Energy, Environment & Natural Resources Committee  
of the Senate of Canada  
Parliament Buildings  
Ottawa, ON  K1A 0A4

Attn.:  Senator Rosa Galvez, Chair

Dear Senator Galvez and Committee members:

Re:  Bill C-69 Impact Assessment Act

The Summary of the Impact Assessment Act (Bill C-69) advises:

Part 1 enacts the Impact Assessment Act ... Among other things, the Impact Assessment Act …

(b) provides for a process for assessing … designated projects with a view to … fostering sustainability;

(c) prohibits proponents...from carrying out a designated project if the designated project is likely to cause certain environmental, health, social or economic effects, unless the Minister of the Environment or Governor in Council determines that those effects are in the public interest, taking into account … the extent to which the project contributes to sustainability and other factors;

The first clause of the Preamble to Bill C-69 makes the Government’s priority clear:

Whereas the Government of Canada is committed to fostering sustainability; …

Since the Brundtland Commission report of 1989, which first popularized the phrase “sustainable development”, the word “sustainable” has become a buzzword affixed to almost every human activity. The Interpretation section of Bill C-69 provides this definition:

sustainability means the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations. (durabilité)

The Four Principles of Sustainability

The maintenance of a durable/sustainable environment is fundamental. It is the vital foundation upon which our human society and economy is based. Without healthy air to breath, potable water for drinking, cooking and other uses, and benign weather for human activities, then humans cannot flourish for all the wealth of Knossos. How, then, are we to know whether a mining or a forest products project is sustainable?

Fortunately, the American ecological economist Herman E. Daly formulated three principles of sustainability about fifty years ago.

The first rule directs that renewable resources should not be harvested at a rate that exceeds their regeneration rate. Humanity is probably exceeding this rule for soils, fresh water, forests, and ocean fish stocks (such as the Atlantic cod).
The second rule directs that **non-renewable resources** should be replaced with renewable substitutes at least at the rate of repletion. Fossil fuels are examples of non-renewable resources where we are not transitioning to renewable energy alternatives at a rate of durability. We may experience an economic shock if we encounter an abrupt “peak oil” followed by supply decline.

The third rule cautions that **pollutants** should not be discharged at a rate that exceeds the ability of natural processes to recycle or sequester the pollutants. The most glaring example of our disregard of this rule is the dumping of greenhouse gases into the Earth’s atmosphere resulting in disruptive warming of the climate.

Finally, the $I=PA\times T$ relationship links the three principles to the dynamic biosphere of the Earth. The impact (I) of an activity is proportional to the size of the population (P), the magnitude of consumption of a resource (A), and the level of technology (T) used to exploit the resource. For example, as the fleet of plug-in electric cars grows then the total emission of greenhouse gases from the commuter transportation sector will decrease. Or we could provide more electric-powered public transit that would change the technology and decrease the size of the fleet of single-occupant, gasoline fueled, commuter vehicles. The IPAT relationship would be used to guide Canada’s infrastructure decisions with respect to how to achieve our overarching international greenhouse gas emission reduction commitments.

**Recommendation**

As currently drafted, the Impact Assessment Act (Bill C-69) has a clear priority that resource development, industrial, and other projects must be sustainable. But the Act does not provide clear guidance on how to assess the sustainability of any activity under review.

I urge the Senate Committee to revise Bill C-69 to expand the interpretation of “sustainability” to include the four principles of sustainability.

Thank you for the opportunity for offer input to your Committee.

Yours truly

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Background on Herman E. Daly at: https://en.wikipedia.org/wiki/Herman_Daly
More on IPAT at: https://en.wikipedia.org/wiki/I_%3D_PAT