



Thinking About Conservation Policy

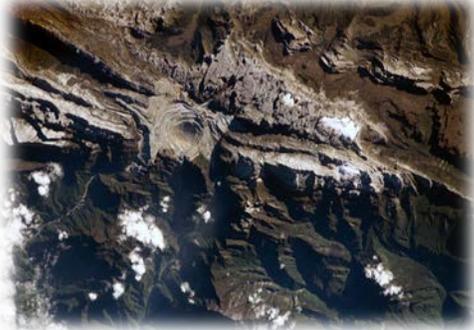
“For a century, environmentalism has divided itself into warring camps...The struggle pits those who would meddle with nature against those who would leave it be... The only sensible way forward lies in a melding of the two philosophies. If nature has grown artificial, then restoring wilderness requires human intervention.”

David Baron

Hum-ants and Human-ites

Humans are, without a doubt, the most effective geomorphological living beings on earth, past, present and future. Our ingenuity and creativity have allowed us to manage every type of landscape from a little bit to a huge amount (Image 1). Like other industrious beings – termites and ants come to mind – we have been able to alter our environment significantly and go to places previously thought impossible (Marianas Trench, Antarctica).

Image 1: Indonesia Grasburg Mine as seen from Space



We transform the extraction of basic raw materials from the ground to meet our basic needs, and create a wondrous array of other goods and services that elevates the quality of life – these things are not necessarily needed, but they are desired. Every single thing we

depends on in some way comes from the earth – from where else could it derive?

Some argue that the pace and scale of changes to the landscape to meet humanity’s needs and wants is undermining the ability to sustain ourselves. On a global scale this may be true, but in Canada, with the second largest landmass in the world and only 3.85¹ people/km², this is not necessarily the case (although one could argue the corollary, which is that this is exactly why we should set aside more land and protect more species, insects, microorganisms and ecosystems, generally).

The challenge is finding a way to meet our basic as well as aspirational “needs” within an ever increasing population and finite physical space. We will continue to expand our footprint – it is virtually impossible not to do so. The conversation about conservation – what, how much, and where – helps to put a focus on the trade-offs about the kinds of activities we want to continue to do and in what places. A balance must be struck between those areas that are truly protected, off limits to development and whose primary role is the setting aside of natural heritage – species biodiversity, geology and landforms – versus other areas that need to provide multiple services, and for which responsible stewardship will help guarantee ongoing use. But unlike many of the other issues discussed in connection with the environment, like water or air quality or levels of pollution, there is something more ethereal embedded within the discussion of conservation, which pits the practical, here, now and every day against an imagined Eden.

¹ Canada ranks 232 out of 254 jurisdictions. Eight of the 254 jurisdictions have no permanent populations.

Our economic system of measurement is also too crude to measure the nuances embedded in the delivery of “ecosystem services [which] arise when an ecological structure (e.g., wood fiber) or function (e.g., filtering function of vegetation and soils) directly or indirectly contributes toward meeting a human need or want. Such services (e.g., provision of clean drinking water) generate benefits (e.g., improved human health) that contribute to overall well-being.”² While this seems to be a rather precise definition, the economics of conservation is ex-ante and therefore based on expected use, expected value and risk perception. Since it has been proven that people’s judgments of risk and benefit are most often negatively correlated (i.e., favorable feelings about something lead to a judgment of risk as low, and high benefits and conversely unfavorable feelings tend to produce judgment of high risk and low benefit³), it is not surprising that those who are suspicious of industrial activity see conservation as a low risk, high benefit outcome. Regardless, and despite the fact that as a species immediate satiation of needs and wants forces us to put more weight on the here and now, there is considerable goodwill and an inherent desire to invest for future generations through conservation.

What is Conservation?

At its core, conservation is a rather vague concept with many meanings including “unimpaired”, “status quo” and “present level”, and it has evolved to encompass meanings related to “preservation”, “protection”, “restoration” and the ideas of parks, protected areas, ecological reserves and land use planning. The strict dictionary definition has two meanings: (1) planned management of a natural resource to prevent exploitation,

destruction, or neglect; and (2) the preservation of a physical quantity during transformations or reactions.⁴ For purposes of a discussion about natural resources both meanings are relevant, with the first, on plain reading, providing more flexibility to manage dynamic systems.

There are four periods in the evolution of the conservation movement,⁵ largely tied to not only expanding populations but also to the emergence of new economic opportunities:

- 1670 to 1860s: tree reserve period - French and English trying to make sure there was enough timber for ship building.
- 1860 to 1885: land reserve period – promoting the wise use of natural resources.
- 1880 to present: recreation reserves period – establishing parks, historic sites and fish and game reserves.
- 1960 to present: nature and wilderness reserve period – setting aside areas of wild country.

Conservation in North America has roots that go back to the mid-late 1800s in the United States when, after a significant period of land acquisition, the federal government began to “dispose” of its lands, which resulted in growing public demand for conservation of public forest lands, in particular. Notable Americans who kick-started the “movement” included US President Andrew Jackson, who set aside land in Arkansas in 1832 for “future disposal”; President Abraham Lincoln, who ceded land that is now Yosemite Park to California but with conditions that it remain open for public enjoyment (it eventually became a national park in 1872); John Muir, who cofounded the Sierra Club; Carl Schurz, the Secretary of the

² Contributions of cultural services to the ecosystem services agenda, Terry C. Daniel et al, 2012.

³ Thinking , Fast and Slow, Daniel Kahnemen, 2011.

⁴ Websters Dictionary.

⁵ Canadian Encyclopedia – Environmental and Conservation Movements

Interior from 1877 to 1881 who was one of the first to propose that unreserved public timberlands be set aside as national forests for protection of watersheds; and Gifford Pinchot, the first head of the US Forest Service.

Canada, in its typically understated way, followed suit in the 1880s, with the creation of Banff National Park announced in 1911. Also in 1911, Ottawa appointed its first Dominion Park Commissioner⁶ under the *Dominion Forest Reserves and Parks Act*. Currently, Canada is ranked 113th out of 245 “countries” in terms of the percent of land conserved, and it is among 39 other countries in which 5-9% of land is defined as “protected”, as shown in Table 1. However, some care should be taken when looking at these numbers given that there is no information about the standards for measurement and the relative quality of land under protection. While the World Bank number reported for Canada is about 7%, which is an average between terrestrial and marine protected areas, the actual terrestrial area protected is ~10%.⁷ This would put Canada in the top 40% of countries and on par with Sweden.

Table 1: Sample Country Protected Area Rankings (Land and Marine)⁸

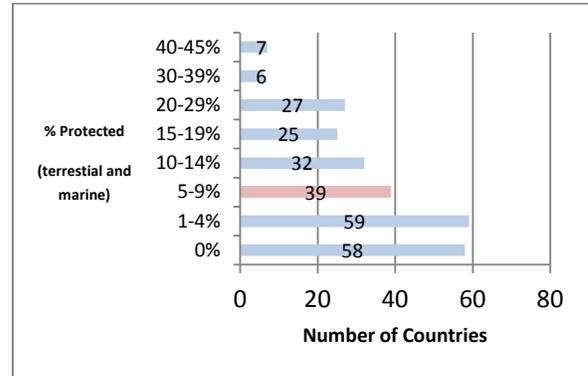
Country	Percent Protected Area	Population /km ²	Rank
Germany	42	235	6
Norway	15	17	70
USA	12	34	86
Sweden	11	23	92
Canada	7.5	4	113

⁶ [Canadian Encyclopedia](#).

⁷ [Canadian Council of Ecological Areas](#).

⁸ [World Bank](#) protected areas data 2010 and United Nations population data.

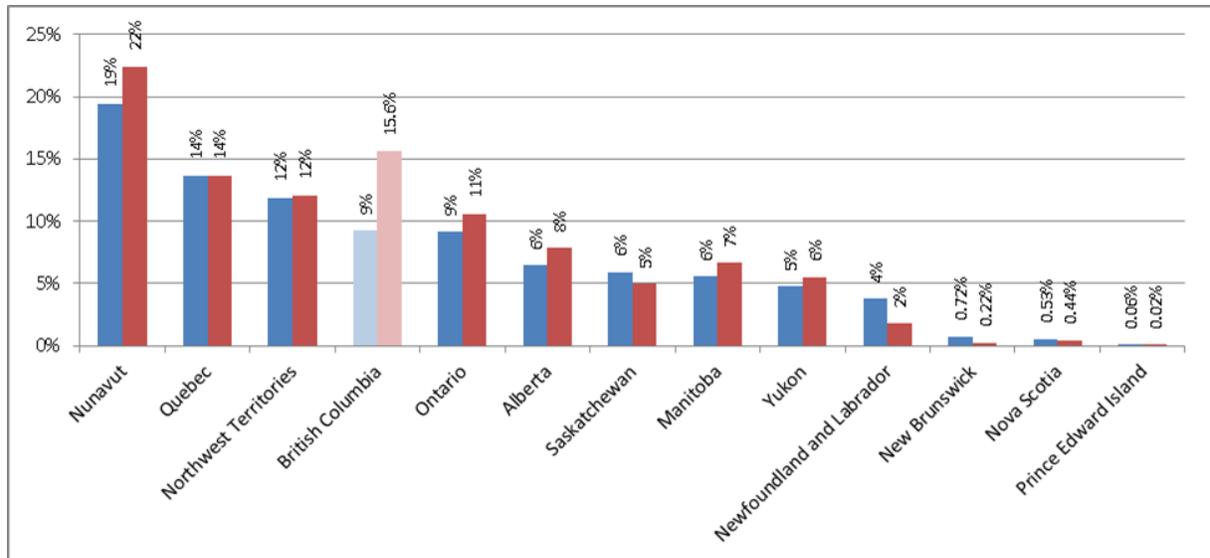
Figure 1: Number of Countries in relation to % Protected Land



In British Columbia, the first park, Strathcona, was also established in 1911. There was some effort between the 1930s and 1980s to establish more parks. However, the 1990s saw the greatest increase in conservation activities and protection of species and ecosystems in our history, under the Commission on Resources and Environment (CORE) and Land and Resource Management Planning (LRMP) processes.

During this period BC set aside additional lands to raise the protected areas to ~15.6% of the land-base and established the *Protected Areas of British Columbia Act*. Supporting legislation, including the *Park Act*, *Ecological Reserves Act*, *Environment and Land Use Act* and *Wildlife Act*, has enabled a system with a variety of types of protection that is currently made up of over 900 designated parks and protected areas, totaling over 13,000,000 hectares - class A, B and C parks; conservancies; recreation areas; ecological reserves; protected areas; wildlife management areas; and other undesignated conservation lands for fish and wildlife. In addition, BC has 148 provincially-designated marine protected areas (128 parks and protected areas and 20 ecological reserves). When combined with existing federal marine protected areas, this covers no less than 21% of BC’s shoreline.

Figure 2: Percent of provincial/territorial protected areas compared to landmass



Source: [Canadian Council of Biological Areas](#)

Compared to target set under the Convention on Biological Diversity [Aichi Biodiversity Targets](#) of 17% for lands, BC ranks well among many countries and other provinces. See Figure 2 above, where blue represents the percent of Canada’s land mass and red (or in the case of BC pink) represents protected areas as a percent of total landmass of the province or territory. Interestingly, BC has the highest spread between its base land mass relative to Canada and quantum of protected area.

Land Use in BC

Over the last decade the public discourse over biodiversity and land use in BC and Canada as a whole has been somewhat muted. However, as we struggle with the trade-offs around the development of our resources – forestry, mining and energy in particular, but also agriculture, urbanization and water use – there are many who are raising questions about whether current levels are enough.

In early 2013, a suite of papers were released discussing land use in the BC context. A Forest Ethics paper entitled [Drawing the Line](#) suggests the need for a higher level of protection. However, from their own data we can add an additional 13% of land in BC that currently has some sort of restriction on activities. This means that BC has a total of 28.8% of its land base with moderate to strong protection, which ranks us 15th in the world and in the top 40 jurisdictions with protected areas of >20%.⁹ This is a significant achievement, one that should be celebrated rather than criticized.

The Forest Ethics report goes on to note that ~70% of land has few restrictions and it recommends establishing corridors to connect existing conservation areas, updating laws and policies to protect biodiversity and enable management of impacts from human use of land base, and adding to land use plans. We

⁹ [World Bank data](#) on Terrestrial protected areas.

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have some empathy towards the general thrust of these recommendations. After all, ecosystems exist in a non-equilibrium state, meaning that they may change through time,¹⁰ and so what may have been important during the original BC land use planning process may not be anymore. Therefore, it is logical and reasonable to reconsider past choices, and to explore the concept of corridors and networking between protected areas. Opening the land use planning process should be done with caution, however. Despite its past successes, it was a period of divisiveness and de-investment in BC. Given our current endowment and resource development opportunities, it might be more useful to have an enhanced focus on monitoring and reporting, which if done properly could provide the evidence needed to make new decisions based on science for either additions or subtractions (i.e., land affected by pine beetle infestation is arguably a necessary subtraction from some land use plans). We also support the need for updating and reconciling existing laws and policies, as this provides more clarity and certainty around the rules.

Almost simultaneously, West Coast Environmental Law released a report entitled [Land Use Laws, Hardwired for Failure](#). We have several comments on this report. First, it incorrectly concludes that “most of the provincial land base has already been allocated to resource companies through often overlapping licenses, tenures and other rights”. The real issue is that ~70% of the land has the potential to be allocated for some sort of use, although it is not necessarily allocated at all. A simple search using publicly available government mapping tools shows that a large proportion of the noted 70% remains *unallocated*, although there are definite areas

of intense competing interests especially in heavy use and high value areas around communities and in places like Northeast BC (where oil and gas development is concentrated).

Second, government is not in the habit of issuing overlapping tenures (although this sometimes does happen), and it goes to great lengths during permitting processes to avoid this outcome because of the potential conflicts between competing rights and the dispute resolution process that is then required. Furthermore, deliberately issuing overlapping rights undermines certainty of investment as well as Crown rents. In mining, for example, overlapping subsurface rights used to exist under the old mineral tenure process – post and tags based. Once claim-staking became a grid-based, online map-based selection, the Chief Gold Commissioner’s role in resolving overlapping claim disputes (except for historical claims) was no longer required. However, in some cases there are reasons why issuing overlapping tenure can make sense, especially where compatibility is high, where an evaluation of highest and best use is possible (e.g., exploration permits over trap lines), and where the temporary nature of both activities means that conflict is not necessarily the expected or final outcome.

Finally, the BC Office of the Auditor General recently released a report entitled [An Audit of Biodiversity in BC](#). It does not call for an increase in the quantum of protected land, but it is critical of the administration around conservation activities. We see some of the report’s recommendations as worth exploring, but we do not agree that the system is fatally flawed. Making sure monitoring and data collection is done efficiently and effectively is an excellent idea, reviewing the legislative and regulatory instruments is always necessary, targets and goals are also important if we

¹⁰ Bruce Pardy, *In Search of the Holy Grail of Environmental Law: A Rule to Solve the Problem*, 2005.

consider conservation as a strategic investment in the future, and of course reporting on progress is key to managing fear and anxiety that nothing or not enough is being done – which is a charge that doesn't square with BC's record in the broad field of conservation.

Conclusion

The Business Council supports maintaining the integrity of ecosystems and the protection of endangered and threatened species. We understand that the long-term health of the economy is dependent upon our ability to extract, transform and use natural resources within the ecosystems' ability to supply services. We know that science-based decision-making is better, and that “whenever we can replace human judgment with a formula, we should at least consider it”.¹¹ We think that BC has done a remarkable job in setting aside a variety of protected areas, and that we should celebrate rather than denigrate these successes. We also agree there is still work to be done and that outcomes will involve an ongoing and deliberate discussion of trade-offs. The Business Council knows that “change happens by listening and then starting a dialogue with the people who are doing something you don't believe is right” (Jane Goodall).

Denise Dalmer
Director, Environment and Sustainability
(denise.dalmer@bccbc.com)

¹¹ Thinking, Fast and Slow, Daniel Kahneman, 2011.