

CUMULATIVE IMPACTS RESEARCH CONSORTIUM

2018

ANNUAL REPORT

University of Northern British Columbia
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www.unbc.ca/cumulative-impacts

UNBC UNIVERSITY OF
NORTHERN BRITISH COLUMBIA



Smithers, BC, July 2018 (photo M. Sax)

WELCOME MESSAGE

This report provides an overview of the research and community engagement activities delivered by UNBC's Cumulative Impacts Research Consortium in 2018. In September, Chris Buse (Project Lead) and Madeline Wilson (Communications Lead) stepped away from their positions to pursue other opportunities. I transitioned from my position as Operations Lead to Research Lead, where I will continue to work with the CIRC Steering Committee and the CIRC Advisory Committee to lead our research and community engagement activities. We are grateful for everyone who contributed to this initiative over the past year, and we look forward to continuing to build a solutions-oriented research and community dialogue for the benefit of northern British Columbia and beyond.

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ABOUT CIRC

The Cumulative Impacts Research Consortium (CIRC) is a research and outreach initiative at the University of Northern British Columbia dedicated to enhancing our understanding of the positive and negative impacts of resource development across northern BC. CIRC is collaboratively led by UNBC's Health Research Institute, the Community Development Institute, and the Natural Resources and Environmental Studies Institute.

Our research aims to integrate environmental, community, and health values and perspectives, and account for diverse forms of knowledge and information. Informed by our community outreach and engagement, CIRC seeks to strengthen on-the-ground capacity to respond to issues related to the cumulative impacts of resource development.

EVENTS

2018 CIRC FORUM

The 2018 CIRC Forum, *Cumulative impacts policy and practice in northern BC*, took place January 18-19, 2018 at UNBC. This event was made possible with the support of the ECHO (Environment, Community, Health Observatory) Network, the Pacific Institute for Climate Solutions (PICS), and the UNBC Office of Research. The Forum convened policymakers, scientists, practitioners, all levels of government (Indigenous, federal, provincial, regional, municipal), and community members in the region actively working on issues related to the myriad impacts of resource development throughout the region.

The presentation videos and slides are available at www.unbc.ca/events/45388/2018-circ-forum-january-18-19-2018



Chris Buse, UNBC, January 2018 (photo: M. Wilson)

BVRC PUBLIC LECTURE

On September 26, 2018, the Bulkley Valley Research Centre's Seminar Series hosted a CIRC presentation and workshop, called *What's a 'Cumulative Impact', Anyway?* The presentation unpacked challenges with resource development governance, differentiated between cumulative effects and impacts, and introduced CIRC's program of research. The accompanying workshop explored the environmental, community, and health impacts of resource development activities across northern BC through CIRC's process of data-driven storytelling.

The presentation video is available at www.facebook.com/bulkleyvalleyresearchcentre/videos/vl.200228870646491/718054405219102/?type=1



COLLABORATIONS

NECHAKO WATERSHED ROUNDTABLE SECRETARIAT

In October 2018, CIRC started collaborating with the Fraser Basin Council to take on the role of Secretariat for the Nechako Watershed Roundtable (NWR). The Roundtable was formed in 2015 to protect and improve the health of the Nechako watershed for future generations. It includes representation from BC First Nations, the Province of BC, local governments, and other agencies and organizations having responsibilities and interests in the Nechako watershed.

The third annual NWR meeting took place on November 2, 2018 at Nautley. An opening prayer was provided by Nadleh Whut'en Elder Roy Nooksi. The theme of the meeting centered on the impacts of wildfire: Perspectives on the 2018 Wildfire Season; Landscape Wildfire Impacts; and Hydrologic Wildfire Impacts. The meeting proceeded with updates from Core Committee and Roundtable members, speakers for each of the above topic areas, and group discussions.

More information is available at www.fraserbasin.bc.ca/Nechako_Watershed_Roundtable.html



UNBC CLIMATE CHANGE RESEARCH CLUSTER

Throughout 2018, CIRC convened UNBC faculty, students, staff, and researchers to discuss collaborative climate change research, communication, and networking within the university and beyond. CIRC hosted two university-wide discussions, conducted an online survey, established a UNBC Climate Change listserv, and worked with the Pacific Institute for Climate Solutions (PICS) and the UNBC Office of Research to compile a publicly available list of climate change researchers.

To view the list of UNBC climate change researchers, visit www.unbc.ca/research/research-clusters#Climate%20Change

To sign up for the UNBC Climate Change Cluster listserv, visit lists.unbc.ca/mailman/listinfo/climate-change

RESEARCH

DEVELOPING NEW TOOLS TO ASSIST COMMUNITIES IN ASSESSING, MONITORING AND PLANNING FOR CUMULATIVE IMPACTS OF RESOURCE DEVELOPMENT

Objective

Broad and inclusive public engagement to conceptualize the next generation of cumulative impact assessment tools capable of integrating environmental, community, and health values to support local and regional monitoring activities and associated decision-making processes, and help address on the ground capacity issues.

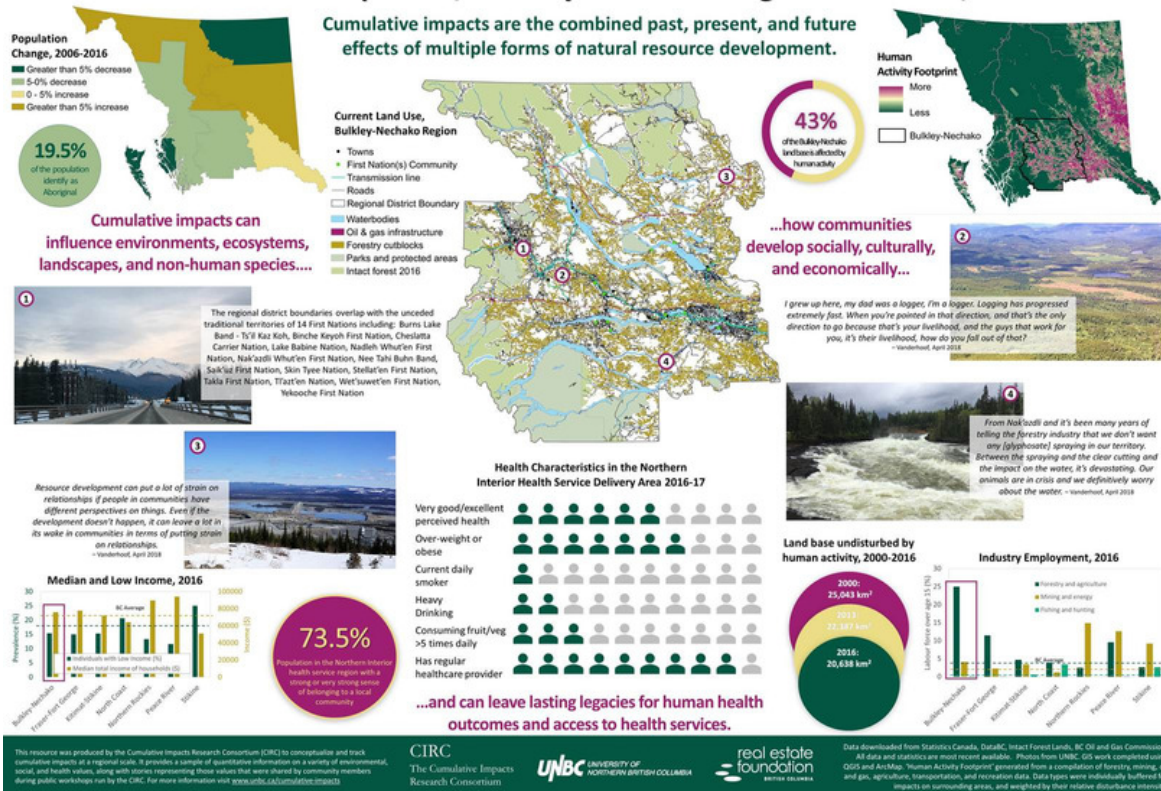
Status

Several community workshops run in 2018; final round of workshops and community reports planned for 2019.

Tools

- “Story map” for each regional district in Northern BC
- Facilitator’s guides for data-driven story telling and values mapping activities
- Invitation to UNBC Mapping portal
- Pilot of integrative cumulative impact analysis digital application

Visualizing cumulative environmental, community, and health impacts of resource development, Bulkley-Nechako Regional District, 2017



THE ECHO NETWORK: NORTHERN BC REGIONAL CASE

Objective

The ECHO (Environment, Community, Health Observatory) Network is a national network of collaborators working together across sectors to take notice of—and respond to—the influence of resource development on health and well-being, with specific emphasis on rural, remote, and Indigenous communities and environments. It is comprised of four place-based regional cases.

The northern BC case is collaboratively led by researchers from UNBC and Northern Health, and includes a focus on (1) the mechanisms that promote effective intersectoral action to address the cumulative impacts of resource development; and (2) knowledge translation and mobilization of research action to encourage broader understanding of the health and socioeconomic impacts of resource development.



Photo: UNBC Communications (www.unbc.ca/image-galleries/950/northern-bc-scenery)

Status

The Northern BC team will be focusing their efforts in the coming year on what has enabled successful intersectoral action to promote health in resource-dependent communities through a series of interviews.

More information on the ECHO Network is available at www.echonetwork-reseaecho.ca/

BUZZ, BOOM, AND BUST: A COMPARATIVE CASE STUDY OF THE GENDERED IMPACTS OF THE SPECULATIVE PHASE OF RESOURCE DEVELOPMENT IN NEW BRUNSWICK AND BRITISH COLUMBIA

Objective

This project addresses gaps in present knowledge by asking how women and men who live in resource communities are impacted differently by the pre-operational “buzz” phase of large scale natural resource development projects.

Status

The BC case study focuses on LNG in Kitimat and surrounding area; literature review under way; community visit planned for Spring 2019.

CLIMATE CHANGE COMMUNICATION AND ENGAGEMENT IN CANADA'S PROVINCIAL NORTHS

Objective

To examine climate change communication strategies in a region of Canada characterized by rurality, remoteness, and a high degree of reliance on natural resource industries.

Status

Interviews completed for Northern BC and Ontario cases, with data under review; mail out survey scheduled for early 2019.

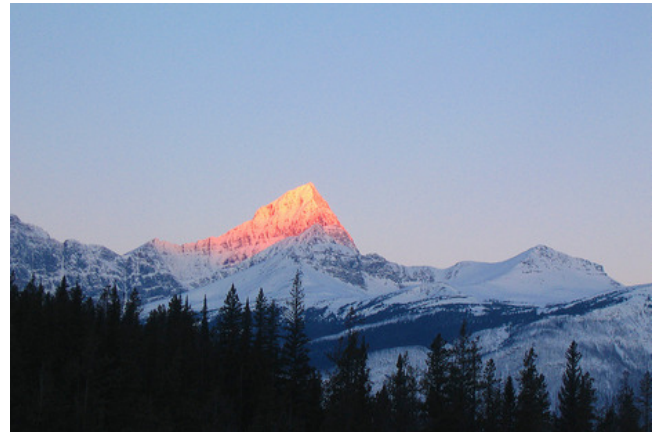


Photo: UNBC Communications (www.unbc.ca/image-galleries/950/northern-bc-scenery)

COMPLETED PROJECTS

- Cumulative Impacts Living Library (cumulativeimpactslivinglibrary.ca)
- Developing best practices in socioeconomic and health indicator development
- Examining the 'state of the art' of cumulative effects policy through an interjurisdictional comparative case study
- The Health Impacts of Resource Extraction and Development (HIRED)
- Understanding health equity and resource development (UnHEARD)



Photo: UNBC Communications (www.unbc.ca/image-galleries/913/unbc-campus-aerials)

SAMPLE PUBLICATIONS

Brisbois BW, Reschny J, Fyfe T, Harder H, Parkes MW, Allison S, Buse CG, Fumerton R, Oke B. (2018). Mapping research on resource extraction and health: A scoping review. *Extractive Industries and Society*, in press. DOI: 10.1016/j.exis.2018.10.017

Buse CG, Cornish K, Parkes MW, Harder H, Fumerton R, Rasali D, Li C, Oke B, Loewen D, Aalhus M. (2019). *Towards more robust and locally meaningful indicators for monitoring the social determinants of health related to resource development across Northern BC*. Prince George, BC: University of Northern British Columbia, Northern Health Authority, Provincial Health Services Authority.

Buse CG. (2018). Why should Canadian public health agencies conduct climate change and health vulnerability assessments? *Canadian Journal of Public Health*, early access DOI: 10.17269/s41997-018-0118-6

Buse CG, Lai V, Cornish K, Parkes MW. (2018). Towards environmental health equity in health impact assessment: innovations and opportunities. *International Journal of Public Health*. DOI: 10.1007/s00038-018-1135-1

Buse CG, Oestreicher JS, Ellis NR, Patrick R, Brisbois B, Jenkins AP, McKellar K, Kingsley J, Gislason M, Galway L, McFarlane RA, Walker J, Frumkin H, Parkes M. (2018). Public health guide to field developments linking ecosystems, environments and health in the Anthropocene. *Journal of Epidemiology and Community Health*, 72(5), 420-425.

Buse CG, Smith M, Silva DS. (2018). Attending to scalar ethical issues in emerging approaches to environmental health research and practice. *Monash Bioethics Review*.

Oestreicher JS, Buse C, Brisbois B, Patrick R, Jenkins A, Kingsley J, Tevora R, Fatorelli L. (2018). Where ecosystems, people and health meet: Academic traditions and emerging fields for research and practice. *Sustainability in Debate*, 9(1), 45-65.

Reschny J, Brisbois B, Parkes MW, Harder H (Lead Authors) Allison S, Buse C, Daniels T, Dolan S, Fumerton F, Fyfe T, Kutzner D, McLean E, Oke B, Nowak N, Schmeisser A (Contributing Authors). (2017). *Towards a better understanding of health in relation to mining and oil & gas extraction: A scoping review*. Prepared for Northern Health Authority, Prince George, BC.

Buse CG, Wilson M, O'Toole R, Sharma B, Baddeley J. (under review). Integrated values mapping: A novel, arts-based mapping method for eliciting youth values and a sense of place. *Qualitative Research*, submitted August 2018.

Buse CG, Sax M, Nowak N, Jackson J, Fresco T, Halseth G, Fyfe T. (under review). Locating community impacts of unconventional natural gas across the supply chain: A scoping review. *The Extractive Industries and Society*, submitted December 2018.

ACKNOWLEDGEMENTS

The CIRC was initially established in 2015 with funding from the Pacific Institute for Climate Solutions and the UNBC Office of Research. Over the last four years, we have more than tripled our initial funding contributions through a combination of external sources and in-kind contributions. This has allowed the CIRC to respond to knowledge gaps highlighted by communities with original research.

The work we have accomplished over the last year would not have been possible without our talented and committed research assistants, Aita Bezzola and Ryan O'Toole. We also thank our past staff members, Chris Buse and Madeline Wilson.

We would like to take the opportunity to acknowledge the ongoing work of the CIRC Steering Committee: Chris Buse, Michelle Connolly (past), Art Fredeen, Greg Halseth, Henry Harder (past), Marleen Morris, Margot Parkes, Rachael Wells, and Al Wiensczyk.

We would also like to thank both current and past members of the CIRC Advisory Committee for their ongoing commitment and engagement: Andy Ackerman, Charl Badenhorst, Joan Chess, Nicole Cross, John Disney, Raina Fumerton, Sandra Harris, Richard Kabzems (past), Lana Lowe, Alan Madrigga, Jennifer Pighin (past), Wayne Salewski, Rob Spitzer and Viva Wolf.

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