




The Garnaut Review and Australia's Response to Climate Change,
Monty Pelican Society, 8/10/08



Centre for Energy and
Environmental Markets




UNSW
THE UNIVERSITY OF NEW SOUTH WALES




The Garnaut Review & the Energy Sector

Hugh Outhred, UNSW
Monty Pelican Society Forum, 8/10/08

www.ceem.unsw.edu.au



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Martin Luther King Jr (1968), *'Where do we go from here: chaos or community?'*

"Human progress is neither automatic nor inevitable. We are faced now with the fact that tomorrow is today. We are confronted with the fierce urgency of now."

"In this unfolding conundrum of life and history there is such a thing as being too late... We may cry out desperately for time to pause in her passage, but time is deaf to every plea and rushes on."


"Over the bleached bones and jumbled residues of numerous civilizations are written the pathetic words: Too late."

Interrelated threats to global human society (Collapse, Jared Diamond, 2005)

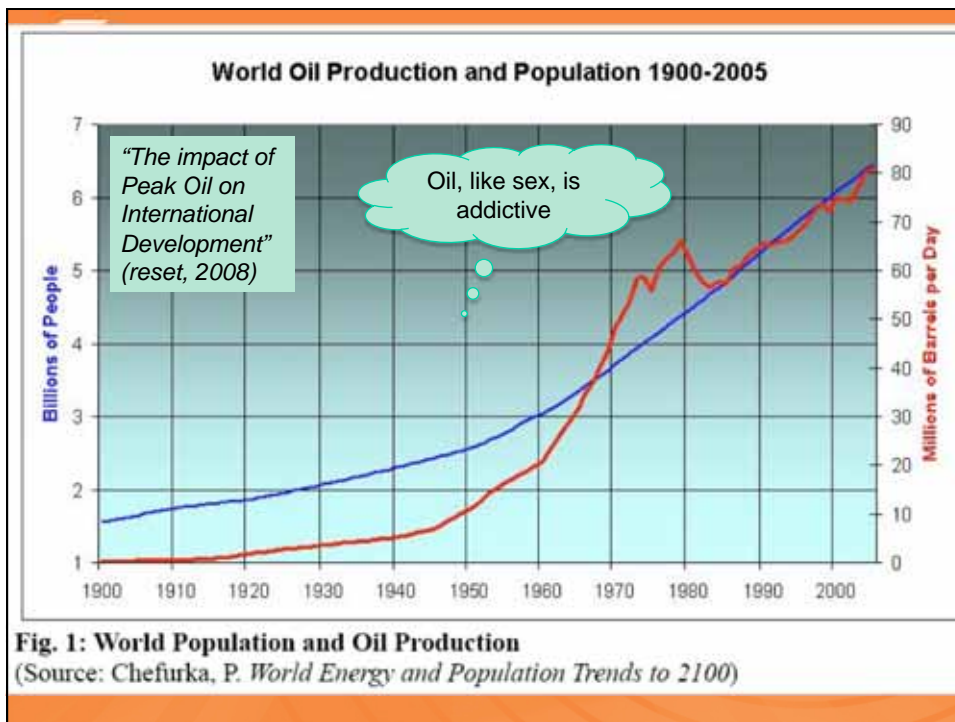
1. Destruction of natural habitats
2. Collapse of wild fish stock
3. Loss of biodiversity
4. Loss of soil quantity & quality
5. Fossil fuel flow constraints
6. Fresh water quantity & quality
7. Photosynthesis limits
8. Toxic chemicals
9. Introduced (alien) species
10. Climate change
11. Population growth
12. Per-capita human impact

Poor people in developing countries are most at risk

These threats require multi-dimensional, equity-based responses to avoid social collapse



Islamabad, Pakistan, Sept 08



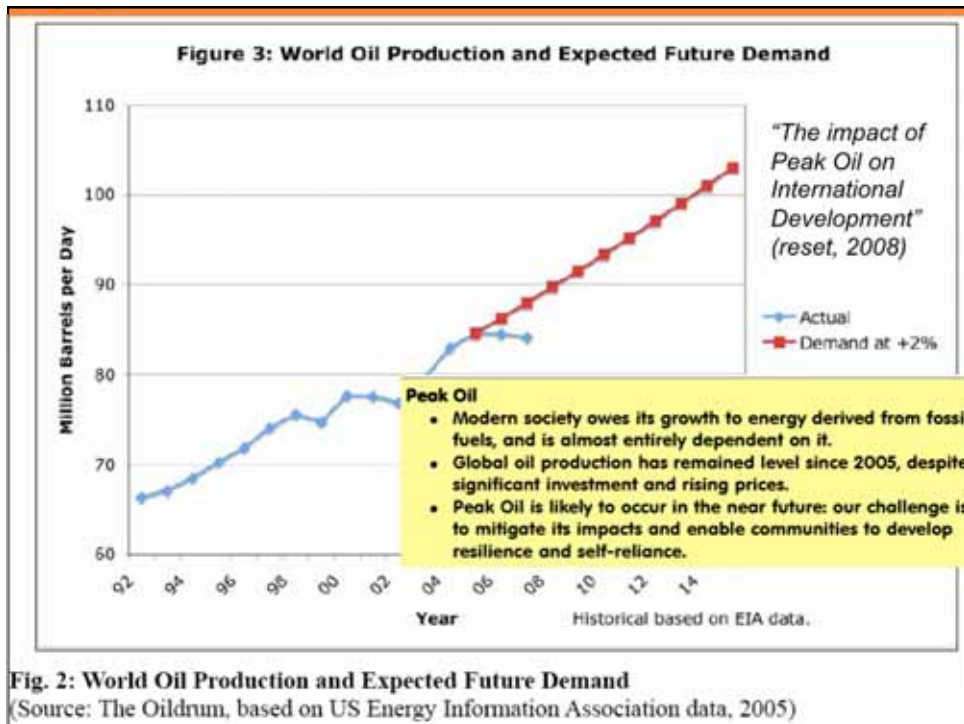
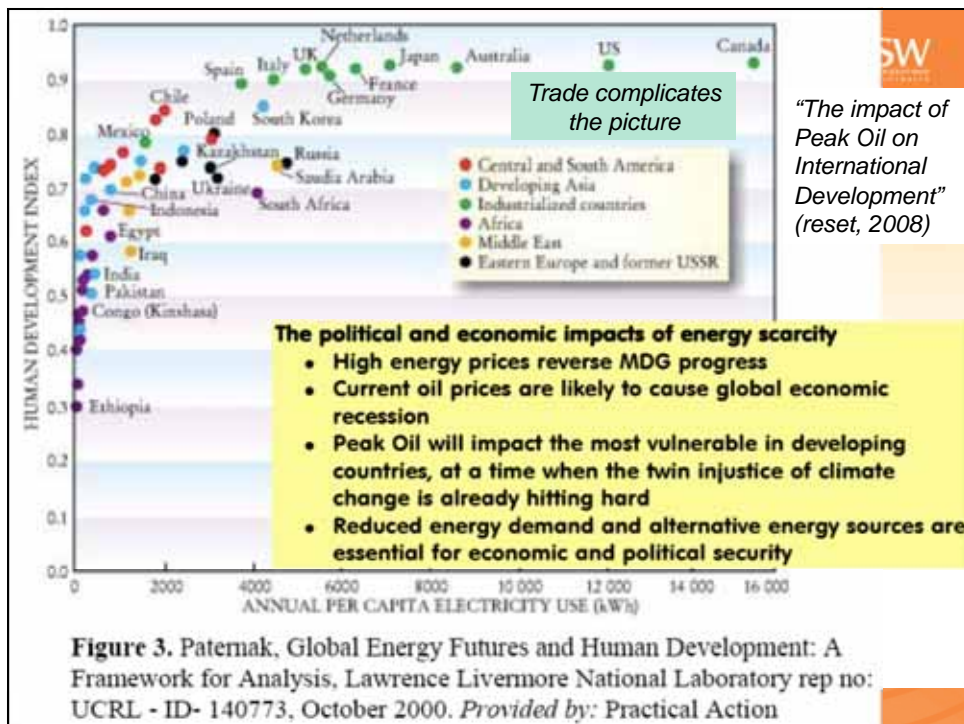
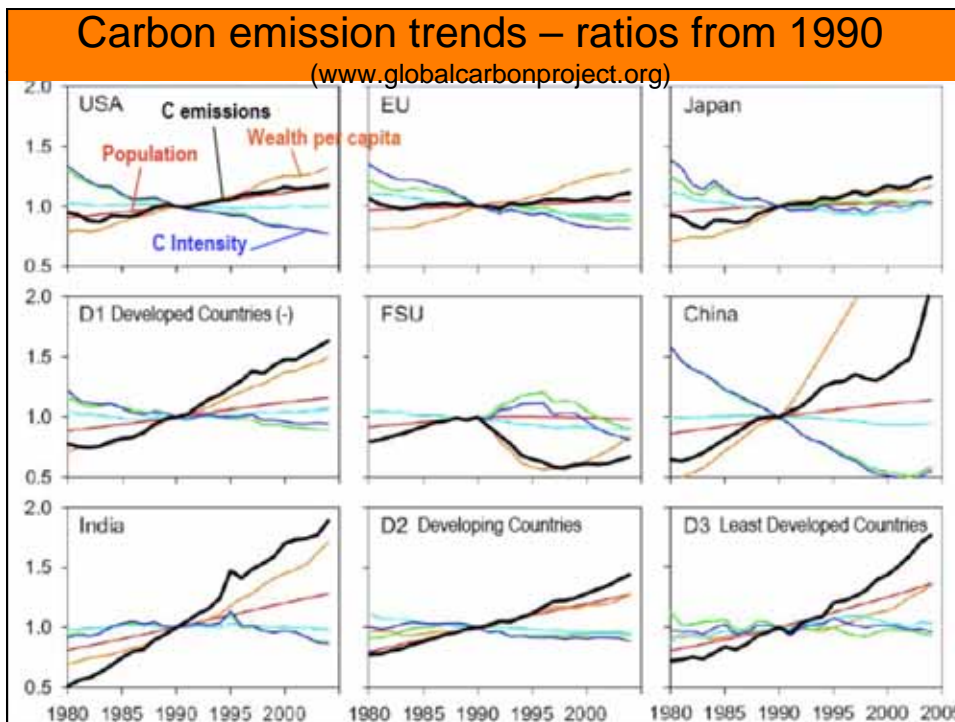
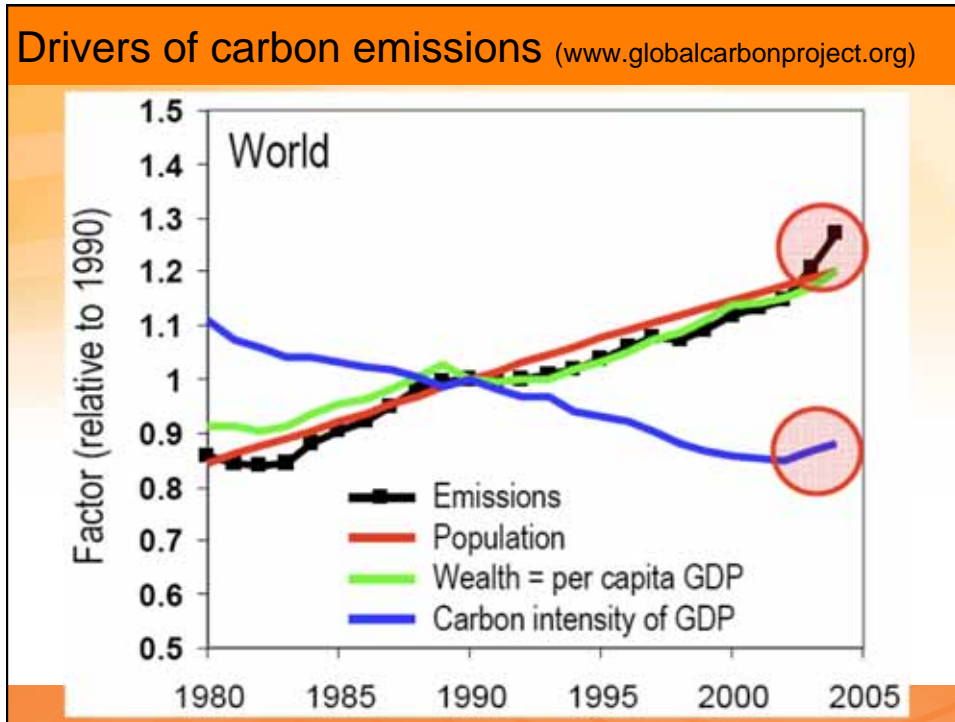
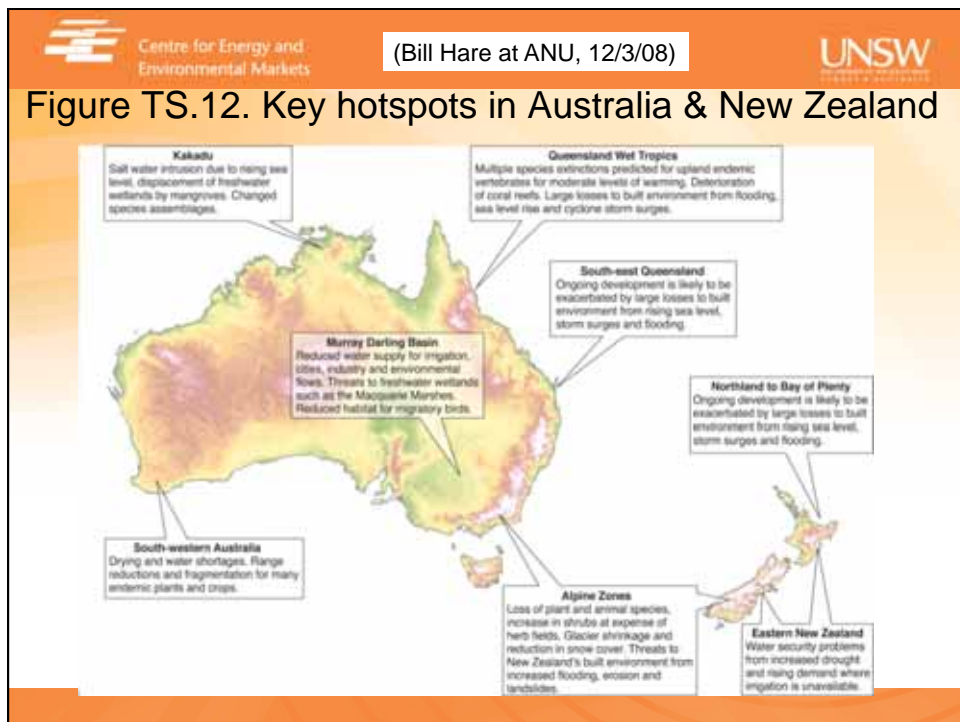
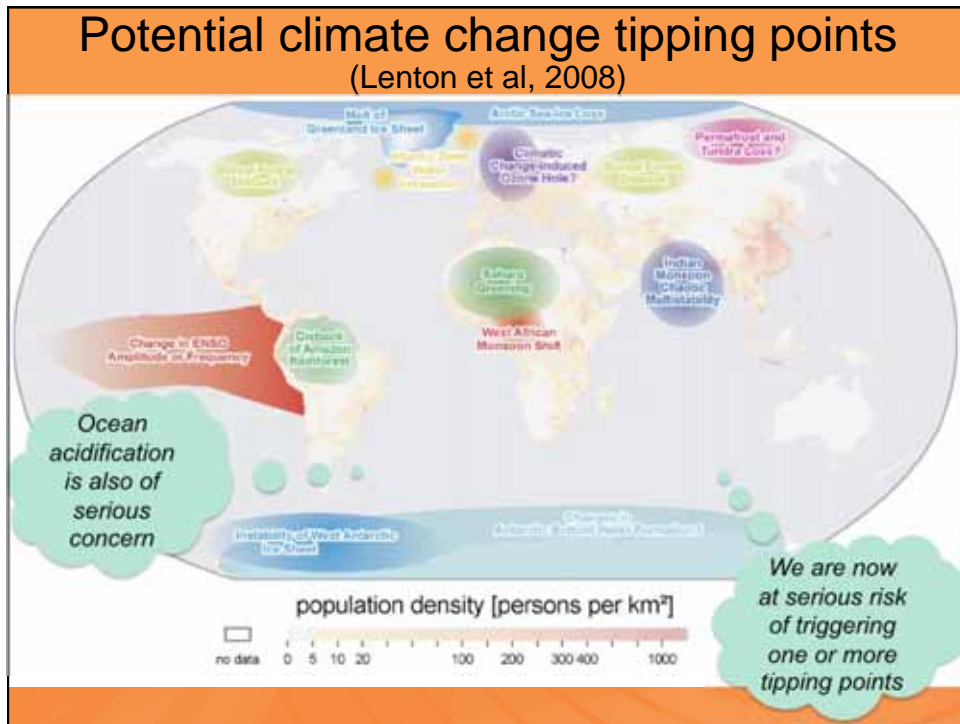
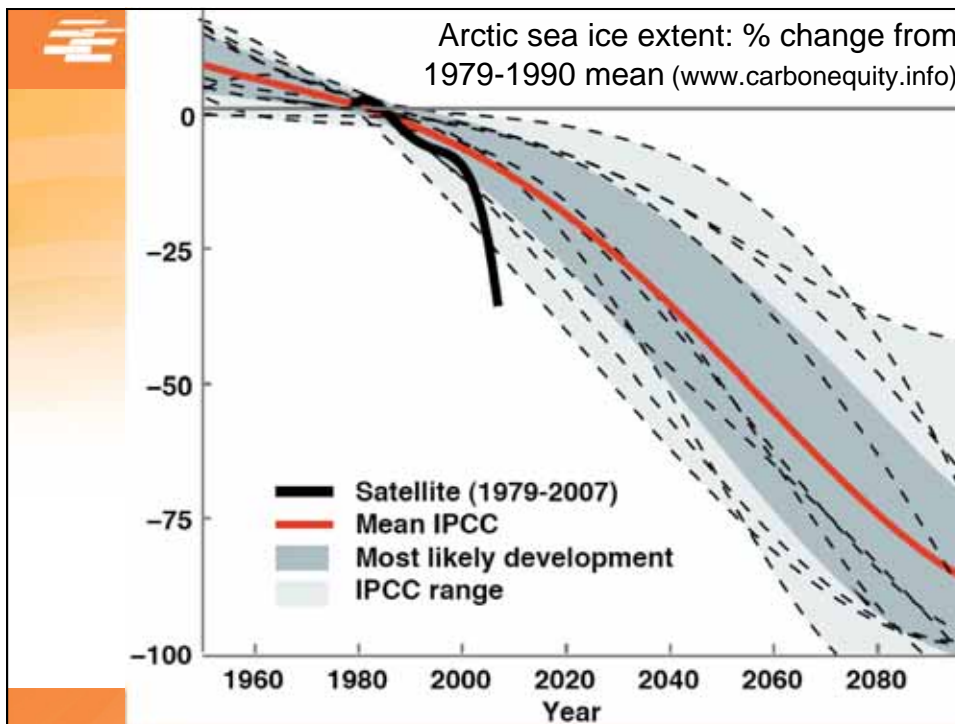
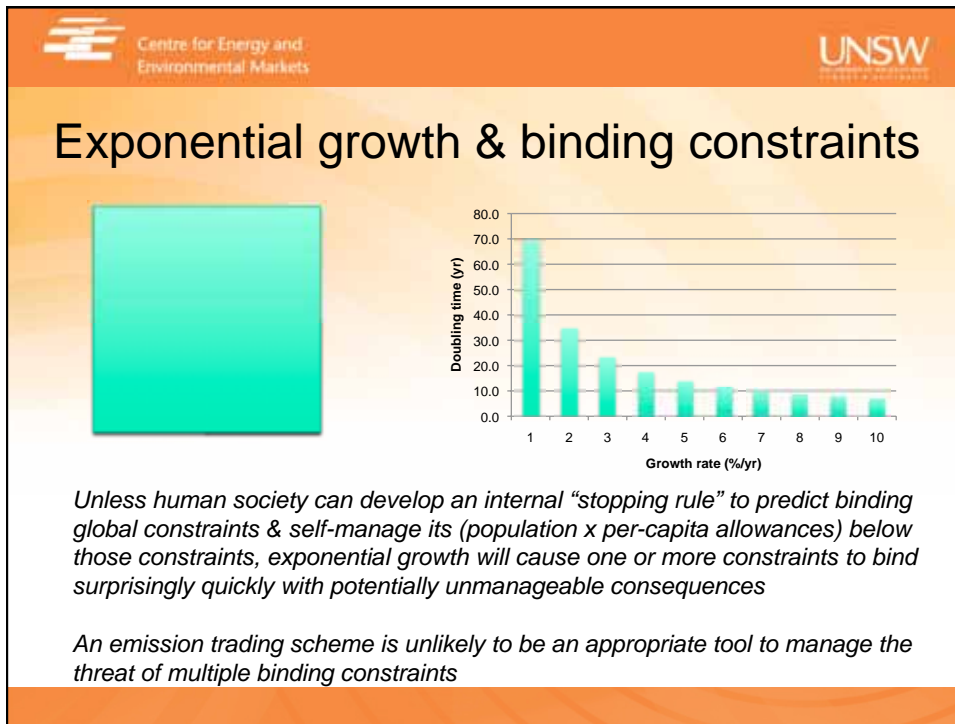


Fig. 2: World Oil Production and Expected Future Demand
 (Source: The Oildrum, based on US Energy Information Association data, 2005)











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*“The damage inflicted by global warming will be worse than all the floods, fires, earthquakes and tsunamis we have witnessed in our lifetime, yet we are not taking the emergency action that is necessary.
There is now a need to build political understanding that global warming and the tipping points for dangerous impacts that we have already crossed constitute a sustainability emergency.
We must take urgent, large-scale global action that takes us beyond the politics of failure-inducing compromise.” (David Spratt, ABC Opinion, 2/7/08)*

“The challenge is rapid transition of the economy to live within our environmental means while preserving and enhancing our general wellbeing” (Andrew Sims, “We have only 100 months to avoid irreversible environmental disaster”, The Guardian, 1/8/08)



Practical implications:

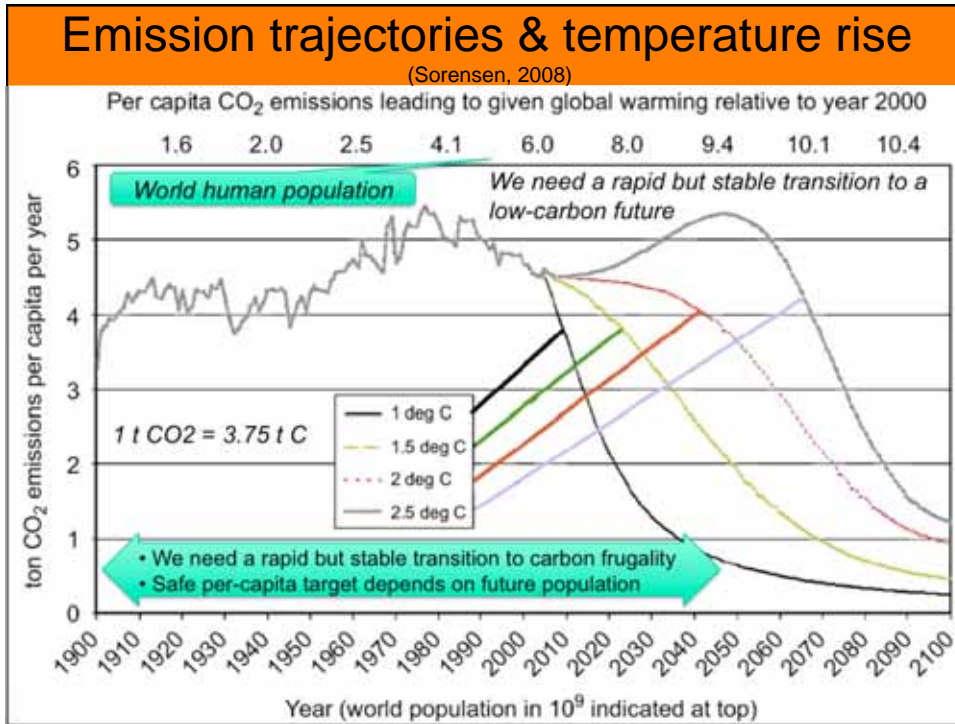
- If we don't exercise self-restraint, external constraints will bind. We need to implement an “internal stopping rule”.
- Our goal should be to achieve a prudent civil society but we are more likely to continue the addictions & alienations that are leading to social collapse.

See 01 28 2008
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(Human Development Report, UNDP, 2007-08: Table 1, Summary Report)	CO ₂ emissions per capita (t CO ₂)	Equivalent global CO ₂ emissions ^b (Gt CO ₂)	Equivalent number of sustainable carbon budgets ^c
	2004	2004	
World ^d	4.5	29	2
Australia	16.2	104	7
Canada	20.0	129	9
France	6.0	39	3
Germany	9.8	63	4
Italy	7.8	50	3
Japan	9.9	63	4
Netherlands	8.7	56	4
Spain	7.6	49	3
United Kingdom	9.8	63	4
United States	20.6	132	9

a. As measured in sustainable carbon budgets.
 b. Refers to global emissions if every country in the world emitted at the same per capita level as the specified country.
 c. Based on a sustainable emissions pathway of 14.5 Gt CO₂ per year. This may be too high
 d. Current global carbon footprint.



Emission trading is a form of orgware

What is technology?

(www.iiasa.ac.at)

Software & orgware are critical issues in complex technological systems such as an electricity industry

The Art of Knowing and Doing

The study of **technology** concerns *what* things are made and *how* things are made. Technology, from the Greek *science of (practical) arts*, has both a *material* and an *immaterial* aspect.

Technology = Hardware + Software + "Orgware"

Hardware: Manufactured objects (artifacts)

Software: Knowledge required to design, manufacture, and use technology hardware

"Orgware": Institutional settings and rules for the generation of technological knowledge and for the use of technologies

Technology's most important characteristic: **Continuous change >>**

What is the matter with markets #1?

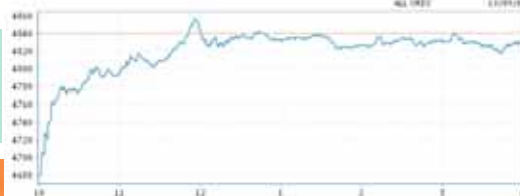
- “The Australian Securities and Investments Commission has announced that short selling of all stocks will not be allowed because it may have been causing unwarranted price fluctuations of stocks...”
- “CommSec's chief economist Craig James says the practice should have been banned years ago” (ABC News, 22/9/08)

Stock Price in Dollars NYSE Composite, 3/708-3/10/08



- Stocks have no physical spot market & so poor short term price discovery
- Stock prices are also strongly influenced by government policy & regulator action

ASX All Ords, 19/9/08



What is the matter with markets #2?

- “With the situation becoming more precarious by the day, I faced a choice – to step in with dramatic government action or to stand back and allow the irresponsible actions of some to undermine the financial security of all” (Bush, quoted by ABC, 25/9/08)
- “Decisions by the (Treasury) Secretary pursuant to the Authority of this Act (to spend \$700 billion) are non-reviewable and committed to Agency discretion, and may not be reviewed by any court of law or any administrative agency” (quotation from draft legislation in article by Michael West, SMH, 24/9/08)
- “Let us rebuild capitalism in which credit agencies are controlled and punished when necessary, where transparency ... replaces opaqueness. We can do this on one condition, that we all work together in our globalised world” (Sarkozy, 24/9/08)
- “The global financial crisis endangers all our world. Financing for development, social spending in rich nations and poor, the Millenium Development Goals” (Ban KiMoon quoted by Michael Rowland, ABC, 24/9/08)

What is the matter with markets #5?

Robert Skidelsky, "The Moral Vulnerability of Markets"
(www.project-syndicate.org)

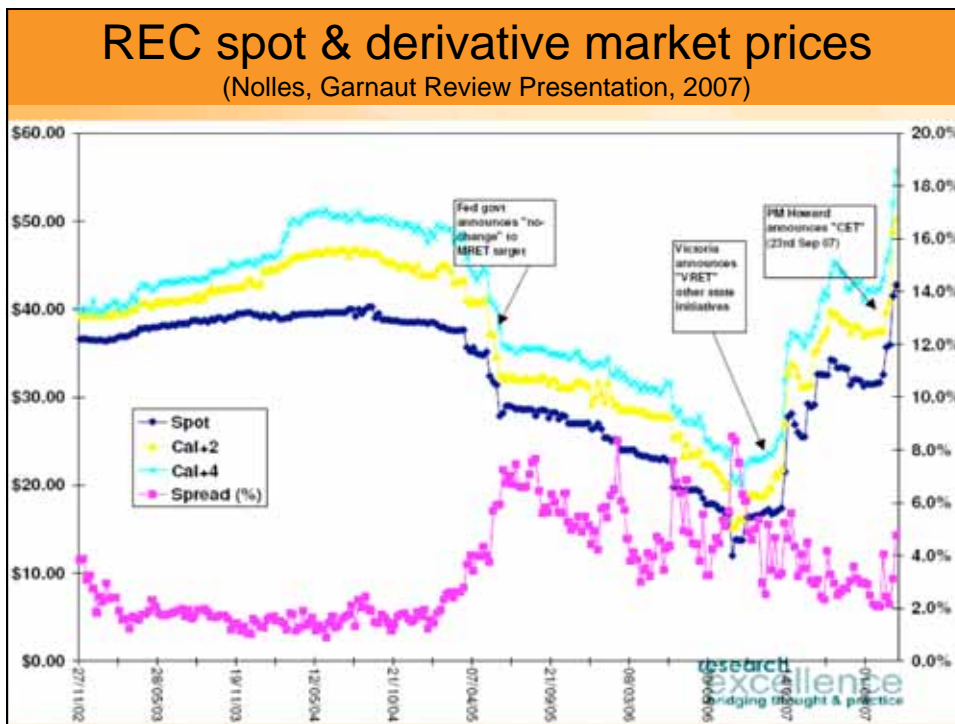
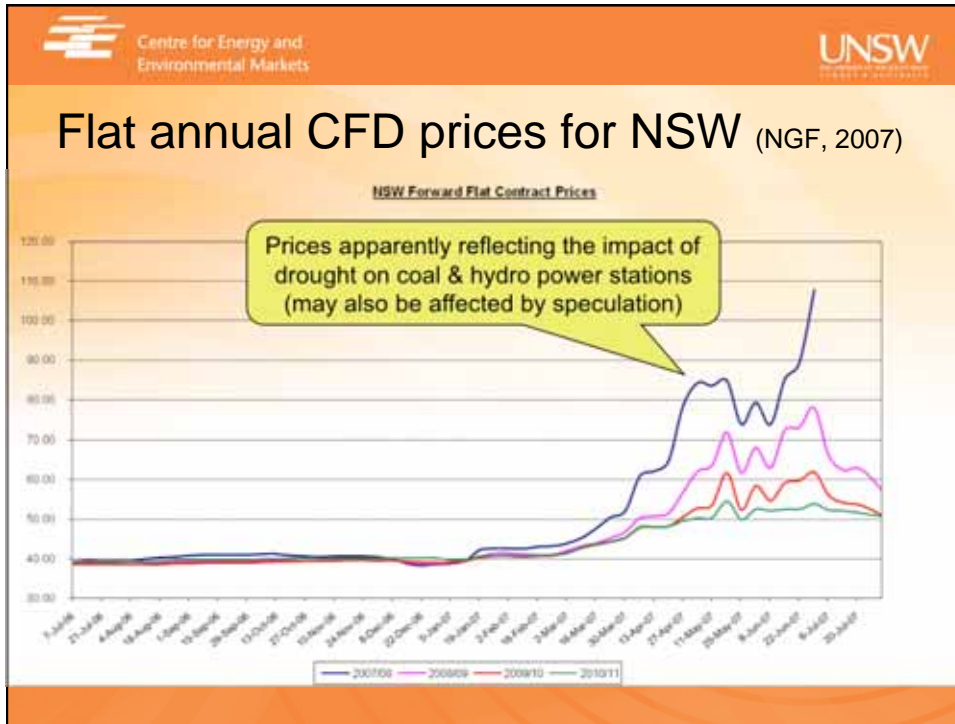
"Today, there seems to be no coherent alternative to capitalism, yet anti-market feelings are alive and well, expressed for example in the moralistic backlash against globalization. Because no social system can survive for long without a moral basis, the issues posed by anti-globalization campaigners are urgent – all the more so in the midst of the current economic crisis..."

Moral criticisms of the market focus on its tendency to favor a morally deficient character type, to privilege disagreeable motives, and to promote undesirable outcomes...

While the market today has no serious challenger, it is morally vulnerable. It has become dangerously dependent on economic success, so that any large-scale economic failure will expose the shallowness of its moral claims. The solution is not to abolish markets, but to re-moralize wants."

What is the matter with markets #6?

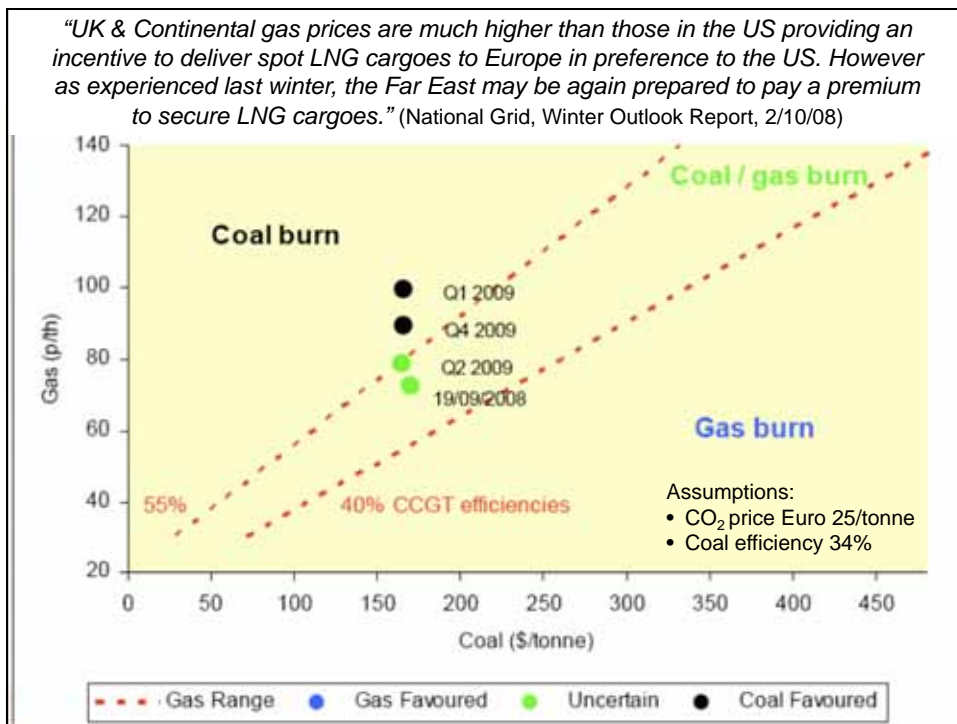
- *"Effective policies are those that support socially valued outcomes not only by harnessing selfish motives to socially valued ends but also by evoking, cultivating, and empowering public-spirited motives"* Gintis et al, 2005
- Emission trading is intellectually & morally bankrupt:
 - It attempts to convert an equity issue to a commercial one
 - It will suffer from poor price discovery & poor efficiency:
 - There is no meaningful spot market – *integral emission constraint*
 - > poor spot price discovery > operating decisions
 - > poor derivative markets > poor investment
 - Market influenced greatly by policy:
 - > *the interaction destabilises both...*



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The alternative Garnaut final report

- “Carbon trading is ... a dubious sideshow that’s wasted a great deal of time because it’s been treated as a main event... it’s not working, and clearing it out of the way would be one good first step towards more constructive action” (Lohman, 2007)
- Emission trading & carbon capture & storage combine two of the worst ideas of economists and engineers
- Instead, in the energy sector we should focus on:
 - Frugality, efficient end-use & renewable energy

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And there is much we should learn from poor countries

(Maria Retnanestri, 2008)



Innovation Attributes & Local adaptation:
Relative Advantage, Compatibility, Complexity, Re-invention

Re-invention: the degree to which an innovation is changed or modified by users in order to solve a wide range of user’s problem (Rogers, 1995, 2003).

→ Facilitators need to understand the extent to which technology can enhance pre-existing resources to support beneficial social innovation

The actual Garnaut final report, Ch 14 – Aust ETS	
<p>An emissions permit represents a tradable instrument with inherent value that can be exchanged between sellers and buyers in an emissions permit market. This enables the movement of permits about the economy to their highest value (or most economically efficient) use. It does this while ensuring the integrity of the volumetric control, or emissions limit, imposed in order to satisfy the policy objectives of climate change mitigation.</p>	<p>"I believe in emission trading therefore it works"</p>
<p>Other policy objectives—be they economic, environmental or social—should be pursued through alternative policy instruments that operate alongside the scheme. Market participants must have confidence that permits are in scarce supply and reflect the targets and trajectories for national emissions reductions discussed in Chapter 12. Where the scarcity of permits is uncertain, market participants will factor in risk premiums (if they suspect that the commodity will become more scarce) or risk discounts (if they suspect that the commodity will become more abundant). This will distort resource allocation decisions and impose unnecessarily high costs on the economy.</p>	
<p>As an emissions trading scheme exists entirely at the behest of government, market participants will be alert for any signs of shifts in policy, management protocols or operating procedures that may undermine the integrity of the market.</p>	

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How might we understand our predicament?

- *“Technology advancing so rapidly that it has replaced older values and left nothing in their place except the value of efficiency”* (Pastore (2008) quoting Jacques Ellul (1954))
 - Computer-based markets are technologies to support competition
 - They “mine” rather than support cooperative behaviour
- Global human population such that trust necessary to support collection action hard to achieve, but:
 - *“History suggests that when social communication media grow in capability, pace, scope or scale, people can ... construct more complex social arrangements”* (Saveri, 2008)
 - *“Technologies of cooperation”* may support this (www.iff.org)

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Questions posed by Steb Fisher, ABC Opinion, 15/9/08

Are we willing to root out those assumptions that have turned out to be destructive and find new principles that are needed to tackle the problems?

Will we explore new models of governance and, importantly, the processes to get us from here to there?

Will we accept the world as finite and so the need for cooperation rather than the conflict of adversarial systems of thought and their adversarial institutions?

Can centralised leaders in politics and business find the courage to acknowledge the paramount role that local communities have in determining what is best for their local governance and ecosystems, of which they are the natural stewards?

Will we codify the principles for cooperative lateral relationships between communities and between countries and will we design governance which interconnects and supports rather than rules and dominates?

Will we define the principles of our relationship with the air, the land and the sea and all the creatures of the earth?

Will we synchronise and align our systems of governance with the timescales of the great cycles of life of our planet and the physical and ecological principles which govern its existence?

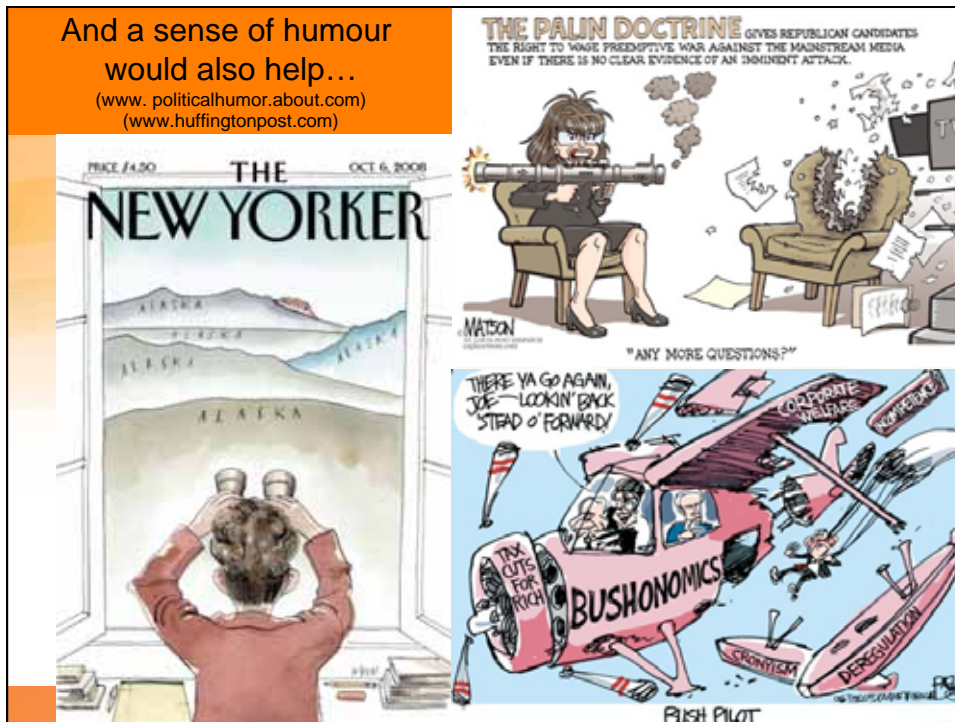
Will we re-examine the fundamentals of economics on the basis of human needs rather than greed and desire?

Can we keep lifting our gaze to a new level of awareness that keeps the whole system, the earth, always in mind?

Will we include a regular process in every generation of complete examination and renewal of society and its organisation, and so inspire each new generation to engage deeply with its governance?

And a sense of humour
 would also help...

(www.politicalhumor.about.com)
 (www.huffingtonpost.com)



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