

Climate Change



We are not here to debate whether Climate Change is happening!

It is already here and is one of the most serious problems affecting our society today!

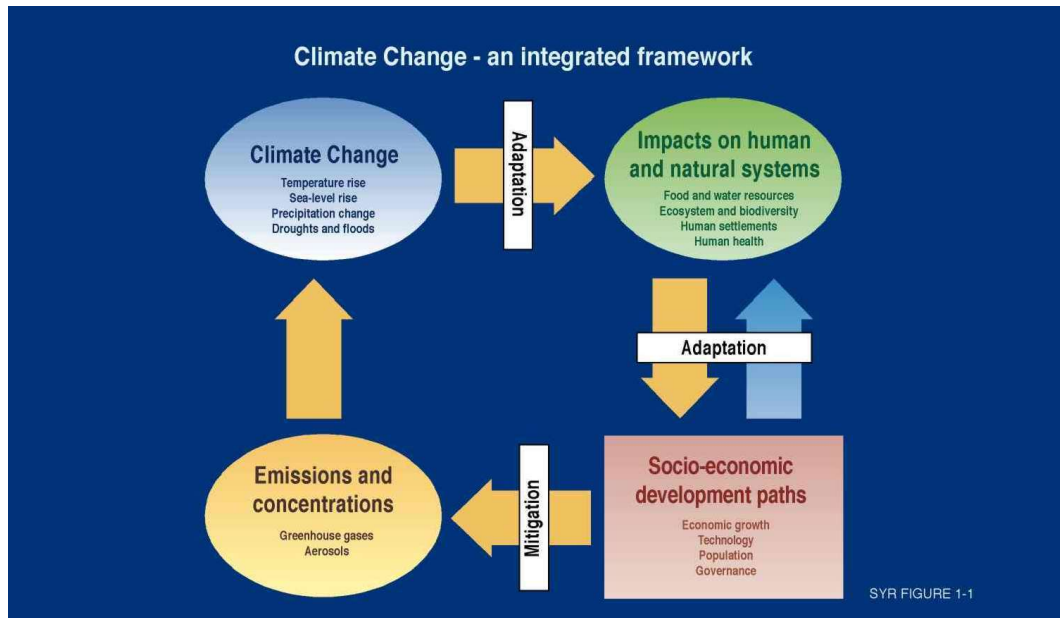
Effects of Climate Change



The challenges we now face due to climate change are occurring globally and affect everybody

- Melting Polar Ice caps
- Melting Glaciers
- More frequent hurricanes
- Large scale flooding
- Desertification
- Rising sea waters

Effects of Climate Change



In the summer of 2003:

in New York the electricity went out for 48 hours on the two hottest days of the year

in France it was 10°C hotter than in 2001 – 15000 people died in the heat

20 of the warmest years in the last 150 years have occurred since 1980

Effects of Climate Change

- Rising sea levels – in Bangladesh if the sea rises by 1m – 13million people will be displaced. In London 1.25 million people are at risk from flooding by the Thames
- Water crisis – it is believed there will be 50% less rainfall in SE UK (which already suffers from water scarcity in the summer months) by 2080. In Africa there is are serious water shortages
- Food crisis – climate change will affect existing food growing areas which will no longer be able to produce the amount of food required
- Severity of Storms eg. Hurricane Katrina. The increase in severity is due to warmer seas which increases the dynamics of the storm
- Desertification – the Gobi desert expands 10 000 sqkm/year

Effects of Climate Change



Source : UNEP/GRID Geneva; University of DaCCA; JRC Munich; The World Bank; World Resources Institute, Washington D.C.

People throughout the world are being uprooted by gradual climate change and are becoming environmental refugees.

In a World Bank Report it is noted that global warming is having a major impact on health. Diseases such as malaria and dengue fever are starting to spread more widely

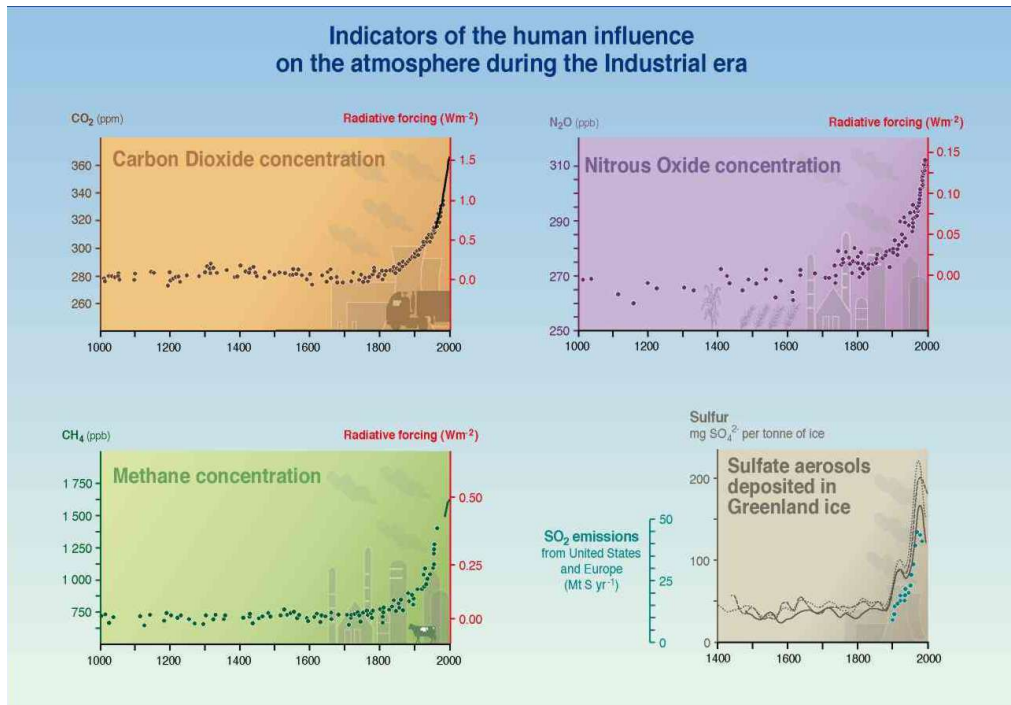
What is causing all this?

Rising Atmospheric Carbon Levels

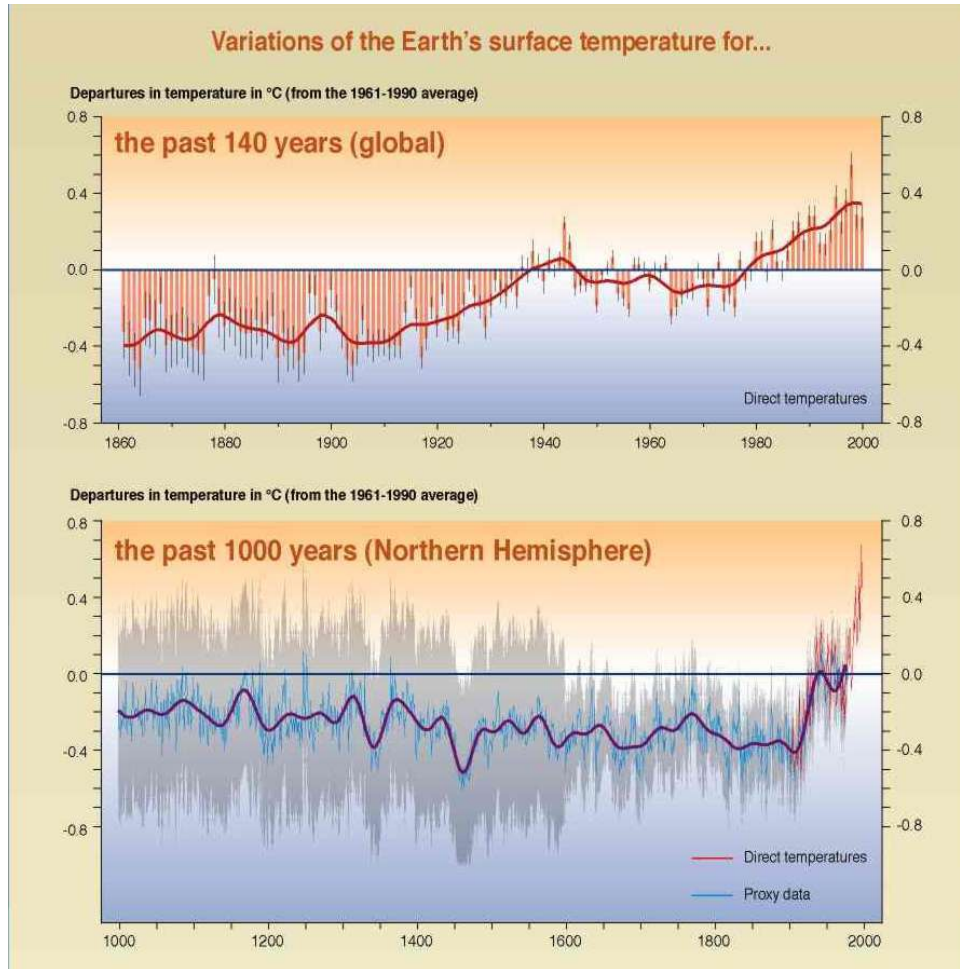
The latest levels are 378ppm (parts per million)

Pre industrialisation levels were 280ppm

IPCC (Intergovernmental Panel on Climate Change) 'business as usual' (continue at the speed of capital growth of today) scenario predicts levels to rise to 550ppm by 2030 and 840ppm by 2100.



What is causing all this?



This could result in a 6°C rise in temperature.

Mark Lynas points out that 251 million years ago as a result of giant volcanic action, there was a 6°C rise in global temperature – 95% of all species on earth were wiped out!

New research shows that this could be an underestimation – temperatures could rise up to 11°C (research from Oxford University)

What is causing all this?



'.....our present economic system, the choice is between growth and collapse, not growth and stability'

source Aubrey Meyer from Richard Douthwaite's 'The Global Illusion'

'Capitalism's own inner logic compels it to take from nature in an unplanned, arbitrary fashion. It cannot... respect nature because it regards it primarily as part of the production process, whose aim is year-on-year increases in profits.' A World to Win

What is causing all this?

The income gap between the world's top 20% richest and 20% poorest has increased in the last 40 years:

- 30 to 1 in 1960
- 60 to 1 in 1974
- 74 to 1 in 1997

Pre industrialisation in 1820 the gap was 3 to 1

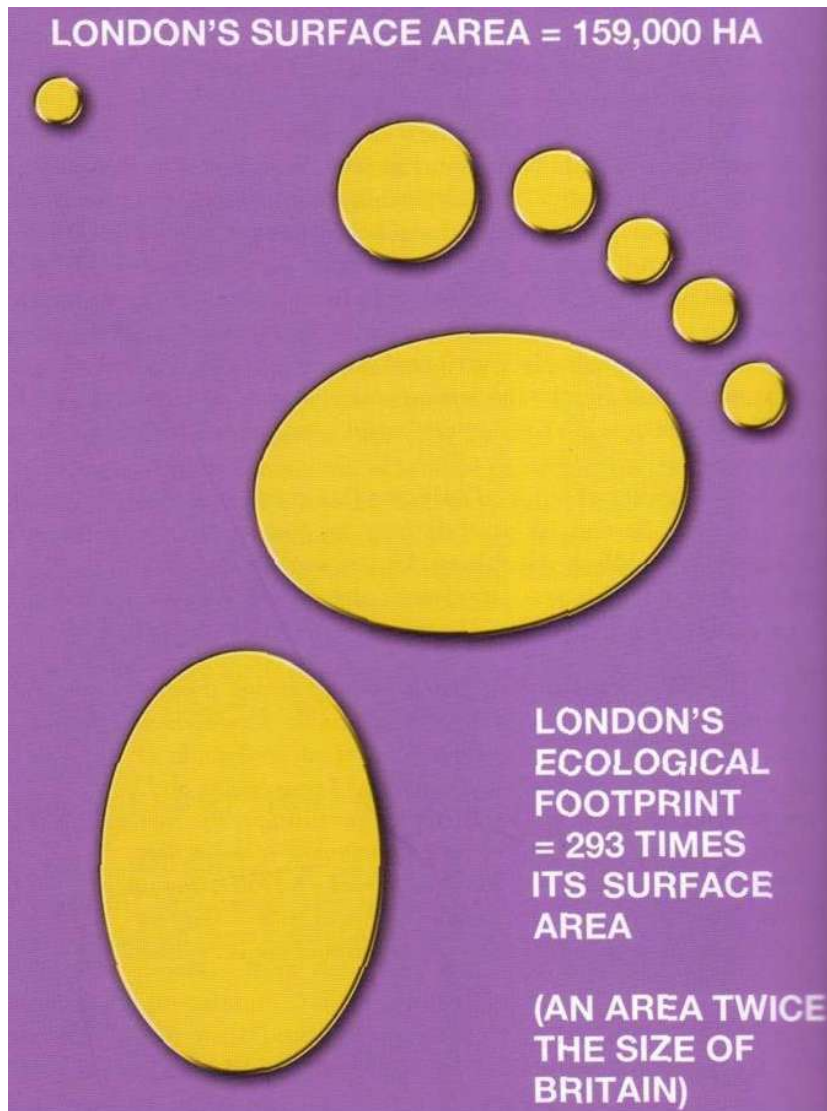
source Aubrey Meyer: Contraction and Convergence: The global solution to climate change (2000)

'exponential growth has been a dominant behaviour of the human socioeconomic system since the industrial revolution'

'Limits to Growth: the 30 year update' Meadows et al (2005)

3% annual growth (which is the accepted growth rate for the developed world) means the doubling of production every 24 years!!

There is a close correlation between growth (measured GNP) and the rate of increase in fossil fuel use.



The result of this unchecked economic growth is an oversized, unsustainable 'Ecological Footprint'.

An average person in the UK has an 'eco footprint' which requires 2 ½ times the earth's resources to sustain.

<http://www.footprintnetwork.org/>

<http://ecofoot.org/>

Energy used per sector



Nuclear Power is not a viable alternative to fossil Fuels.

Transport	33%
Domestic	28%
Industry	20.5%
Commercial	6%
Non-energy use	7.5%
Main fuels used by consumers:	
Petroleum products	46.5%
Natural gas	34%
Electricity	17%

New Economics Foundation report 'Mirage & Oasis'

CO2 emissions for transport

kgCO2 per km



Air travel is having a huge impact on CO2 emissions

Car (petrol): Driver	0.2
Rail (Intercity)	0.11
Rail (commuter)	0.16
Tube	0.07
Bus (London)	0.09
Bus (outside London)	0.17
Coaches	0.08
Air (Europe)	0.51
Air (outside Europe)	0.32

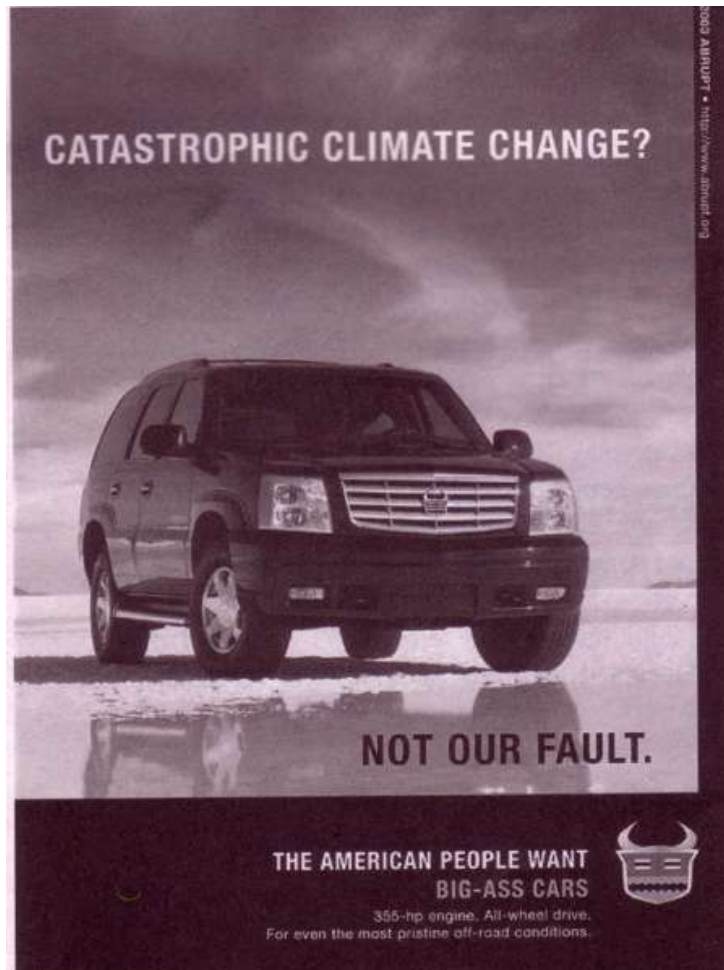
Current responses

- Deny climate change is occurring at all
- Kyoto Protocol – target commitment from the wealthy countries of the world to cut their greenhouse gas emissions by 5.2% below 1990 levels by 2010
- Contraction and Convergence – global reduction in CO2 emissions to an agreed level. CO2 becomes a commodity which is tradeable on the stock market
- Pressure groups, charity organisations, NGO's ie. Greenpeace, FOE

All of these responses occur within the existing economic structure. They go against the basic principles of capital/economic growth

Despite all the facts capitalism cannot change its nature

To stabilise atmospheric carbon levels @ 450ppm we will need to cut emissions in the developed world by 60-90% - we can't even achieve a 5.2% cut in emissions!!



'Climate change... is a global problem resulting from the unchecked growth of the fossil-fuel economy. Effective action against climate change must mean somehow transforming or disrupting the global economy'.

source New Scientist: a letter from Robert Alcock (Forum for a Sustainable Zorrozaurre)

The 5 'R's

Reduce

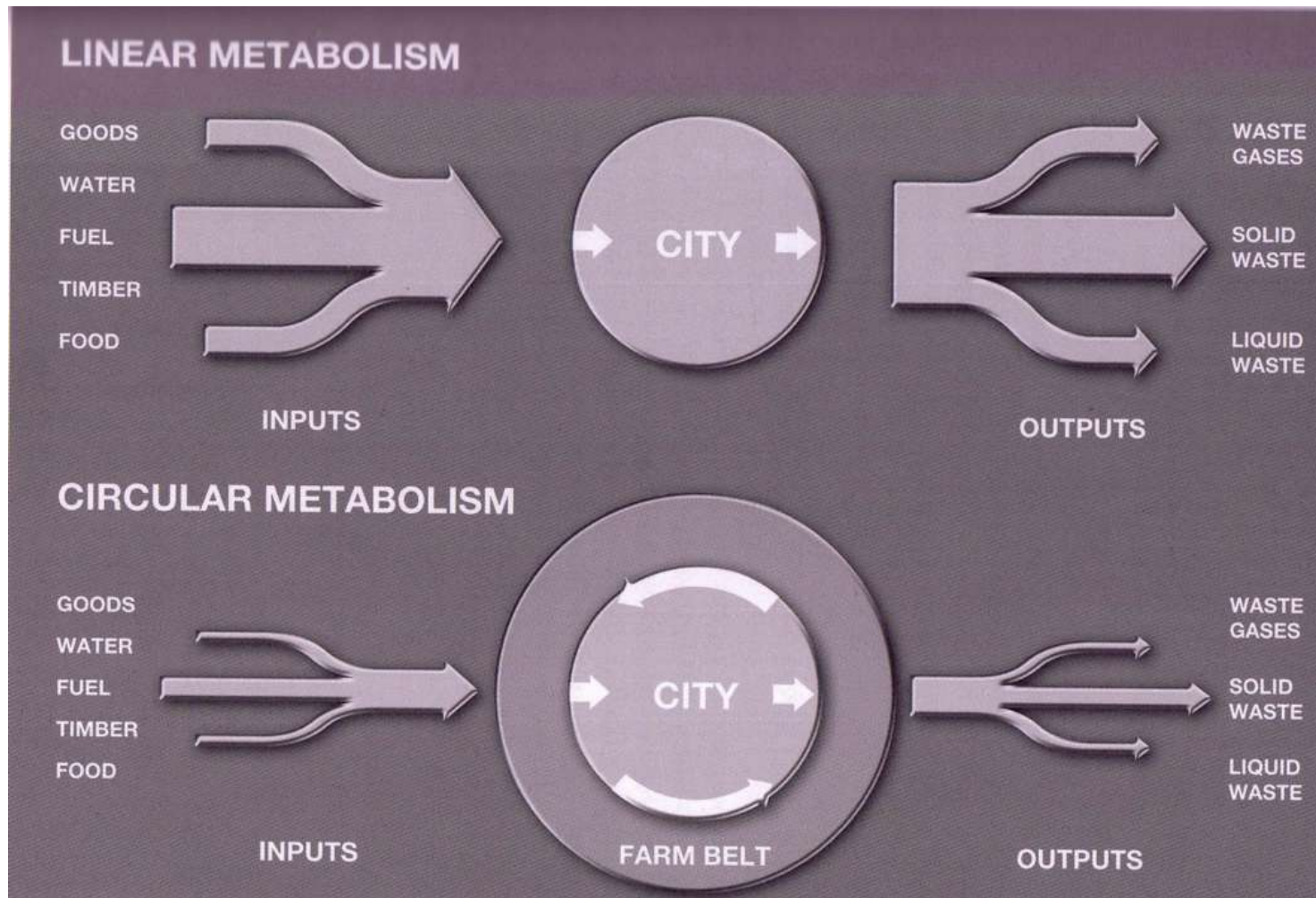
Reuse

Repair

Recycle

Reinvest

Model of Urban Sustainability



Key Sectors



Transport

- Don't fly unless absolutely necessary
- Walk/cycle where possible
- Use public transport
- Invest in upliftment of public transport
- Work closer to home
- And of course.....don't buy a 4x4

Key Sectors



Waste

- Buy less
- Use less
- Reuse more
- Produce goods to last
- Repair
- Avoid packaging

Key Sectors



Clapham Common During WWII

Food/Agriculture

- Grow your own food
- Buy local and organic
- Avoid supermarkets
- Eat less meat
- Eat less processed foods
- Avoid GM products

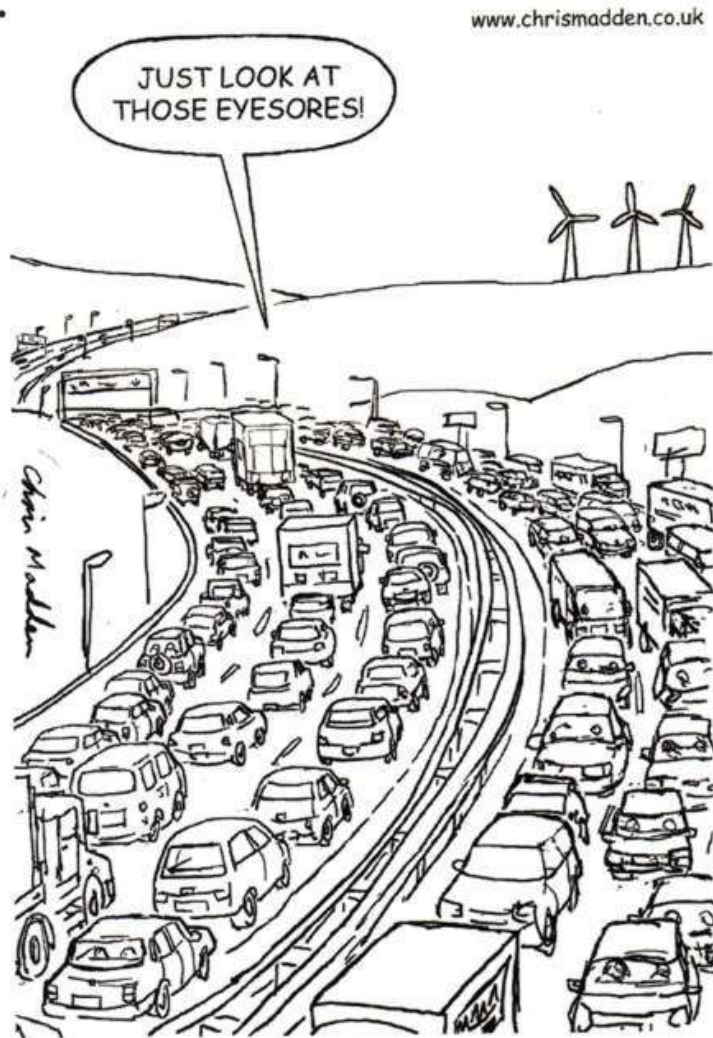
Key Sectors



Industry/Production/Energy

- Reduce demand
- Invest in renewables/clean energy sources
- Produce only for 'need' not 'want'
- Produce goods to last
- Reduce extraction of raw materials
- Recycle
- Improve building performance

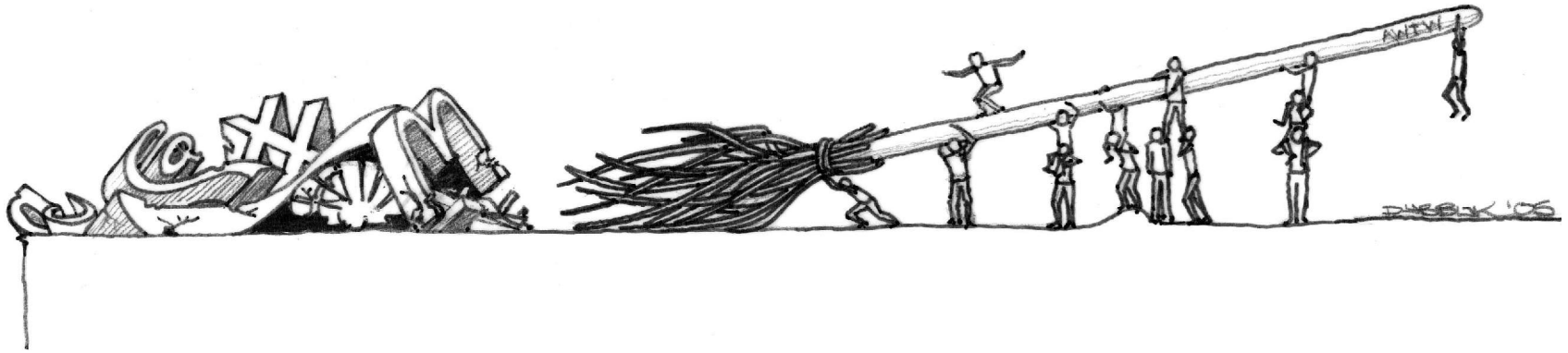
Our Vision



We need a complete paradigm shift in the way we exist.

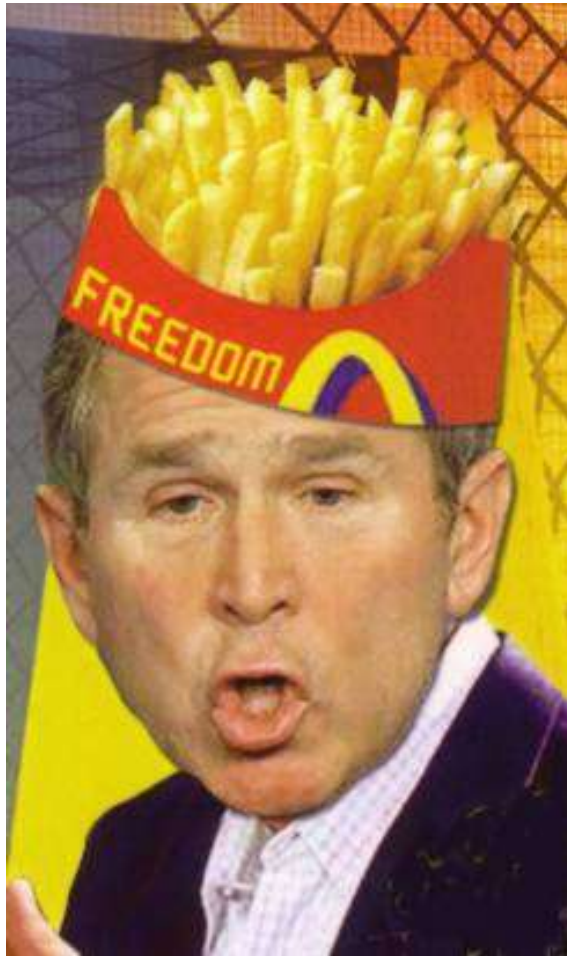
Public change is required.

Our Vision



To achieve any form of significant change we need to transform the economic status quo because individual action on its own is insufficient and will not curb climate chaos.

Our Vision



'Climate change is simply too important to be left to politicians and industry insiders. The battle for the climate.....will be won on the ground by real people'

Autumn (2005) Building for a Future

Our Vision

We have touched on the idea of decentralising the production of energy and the nature of the market state control ethos with nuclear power production.

Along the lines of decentralised 'power' we advocate a new framework for a more democratic Britain which could have local and regional democratic Assemblies. These could best decide how to meet the needs within their areas.



China Crisis



Mr. Brown of the Earth Policy Institute believes that “we're going to have to develop a new economic model. Instead of a fossil-fuel based, automobile-centred, throw-away economy we will have to have a renewable-energy based, diversified transport system, and comprehensive reuse and recycle economies. If we want civilisation to survive, we will have to have that. Otherwise civilisation will collapse.”

The Independent Wednesday 2005

Conclusion



We only have one generation to make the required changes.

We need to be the change we want to happen!

Picture references

Slide 2: Glacier melting.

http://naturalscience.com/ns/articles/01-16/ns_jeh3.html

Slide 3: Climate Change – an integrated framework.

<http://www.ipcc.ch/present/graphics.htm>

Slide 5: Banladesh sea levels rising.

<http://www.ipcc.ch/present/graphics.htm>

Slide 6: Temperature graph.

<http://www.ipcc.ch/present/graphics.htm>

Slide 7: Variations of the Earth's surface temperature.

<http://www.ipcc.ch/present/graphics.htm>

Slide 10: Girardet, H (2004) *Cities, People, Planet*.

Wiley-Acadamy, Great Britain, p.115

Slide 14: Culture Jamming. www.abrupt.org/CJ/CJ.html

Slide 16: Girardet, H (2004) *Cities, People, Planet*.

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Slide 19: Viljoen, A (ed) (2005) *Continuous Productive Urban Landscapes*, Architectural Press, Oxford p. 103

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Wiley-Acadamy, Great Britain, p.189

Slide 21: www.chrismadden.co.uk. Ethical Consumer ec95 Jul/Aug 2005, p.21

Slide 22: Broom – illustration by Dybbuk

Slide 23: Koolhaas, R (2004) *Content AMoma/Rem Koolhaas*, Taschen, Germany, cover

Image by Kenneth Tin-Kin Hing: www.hinkin.com

Slide 24: Decentralised power

Slide 25: Sokol, D, (2004) *Architectural Design Volume 74 No. 1 Jan/Feb 2004, Property Development and Progressive Architecture: The New Alliance*, , Wiley-Acadamy, p.81

Slide 26: New Orleans. The Big Issue October 17-23 2005 No 664, Marshall, L. Hidden Horrors p.11