

The Great Contradiction between sustainability and economics

Economic increase would be a good thing, if it weren't for its effects on the environment. Ross Garnaut

In this module we go through a set of diagrams to show the fundamental relationship between industrial production and environmental damage. We draw a powerful conclusion: environmental sustainability and increasing material production are incompatible. We may call this the Great Contradiction.

Clearly this is not a popular conclusion. Our economic system is predicated on continuous growth. But if growth is incompatible with sustainability it is crucial for us to come to terms with it.

3.1 The Great Contradiction

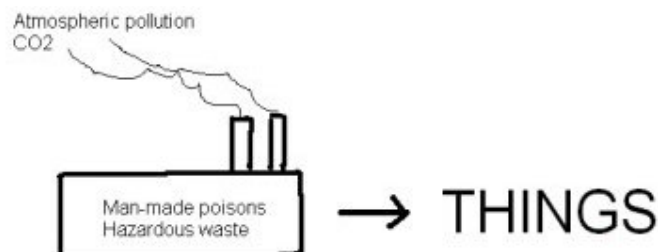
From the standpoint of producing goods for everybody, the last two centuries since the inception of the industrial revolution has been extraordinarily successful. But this production has consequences. We are going to chart out how it works. We start with THINGS.

→ THINGS

The manufactured things we use, of course, come from factories. These factories pollute in several ways.

The one we hear the most about is atmospheric CO₂ from producing the power to drive the factories. But we also produce masses of chemicals of all kinds. There is reason to think that the widespread use of toxic chemicals is increasing the amount of cancer in the population – one out of two men is expected to have cancer at some point – and also causing more and more young people to get cancer – something unheard of in the 1800s.

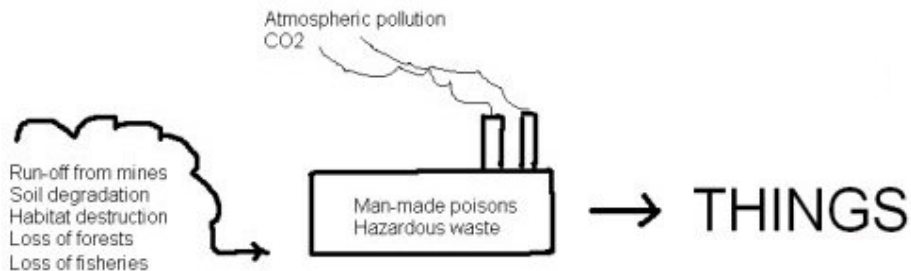
So we add industrial production to our diagram:



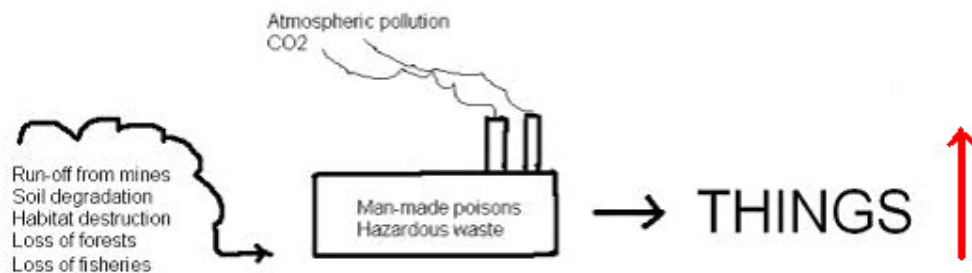
Generating the raw materials for the factories causes huge environmental degradation through strip mining, toxic run-offs from mining, deforestation (though some forest and plantations are managed sustainably), the release of lead and mercury into the environment, and the impending exhaustion of land through increased crop production for bio fuels.

This is not to suggest that we should not manufacture things. It is possible to redesign industry to use 90% less energy and material throughput. It is also possible to design out the toxic chemicals, or to dispense with them. Here we are pointing out how our system currently works, and it's consequences.

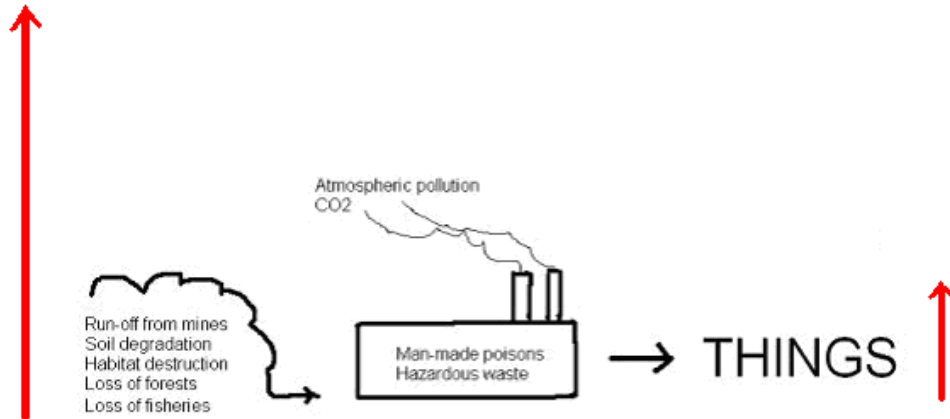
So we add the production of raw materials to our diagram.



As the production of things increases

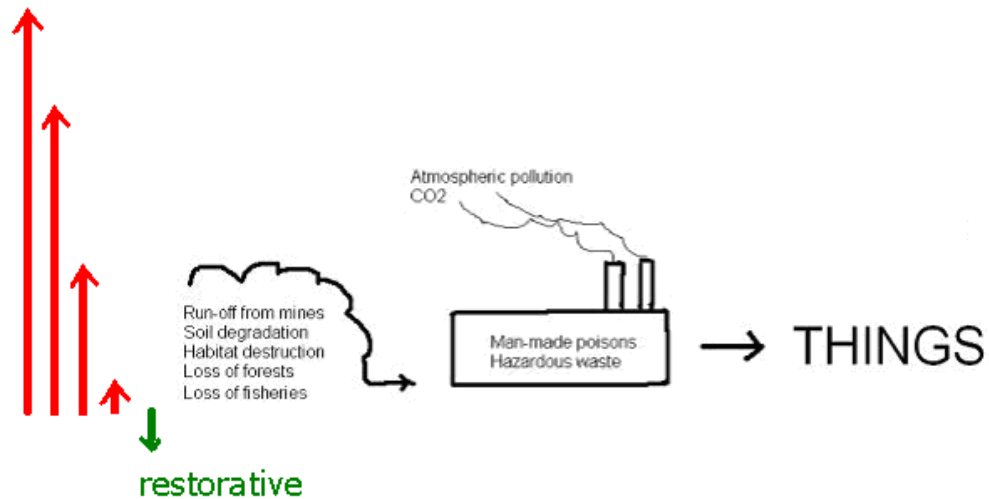


The associated environmental damage increases vastly more.



We saw earlier that environmental damage that accumulates is unsustainable. So if we let the left arrow represent *cumulative* environmental damage, to what extent must it fall if we are to become ecologically sustainable?

The answer is: it must fall to zero.



Currently our global economic system is set up to increase the production of things, and thus increase environmental damage.

So we have a contradiction between increasing the amount of global trade on the one hand, and sustaining the environment on the other. This is the **Great Contradiction**. Economic increase and sustainability are incompatible.

This is the defining physical dilemma of our time. Major environmental trends are worsening, and they are driven by material production.

3.2 There are several lines of solution that can be pursued simultaneously

Voluntarily live more materially modest lifestyles

This applies to those of us in the developed world. We all have basic needs that should be met. We can cut back on *excess* consumption – those things we buy that we do not necessarily need or even enjoy. Instead we should invest time and resources so that our inner lives and relationships become more pleasurable and satisfying.

Redesign our industrial processes and urban environment

Amory Lovins' *Natural Capitalism* gives proven design strategies with a multitude of practical examples that already reduce energy use and material throughput by 90% or more.

William McDonough's *Cradle To Cradle* shows how we can eliminate toxins.

Tax advertising

Advertising increases unnecessary desire. Allowing advertising as a tax-deductible business expense in effect means advertising is subsidised.

Refrain from developing more infrastructures that supports large scale importation of foreign goods

Infrastructure is another subsidy that supports global business at the expense of local economies

Reduce population.

The link here is obvious. The more people there are, the more pressure on the environment.

3.3 Coming to terms with the Great Contradiction

At the moment we are in severe overshoot, and the ecological damage associated with industrial production is increasing, not decreasing. Fossil fuel driven global warming is the most obvious example, and yet large industrialists are calling for more energy and more coal-fired power plants to frenetically increase production and consumption.

This is a good time to intentionally reduce consumption and embrace more materially modest lifestyles. Implicit in this is the hard-to-swallow-idea that we should tax advertising, reduce the amount of world trade and slow the global economy, while building up community resilience, personal satisfaction and local economies.

Some people argue that we can have continual growth; it is just a matter of what kind. Proper design can make growth non-toxic. In principle this may be true, but currently in the developed world growth is destructive.

We have talked about the Great Contradiction at a material level. Psychologically we are faced with a corresponding spiritual/psychological choice. Will we continue to operate our societies on dominator values in ways that increase wealth, oppression and environmental degradation? Or will we reorganise around partnership values to promote individual and social wellbeing, and our long-term survival?

The prospect of the economy slowing brings fear. Our competitive individualistic society is not organised for community support.

We can imagine a more harmonious satisfying society on the far side of the great transition. Getting there will not be easy. Learning techniques such as Emotional Freedom Techniques (EFT) (see below) can help us be somewhat more centred going through economic stress.