

Sustainability

We joke about it – we *all know* the Western way of life is unsustainable (in some unclearly defined way)

Nothing new!

30 years ago Club of Rome (Limits to Growth)
and E.F. Schumacher (Small is Beautiful)

Yet we don't change:

1. Either we don't care, or
2. We don't really, fundamentally believe the statement to be true, or
3. We don't know what to change, and everything seems OK, so keep going.

What is unsustainable about our way of life? What is it that is in finite supply?

Fresh water	Oil, Gas	Concentrated forms of energy
Soil	Natural Ecosystem	Food
Carbon sinks	Heat sinks	Pollution / garbage sinks

For all of these land is a good proxy. You can use land to

grow food, generate energy, capture rainwater, clean pollution etc.

Your ecological footprint is essentially the amount of land that your lifestyle requires to sustain. Per capita, worldwide there is about 1.6 hectares of useful land per person.

Canadians need about three times that.

Thought experiment:

For each country in the world, work out two numbers:

1. Its UN development index (how are the people doing)
2. Its per-capita ecological footprint (how many resources are they using)

Imagine: how many countries exceed the UN devel. index and foot. < 1.6 hect?

One – Cuba, and only barely.

Worldwide, the human footprint exceeds the land area of the earth.

How is this possible? We're eating into the earth's capital.

In a biological setting, this is referred to as overshoot, beyond carrying capacity. Like cells in a Petri dish, multiplying exponentially, then collapsing in numbers.

So, the most fundamental question: Are humans smarter than yeast?

So, basically, the earth started us with a credit card with a large positive balance and modest income, but we're tearing through the balance towards zero, and the planet charges very hefty interest!

We are blowing the past balance, outspending the current income, and saddling the future with debt.

Past: ½ billion years of solar energy stored as fossil fuels

Present: humans use a huge fraction of all arable land and photosynth. energy

Future: we are laying decades / centuries of ecosystem burden

God granted us stewardship of creation.

We are doing a shoddy job.

God granted us intelligence and foresight.

So far we're tied with yeast in terms of the quality of long-range planning.

We need long-range planning on the interaction between the human population and the most critically limited things: currently oil, land, and carbon sinks.

There are, in fact, staggering barriers to long-range planning. In response to a question on energy limits and global warming, Dick Cheney stated that

The American Way of Life is Not Negotiable

How idiotic! How naive!

In the long run, when you negotiate with nature, nature *always* wins.

You shouldn't be worried about terrorists; you should be worried about physics:

The rules of physics (thermodynamics, climate), they don't negotiate.

First problem: the Western way of life is *premised* on cheap energy:

urban sprawl, highways, just-in-time delivery, globalized manufacturing
infrastructure is terribly expensive (and needs energy!) to rebuild

Next Problem: we went after the cheapest, easiest energy first. It only gets pricier.

Next Problem: each source of energy bootstrapped / built the infrastructure of the next
human -> animal -> wood -> coal -> oil -> gas / nuclear

If we use up easily accessible oil/gas before the next infrastructure is built – bad!

So why aren't we doing anything?

1. Huge vested interests in status quo (advertising / economic growth / blah blah ...)
2. Accountability is hard (people don't like being criticized when they plan to travel)
3. Personal worth and value are measured in relative terms (relative to others)
4. The tragedy of the commons
5. The mental devaluation of the future relative to the present
6. Short-term political cycles do not solve long-term problems well. People like “good news”
7. The problems are subtle, complex, long-term, and multidisciplinary.

If I'm talking about these issues, am I personally committed?

Household water consump. < 1/10 Wloo avg, less than UN basic min.

Energy consumption dropping every year

Buy only local fresh food, dry goods bought by the sack, do own food preserving

Cut way back on work travel for conferences – there is penalty / sacrifice in this

Walk to work, small house, no TV, no cell phone, no dishwasher, no blackberry,
no iPod, no Air Conditioning, go out to eat once every few months

But I'm no saint – I still have a mainstream job, and I benefit from the continuation of status quo. I still have work to do.

However I am so permeated, so utterly convinced of the unsustainability of the high-energy status-quo, that I see it as an anachronism, passé:

fancy cars, high-flying energy dependent careers, big houses, travel, expensive habits
anachronisms all! The appeal is gone for me.

What I value, what I see as timeless, are the skills and activities that thrive in a lower energy setting, something you can do, yourself, or share with others ...

financial derivative day-trading seems completely ridiculous in this light

Rather, music, art, poetry, conversation. Baking your own bread, cooking your own food, and sharing it with a community. *This*, is the future