

6.0 Conclusion

Most contemporary environmental problems are a result of cumulative stresses on the environment at local, regional and global scales. Alberta's economic growth, for example, has increased demands on resources, which in turn puts pressure on the capacity of its local and regional environments to deal with these stresses and continue to function well. Global warming is another example of a cumulative effect which could undermine ecological integrity on a large scale. Assessing and managing these impacts is one of today's greatest challenges.

Alberta has made good progress with cumulative effects assessments, and is in many ways a leader in Canada. It is time now to build on experience and take the next steps toward exploiting the full potential of CEA. As Roots (1993) points out:

Cumulative Effects Assessment is not a methodology for adding together assessments of separate projects, but rather a means for putting the effects of any project into the perspective of larger dynamics of human activities and environmental change.

Cumulative effects assessments are uniquely valuable as a means of evaluating complex ecological and economic interactions; consequently, CEA practice in Alberta should be encouraged and continually improved. As opportunities arise in the course of project approvals, for example, proponents can be encouraged to include smaller scale and dispersed activities in their assessments. The need and opportunity to develop regional CEA information and incorporate it into project-specific decisions can also be identified. Broad based positions such as the Wetlands Policy can be established to explicitly address the objective of correlating individual project data with regional or sectoral data.

Alberta Environmental Protection and other regulators could take another significant step by issuing a functional description of cumulative effects assessments. The statement would send a signal to other stakeholders encouraging them to develop consensus on the roles CEAs play in planning exercises and decision making processes. Discussions could then proceed with a view to developing a framework document designed to guide practitioners and others when conducting assessments. The document would set out minimum expectations for CEA practice from a regulatory perspective. Stakeholders should participate in framing the document but it would be authored by AEP and, therefore, provide regulatory sanction for whatever process, prescription or practice is described. AEP could partner with the EUB and NRCB to ensure consistency across regulatory agencies.

The concept of regional data bases should also be explored. Preparing a feasibility study or preliminary analytical framework would launch the initiative and identify major issues for further discussion. Improved access to accumulated data through regional data bases needs to be pursued.

Ultimately, mechanisms to integrate project-specific and sectoral or regional planning and decision making processes need to be deployed. Kingsley (1997) comments:

Cumulative impacts occur because of a mismatch in the scale at which impacts accumulate and the scale at which decisions are made.

A process called “strategic environmental assessment” (SEA) is being applied with some success in South Africa and among members of the European Union. One of the objectives of SEA is to create a framework against which impacts and benefits can be measured so that focus is maintained on a chosen level of environmental quality rather on impact mitigation (Wiseman, 1996). SEA may offer some opportunities to advance future assessments of cumulative effects in Alberta.

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