A World to Win – there's a climate for change

Slide 1

We are not here to debate whether climate change is happening

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

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The challenges we now face are occurring globally and affect everybody.

We see them in:

The melting polar ice caps and glaciers

In the Independent on the 16-09-05 it was reported that the Arctic summer ice was over 18% below the long term average for the 3rd year running without recovering as normal

Scientists think that this is a qualitative change and could be beyond the point of no return for Arctic ice.

Stranded **polar bears** are **drowning** in large numbers as they try to swim hundreds of miles to find increasingly scarce ice floes.

In another article in the Independent on the 10-09-05 a reported study showed a Greenland glacier moving at 3x the speed toward the sea than 10 years previously.

The Antarctic ice fields are breaking up and dropping into the ocean.

These are all contributing to rising sea levels.

The very severe and more frequent hurricanes, storms, unusual tornadoes etc. which have been occurring recently

Large scale flooding worldwide – and more and more in the UK.

Longer and more frequent droughts and increasing desertification

Morocco, Tunisia, and Libya each lose 1000 sqkm of productive land through desertification per year.

In Egypt half of all irrigated land suffers from salinisation. In Turkey 160 000sqkm of farmland is affected by soil erosion and in Louisiana 65sq linear miles of land is lost to the sea per annum

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It is not only happening in the developing world where most of the developed world are immune to these changes

In the summer of 2003 the lights went out in New York for 48hours on two of the hottest days of the year

In France 15000 people died in the extensive heatwave that occurred in the summer

Hurricane Katrina - we all know how many people that affected. And now Hurricane Wilma – still causing havoc along the coastline of the US having left many dead and a great deal of damage in its wake.

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

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To elaborate a little more

If sea levels rise by 1m – 13million people will be displaced in Bangladesh

In London 1.25 million people are at risk from flooding by the Thames. By 2030 the Thames Barrier will no longer be able to cope with tidal surges due to the rising sea levels. The Association of British Insurers estimate climate change will increase flood risk in the UK by 8 – 12 times

It is believed that there will be 50% less rainfall in the SE UK by 2080 – this in an area which is affected by water stress levels in the summer months.

As we all know throughout Africa there are already very serious water shortages – especially in sub Saharan Africa.

Farmers in South Africa are having to consider alternative crops as the weather is so extensively varied from what they are used to that crop yields are lower and livelihoods are being affected

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People throughout the world are being uprooted by gradual climate change. There is no official refugee status for people fleeing their land due to these changes. The UN University Institute for the Environment and Human Security predicts that by 2010 the world will need to cope with 50 million people escaping environmental deterioration.

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What is causing all this?

It has now been agreed that the rising atmospheric carbon levels are causing the potentially catastrophic climate changes that we are starting to experience.

The latest levels are 378 parts per million

Pre Industrialisation levels were 280ppm.

In 1958 the levels were 315 parts per million. This means that carbon atmospheric concentration increased by 45ppm in a 150 year period during the first stages of capitalism and 60ppm over the next 45 years. That is 3 x the previous rate which coincides with the growth of the TransNational Corporations.

If the world economy continues to grow at the current speed the predicted levels could be 550parts per million by 2030.

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A 'safe' C02 concentration (suggested by UK Hadley Centre) is 450ppm and could result in a 2 degree C rise in temperature. This would require a 60-90% reduction from the 1990 level of CO2 emmissions.

A 550 ppm C02 concentration level (which would require a 50-60% reduction in C02 emmissions) could result in a 6 degree C rise in Temperature.

The last time this happened 251 million years ago 95% of all species were wiped out!

New research from Oxford University indicates that this could well be an underestimation – it could be up to 11 degrees C if C02 levels are limited to 550 ppm.

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In A World to Win it was noted that 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

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Current modes of globalised growth perpetuate poverty and increase the gap between the rich and the poor.

In the last 40 years the gap between the top 20% richest and 20% poorest has increased from 30 to 1 in 1960 to 74 to 1 in 1997.

In Limits to Growth: the 30 year update it is noted that "exponential growth has been a dominant behaviour of the human socioeconomic system since the industrial revolution".

3% annual growth is the accepted growth rate for the developed world. This means doubling production every 24 years!!!

There is a close correlation between economic growth and the rate of increase in fossil fuel use and hence C02 emissions.

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Unchecked economic growth of the developed countries and now the developing countries such as China and India is resulting in the use of a far greater amount of resources than the earth currently has available.

As can be seen by the slide London's ecological footprint is 293 times larger than its surface area.

The average person in the UK has an 'eco footprint' which requires 2 ½ earths to sustain their current lifestyles and that is with minimal hours flying time.

The free-for-all globalization of the last 30 years has created the 'tipping point', the here-and-now of the climate crisis. We are at the edge of the precipice and many people believe that we will need to batten down the hatches to ride out the storm which we have already created.

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The energy crisis is the current big buzz word on the agenda of the government and the affect of energy production on climate change.

The government is promoting Nuclear as the only possible answer to energy production for this country and the world. In an article in the Independent on the 17th October 2005 Blair feels that he owes it to the US for the UK to remain a member of the 'Nuclear Club'???

There are many reasons why this is not acceptable – among them the realization that if we were to replace outright all fossil fuel generated electricity with nuclear, there would be enough economically viable uranium to fuel the reactors for only 3-4 years.

Large scale nuclear energy production will remain in the hands of TNC's and suits the mentality of the market state control ethos.

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CO2 emissions in the transport sector

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Capitalism's current responses to climate change include:

Denying that it is happening at all – industry has paid scientists large amounts of money over the last few years to debunk any evidence of climate change

The Kyoto Protocol – which the US continues to refuse to sign.

Originally the UK looked on track to meet it's target by 2010 but recently it has been shown that this was due to the government changing from oil to gas for energy production. This did not count towards real reduction in energy consumption. In the UK emissions actually increased again last year.

Contraction and Convergence – the principles of which are the global reduction of C02 emissions to an agreed level. The developed countries will need to reduce their amounts of C02 emissions while the developing countries 'catch up' and ultimately the amounts will converge.

This has given rise to the trade of CO2 on the stock markets!!! – developed countries buying up excess developing countries CO2 emissions to 'balance' the books.

The pressure groups of today such as Greenpeace and FOE believe that they can change capitalism to better deal with the mess it has created. This is generally done by writing letters and protesting regularly, or more actively chaining themselves to trees. I used to think these things worked and wished I had the time to throw myself in front of an oncoming bulldozer.

……It is becoming more evident however that capitalism cannot change it's nature.

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In a letter from Robert Alcock in the New Scientist he says: "effective action against climate change must mean somehow transforming or disrupting the global economy".

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Recently we attended a series of seminars at the Eden Project where they have established a very advanced system of recycling and reuse.

They have introduced 5 'R's into the running of the Eden Project which they are trying to use as a blanket strategy for everything in which they are involved.

These 5 'R's are – Reduce, Reuse, Repair, Recycle and Reinvest!!!

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In the model for urban sustainability the first linear metabolism uses a large amount of resources and dumps the same amount of waste

In the circular metabolism fewer resources have to be imported into the city and therefore less waste is produced

This can be achieved in many ways in all the different key sectors.

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AIR travel is fast emerging as the biggest single obstacle to halting climate change. It is in danger of swamping all efforts to cut greenhouse emissions elsewhere, according to a study which shows that predicted growth in air travel is incompatible with government promises to cut emissions.

The UK, for instance, has set a target of cutting carbon dioxide emissions by 60 per cent by 2050. But it also predicts a quadrupling of air travel by the same date. If that happens, says Kevin Anderson, who led the research for the Tyndall Centre at the University of Manchester, UK, aviation would use up every last tonne of British emissions entitlements. "Households, motorists and business would have to reduce their CO_2 pollution to zero," he says.

From issue 2518 of New Scientist magazine, 24 September 2005, page 5

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There is a deliberate effort to design most of the products we use for short life spans. This promotes a throw away society which contributes to the amount of waste we produce and the amount of resources we consume. This is driven by the need for continual economic growth and the only way this society can continue to grow economically is to continue to produce and sell – mostly stuff we don't really need.

As was seen in the slide showing the circular metabolism – using less resources will produce less waste.

Slide 19 Food/Agriculture

In a world to win it was noted that Tesco's profits soared to £1.7 billion in 2003, equal to half the income generated by the entire UK farming industry. Half a century ago, 50-60% of every pound spent by the consumer on food was returned to the farmer. Today in much of Europe and North America the figure is down to only 10-20%, while in the UK it is 9%. This can be seen as clear profiteering. For example, in 1991, the farm gate price of potatoes was 9p per kg but the retail price was 30p – a 21pence difference and a 233% mark up. In 2000 the farm gate price was 9p per kg but the retail price was 47p per kg, the difference now being 38 pence – a mark up of 425%. Potatoes need no processing other than grading and packing, both of which are done by the farmers before being put on the supermarket shelf. Therefore the supermarkets are basically increasing their profits at the farmer's expense.

Slide 20 Food and agriculture

We need a diversified approach to energy production across a range of renewables combined with reducing demand

One relatively easy way of reducing demand would be to insulate the 18 million houses which were constructed before any insulation was required. 50% of carbon emissions come from buildings. The average cost of insulating a house is approximately £2000. Therefore the approximate cost of insulating all pre 1980 houses is £36 billion. The Independent reported the cost of Atomic Weapons Establishment alone is £0.5billion per ?????

Again, we go back to the government talking up Nuclear power as the only viable option for energy production in the UK. And yet their own figures indicated an onshore accessible wind resource of 340TWh/year and the offshore resource another 380TWh/year. In 1997 the UK electricity demand was 314.5TWh/year.

If we looked at all electricity demand in the UK and cut it by 50% (150TWh/yr) this would require 22 000 wind turbines if all were running optimally and had the perfect load/generating frequencies – this is not an outrageous number – and would only require 0.1% of the area of England!!!

PV's are another option – an average household would require 20sqm of PV's on their roof with a 70 year payback period. This is the average lifespan of a building therefore surely it could be an acceptable/viable solution?

Central generation of electricity loses 66% in waste heat and transmission losses. Co-generation Combined Heat and Power which can be gas fuelled originally can achieve 90% efficiency. Ultimately biofuels can be used to fuel CHP units.

There are many other options for small scale energy production.

The decentralized energy approach to electricity supply: using varying sources of energy which is locally produced, allows producers to consume their own generated electricity which fosters an incentive to reduce use and conserve!

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

People need to become more involved in the changes required to prevent the worst effects of the global economic expansion on our planet and soon!!

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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.

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Climate change is simply too important an issue to be left to the likes of Blair, Bush, Gates and co.

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

Along the lines of decentralized '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.

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In the Independent on Wednesday last week an article covering China and its economic growth interviewed Mr Brown of the Earth Policy Institute: he believes that the western economic model is not going to work in China, India or for the other 3 billion people in the developing countries because the global economy depends on only one earth's resources, and we are going to run out of those resources much faster than anticipated if they continue to develop at the current rate.

"we're going to have 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 civilization to survive, we will have to have that. Otherwise civilization will collapse".

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We only have one generation to make the required changes.

We need to be the change we want to happen!