

Regional Cumulative Effects Analysis: Keeping BC Open for Business

“If trees continue to be harvested, the proposed gold mine goes ahead, and that run-of-the-river hydro project gets approved, what will happen to the water and fish our community depends on? Especially as the climate continues to change?”

Questions like these motivate the assessment of cumulative effects – the aggregate impact of natural and human disturbance on values that are significant to local communities. Yet current legislation in British Columbia only requires cumulative effects analysis (CEA) to be done on a project- and site-specific basis. This approach is – simply put – ineffective.

Cumulative effects analysis goes beyond the scope and scale of an individual project. It considers past, current, and proposed development – information not readily available to an individual project proponent. It requires upfront collaboration with stakeholders to understand what is at risk, and a full assessment of the impacts of future development on values that matter to them. These responsibilities clearly fall beyond the proponents for specific development projects, whose focus is on mitigating project-specific impacts and compensating communities to gain project approval.

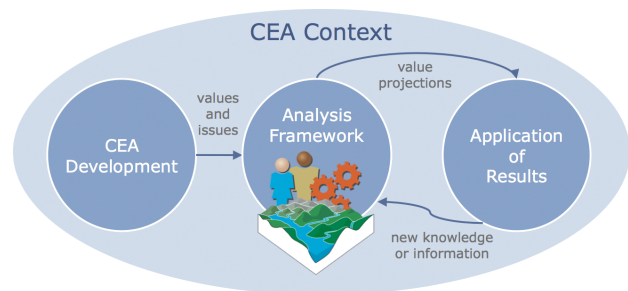
So whose responsibility is cumulative effects analysis? We recommend a regional-scale, collaborative approach to cumulative effects analysis that shares responsibility for development impacts fairly among all those involved – government, industry and communities – and gives a voice to the people who must live with these decisions for generations to come.

To obtain social licence to operate, British Columbia needs a regional-scale, ecosystem-based approach for assessing cumulative effects

Operationalizing Regional CEAs: the Cortex Approach

At Cortex, we have spent 5 years developing and operationalizing CREATE – a cumulative regional effects analysis tool. CREATE is collaborative, spatial, value-driven, and scenario-based – designed explicitly to help communities understand the cumulative effects of development and climate change on their values.

CREATE has three phases, each embedded within the regional context for the analysis. In the *development phase*, we work with clients (usually First Nations or other communities, governments, foundations, or industry) to establish the goal and scope of the CEA. Through a collaborative process, we help the participants articulate key local values, including valued ecosystem components. As needed, we draw in social science experts to help us with this process, which is critical for establishing the foundation for the CEA.



In the *analysis phase*, we work with recognized domain experts¹ to translate values into indicators, and apply our analysis framework to forecast the effects of development on these indicators. We build on existing analyses (e.g., timber supply reviews, land use plans) to develop a comprehensive picture of the area. Once constructed, we bring the framework back to the community, and work with them to explore the implications of different patterns of development on their values, or identify actions that avoid or reduce major development impacts (e.g., through coordinating regional road development across industries).

The analysis framework is spatial, modular, and uses domain experts. Core components include natural and human disturbances, vegetation dynamics, and climate change. To these, we can add sub-models to evaluate key values, such as hydrology, fish habitat, wildlife habitat, connectivity, and measures of community health and resilience.

In the *application of results phase*, we work with our clients, communities, and other stakeholders to establish guidelines for future development in the area. This phase often includes developing an implementation strategy that sets out the necessary changes to plans and standard operating procedures, to ensure that the recommendations arising from the CEA are enacted in policy and practice.

Social Licence is Necessary to Keep BC Open for Business

In recent press releases, the BC government has reiterated its desire to move projects from the approval phase to “actual worksites and jobs.” At the same time, it has eliminated most of the avenues for securing social licence through meaningful community collaboration.² With communities increasingly concerned about the impacts of multiple development projects on social, environmental, and local economic values, and First Nations willing to use their considerable legal clout to block development,³ we may have the “perfect storm” that could put resource development at risk in this province.

CREATE offers a transparent and inclusive process for exploring the cumulative effects of different development scenarios. It brings together the right people to help identify values, and to identify indicators for values that can be easily interpreted by the community. It brings in experts as needed, to plug in different models and explore different values in detail. And it gives communities the ability to define future development scenarios, so they can trust the results.

In our experience, true collaboration with communities through regional-scale CEAs can help gain the social licence that is vital to allowing socially, economically, and environmentally responsible development to proceed.

CREATE is a collaborative process that uses expert opinion and analytical models for building social licence

For more information, contact:
Jason Smith, RPBio
jsmith@cortex.ca
(778) 977-3016
www.cortex.ca

¹ Topical, preferably local, experts on values defined by communities (e.g., First Nations values, hydrology).

² For example, by March 2011, 17 of 26 land use plans in BC will have lapsed (no full amendment even though it is promised in every plan) (www.fpb.gov.bc.ca/FPB_Newsletter_Issue_4_Winter_2010_11.htm, accessed 4Mar11)

³ Taseko Mines Ltd. reportedly spent 17 years and over \$100 million in its attempt to establish the Prosperity Gold Mine near Williams Lake. Yet, even with provincial government approval, the Tsilhqo'tin First Nation blocked the mine from proceeding. Note that as of Feb. 21 2011, Taseko Mines Ltd. has resubmitted its environmental application for Prosperity Mine to the federal government, with a new plan that avoids draining Fish Lake.