

health professionals, and without clarity about which geographic areas these experts represented, which documents were consulted, or which of the cases was represented in the data. Would it not have been key, too, to consult extensively with land-claim governments, and not just “EIA and health professionals”? This lack of detail regrettably diminishes the impact of their work.

I say it is regrettable because, in fact, I very much concur with Noble and Bronson that human health does need to be better integrated into environmental impact assessments (although I also think that it has been a lot better done than they have grasped).

The NWT Water Board started off significantly in 1972 with human health as a clear focus of water management and protection across the northern territories, and it has maintained that focus right up until the present. However, this focus was not clearly replicated in the spin-off water (and land and water) boards (Nunavut, Gwich’in, Sahtu, Mackenzie Valley, and Tłı̨chǫ). (Note that there is no such body as an “NWT Land and Water Board,” which Noble and Bronson refer to. The NWT Water Board is strictly a water and waste board.)

Yes, EIA should indeed emphasize human health considerations. However, concern for human health should not diminish in other elements of sociopolitical structure. Impacts on human health result from any kind of industrial activity. The follow-up and measurement of these impacts surely are critical responsibilities of all levels of government and social organization, and perhaps without them, EIA refinement is meaningless.

In their concluding paragraph, Noble and Bronson cite a Yellowknife Health and Social Services Authority spokesperson who expresses uncertainty about whether “companies” are truly advancing health issues. Is it not also the role of regulatory bodies (such as that Authority, the monitoring agency, the Department of Health and Social Services, Indian Affairs and Northern Development, the Tłı̨chǫ government, et al.) to measure and to be able to provide answers themselves, along with the original proponent?

I thank Noble and Bronson for bringing this subject to attention.

Sincerely,
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Dear Editor:

We are glad to read that Dr. Gilchrist found our article in the December 2005 *Arctic* interesting, and that the issue itself has sparked some debate. I will attempt to clarify a couple of points raised by Dr. Gilchrist, and I hope to address his concerns.

First, I appreciate the concern over the brevity of the case studies, but our objective was to provide a cross section of a number of different cases and to present readers with a snapshot of health within the context of environmental impact assessment (EIA). Thus, we were unable to report in detail on regulatory instruments, impact benefit agreements, and land-claim issues.

Second, we do recognize the importance of Ekati in Canadian northern EIA, and I regret that we could not have paid more attention to this case in particular. However, Kwiatkowski and Ooi (2003) describe a number of Ekati’s initiatives regarding health impact management, and we did not feel it was necessary to repeat these findings in this paper. I have, in previous research, consulted with members of the Independent Environmental Monitoring Agency regarding social and health impact assessment at Ekati, particularly within the context of follow-up and monitoring programs and the nature and effectiveness of such programs (see Storey and Noble, 2004). Thus, I am aware of the various licensing and permitting requirements, including the water licensing process, and a former graduate student of mine completed her thesis on monitoring and follow-up regulations at Ekati. We have a similar checklist/questionnaire approach to approvals in Saskatchewan with regard to water licensing and screening for intensive agricultural operations, as well as for southern gas applications. This very same approach is also the topic of much controversy about its sufficiency as an impact assessment process. Some argue that such an approach is a means to bypass “real” impact assessment predictions, particularly with regard to social impacts, while others note the value of such approaches for monitoring and follow-up facilitation. I have also read Bielawski’s *Rogue Diamonds*, and one of my former graduate students had spoken with Dr. Bielawski concerning the social impacts and other impact-related issues at Ekati. Again, the Ekati case deserves a paper of its own to address in sufficient detail the project’s approach and outcomes concerning both physical and social health and the relevant scoping, prediction, mitigation, and monitoring of impact assessment processes. We appreciate Dr. Gilchrist’s concerns. We also apologize for our oversight concerning the use of “NWT Land and Water Board,” as opposed to “NWT Water Board.”

Third, concerning our reference to EIA responsibility on page 396 of the manuscript, Dr. Gilchrist notes an error in our statement that “Responsibility for EIA is shared between the federal government and each of the provinces and territories.” This is in fact the case. However, please note that we go on in that paragraph to identify the very same exceptions that Dr. Gilchrist points out in his letter,

and we state that “Exceptions include projects within the jurisdiction of the Mackenzie Valley Resource Management Act... and...Nunavut Land Claims Agreement Act.”

Fourth, I agree with Dr. Gilchrist’s point that health scrutiny should come from a broader audience than only health professionals (and EIA practitioners). This is particularly so when evaluating the success of health impact or mitigation programs within the context of a project EIA. This broader critique was not part of the proposed research objectives for this particular paper, and it is explicit in the manuscript that our focus was on the project EIA itself and health and EIA professionals. This paper is part of a larger research project reviewing health in northern EIA, which does incorporate the views and perspectives of other government, community, environmental organizations, and northern Aboriginal interests.

Fifth, some issues that Dr. Gilchrist raises, namely the practice of impact monitoring, are issues that are currently debated widely among EIA researchers and practitioners. With respect to follow-up and measurement of impacts on human health, he notes that “...they surely are critical responsibilities of all levels of government and social organization...” and that such is “also the role of regulatory bodies...” I certainly agree, to an extent. The issue of responsibility for follow-up and monitoring in environmental assessment is a critical one, and one for which there are more institutional and methodological challenges associated with the project EIA process than there are perhaps solutions. Across Canada, and as demonstrated by international literature on environmental assessment, it is the follow-up and monitoring stage of project EIA that is most poorly done. This is particularly the case with regard to social impacts. While social impacts (including the social aspects of health) are invariably considered in the impact assessment phase (as part of the scoping, prediction, and impact mitigation phase of a proponent’s environmental impact statement [EIS]), they are much less likely to carry over to the follow-up and monitoring stage.

In many respects, this lack of follow-up is a function of institutional challenges regarding organization and responsibility, of the vague or imprecise nature of impact predictions contained in the EIS itself, and of the time lapse from EIS development to actual project implementation—and arguably, a reflection of the need for “monitoring for management.” As illustrated by the Voisey’s Bay Mine/Mill case, the purpose of follow-up and monitoring is sometimes perceived differently by different actors. In this particular case, the government (Department of Fisheries and Oceans) was promoting a “monitoring for science” perspective to better understand system linkages and operations, whereas the proponent was promoting a “monitoring for management” approach designed specifically to detect early warning indicators of project-induced impacts. While the two are not mutually exclusive, one does not always satisfy the other. In the case of the Hibernia offshore oil production project, government agencies were designated the responsibility for monitoring

social impacts, as the proponent deemed this to be outside its mandate—and rightfully so, given the language in the federal Act at the time. The problem was that social (and economic) data were being collected by government and monitoring bodies, but without the proponent in a leading role, there was no linkage between monitoring data, actual project impacts, and the proponent’s impact mitigation measures. The Hibernia monitoring program disintegrated after less than two years of operation. Many of these issues and challenges to follow-up have been explored by a variety of environmental assessment authors, including Morrison-Saunders (2003, 2004, 2005), Noble and Storey (2005), Storey and Noble (2004), Burdge (2003, 2004, 2005), and Arts et al. (2001, 2002). Follow-up and measurement of the social dimension of project impacts, including health, have also been key workshop themes at recent meetings of the International Association of Impact Assessment (IAIA). In short, I agree that follow-up and measurement should be a shared responsibility, but in practice, follow-up and measurement, particularly of social aspects, are fraught with difficulties, and the process is often less than desirable.

Sincerely,
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