average income for the impacted Aboriginal communities, the Northwest Territories, and Canada for the period 1991–2003. A discernable, upward trend can be seen in average income for all three groups during this time, although average income for the impacted Aboriginal communities remained significantly less than that of both Canada and the Northwest Territories. In the impacted Aboriginal communities, average income grew from \$14,928 in 1991 to \$28,253 in 2003, which

equates to an average annual increase of \$961.75 or 6.87%. In comparison, the average annual increase for Canada was somewhat less at \$856.48 or 3.21%, and even less for the Northwest Territories at \$743.39 or 2.54%. For the impacted Aboriginal communities and Northwest Territories data, it should also be noted that the year 1998 marked the beginning of a period of *continued* income growth. While a general trend of income growth for all the data series exists, a number of fluctuations are evident *prior* to 1998. 1998, interestingly, is when the first diamond mine (i.e., *Ekati*) began production in the Northwest Territories.

The use of regional secondary socio-economic data in time series format, such as those for income, accomplished a number of goals. For one, it provided evidence of pre-IBA “baseline” socio-economic conditions. Various inferences could then be made regarding the degree to which conditions changed as a result of the IBAs. Finally, it offered a regional scale picture of socio-economic conditions to complement insights garnered from more site-specific assessments via the key informant interviews and focus groups.

Key Informant Interviews

Key informant interviews were conducted in an effort to elicit responses pertaining to IBA effectiveness from people in an "expert" position to comment on such. Included in this category were people who dealt with any or all of the three diamond mine IBAs or their deliverables on a regular basis, be they administrators from Aboriginal signatory communities, government officials or consultants. In all, 32 key informants were interviewed over two three-month field seasons—the first in Yellowknife and the surrounding region in the summer of 2006, and the second in Kugluktuk in the summer of 2007 (see Figure 1). Using a semi-structured interview format, key informants were asked to: refute or confirm the objectives of the region's various IBAs as identified by Galbraith et al. (2007), and offer additional objectives if necessary; provide judgment on the degree to which these objectives had, to date, been met; and make recommendations as to how IBAs could be improved in the future.

Once again, the explicit identification of IBA objectives aimed to direct the assessment to cover just those issues, such as follow-up to Environmental Assessment (EA) processes and the delivery of benefits, on which the region's IBAs were supposed to deliver. Table 2 provides a sample of the questions asked of, and responses received from, the key informants.

For the key informant interviews, data analysis was accomplished through a form of associative analysis, where the researcher looks for patterns, replication and linkages in the data set (GSRU, 2004). This is similar to Patton's (1990) *interpretative approach*, which emphasizes the role of patterns, categories, and basic descriptive units. Associative analysis thus uses the associations or patterns found in the data to

enrich understanding of the phenomenon in question, and not to display differences or associations quantitatively (GSRU, 2004). Associations in the interview data set were sought to see, for example, if general themes emerged amongst the key informant group or if dissenting views existed. Categorization of interview responses was also necessary in some instances, such as when respondents were asked to confirm IBA objectives and comment on the degree to which those objectives were being met. In the case of the latter, "yes" (the objective is being met), "no" (the objective is not being met), and "partially" (the objective is partially being met) were the categories employed. Used this way, associative analysis provided improved understanding of IBA effectiveness.

Community-Based Focus Groups

Community-based focus groups were also conducted in an effort to elicit responses pertaining to IBA effectiveness from those who directly experience IBA outcomes in an Aboriginal community. Meetings were organized in two northern Aboriginal communities: Dettah in 2006; and Kugluktuk in 2007 (see Figure 1). Residents of Dettah are members of the Yellowknives Dene First Nation (YKDFN), a signatory group to all three of the IBAs of study in this research. Dettah is a small community of 247 people (Statistics Canada, 2007a), located approximately 27 kilometers from the city of Yellowknife. Residents of Kugluktuk are members of the Kitikmeot Inuit Association, a signatory group to two of the IBAs of study in this research. Kugluktuk is a community of 1,302 (Statistics Canada, 2007b) and is located above the Arctic Circle, 597 kilometres northeast of Yellowknife, Northwest Territories.

TABLE 2
Sample of the questions asked of, and responses received from, key informants

Sample Key Informant Question

Do you feel that IBAs have built positive relationships and trust between the mine developers and impacted communities?

Sample Key Informant Response

We have good working relationships, until it comes to money.

I never had good relationships with [the mining companies]. They're ripping off First Nations.

Participants were recruited by hired research assistants from the respective communities, who at times also acted as translators. The hiring of assistants from the communities saved the "outside" researcher insurmountable time and effort, as the assistants were all long-time residents who could easily facilitate the recruitment of participants, including the identification of elders. An elder, it should be noted, is not simply any older Aboriginal person; Ellerby (2005) argued that an elder is an Aboriginal person who makes a life commitment to the health and well-being of his or her community. In addition to elders, the focus group meetings involved, where possible, youth, adults, and mine workers. In all cases, the participants had no role in the development or implementation of an IBA.

While the focus groups participants were not asked to confirm, refute, or identify additional IBA objectives, in every other way the questions asked during the meetings mirrored those posed to key informants. In other words, the questions posed to participants implicitly related to IBA objectives in order to enable them, or even compel them, to reflect on the degree to which the IBAs accomplishing what they were supposed to accomplish; further, where possible, a temporal dimension was included in the questions to try to identify changes over the pre- to post-IBA implementation period. Table 3 provides a sample of the questions asked of, and comments expressed in, the focus groups.

As with the key informant interviews, data analysis for the focus groups was accomplished through associative analysis. Associations in the focus group data sets were looked for to see, for example, if general themes emerged in and among the groups, or if dissenting views existed. Used this way, associative analysis provided improved understanding of IBA effectiveness.

Additional Considerations

Perhaps most importantly, the research approach described above was conducted with intercultural awareness and sensitivity in mind. Given an aim of assessing the effectiveness of IBAs from an *Aboriginal* perspective, it was necessary to first develop an awareness of relevant Aboriginal histories, customs and world views. To this end, familiarization with the various Aboriginal groups involved in the study, Dene, Métis and Inuit, was a critical task. Published materials, discussions with other Aboriginal-focused researchers and professionals, and local Aboriginal residents all provided insight. Sensitivity was often also employed when speaking with Aboriginal interview respondents, especially when discussing historical or culturally sensitive issues. Furthermore, consent was obtained from each interview participant and each was made aware of options for confidentiality and withdrawing from the study.

To the greatest extent possible, community members were also involved in the research process itself. In Kugluktuk, summer students working for the local Hunters and Trappers Organization were employed to help recruit interview respondents and aid in the individual interviews. This not only helped the students develop research skills, but provided the researcher with the added benefit of increased local context. Agreements were also made to return research results to a permanent spot in the community and for the researcher to present findings in a public, community-based forum.

Relationship building was also an important component of the research. While the field-based components of the research occurred in two three-month periods, the first months were devoted largely to introductions and network-building. This was done partly in effort to further familiarize the author with the context to the research, and partly to develop relationships

TABLE 3
Sample of the questions asked of, and comments expressed in, the focus groups

<i>Sample Focus Group Question</i>	<i>Sample Focus Group Comment</i>
Do you feel like [the company] respects you? Has this always been the case?	We're not being treated well with the IBA [the mining companies] now meet with us. It's good now.

with local Aboriginal peoples. Active involvement in the community especially helped facilitate the building of these relationships, and was critical for gaining additional insights via participant observation. Some especially beneficial insights came through volunteering with a First Nation's IBA Implementation Office, helping coach a local sports team, and attending various community events. Indeed, the experience of the author is that the more actively involved one is in everyday community activities, the more likely one is to secure insights.

DOING IT BETTER

While the research strategy presented here delivered important and novel insights with respect to the effectiveness of a suite of IBAs in one region of the Northwest Territories, it is evident that improvements in research design are possible and necessary. For example, while the identification and use of IBA objectives based on the work of Galbraith et al. (2007) offered an explicit basis for determining IBA effectiveness, these identified objectives were highly generic. Agreement-specific and community-specific assessments should also be conducted, ideally based on knowledge of the precise provisions of the specific IBA to enable a more precise characterization of effectiveness. Not only would such an effort undoubtedly reveal variation in the degree to which Aboriginal signatories deem their IBA to be successful, but would also help to identify specific variables that appear to influence IBA outcomes (e.g., presence/absence of a settled land claim, community/corporate leadership differences, presence of past IBAs in a community, etc.), which is a research need suggested by Galbraith et al. (2007).

In terms of data sources and collection methods, future efforts to identify IBA effectiveness should expand efforts to incorporate voices and opinions from IBA-signatory communities through a variety of forums. In the case of focus groups, efforts should be made to capture the demographic diversity found within the community of study. For example, a combination of elder, youth, mine employed, non-mine workers, and female focus groups might ideally capture the diversity of community views and opinions. Additionally, given the need to measure change over time, efforts should be made to regularly

monitor socio-economic conditions in IBA-signatory communities, ideally in advance of the community signing an IBA and using indicators that are meaningful and relevant to community members (e.g., see MVEIRB, 2006).

Wherever future IBA effectiveness assessments are undertaken, via whatever methods, researchers would be well served to consider the following. Intercultural research can present a number of difficulties for "outside" researchers; acceptance by a community can be difficult to achieve, as can the building of successful relationships. Hence, it is evident that a researcher must be willing to devote considerable time to the research process. Developing relationships, building trust, and familiarizing oneself with the context of the research requires a significant commitment. Indeed, the three-month field seasons this researcher spent in two communities should be considered a *minimum* amount of time needed for successful field seasons. Even still, individuals with surprising personal and/or political motivations can present difficulties, as can unexpected events in the community; one's flexibility and determination to solve issues as they arise can go a long way towards smoothing the research process.

More practically, in many northern Aboriginal communities the use of a translator will be necessary; this is especially true when working with Aboriginal elders. Elders need additional special consideration in the research process, bearing in mind the important role they play in many Aboriginal societies. In this regard, Ellerby's (2005) guide to working with Aboriginal elders is very useful. When making use of a translator, one may also have to avoid the use of too many technical terms, as some of these terms may not have an equivalent in the language you are translating into. At the very least, be prepared to describe technical terms and concepts in different, simplified manners. Research will also often require formal approvals, be it from regional research licensing boards or individual communities. Sufficient time should be allowed for this. Finally, for research permitting and other reasons, a researcher should be prepared to discuss how the information they are gathering will be used in the future (i.e., where it will be published and presented, where copies of reports will be stored, etc.) and how the research will benefit the community.

While the above suggestions were developed in the specific context of assessing IBA effectiveness, their relevance obviously extends to broader research efforts involving Aboriginal communities. As well documented in Weir and Wuttunee (2004), it is an ongoing challenge to make Aboriginal-focused research more participatory. The above described research exercise may constitute a vast improvement over the marginalizing and deceitful research practices of old; however, it too could have been more inclusive. To achieve such a goal takes huge commitment as initial invitations may go unnoticed, or be declined due to a lack of time, certain suspicions, or just other priorities. Research that starts with a partnership and enables Aboriginal communities to identify their research needs, develop plans to meet those needs, and builds capacity to execute those plans is clearly the model to aspire to.

CONCLUDING REMARKS

As IBAs grow in popularity and become *de facto* requirements for mineral developments in jurisdictions like the Canadian North, the need to assess their effectiveness will also grow. The challenge lies in building research partnerships with affected Aboriginal communities, developing appropriate evaluative measures, and in overcoming technical matters such as the confidential nature of agreements. While limited research has been conducted on IBA effectiveness, the need for a refined evaluative procedure was nevertheless identified. The research strategy presented herein complements these previous studies but differs in its approach. As none of these past studies sought to systematically assess effectiveness relative to a pre-IBA baseline condition or to explicit IBA objectives, the research approach as described in section three provides a novel and arguably more rigorous means of assessing IBA effectiveness; additionally, the research benefited from its use of multiple data collection methods, the application of which generated results that could be triangulated to ensure some consistency of findings.

Nevertheless, methodological deficiencies were evident especially with respect to the necessary use of generic IBA objectives against which the effectiveness of a suite of IBAs was assessed, and the modest incorporation of community

voices and opinions. These deficiencies can and should be addressed through future research in order to facilitate enhanced understanding of an increasingly common and potentially powerful governance tool in northern, Aboriginal settings.

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