ecolonomics

Paul Mobbs' newsletter of thoughts, ideas and observations on energy, economics and human ecology

http://www.fraw.org.uk/mei/ecolonomics/ ecolonomics@fraw.org.uk

"A man sits down to write a letter but instead he writes a book, the book begins 'Dear Sir'"

To understand the present ecological crisis you need to establish a set of causal relationships from the phenomena that we can observe; to describe the causes you need to look at the factors creating the trends or phenomena responsible; but what happens when you (or rather "we", the affluent members of the human species collectively) are undeniably one of those factors?

The Heart of Wales Line (Llanwrda to Shrewsbury), Tuesday 13th October 2009

So many things that need to be said but often we can't; not because we lack the terms or evidence to describe them but because such a message isn't something that "our leaders and betters"[1], and sometimes even ourselves, wish to hear. *Like the game Chinese whispers[2], the message of the human ecological crisis has been edited and sub-edited to the point where the commonly used terms that describe the problem, and likely solutions, have little relevance to the original diagnosis; in particular, what started as the concerns of environmentalists in the 1970s, regarding the impacts of human society on the planet, have now been reduced to mere "carbonism" – a reduction of the complexity of human ecology to an issue of carbon or climate change being our principle problem, and a belief that we can solve the global climate crisis through simple, deck-chair re-arranging measures such as "low carbon technologies"[3]. The fact is we might have the capacity to address such problems realistically, and we might conceive of alternative ways of ministering to society's needs, but the unfortunate reality is that those in charge of the public debate do not wish to contemplate what this truly means to the lifestyles of the world's richest citizens. In possessing that knowledge do you, yourself, internalise the significance of that deduction into a programme of action, irrespective of what that means for you personally; or do you skip over the problematic evidence because it might adversely affect the "Western lifestyle" that we enjoy, and therefore cannot be considered a "politically realistic" way of characterising the problem?*

I dump my backpack and guitar case into the luggage space of the train and flop on to the seat opposite; two and a half hours to Shrewsbury. I'd like to read but after a long weekend of workshops and discussions I'm a bit beyond that. I sit back and, as the train moves north from Llanwrda station along the Heart of Wales line[4], I watch the world slip by instead. I'd like to reflect on the weekend, and internalise what new ideas were evolved, but it's all too fresh. Instead another question, one I'd tried to ignore, creeps into my mind; *"Should there be a more 'politically involved' network of climate activists in Oxfordshire?"* – perhaps not the most enthralling idea to ruminate upon when travelling on such a scenic route![5]

The question arose as the result of some emails I'd received on behalf of a group I work with in Banbury, *Ideas for a Change*. I've tried to avoid answering this question precisely because I know that it will probably push those to whom these emails have been circulated beyond their "comfort zone"[6]. In all likelihood it will be rejected as being "too extreme" because it doesn't conform to the commonly accepted terms of the debate on how society will address the issue of climate change. Be that as it may, and as I have been asked for my views on this topic, I feel that my insight – *however unwelcome* – needs to be communicated.

There's no easy way to say what's in my mind, and the deeper, metaphysical message in relation the changes that we must undertake in order to address the problems that lie before us. I can't summarise what I need to say in simple sound bites

because the depth of the issue precludes this (hence the title of this post – the opening line from a rather bizarre Richard Thompson song[7]). Human existence isn't that simple, and to treat it as such degrades both our own abilities to rationally discuss the problems that face us, and the intelligence of the public whom we expect to listen to this debate. In fact, I believe the tendency to summarise and shrink all technical discussion on major public policy issues, such as climate change, is responsible (in part, at least) for the problems the world has today in debating these issues realistically; or to put it another way, *don't try and speak in sound bites and then condemn the audience's indifference!*[8]

Whether or not those asking these questions accept what I say isn't my problem. All I ever ask is that the reader considers the ideas that I outline from the point of view of the evidence that exists to support them, rather than viewing them from the "realities" that the political world imposes on, and in many way conditions, our thoughts today. If political campaigning is all about being "realistic" then the reality of recent research and statistical information dictates that the majority of such campaigns are proceeding from completely the wrong point of view – but more problematically, looking at these problems from a more "evidentially realistic" point of view, they're a challenge to the lifestyle of many of the people who are calling for action on such issues.

In a recent discussion via email I was given a most appropriate term to describe the dilemma that I am now contemplating – "carbonism". People desire to solve the predicament of climate change, and the steps required – reducing emissions of greenhouse gases[9] and preventing the deterioration of natural carbon sinks[10] – are pretty much agreed from the lowliest hippie to the heads of global corporations. The difficulty is that society appears unwilling to enter into a realistic debate upon what the *mechanisms*, and the *scale* and *impact* of the required reduction in carbon emissions, mean to the most highly consuming nations and individuals on the planet. The emerging farce of Copenhagen is an excellent example of this – the rich states don't want to agree an effective solution, and can't be open about their reasons for this, because that would entail tackling the one thing that they treasure above all else – *economic growth*. What's worse none of the observers of this process, from the news correspondents to the campaign groups, dare say this in public either, because of the sacrosanct nature of the growth issue; telling the rich they're going to have to have less is the taboo above all other taboos in this process, and breaking this taboo doesn't do much for your future professional employability.

As a result many people, in part because of the framing[11] of the debate by politicians and the media, look to a set of simplistic and – given the scale of the problem – sometimes ineffectual options to reduce the impacts of the human species on the biosphere. Perhaps more significantly, the present debate ignores the reality that we could stop carbon emissions tomorrow but, if we do nothing to address the growth in consumption of the human species overall, the outcome over the course of this century will be little different; an ecological crash is still inevitable unless we address the problem of consumption in general rather than just the "symptom" of greenhouse gas emissions in isolation.

Instead we see a reduction of all considerations about the future functioning of society to one thing, *carbon*; and as a result of this "carbonism" many campaign groups are addressing the issue in ways that are divorced from the basic tenets of the ecological viewpoint they claim to represent. To a certain extent dealing with the issue of climate change has become a panacea for addressing the problems of society in general; tackling climate change has become to the liberal members of society what social justice or leftist politics was twenty-five or more years ago – it has become a metaphor of reassurance that if we can solve this problem then, in some tokenistic sense, "all will be right with the world". Consequently the approach of both political groups and mainstream environmentalism represents "a belief" that climate change can be solved by certain measures that can take place within the present economic paradigm; these problems "will be solved" through a development of our lifestyles rather than an evolution or revolution of them. In this way the debate has been reduced to certain orthodox positions, for example, renewable energy or green technologies, the efficacy of which are seldom questioned or tested. Thus the "solutions" that we see advocated in the media, and in the political arena, are too often framed by a simplistic analysis of what is most visible in our lives (e.g., domestic energy consumption) when in fact it is the operation of the modern global economy in general that is the root of the problem. And most importantly within this process, the shibboleth[12] of economic growth[13] is not questioned because to do so would invalidate much of the political debate on public policy today.

An objective view of the problem would state that there is no "problem" of carbon emissions – they are a symptom of the way society operates; and whilst we can try to produce "end of pipe" solutions (e.g. carbon capture[14]) to abate carbon emissions, unless we undertake a more systematic re-evaluation of our use of energy then society faces a number of catastrophes in addition to climate change – each every bit as damaging the the predicted effects of our continued emission of carbon. Carbon emissions are the result of our use of fossil fuels, but that utilisation of energy is an intrinsic part of the economic and politi-

cal agenda that has developed over the last two or three centuries. If we have “a problem” then it's our profligate use of energy, and the fact that our present levels of energy consumption can't be supported in the near future – and they cannot be wholly supplanted with renewable energy energy sources or ameliorated with energy efficiency measures either[15]. This of course returns us to the issue of taking an ecological viewpoint of society rather than fixating on one problematic aspect of it; a more holistic view would not skew the analysis in this way.

The more serious difficulty with “carbonism” is that it conceives the problem within the needs of, in global terms, a relatively affluent group of people; and within principles and terms that not only deflects criticism from that affluent lifestyle, but it also underplays the wider ecological crisis of humanity that is the result of the growth paradigm. There are a number of problems directly or indirectly related to climate change (ultimately it is the growth of the human system within a finite environment that is creating these difficulties), and which pose an equally significant a threat, but which cannot be as easily engaged with because by their nature they throw up more problematic questions about consumption, affluence and the inequitable distribution of resources amongst the global population. For example, the number of people in the world continues to grow, and the level of food production is not keeping pace, so the world's spare food production capacity is shrinking and the number of hungry people in the world is on the rise[16]. We might fixate on climate change, or peak oil[17] for that matter, but the more general crisis of resource depletion will hit humanity faster and in an equally devastating manner to climate change, and well before we see a significant rise[18] in average global temperatures.

The train shudders, rounding the bend over the Cynhordy viaduct[19]. I gaze out towards the ridge beyond Heol Senni, straddling the gap between the Black Mountain and the Brecon Beacons[20]. Thinking back to that liberating landscape of rock and scrub, where many years ago I walked the ridge, I lose my thread (this ride is certainly more distracting than the flat drudgery of the line to King's Lynn, or across the Vale of York). As I struggle to find my thoughts again the train, roaring as it climbs the steep incline around the Sugar Loaf, plunges into the darkness of the tunnel beyond; *let's restate the issue...*

I also have another reply pending to an email on a separate, but related, aspect of this problem – *can you blame the rich for climate change?* This is again a problem of how we state the facts of the case because many of those who campaign on the climate issue are themselves part of this group – *the globally affluent*. As a result they are sometimes defensive when you explain the facts surrounding this question, perhaps as it represents a troubling issue of conscience, but sometimes because they personally fear the concept of “doing without” such affluence. The psychological dichotomy that arises from this contradiction then restricts their ability to move beyond their present lifestyle and envision a very different way of living since, in contrast to the certainties and advantages of the “middle class” lifestyle, such change is an “unknown unknown”[21].

That's not a criticism, *it just is*; when people can't see a clear way forward the tendency is to hesitate in order to see if something more obvious presents itself as a solution. Again, it's the “comfort zone” issue – better to stay within a known, albeit imperfect situation rather than risk going off into an uncharted environment that would threaten their present well-being – and in fact our presently risk-averse society reinforces this attitude by removing our capacity to appreciate and engage with risky activities. It's also the logic of Pangloss[22] in *Candide*[23]; many would rather emphasise the “positive” aspects of the world rather than engage in discussion that might lead them to question the evidential or moral certainty of their own position, or its long term sustainability.

Generalising, within Britain it is the more affluent members of society – who make up a large proportion of the membership of environmental campaign groups – who are most worried about carbon emissions. There are many people outside of this group who have similar concerns, and rightly so given the impact that climate change will have on our lives, but in general people are far more worried about their economic well-being; concern over their jobs, and managing the heavy load of debt[24] that society requires us to have, dominates the *majority* of people's concerns today[25]. Whilst many committed carbonists might query that evidence, since it does not reflect their own point of view, that's the best estimation of public opinion today. In fact, some recent research suggests[26] that the public are getting bored[27] with the coverage of climate change in the media. Other research suggests[28] that globally it's the richest states who are more aware of the climate issue than the poorest. At the same time the other great engine of greenhouse gas emissions, global businesses, are seemingly indifferent[29] to the relative importance of ecological issues to the future of our species.

Such realities within the nature of public opinion may not be welcome if you consider the difficulties ahead – but that's the position we must work with today. This being the case, if the public are not listening to the present message on climate change it's probably more sensible to look at the way these problems are being depicted by those promoting the various solutions on offer, and the efficacy of those solutions, rather than blaming the public for their dysinterest or apathy[8].

Whilst seemingly paradoxical, if people's thoughts *were to so easily* translate into action then those people/states who are the most aware of the problem would be well on the way to solving it; but on the contrary, the data suggests that these are the very people, through prolonged inaction to change their lifestyles, who are driving the trends in consumption that are creating the problems of climate change and resource depletion in the first place. For me this precisely demonstrates the point I was trying to make before being rudely interrupted by the seductive view from the window – whilst we may have awareness of the problems and the necessary changes, it is the difficulty of internalising the magnitude of the mechanisms required to address these problems that people get hung up on; and in my view the reason for this hang-up is that the most effective means of dealing with the problems of human ecology requires that the group creating much of the impact – *the affluent* (that is, the 800 million to 1 billion "globally affluent" who are responsible for much of the global impact) – drastically reduce their consumption. This approach, from the point of view of what modern society represents, is of course a negation of the status and identity that this excess of consumption creates, and therefore it is not unsurprising that a disconnect exists between "awareness" and "action", and thus why there has been little global movement towards addressing problems such as climate change.

The simplest way for the affluent to deal with the issue of economic inequality is to argue that, through the existing mechanisms of the global economy, we aim to make the poor more affluent so that we can all reach a parity in material well-being. Whilst logically sound, where this idea departs from reality is that there are not sufficient resources to make this happen, most obviously because the mismatch in the allocation of growth[30] between rich and poor would require such a massive increase in consumption that we'd run out of resources long before we reached parity. Even if we apply ideas such as new technology and technology transfer to the problem, to make the conventional "growth for all" scenario happen in a way that emits less carbon than today, it pushes technological systems beyond their theoretical limits of efficiency; and perhaps more significantly, there's not enough food to support the growing global population without a billion people going hungry today, let alone the projected population later in the century. If we reduce this scenario to its most basic, axiomatic first principles, the very notion of long-term growth in the global economy is itself invalid because it ignores the biophysical principles that override the limited theorems of neo-classical economics[31].

The train pulls into Llanwrtyd Wells. We arrive late, to meet the southbound train and exchange the train staff, *but leave on time!* Such miracles within the space-time continuum are accomplished by the inclusion of *recovery time* in the service timetable. At certain major stops extra time has been added so that, if the train is late, it can "recover time". If you've ever wondered why your train is sitting at the station, waiting to leave after everyone is aboard, then that's probably due to recovery time – if the train is running to time then it must wait until the scheduled time before leaving. This is of course an administrator's delusion as under the physical principle of the *Arrow of Time*[32] you can't recover time once it is spent – time is irrevocably consumed by the universe in the moment of existence.

Recovery time is simply a logistician's slight-of-hand, and one that has been well used in recent years in order to render problematic train services more punctual for the purposes of the regulator's performance indicators – or be it with journey times that are sometimes comparable to the services of twenty years ago; *and therein lies the internal contradiction between our desire for punctual versus speedy public transport!*[33]. Rather like the climate debate, this is the reality of train travel as opposed to the debate on the practice of train travel – a reality often not reflected by the punctuality figures posted at railway stations. As I ponder how I will phrase my email replies when I get home, I decide that it's how I can identify, disassemble and explain such administratively blinkered ways of looking at human society that must be the basis for responding to the issue of "affluence".

Whether they like it or not – *and generally it would appear they do like it* (hence the political resistance to change, e.g. climate change denial) – to be more affluent is to have a proportionately greater ecological impact; *full stop*. This is the reality of the present structure of human society. The affluent have a greater impact on society than the poor, both within nation states and globally between states. Even if, for example, you do not spend your wealth but merely put it in the bank, the banks then use your wealth as reserve collateral for the creation of new paper money under the fractional reserve banking system[34] (one of the roots of the recent banking crisis) to fund new consumption and hence a greater ecological impact. Unless you physically destroy your wealth, so that it has no residual value in any form, then any option – from buying carbon credits to charitable donations – will result in the value of that wealth being recycled into the general economy where it will create new resource consumption and thus carbon emissions. As shown over the last century, economic recessions cut emissions[35], and the same goes for removing your wealth from the economy – it takes "value" from the economy, causing it to contract.

There are a number of measures we can use to define this trend. The problem is, as I have experi-

enced myself as a result of discussing this data in public meetings and via email debates, that many people don't like the message that such analysis of the data conveys: It offends both the ecologically aware, since it puts responsibility on them as individuals rather than being able to "externalise the blame" by working for a global agreement to address these problems; and it offends those who have no concern about environmental issues, since arguing that affluence is a problem contradicts one of the central messages of the modern consumer society – that "more is good"[36]; and finally it offends "the poor" (or rather, the self-appointed affluent who "speak for the poor") because this point of view would indicate that the poor can never attain their ambition of "being rich" (and they would be correct in such an observation, albeit that their own point of view is invalid in the first place – "the poor" are not poor due to a lack of affluence trickling down, but rather the inequitable distribution of the affluence that already exists).

Of course there is one area where you'll find certain environmentalists "blaming" the more affluent states for creating problems – *carbon emissions*[37]. Some argue from the seemingly logical position that the industrial nations are to blame since they have emitted carbon since the beginning of the Industrial Revolution. However, this argument overstates the data on past emission of carbon, and significantly understates present emission trends and how those impacts are distributed. The reason for this is fairly simple – the *exponential trend*[38] implicit within the impacts of economic growth. When campaign groups or the media look at past trends the assumption is of a linear change, but in reality the processes associated with economic growth exhibit an exponential change in impact. If we look at one of the available datasets on carbon emissions from fossil fuel use[39], shown in the figure 1, 329GteC (gigatonnes of carbon, not carbon dioxide) were emitted from the use of fossil fuels between 1751 and 2006.

The use of fossil fuels accounts for the majority of emissions, roughly about two-thirds overall. Although industry, agriculture and land-use changes are significant too, the energy data adequately demonstrate the underlying emission trends.

The UN Framework Convention on Climate Change was agreed at the Rio Earth Summit[40] in 1992, but from 1992 to 2006 we've emitted a further 103GteC – *almost 50% of the total that was emitted between 1751 and 1991!* Taking the emissions up until 2006, half of all the carbon emissions since the beginning of the Industrial Revolution have been emitted since 1981, and consequently it would be wrong to blame the present problems of climate change on "historic emissions" – it's the emissions in the last fifty years that have had the most pronounced effect on climate, and will continue to do so for the next 30 to 50 years irrespective of future emissions (there is a 30 to 50 year latency period between when carbon is emitted and when it has an effect upon the climate). If we really want to look at the source of carbon emissions, and the use of energy and resources that precedes these emissions, then we need to look at a more detailed breakdown of which states are "creating" the activity that leads to these impacts.

We can begin by looking at the international level, and the correlation between population, energy use and national wealth (expressed as the measure of gross domestic product, GDP[41] – and note that the data used has been adjusted to reflect 'purchasing power parity', or 'PPP'[42], in order to express the monetary value in a consistent manner). There is no internationally based intra-state demographic profile of world population and personal income, and relatively few developed states have such data, so looking at nationally derived statistics is the best we can do to allocate impacts to the global population. The projection shown in figure 2 uses: The 'primary energy consumption' (PEC) dataset from BP[43]; the global carbon emissions dataset from the US Oak Ridge National Laboratory's Carbon Dioxide Information Analysis Center[44]; and the global GDP[45] and population[46] tables from the *CIA World Factbook*.

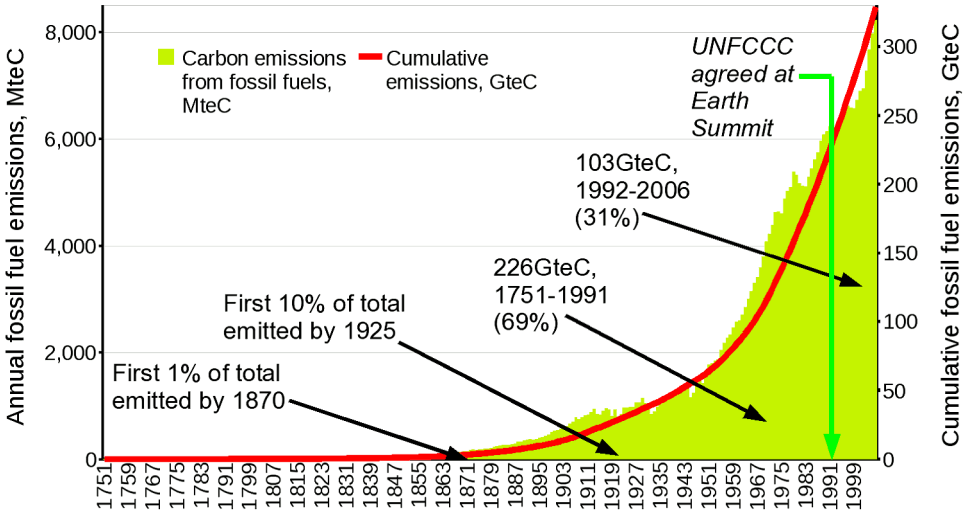

Figure 1. Global carbon emissions from fossil fuels, 1751 to 2006

To create a projection that reflects the levels of individual consumption, rather than the consumption of nation states, we have to take national-level data and express it in terms of per-capita values: The per capita energy consumption, GDP and carbon

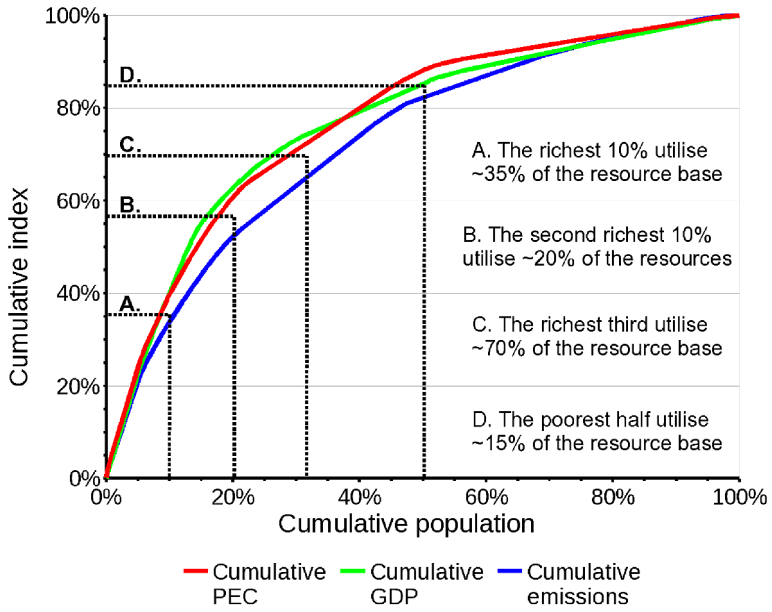

Figure 2. World states ranked by PEC, GDP and carbon emissions

emissions are calculated for each state; then the states are ranked from the highest to the lowest per-capita value for each of the three indices; finally the cumulative level of increase with population is plotted in order to express global consumption weighted by population. If the world's resources were shared equitably the resultant graph should be a straight line – consumption increasing in step with population. What we find is that the distribution is skewed[47]. As is shown above in figure 2, the consumption of resources globally is skewed towards just a few rich nations, but curiously, because these are ranked according to per-capita values, the nations at the top of the list are very different to "the usual suspects"; for example, the countries who appear in the top 20 of each category are Australia, Belgium & Luxembourg, Canada, Finland, Kuwait, Norway, Qatar, Singapore, South Korea, United Arab Emirates, and the USA (at the other end, China appears twice in the bottom 20, and India, Pakistan, Mexico, Egypt and Brazil three times).

One of the reasons for both the present difficulties in international climate negotiations, and why they lock in the present inequitable distribution of global resources, is because they are phrased around the boundaries of nation states – the level of individual consumption, reflected in part by their differing populations, is ignored. Such an approach will automatically favour the richest states over the poorer: Partly because many of the richest states are already benefiting from their existing levels of consumption; when planning the structures of new global markets in carbon or low carbon technologies they favour their already high levels of consumption; but more importantly, because many of the richest states import resources from many poorer states, they are able to export their "ecological footprint"[48] to these poorer nations. The processes under debate at the Copenhagen conference will therefore work to preserve the present inequitable distribution of resources rather than redistributing them.

Arguably the greatest flaw in this analysis is the lack of data on trade flows, and the embodied energy and carbon[49] in those flows. States such as Britain and the USA import a large proportion of their consumer goods from outside of their national economy, and so the existing data for both carbon emissions and energy consumption understate their true global impact (data produced for DEFRA suggests that Britain's emissions are likely to be 40% higher[50] if we were to include this embedded carbon).

One of the starkest things demonstrated by figure 1 is the correlation between GDP, energy consumption and carbon emissions – it's obvious that the more wealthy consume more and so emit more carbon, but it is the higher productivity that higher energy use and carbon emissions create that to a large extent create the wealth that they have. Within economies too, there is an overall correlation between the levels of consumption, household income and emissions.

A plot of the UK's distribution of total wealth and disposable income is shown below in figure 3. In the UK, if we look at the distribution of income[51] and wealth[52], we see the same skewed profile towards a minority of the population; and just as in the global situation, it is the more wealthy who are arguably creating the majority of the impact as a result of their higher than average consumption:

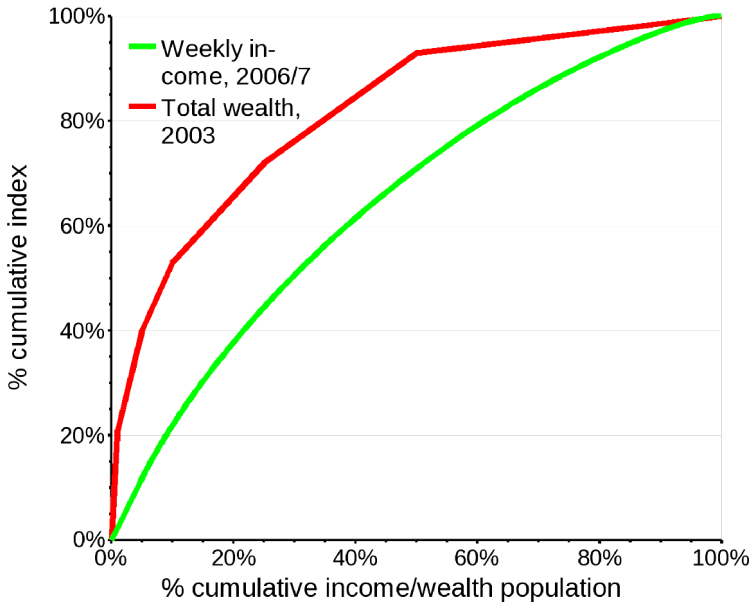

Figure 3. UK wealth and disposable income

There is clearly a distribution of income that favours the rich – in fact, of all the disposable income in the UK about half goes to just 30% of the population. Income pays for loans, and loans cannot strictly be considered as 'wealth' since they are a liability, and so there is a mismatch between the lines for 'wealth' and 'income'; those with a high income need not necessarily be wealthy if they have large loans and, because wealth is often tied up in assets and land, the 'wealthy' need not have a high income either. When we look at total wealth the value is skewed towards a smaller group within the population who have inherited their wealth, or created it through trading the value of businesses or commodities, in ways that create a return on asset values rather than a more straightforward income. So, looking at this from the perspective of social and economic policy, merely taxing income or using carbon quotas isn't going to address the problem – we need measures that reflect the way individuals are able to command wealth in society (for example, should the shareholders of companies take a proportionate responsibility for the carbon impact of that organisation given that they receive profits from that company in the form of investment income?)

Other data[53] from the Office for National Statistics shows how the differences in wealth and income affect British society, especially in relation to how different groups consume. Figure 4 compares the availability of certain household appliances between the richest (earning ≥£1,000/week) and poorest (earning £100-£200/week) income groups, showing that in general the wealthy consume more than the poorest[54] in society. This inequality doesn't just extend to material goods, but also housing – in general the richest groups tend to own more cars, and have larger houses.

To confuse matters there are certain measures produced by the ONS which apparently indicate that in two areas – expenditure on housing, fuel and heating, and expenditure on food and drink – the poor are spending more than rich households[55]. Of course this measure is based on the *expenditure as a percentage of income* and, given that the high income group in this data will earn at least six to eight times that of the poorest group, the equivalent level of expenditure will be at least three times greater for the richest group – *the general observations on wealth and the level of ecological impacts still holds true*.

This disparity between the affluence and the concerns of certain groups in society, noted above in relation to the membership of campaign groups, has been the subject of a very limited number of studies on the ecological impact of households. For example, a paper on the effect of the "greening" of Norwegian households under its Local Agenda 21 programme[56], the results of which are broadly consistent with the trends seen across Europe (e.g. Sweden and the Netherlands where similar studies have been carried out), noted that:

> We find that for three of the four factors that significantly affect consumption and the ecological footprint, the green households had problematic values as far as the environmental consequences of consumption were concerned. On average, green households live in larger houses than ordinary households. Green households also tend to have a private car at their disposal, and they earn more money than those in ordinary households... We found no indication that green households seek conditions such as small houses, avoiding car occupancy and having low income. Rather the opposite seems to be the case. We must therefore conclude that green households are no greener than ordinary households.... ***Being green simply doesn't seem to matter*** (my emphasis).

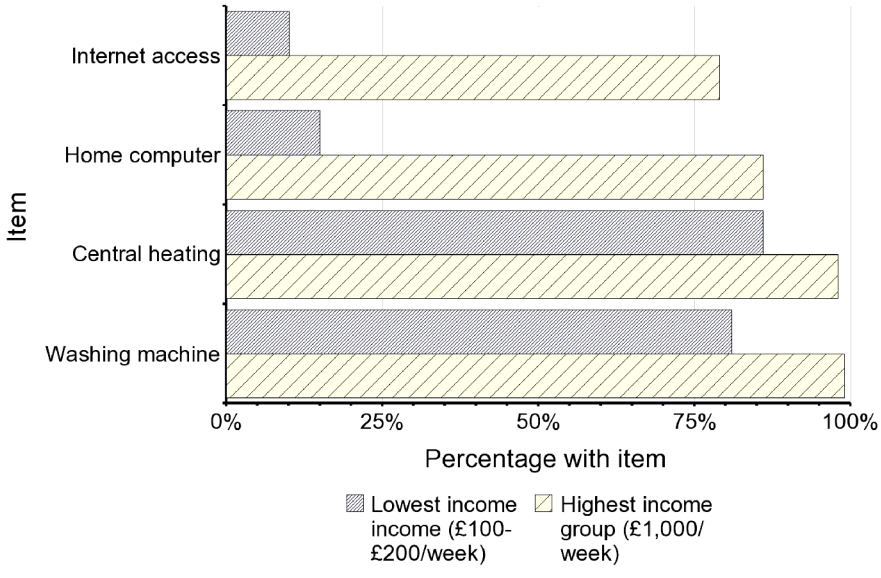

Figure 4. Disparity between richest and poorest income groups in the UK

Of course there is one thing that affluence cannot buy – *poverty*. That's because an individual who status – whether voluntarily, accidentally or due to outside influence – can be classed as "impoverished" is by comparison to other parts of society "not affluent", and as a result they will not consume resources to the same extent; affluence today is expressed in relation to forms of the conspicuous ownership of commodities rather than inherited hierarchical status or economic wealth. The modern concept of "trickle down" economics benefiting society, or the older concept that the poor are responsible for

their situation, cannot be true when we see the disparity in wealth and other correlating life chances (health, educational opportunities, etc.) being structurally enforced by the nature of the economy. It's the basis of the economy since industrialisation, and the way it favours certain groups, that's the driving force behind human inequality, and the source of ecological impacts. Coincidentally, it's this very debate that the founders of the modern consumer society (in the first half of the Twentieth Century, e.g. through the Bretton Woods process[1]) sought to avoid by creating the concepts of mass consumption beyond simple "utility value" – thus creating the impression that the acquisition of monetary wealth was not an absolute issue of social value, but rather the relative ability to consume commodities.

If there is a solution to climate change and resource depletion, and one that can be rapidly implemented with a guaranteed likelihood of success, then it will be for a greater proportion of the world's affluent individuals to become "relatively impoverished" (in relation to their previous levels of material consumption and wealth) – *either voluntarily, or merely by the circumstance of their not changing in time to avert a global ecological catastrophe*. Of course, thinking of the upcoming conference in Copenhagen, *when do politicians ever promise their electorates less?*

The train bumps around the long curve and then joins the main line at Craven Arms station. Not long to go now, but once the hills of "Little Switzerland"[57] have passed there'll be no mountains to look at any more – just the rambling plain of the River Severn, the monotony of Midlands urbanism, and then the carbonised affluence of the South East beyond.

I wonder about leaping off, and returning home via Hereford and a slap-up late lunch at the Green Café, but decide against it. I'll just have to go without any decent sustenance until I get home. That's a paradox I often think of when travelling. In the Consumer Society we are led to believe that we can have anything we want, but what we get is a *selection from* those items the economic system can deliver within the constraints of the production and logistics systems; and the limited ambitions of mainstream marketing, *where we're all individuals, encouraged to actively express our individuality by consuming the same thing*. Right now I'd like an authentically wholefood bowl of humus with a bean and couscous salad, topped off by a mug of industrial strength black coffee. Somehow the thought of the insipid offerings from the buffets at Shrewsbury or Birmingham New Street (by comparison – *but sometimes it's any port in a storm*) don't begin to approach that yearning desire. Like the debate on the merits of "carbonism", the reality of the "quality" food we are offered by the gastronomic boutiques of our town centres and transport hubs is somewhat different to their objective reality.

I think back to the starting point of the journey – *"Should there be a more 'politically involved' network of climate activists in Oxfordshire?"* Of course, considering the differences between the way many groups campaign on climate change and the objective economic and social trends that are driving the problem my thoughts reduce to one, very basic question: *"Why?"* What possible options are there for campaigning on climate change in Oxfordshire, *one of the more affluent counties in Britain*, if those taking part cannot realise the deeper realities of the way affluence plays a part in driving carbon emissions? If the more affluent are the source of much of the problem then that is the approach that should frame how we argue for change; unless they can address this, and take on the way that local politics apes the national and global political system in the ceaseless promotion of growth, then what possible difference could such a network make?

As I noted earlier, the act of "campaigning on climate change" has become a metaphor of reassurance, to those involved, that if we can solve this problem then in some tokenistic sense, "all will be right with the world". Funnily enough, that idea holds within it a greater truth than is readily apparent – since, as noted above, the disparity in carbon emissions holds within it the truth of a more general injustice that is woven throughout human society.

One of the great works within the canon of the British social justice movement is Robert Tressell's[58] book, *The Ragged Trousered Philanthropists*[59]. Published posthumously in 1914, it contains in Chapter 25 a discussion of "the oblong"[60] – Tressell's description of the inequalities in wealth that existed in Victorian society. He splits society into five groups:

1. Tramps, beggars, society people, the aristocracy, great landowners, all those possessed of hereditary wealth (14%);
2. Exploiters of labour, thieves, swindlers, pickpockets, burglars, bishops, financiers, capitalists, shareholders, ministers of religion (23%);
3. All those engaged in unnecessary work (31%);
4. All those engaged in necessary work – the production of benefits of civilisation (23%); and
5. The unemployed (9%).

He then allocates the wealth of society two ways, apportioning it between groups 1-2 (74%) and 3 to 5 (26%). Although it's very difficult to produce a very neat curve from this data (because of the few data points involved) we can illustrate Tressell's "oblong" as a cumulative graph similar to those used earlier. Now look at figure 5 (over the page); *does this look familiar to figures 2 and 3?* It's that same pattern, representing the disproportionate allocation of wealth and resources in Victorian society; one that eco-

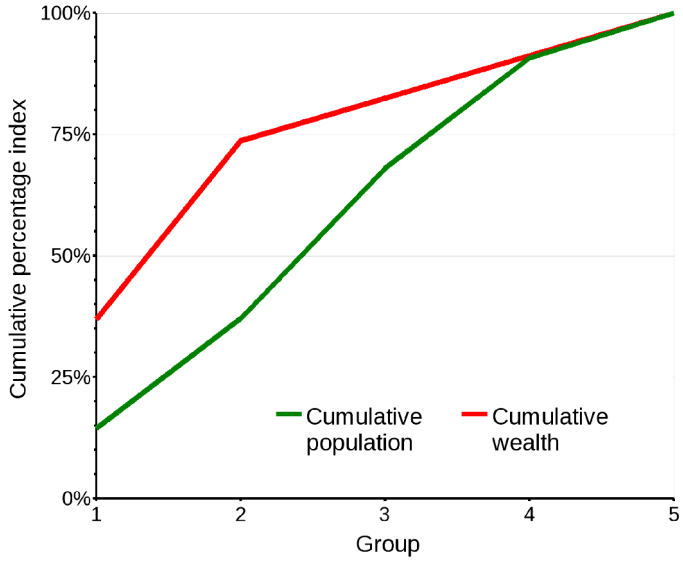

Figure 5. Tressell's "oblong" reinterpreted as a graph

nomic globalisation has now imprinted upon the rest of the world. In fact the inequalities that we see manifested in society today are in no way novel or applicable to our own time – they have arguably existed ever since the beginnings of industrialism, and probably originated in the dispossession of people from the land during the early Agricultural Revolution.

What has happened is that through globalisation these trends have been extended into all regions of the globe as the West's demand for resources, first through colonialism and then through the transnational trade system, has recreated the same inequitable models of commerce and resource distribution in areas where they did not exist before. In modern society the affluence of the developed states is a direct result of the disproportionate global allocation of material resources and the wealth that these resources create; but within our own nation the affluence of the suburbs is the result of the legal, political and other social systems ensuring a skewed allocation of resources relative to the inner city estates – *Tressell's "oblong" persists despite the intervening century or so of political reforms.*

The question of "why?" also raises some interesting observations – "why" is a function of "what" and in turn "what" has a dependent relationship to "who". The fact that someone ("who") proposes that change is required is because in most cases "what" they are doing, for whatever reason, cannot continue or is inadequate to the purpose, and the objective reasons for such a change constitute the "why" – albeit I've often found that the "why" is poorly stated, other than the obvious conclusion that the "what" isn't delivering what it should. Let's unpack this idea – *a network of politically involved climate campaigners*. That sounds really good, but as I have observed this instantly raises the issue as to "what" is missing, failing or in error about the current status of climate campaigning in Oxfordshire? If I am not mistaken the existing climate groups in Oxfordshire are already lobbying MPs and local councils, or writing to political leaders on the issue of climate change. If this is not achieving the desired outcome – greater action on climate change – then how would a "political network" be able to work any differently? Surely that's Einstein's definition of insanity, *doing the same thing over and over again expecting different results*.

The greater issue here is not so much the work of the public in lobbying their representatives, or the representational problems that the British political system has at the regional level; it's why these past efforts have yielded so little. I would phrase the problem thus: If we are to lobby national parties or candidates then how would this tie in with the work of national campaign groups?; if we are to lobby local representatives then how are we to lobby them?; but in either case, I would argue that any lobbying that takes place does so under the misapprehension that our political representatives are in a position to take action – and this is the reason why we're now being called upon to re-evaluate why things have not worked in the past.

In fact, I believe that the political system at the local, regional or national level is unable to take action for precisely the same reasons that the global political groupings cannot agree a deal for the Copenhagen conference. It requires the affluent world to abandon their adherence to the principle of economic growth, the disproportionate levels of wealth that growth has created around the globe, and instead focus upon the redistribution of wealth in a fairer way from the most affluent (say 800 million to 1 billion people) to the poorest. The failure to appreciate this limitation in past campaigns, or the inability to address this disconnect between the evidential basis for action and the political dogma of avoiding all debate on such contentious topics, will merely see local campaigners working towards the same farcical efforts that we see being enacted in the run-up to the Copenhagen conference.

The author of the email talked of the "elephant" (in the room, I presume) of climate change, but the "elephant" I would argue is not climate change, it's the growth paradigm. What's more critical is that this same elephant is present in the offices and homes of most mainstream environmental campaigners (and many of their paying supporters) – and their past failure to address its presence is what is limiting their ability to move forward towards a meaningful debate on how we will solve the climate problem and the other "limiting"[61] factors on human development (and, relating back to the "reassurance" metaphor earlier, the issue of social justice in general).

As with other aspects of the Consumer Society, as part of this discussion we are being asked to "con-

sume" the concept of "campaigning on climate change" without querying the basis for how society defines the parameters of action. Rather like my desire for humus and a couscous salad, I might want something that satisfies my considered views but all I am offered is the same unsatisfactory representative/lobbying actions. It's for this reason I believe that the role of politicians, scientists and campaign groups is not to convey understanding of the reality of our situation to the public, but rather to support the myopic viewpoints of "consumer carbonism"[62] – and thus the marketing of flawed campaigns like "Action on CO_2"[63] – because of the controversy that would result from them stepping "outside the fold". Or, returning to the analogy of the High Street food boutiques, any type of action beyond that already on offer would throw up too many problems related to the inferior fare that is already offer, and especially to the past short cuts taken with respect to the problematic additives of economic growth and the skewed distribution of wealth and consumption.

The difficulty with this extremely limited approach to campaigning is that public policy not only becomes a matter of "faith" – because it is divorced from objective reality; but the failure to explain, educate and inspire the public to look at problems in a new way means that, like any other consumer issue, change is reduced to a form of fashionable consumption that can wax and wane with the prevailing mood. To me, this approach is also the means by which contrarian groups (such as climate change deniers) are able to so forcefully influence the debate – their vision relates more strongly to people's everyday experiences and perceptions.

The other elements of the suggested discussion in the email – lobbying during the election campaign, going to candidate hustings, national lobbies and the like – are in fact secondary because the problems of how campaigners are addressing the climate issue itself invalidate them. If the central principles of how we will deal with climate change are wrong, because they operate in ignorance of the trends driving the phenomena, then the mechanisms we use to address the problem are working incorrectly too.

Clearly the environmental movement needs to do a lot of work "in its own backyard", to sort out its position in relation to the obviously bankrupt concepts that underpin the operation of both national and global economics, if it is to move forward; it must create a vision for how we can resolve the human inequalities that are as much a part of the climate change issue as the emission of greenhouse gases. The machinations of the various political groups around the Copenhagen conference are turning an opportunity to address the global problems of climate change into a rather laboured Greek tragedy[64] – *they are fated to fail by their own inability to see the truth of their situation, even though this truth is obvious to the more attentive members of the audience*. Why should local campaigners join in the same collective ignorance of our present situation within the boundaries of our own sphere of influence?

The greater difficulty for the environmental movement – and the "carbonist" subset of the movement in particular – is not the "reality" of the evidence for the link between carbon and economic growth/affluence, but rather the implications this has for the affluent lifestyle that many within the movement themselves enjoy. Think of this issue in terms of climate change denial[65]. What motivates those obfuscating the debate on climate change, and those funding these efforts, is more than anything a concern about a loss of power or influence by the developed states. More powerfully, in terms of their public audience, it is also the loss of affluence that is perceived by many to accompany any global settlement on carbon emissions – *and the curious thing is, they're entirely correct on this point!* You cannot address the issue of emissions without the redistribution of wealth and resources, at sustainable levels, because of the link between emissions, growth and economic activity.

The failure of the environment movement to address this issue head on, not only in social justice terms but also the more general issue of the ecological limits to growth, means that those obstructing progress on limiting carbon emissions have an open field to make the case against a workable agreement. Unless we make the counter-case – that the present affluence of Western society is only an illusion created by the ignorance of the human relationship with its environment, and that this affluence is coming to an end as a result of the restrictions on oil or metal production (to name but two – there are a growing list of limiting factors to industrialisation) – then we are not going to see a realistic agreement on reducing carbon emissions. What we will end up with is an ineffectual pact that seeks to address the perception of the carbon problem that, without addressing the underlying economic drivers for a more general collapse in the human system, will still end in failure. Locally, if we replicate the same well-worn conceptions of "lobbying" that have been tried in the past, we're not any more likely to make progress either. We should evolve new ways to deal with these new realities, not emulate the tried and worn-out ways of working of the past – not least because in the past politics was far more local and representative than it is today.

The train pulls into platform six at Shrewsbury; twenty minutes to the train to Birmingham. I wander around the sandstone gorge of the station that, trapped between the castle and the town, always seemed like the poor country bumpkin cousin of Edinburgh's Waverley station. I try to make sense of how I'm going to communicate any of this to people

in the climate network in Oxfordshire. I think of the Situationist slogan from '68, “be reasonable, demand the impossible”... *but what if the impossible is the inevitable since, from rising temperatures to resource depletion, that what's going to happen if we carry on our with current lifestyles?* Doesn't the inevitability of the outcomes to our present actions redefine the “reasonableness” of today's political debate into one based upon a grand delusion?

There is clearly a route forward, but for many it's going to be an unwelcome one: What we have to do is address the reality of our situation, with its challenge to many of the assumptions that underpin both local and national politics, and talk from the authority that this understanding brings; of course the price of taking this approach is that such realities could challenge our own lifestyles, and demand changes that we ourselves may find difficult to accept; but the experience and perceptions we ourselves derive from this process of personal change can equip us to more effectively communicate the need for change to society as a whole.

This more critical analysis on the nature of our society is one the most valuable tool that the environment movement has lost in its shunning of the “ecological” or “deep green” message of its 1970s roots. It's basis in “hard” ecological theory gave it an incisive vision into the practices of modern society, but even so it was discarded in response to the vicissitudes of the neo-liberal revolution in the late 1980s. Today we can clearly see that the rhetoric of green consumerism, that sought to replace the more critical message of early environmentalism, has failed to produce any meaningful progress. Now that the neoliberal model has been called into question by recent events isn't it right that we take this tool back out of the its box and dust if off?

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