



James Greyson
BlindSpot Think Tank

From credit crunch to planet crunch - or revival?

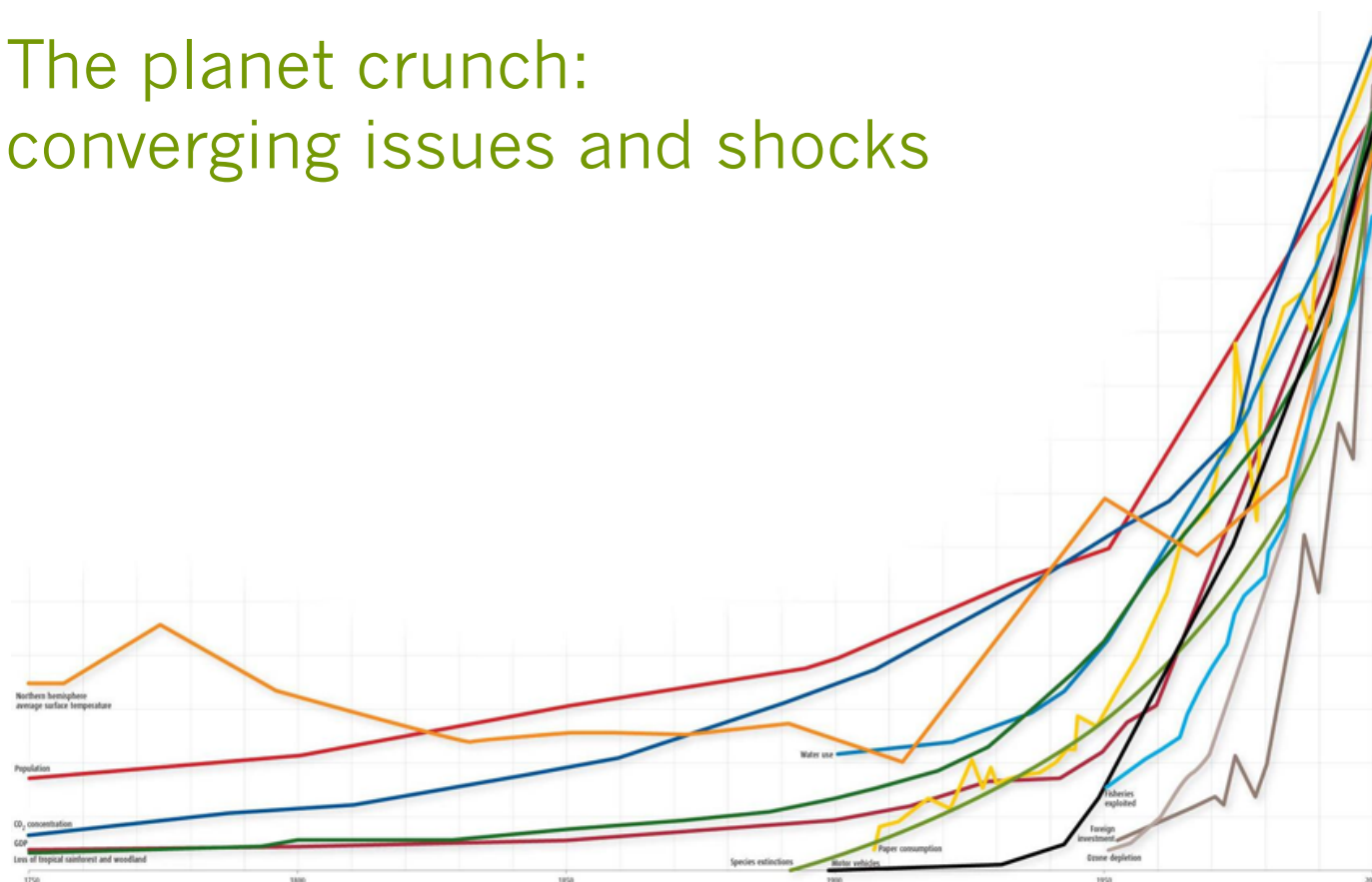


BlindSpot is a think-tank

United Nations Climate Neutral Network
NATO Advanced Research Workshops
UK Sustainable Development Panel
Talks, research and advice

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The planet crunch: converging issues and shocks



Some of the trends: loss of forest, CO₂ concentration, species extinctions, motor vehicles, ozone depletion, water use, paper use, Northern hemisphere average temperature, population, global real GDP. 1750-2000

New Scientist magazine, 16 October 2008, page 40-41

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No global problems have been resolved

“Political efforts to curb pollution, protect forests and avert climate change have proven totally inadequate.”

Achim Steiner
UNEP executive director, Oct 2008

Methane from thawing permafrost in Siberia

[http://www.sciencedaily.com/releases/
2007/10/071025174618.htm](http://www.sciencedaily.com/releases/2007/10/071025174618.htm)

Image: Sergey Zimov

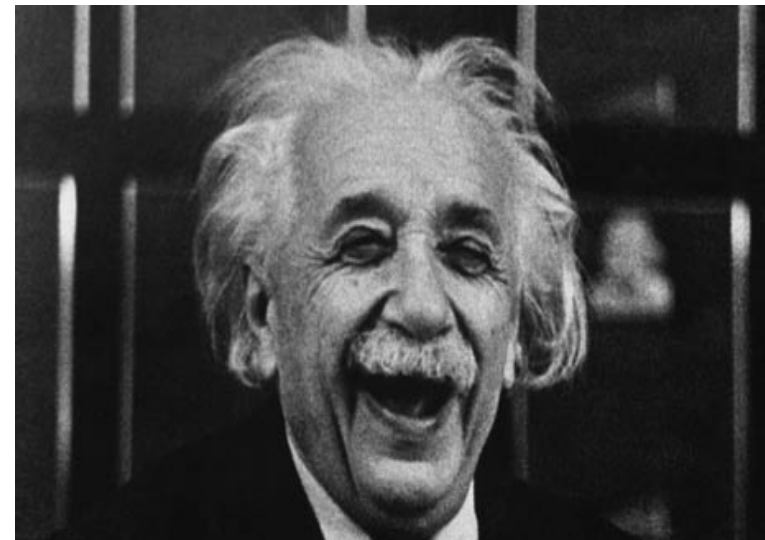


Why does it seem so hard?



John Cole <http://emedia.thetimes-tribune.com>

You can't solve today's problems with the same thinking that causes them



The planet crunch vs real progress



“Throughout our history, the deal was we left the world in a slightly better place than we found it. That was progress. The wheel, the rule of law, penicillin. It was our covenant with our children and grandchildren.”

The Age of Stupid movie, 2009

There are 3 possible 'settings' for the economy
– one of them has been tried

“The science tells us that if we are serious about saving Earth, we must reshape our economy.”

New Scientist editorial, 16th October 2008

Should the economy be set up to slow the planet crunch, stop it or reverse it? The most ambitious option is also the most practical.

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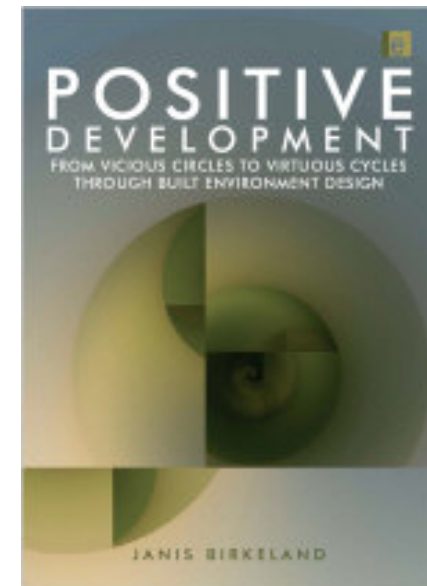
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Less bad is not good enough

“The view that negative impacts are an inevitable consequence of development has blinded us to the obvious. We could design development to increase the size, health and resilience of natural systems, while improving human health and life quality.”

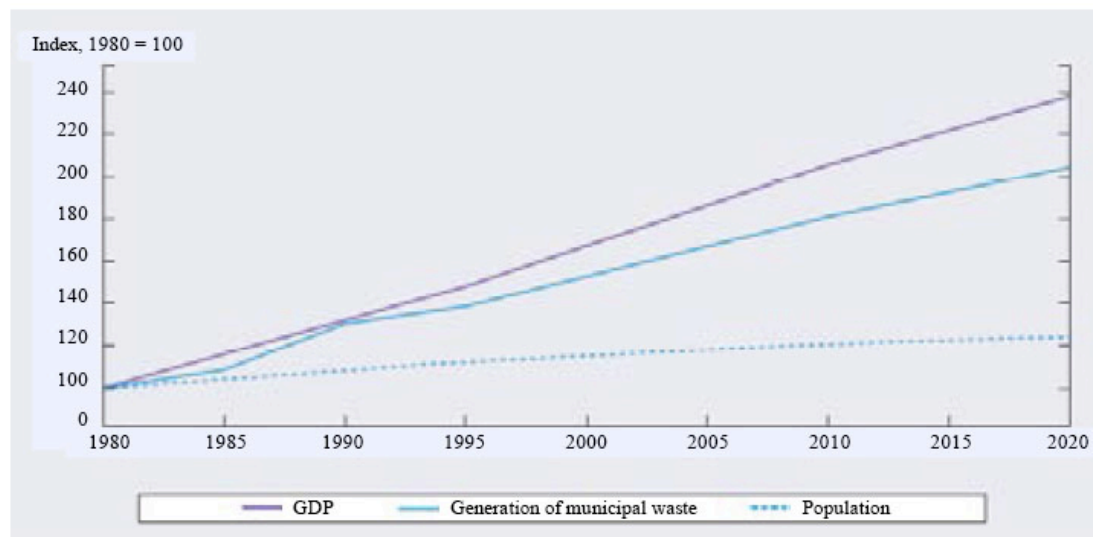
Janis Birkeland

Positive Development. Earthscan 2008
My proposed economic tool for positive development is on page 339



Waste = growth?

Municipal Waste Generation, GDP and Population in OECD Countries, 1980-2020



Source: OECD (2001) *OECD Environmental Outlook*.

“Total consumption of resources will continue to increase as a result of economic growth... The G8 will seek to reduce waste, reuse and recycle resources and products to the extent economically feasible.”

3R Action Plan Adopted at the G8 Sea Island Summit, June 10 2004

Growth = consumption?

“Our enormously productive economy demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction in consumption patterns. We need things consumed, burned up, replaced and discarded at an ever accelerating rate.”

Victor Lebow

Retail analyst, writing in 1955

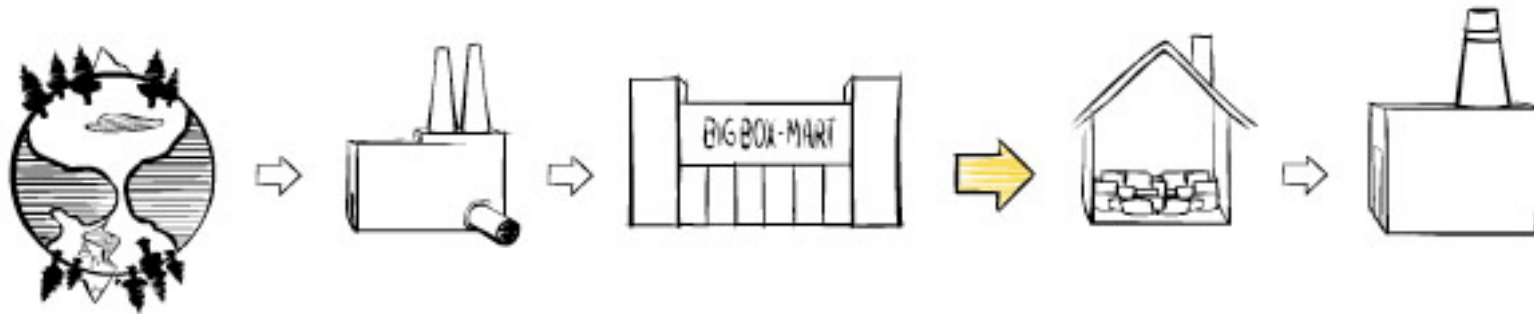
‘Price Competition in 1955’, Journal of Retailing. USA, Spring 1955. Page 7

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What shape is the economy in?



It's the end of the line
for linear growth.
The future for growth is
circular economics.



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Different language for the same strategy

Kenneth Boulding, 1966. Cowboy economy vs spaceman economy.

United Nations ZERI, 1994. Zero emissions, “All waste is to be converted into value-added ingredients”.

Japan, 2000. Fundamental Law for Establishing a Sound Material-Cycle Society.

Bill McDonough and Michael Braungart, 2002. Cradle to Cradle: Remaking the Way We Make Things.

China National Plan, 2006. “It is an urgent strategic task for China to vigorously develop the circular economy.”

Scarce energy or scarce resources?



- Sunshine arrives free of charge at 14400 times the rate of global primary energy consumption

William Shepherd, Energy Studies. Imperial College Press, 2003, page 31

- New matter doesn't arrive at all, so waste means shrinking resources and lost wealth.

The 'wasteberg' of lost energy and resources



1 tonne MSW represents...

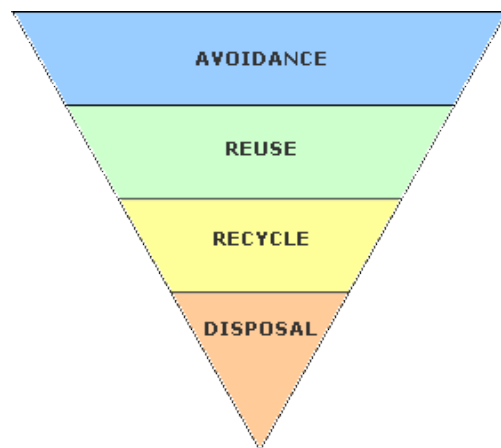
- Recoverable energy ~ 3500Mj
- Hidden (embodied/replacement) energy ~ 30000Mj
- Hidden (upstream) waste ~ 70t + waste to air and water
- Hidden costs = poor soil, toxics exploitation, nature, jobs lost...

Image: City of San Francisco. Figures: www.stepsforward.org.uk, The Next Efficiency Revolution: Creating a Sustainable Materials Economy by J Young and A Sachs. Worldwatch Institute (1994), p 13

Fixing the waste hierarchy



Failed: waste disposal is perpetuated by catering for it. 'Progress' means moving away from landfill.



Fixed: waste disposal is phased out by shifting incentives to the top. Progress means rapidly phasing out dumping of wastes to land, water or air.

Precycling: circular economics in practice

Precycling is the activity needed to create a resource 'cycling' or circular economy and to ensure that products can take part instead of adding to wastes in ecosystems.



Image: Publicity by Berkeley City, California in 1989
www.ororkepr.com

“The U.S. Environmental Protection Agency (EPA) cites precycling as the preferred method of integrated solid-waste management. Trash is eliminated before it is created.”

TEACHING THE CONCEPT OF PRECYCLING,
Gillilan, Sheryl; Werner, Carol M., Journal of
Environmental Education, Fall 1996, Vol. 28:1

Insurance is a more powerful economic tool than taxes or capping

- Insurance avoids being financially wiped-out.
- Government's role is regulation and scrutiny, not to handle the funds nor prescribe what to do.
- Can work preventively, like early fire insurance.
- Can be obligatory, like car insurance.

Recycling insurance:

- In EU WEEE Directive
- Premiums fund recycling
- Cheaper if more recyclable
- Works for any product



‘Life insurance’ for products and the planet.
‘Revival insurance’ for business and the economy.

- Waste, toxics, pollution and GHG should no longer ‘managed’ at the end of the pipe, when it’s too late. Every physical product that we can buy should be insured to account for the risk of adding to waste levels in ecosystems.
- ‘Precycling insurance’ for all products, large and small, could phase out waste-dependence everywhere in a few years. A revival of the economy, ecosystems and co-operation would become viable.
- Premiums would be paid according to ‘waste risk’. Premiums would be invested to cut waste risk by supporting precycling, building technical, social and ecological capacity.
- Producers could choose how to handle their responsibility. Cut their premiums by precycling or not bother and pay more to support precycling elsewhere. Customers and investors could choose.

"From our perspective, waste doesn't need to exist, it's a design flaw."

Jared Blumenfeld

Director of San Francisco Environment (City Council Department)

"The old system created waste from wealth, now we need to create wealth from waste."

Robin Murray

speaking about his report: Creating Wealth from Waste. Demos, 1999c

"The difficulty lies not in the new ideas, but in escaping the old ones."

John Maynard Keynes

The General Theory of Employment, Interest and Money, 1935

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Final slide: 19

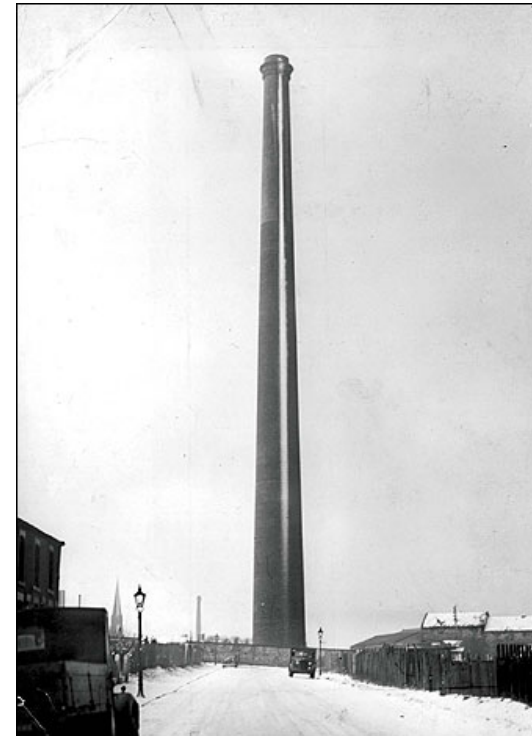
“...the material may be destroyed by fire.”

- First ‘destructor’ built in 1873 in Manchester.
- “Well-constructed and properly-worked plants of this type should give rise to no nuisance, and may be located in populous neighbourhoods without danger to the public health or comfort.”

www.1911encyclopedia.org/Destructors

Image: BBC, Audley destructor in Blackburn, Lancashire

After more than 100 years, ‘waste management’ has still not yet grasped the law of conservation of matter.
Oops!

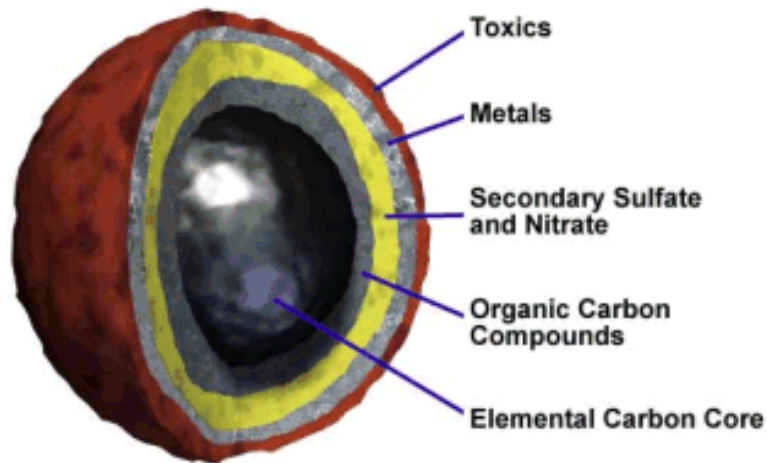


Incinerators turn waste into more waste!

Burning 1t RDF makes 1.91t waste ash, CO₂, CO, NO_x, exotic pollutants and contaminated water vapour

www.biffa.co.uk/files/pdfs/MassBalance_Thermowaste.pdf Page 19

Many new toxicological pathways



Vast quantities of fine particulates with “considerable lethal potential”

The Health Effects of Waste Incinerators, June 2008
Dr Jeremy Thompson and Dr Honor Anthony
www.ecomed.org.uk/pub_waste.php

Image: Clean Air Task Force www.catf.us