

Sustaining Rural Canada?: The Exit Scenario

INTRODUCTION

*It's 3:23 in the morning
and I'm awake
because my great great grandchildren
won't let me sleep
my great great grandchildren
ask me in dreams
what did you do while the planet was plundered?
what did you do when the earth was unraveling?
surely you did something
when the seasons started failing?
as the mammals, reptiles, birds were all dying?
did you fill the streets with protest
when democracy was stolen?
what did you do
once
you
knew?*

(Drew Dellinger , **Hieroglyphic Stairway**, 2007)

Even with several powerful minorities in dissent, or denial, there is a growing global consensus that the conditions of human tenure on planet Earth are in some peril. The nascent understanding is that the cumulative effect of reluctant, late, and piecemeal initiatives, from community composting to Copenhagen conferences (2009), and more recently the Durban (2011) and Davos (2012) debacles, will not avert cataclysm. On top of this is the morally unacceptable prospect of the weak, the poor and the otherwise marginalized bearing the brunt of the famine, disease, political repression, and other repercussions that may well attend this creeping cataclysm. Taking the next steps for and especially *by* rural Canada must be candidly and honestly set within this emergent reality.

Drawing upon the author's experience across Canada and internationally this paper will present the premise arguing the nature and urgency of our condition. Even today in the context of contested claims, a somewhat jaded citizenry, some hyperbole, vitriolic exchange, social conflict and mounting evidence of systemic contradictions in our life choices, the case still should be made. It will be argued that in reality there is really only one critical element now in short supply - and that is *time* itself.

Complementing this it will be argued that there is really only one pivotal transformation required in the human condition, albeit a hugely challenging value-based behavioural

transformation. And it must be acknowledged that, at least in part, we have heard much of this before, so I will make the case as to why we should still be exercised about the imminent possibilities. The very real probability of our demise, I will argue, now sets the fundamental conditions for any and all future rural development policy and planning initiatives in this country.

In a companion book chapter, forthcoming from the University of Alberta (2013), I have taken the position that we should and, admittedly with considerable doubt, we perhaps might be able to do something about our prospects. From there I have posited some strategies for a radical rural development praxis for rural community survival

A PREMISE OF POOR PROSPECTS

The fundamental premise here is that most of the environmental, political, cultural, communications, technological, sociological and other evidence today, and from our more recent past indicates that our tenure as a species on planet Earth is drawing to a close. Apocalyptic, pessimistic, defeatist, alarmist, or even morose as this may sound, it is suggested here that the cumulative evidence and the testimony of our revealed behavioural proclivities all attest to the probability of the cessation of our tenure here, and sooner rather than later. This is now taken to be self-evident, and by all accounts ineluctable.

Without attempting to summarize the voluminous, far flung and not always consistent evidence that has accumulated and been documented over the last half-century or more, one might attempt a compression of the interrelated factors that constitute the argument here. The platform for all of this is of course that our planet is finite in terms of space, fossil fuels, foodlands, water, air, and most other resources that provide what I refer to as our fundamental life lines. This platform for the premise presented here is underpinned by the reality of a relatively fixed flux of energy input from our primary life source, the Sun. And it is the accelerating outstripping of the *rate* of input from this life-source (e.g. for all photosynthesis) by our escalating *rate* of consumption that has led to the divergence which logically precipitates our demise.

On this foundation we can construct a simple logical computation that brings together the factors of population growth, consumption (rate, profile and volume), what I will refer to as techno-fixes (rate, type, quantity), and what I will call actor elasticity (degree, rate, breadth, geographic scale).

In simple terms, and just as an example, as the world's population continues to grow (even with the slowing and declining populations in some countries, such as Japan, Russia, Italy, Germany) and as the patterns of consumption associated with the so-called West or North are replicated and indeed exceeded by burgeoning middle classes in China (say, 4-600 million), India (say, 4-500 million), Brazil, Indonesia and several other countries, including the more recent arrivals in the European Union (e.g. Romania, Bulgaria), the longer term demands upon the Earth's life lines will very likely be untenable. This demographic growth will bring with it more than the doubling of the

current populations of North America and Europe combined. And this may be at the lower end of the scale.

Many would be surprised to see Africa added to the list of the burgeoning global middle-class population. The African Development Bank estimates that there are currently some 313 million people in this socioeconomic bracket in Africa, compared to the 111 million in 1980, and this is increasingly seen as a rapidly expanding market in the same league as China and India (York, 2011).

The more recent and significantly revised population forecasts from the United Nations (i.e. 2011) anticipate a global population of 9.3-10.6 billion by 2050, and up to 15.8 billion by the end of this century! (Potts and Campbell, 2011). We raced through the 7 billion mark as this paper was being finalized. Of course the specific numbers will be argued and contested for ever. The important probability here is that the earth's population is self-generating massive expansion, and more to the point, a very significant proportion of these new residents are *new* consumers, with a rate of acquisition that outstrips that of the so-called West or North, that in appetites (e.g. for communications gadgets, automobiles, travel, living spaces) greatly expands the breadth of materials and energy consumed, and in sheer volume is a multiple several times that of the demographic number itself.

This brings to mind what Rees has called the “appropriate scale of the economy” (Rees, 1991).

“ neoclassical analysis has traditionally considered the economy to be independent of, and materially indifferent to, the functional state of the ecosphere. With no perceived limits, we are free to degrade the environment indefinitely without any additional penalty if we chose to do so for material gain. ”

(Rees, 1991; p. 1325).

With an economy independent of nature it has unlimited potential to expand. Therefore, macroeconomic theory is devoid of information, yet alone guidance on the appropriate scale for our economy. He and others forcefully remind us that the realities of the laws of thermodynamics mean that increased consumption relentlessly moves us toward a state of entropy, and the increased inability of the pillaged ecosystem to organize itself for work, thereby undercutting the very life lines upon which we depend. Additionally, we are reminded that material economic production is in effect consumption. The Economics epistemology upon which we have largely built Western society over the last three centuries, and upon which the entire modernization (and globalization) project is built (e.g. Hettne, 1996; McMichael, 2004, 2010), is found to be not only partial and incomplete, but actually erroneous (e.g. Ekins, 1986; Daly and Cobb, Jr. 1989; Hamilton, 2010).

To “get real”, and I might add to stay, we desperately need to jettison the pernicious falsity that the amount of our ecological capital that we can consume (as both sources and

sinks) is only a matter of personal, corporate and social choice. A choice that might be guided and manifested, for example, through market prices, or consumer preferences, or priorities as set out in a government's policy options. It is not. The ecosphere within which our economies are embedded (in a totally dependent relationship) sets the limits in terms of scale, rate of change, 'resource' consumption, absorptive capacity, resilience and regeneration, and all others.

If we insert into the demographic possibilities outlined above various assumptions about the rate, the type and quantity of what have often been called techno-fixes (e.g. enhanced waste sinks, higher productivity in resource extraction, use and reuse, smarter robotics, advanced neuroceuticals, applied bio-engineering), we can arrive at various scenarios depicting a possible slowing in the rate of divergence between what we have to work with (i.e. the planet and our solar energy flow) and what we are permanently extracting from these life lines. Human creativity, ingenuity and entrepreneurship have and will combine to help us get more and to do more with less. But they never have and they never will supplant the fixed realities of an essentially finite Earth, and a relatively consistent rate of energy supply from our Sun.

Even leaving aside the debate surrounding the human contribution to the scale and rate of climate change, and the manifold repercussions of this in terms of living spaces, foodlands, oceanic and other food chains and numerous other outcomes, there is an overwhelming body of evidence regarding the breadth, depth and intensity of the human footprint on the planet's environment. From extensive coastal ecological dead zones, millions of hectares of sterile soils, the decimated remnants of forests, essentially unusable water bodies (rivers, lakes), the virtual extinction of wetlands in many parts of the world, a litany of extinct animal and plant species, garbage islands afloat in the oceans, a massive and rapid decline in the oceans' phytoplankton, an apparently unstoppable urban consumption of fertile lands, the proliferation of smog suffocated air-sheds, a growing body of evidence of the prevalence of nutrition depleted foods and indeed the poisoning of many commercial "foods", and numerous other signals cumulatively point to our growing and all pervasive global ecological footprint (e.g. Wackernagel and Rees, 1996.).

All of this brings us to what I have called the factor of *actor elasticity*. By this I mean our capacity to change; but not just our capacity or our abilities to change over time, but our willingness to change. We can now look back at least three-quarters of a century to find the earlier formal signals on the degree to which we were getting out of step with our life sources. Have we learned anything?

For example, have we learned from Leopold (Leopold, 1949)? Have Carson's admonitions registered (Carson, 1972)? Have we paid any material attention to Schumacher's insights, arguments and practical advice (Schumacher, 1973)? Have Daly's authoritative perspectives on Economics and a finite planet been understood (1977)? Have Henderson's cautions and challenges been understood (Henderson, 1978)? Has the *Blueprint for Survival* impacted our appreciation of our place in the environment (IUCN, 1980)? Have we taken Brundtland and colleagues' challenges seriously

(Brundtland, 1987)? Or have Daly and Cobb's well argued reconnection of ecology and economics materially affected our understandings and behaviour (1989)? Have the communications from the multiplicity of conferences and similar events over the last three decades (e.g. Rio de Janeiro, Stockholm, Cairo, Montreal, Kyoto, Copenhagen, Durban) found our ears?

There has certainly been a flood of publications, research funds and organizations, institute and centres, governmental initiatives, academic appointments, public manifestos, riots and legal repercussions, pronouncements, exhortations and formal accords, social action groups, and many other developments. Some might suggest that whole new economic, political and even social sectors have emerged as a result of the growing awareness of the issues here. So we now have numerous Green Parties, a vibrant "green" industries sector in most economies, a cohort of new consulting and communications services, our own *National Roundtable on the Environment and the Economy* (<http://www.nrtee-trnee.com>), a proliferation of television, radio and other media programmes and series, a variety of advocates, protagonists and devoted activists, and many other developments associated with these events and episodes. But have we listened? Have we heard? And more to the point, have we acted upon the mounting evidence?

My conclusion is that we really have not heard, and of the little that we have allowed to penetrate our consciousness, and even seep into our conscience, we have filtered further and minimized the translation of this residual awareness into action. Behavioural modification has been miniscule. Even where the transformation imperative has been formally and candidly addressed (e.g. Raskin, et al, 1998) the discussion is too often at the level of policy and institutional change, and not in the minds and hearts of human agents, within which any sustainable solutions might lie. Relative to the stakes at hand, the behavioural shift really has been minute. And relative to the time available to us, it has been something short of tragic, however perplexing.

As I have suggested, the time variable is the lynchpin here, and that is why I use the term "actor elasticity". If it is true that about 25% of the global population now consumes approximately 75% of the world's resources to satiate its appetites and prop up its chosen lifestyle, and if the imperatives of market capitalism and the associated culture of consumerism and material gluttony propel the remainder of the world's population (i.e. the other 75%) toward our rates and profiles of consumption (i.e. of 75% of the globe's resources), we have in effect a non-starter. The arithmetic, a four year old would quickly caution us, does not work. But that is where we are going, and by all accounts accelerating. The prospect of a structural or systemic course correction for this drift in the foreseeable future, that would in effect approximate a u-turn, cannot in all honesty be considered a likely outcome. The momentum for all intents and purposes is irreversible. The probabilities of a rapid re-engineering of what has become in effect a cultural DNA of consumerism, material gluttony and notably misplaced self-actualization (Douglas, 1996), are very remote.

However, every argument has at least two sides. This argument has several. On one other side of this argument there is ample evidence of all sorts of changes in our behaviours over the last several decades. These are manifested in a variety of initiatives ranging from the adoption of so-called “blue boxes”, demands for ethanol additives to gasoline, the proportion of recycled newsprint into the daily newspapers, greater interests in organic agriculture and local food systems, the energy retrofitting of houses, home composting, voter challenges to conventional landfill practices, a more vociferous bicycle constituency, support for replacing the gasoline-based automotive, interests in wind power, light bulb replacement and discomfort with our dependence on some plastic products, to more environmental education in elementary and high schools, changes in constituency priorities, candidates profiles and voting patterns, challenges to the mining, oil and gas, forestry and related industrial sectors, audience participation in environment related initiatives in the arts and media, and a variety of other societal developments.

So there is indeed much to suggest that the perplexing question of us in and of our environment, and the imperatives of securing a more sustainable relationship have been asked, or at least addressed. My thesis here is that this is really *not* the case, or at least not in a manner that suggests any structural or systemic change in our behaviours. This is supported by a review of Canada’s performance since the Rio Conference of 1992 (Runnals and Bregha, 2002). Notwithstanding some impressive initiatives (e.g. Convention on Biological Diversity, 1992) the authors conclude that -

“Nor have the decision-making changes made to date altered appreciably our resource- and energy-intensive lifestyle even though these impose unsustainable environmental costs over the long term.”

(Ibid., 64).

And it is not in any way a partisan censure to observe that the present Federal government in Canada has unequivocally determined that there is (a) an economy/environment dichotomy, and that a choice for one over the other has to be made, (b) that Canada’s climate change related policies will be subservient to those of American ideological preferences, and (c) when others such as China or India do something about greenhouse gas emissions, Canada might join the initiative. We can conclude, therefore, that systemic behavioural change, at least from this influential source, is not in sight.

I posit that the critical factor of actor elasticity has proven to be deficient. And this is the root cause of our dilemma, and the principal cause behind the impending cessation of our short tenure. It is analogous to and directly related to Homer-Dixon’s depiction of humankind’s dilemma where we cannot (apparently) live without growth, but cannot survive with it. So we find ourselves “in a box” (Homer-Dixon, 2011).

Notwithstanding the myriad flickers of hope-filled, courageous, creative and at times inspiring human initiatives around our globe, (a) most are late, (b) generally they are small, largely unconnected and lacking in synergistic effect, (c) for too many, they are tentative, reluctant and often symbolic or largely therapeutic in nature, (d) they are and

will continue to be overwhelmed by the multiplicative flood of continuing population growth, a burgeoning and avaricious middle-class, and little change in our culture of mass consumerism, (e) they are paralleled by an even more reluctant and unconscionably fear-filled foot-dragging in public policy, and (f) they are essentially smothered by the, possibly criminal, imperatives of corporate driven market capitalism.

Thus I argue that logically the prospects for the continuation of our tenure on Earth are poor.

CHICKEN LITTLE RE-VISITED?

Ah! It might be said, yet another Chicken Little forecasting impending doom and catastrophe. Have we not heard this before? And we are still here, with more technological wonders, better medicines, more fuel efficient transport, more GMO-based bountiful harvests, stricter building and land use policies and regulations, greater awareness of healthy and secure foods, steady advances in energy efficiencies and alternatives, heightened political receptivity to environmental issues, and so on. Not the least, there is now at least another billion of us on the planet!

Did not the *Club of Rome* (e.g. Meadows, et al. 1972) and numerous other so-called science-based organizations and their vaunted gurus foretell of oil shortages, pollution nightmares and other impending hazards and limits on the human journey? Again, we are still here. Material wealth has not only increased, and we are not only much more efficient at drawing upon our fossil fuel, water and other sources of life and livelihood, but our (i.e. the so-called developed countries) high consuming numbers have also increased, and something like another billion middle and upper income consumers are well on their way to joining us in partaking of this success. Humanity is blessed with endless creativity, entrepreneurship, resilience, adaptability and surely is the least likely species to willingly “shoot itself in the foot”. Yes? Maybe, but one is caught between receiving this as either yet another mantra of the Promethean species with all the attendant self-aggrandizement, ignorance, blindness, and insatiable spoilage of the Earth, or perhaps as a sincere and wrenching *cri de coeur*, a plea for hope and faith in the eventual wisdom of our species. Please let us stay; let us learn our way to stay! We are smart, and we can do it.

Do we still need more evidence that we actually do live off finite stocks of resources and a relatively fixed flow of energy? The *International Energy Agency* has now credibly confirmed that conventional oil production did in fact peak in 2006, and we are now increasingly depended on the, also finite and far more expensive unconventional stocks (e.g. Artic, deep ocean, tar sands). Current food inventories remind us of production, as well as distribution, limits here. Without irresponsible hyperbole, most credible sources agree that the available food sources from fish stocks have been greatly reduced and we really are consuming beyond systems resilience capabilities. And so on. From time to time we live with some histrionic exaggerations, and less than credible dramatizations of our precarious condition. But we can no longer deny the fundamental divergence between

our way of being in the world, and what the world can provide in terms of sustenance for us, and for our successors.

Recently the thesis of “peak consumption” has been aired (Goodall, 2011). It is suggested that in mature developed economies, such as the U.K., there is emerging a decoupling of economic growth, as measured by GDP, and total resources and materials consumption. Using recent statistics a total materials index (TMR) is computed to postulate a divergence between economic growth and the consumption of a range of resources and materials (e.g. cement, water, fertilizer, automobiles). The causal and correlation dimensions of this radical challenge to conventional Economics are of course taken to task on a variety of fronts, such as the continuing growth in greenhouse gas emissions, the short term nature of the data, the offshore production of most of the U.K.’s consumer and intermediate goods, the aging of the population, and the increased economic inequality in the U.K. (Monbiot, 2011). But regardless of the outcomes of this new and refreshing debate, the slowing down of aggregate consumption in some so-called developed economies does little to slow down the cascading and cumulative expansion of material consumption that is in full flight in a large part of the other 75% or more of our world.

An Antidote to our Anthropocentrism

It is only human to say, o.k., we *can* make it. We can find our way to stay here, and extend our brief tenure. But before doing so it is worth tempering our understandable hopes and expectations with some reflection on where we actually fit into this Earth’s story. Depending on one’s sources it is estimated that we currently make up about 8% of all species here. Given the noise we have made, the rubbish we have generated, the landscapes and oceans we have irrevocably altered, the numerous other species we have sent packing, one might have thought that we made up 80% of the species.

So, we might want to cobble together a little modesty regarding our importance here, in the first place. Whose patch is this anyway? On top of this perspective we might remind ourselves that we were also one of the last to arrive. This also might temper our self-perception and our assumed inalienable rights of tenure. And if we do depart, will Gaia miss us? There is a reasonable expectation that she will notice; but will our departure leave a significant deficit in the welfare of the remainder - the waters, the forests, the air, the beetles, the mushrooms, the icecaps, the bacteria, the chipmunks, the grasslands, and the endless multiplicity of others? We can with some certainty, but perhaps not with much in compensating warmth, know that the viruses will miss us!

Home is Where the Heart and Hearth Are

Assuming we balance this tempering reflection with our ambitions to stay, and at least make an act of faith in our abilities and our willingness to be somewhat more benign tenants here, we might conclude, diametrically opposed to my opening premise here that not only do we wish to remain here, but we *can* actually achieve this. Somehow or other we can find our way to stay. For many, and perhaps most of us, we might add that the

venture to stay is intrinsically a worthwhile one, putatively feasible but quintessentially desirable. We may take as axiomatic or perhaps normative that we wish our successors all of the experiences of this wondrous Earth, and all its blessings. We may take it as humanely natural that we would not wish upon our grandchildren's grandchildren or any other generation the apocalyptic calamities of closure which would likely accompany our final days of tenure here. It is only human to wish and to want to extend our tenure - it is after all the only home we know. In my Gaelic - *Níl aon tinteán mar do thinteán féin.*

So how does rural Canada translate its human yearning to stay, into some new and transformative interventions that might nudge us away from the precipice, toward the feasible? Because if there is any substance in the time-trap argument that I have presented here, for all of us *time* never before was of such essence!

SUMMARY

This paper has argued that all credible evidence, however unwelcome and unpalatable it might be, points to an irreversible and now ineluctable termination of humankind's short and at times tumultuous tenure on this Earth. It argued that the internal logic of advanced market capitalism, now combined with an increasingly universal culture of mass material consumption, with its own misplaced premise of self-actualization through consumption, factored by a massive increase in the world's middle income consumers is exacerbating the deadly divergence between the Earth's ability to provide for us, and our relentless appetites which now consume it.

It is acknowledged that part or even most of this message of alarming prospects has been transmitted before, and indeed the last few years have been replete with a mixture of similar messages (e.g. *Alternatives*, 2008; Victor, 2008; Hamilton, 2010; Jackson et al, 2011). And there are those who believe we can extricate ourselves from the mess we continue to create (e.g. Turner, 2007; Flannery, 2010).

However, I have argued that first, the messages evidently have not been heard and second, *time* now really is of the essence, as it never was before. Thus, the pivotal thesis here is that there is little to suggest that we have the requisite actor elasticity, involving both the ability and especially the willingness to change within a very short and increasingly compressed time period, to renegotiate our stay with the rest of the natural systems, and their solar source.

I have argued here that the entire "next steps" discourse, as it relates to sustainable rural communities Canada, must now be couched in what most would regard as the uncomfortable prospects of demise. Hardly the cheery stuff which conventionally informs the culture of development planning! But, I would suggest that this is an honest stock taking of our prospects, and a plausible evidenced-based construct of a likely end state scenario.

Even though the received term "sustainable development" has evolved a permissive plasticity (e.g. Kates et al, 2005), which for some renders it meaningless or trite, the

question of our continuing presence on the planet and the quality of that presence is of great and widespread concern. And around this concern sanguinity and skepticism vie for position in politics, in the academy, in the economy, in the media, and in many other arenas in society. A responsible approach to rural community development policy and planning, and the longer term development of rural regions cannot ignore the structural inertia clearly evident in Canadian society, and in other societies. Likewise, it cannot wish away the systemic contradictions blatantly evident in our ways of being in the world.

Note:

Much of the inspiration for this paper has come from the critical and incisive questioning of the graduate students that I have had the privilege to work with since 1985, especially through the *Rural Planning and Development Theory* course at the School of Environmental Design and Rural Development, University of Guelph. I owe them my respect and sincere thanks. Additional inspiration and insights have come from the numerous rural communities that I and graduate students have worked with over the years through our diverse outreach projects, most recently Mayor Rick Masse and our colleagues in the Township and community of Pelee Island, in Lake Erie, Ontario. I extend my gratitude to each and all of them for their trust, collaboration and my continuing education.

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