

George Monbiot's Multi-Level Marketing of Ecomodernism... *where's the evidence?*



The environmental debate in Britain is maintained by a few unaccountable figures elevated to the role of eco-gate-keepers – which is why the ecological debate fails to make any real progress

Paul Mobbs, 'The Meta-Blog', issue no.24, December 2022

We should be holding the political establishment's feet to the wild-fire on ecological issues. Instead, a handful of 'reformers', promoting schemes or proposals which don't radically up-end the ideological landscape, are given preferential access to the public debate; to peddle, 'multi-level marketing-style', demonstrably wrong ideas about how to solve the ecological crisis. How do we hold these media-constructed pundits, who claim to represent our interests, to account? It's all about the evidence.

This is a necessarily long and detailed dive into the role 'green pundits' have in the ecological debate – and whether that role is truly representative given the available evidence. To be clear, this isn't just about George Monbiot specifically. By its nature, this also a discussion about the overwhelming [class divide](#)¹ in the ['English' environmental movement](#)² (since it's the London-centric English media and campaign groups which dominate this space).

As a [Guardian columnist](#)³, George Monbiot essentially states opinion, not facts. The problem is, in the public debate which then ensues from those opinions, his narrowly focussed articles are cited as if what is said were wholly true – when in fact the wider evidence base is being strategically ignored.

Monbiot is not alone: I could equally cite journalists such as David Shukman; ideological media constructs such as ['Countryfile'](#)⁴; pundits like Mark Lynas; or 'green' entrepreneurs such as Dale Vince. As these figures overwhelmingly embody the [affluent middle class values](#)⁵ of the establishment, that debate not only [downplays the trends](#)⁶ which are the result of that lifestyle; but also fails to connect to the people who [stand to benefit](#)⁷ the most from this debate – the ['average' person](#)⁸ living within the [increasingly precarious](#)⁹ UK economy.

Instead, [what passes for](#)¹⁰ 'radicalism' in English environmentalism are groups like *Extinction Rebellion* or *Just Stop Oil*. But these groups [are not 'radical'](#)¹¹: They are once again dominated by the middle class; their metropolitan focus [alienates them](#)¹² from the rest of Britain; and they have no specific project other than that governments ['tell the truth'](#)¹³ and [take action](#)¹⁴ on climate change.

Therein, like the media's green pundits, the groups considered to be 'radicals' in the public debate are ['statist'](#)¹⁵: Their unwillingness to look beyond the ideology, structures, and lifestyle created by Western affluence and consumption, cannot encompass – in terms of it's original meaning of, ['from the roots'](#)¹⁶ – any truly radical solution to the ecological crisis.

MLM: *'Through a glass, darkly'*

That preface made, we come to the reason for this article: There are subtle changes in 'green' lobbying taking place, driven by changes in the media.

In the 1990s I was an elected director of Friends of the Earth [at an auspicious moment](#)¹⁷. 'Green' [had gone mainstream](#)¹⁸, and the pressure was on to drop any ['hair shirted' ideas](#)¹⁹ for ecological change: Not only to ride that media machine to get coverage; but also to soak-up the cash sloshing around from government and corporate interests desperate [to greenwash](#)²⁰ their image. I opposed the idea, and ['green consumerism'](#)²¹ in general; but the pressure from the staff of nearly all mainstream campaign groups was to 'take the money', because of the access and influence that it promised.

Three decades on and that approach [has clearly failed](#)²² – and arguably has [diluted the movement's influence](#)²³ within the 'noise' created around these issues. More recently, though, this process has shifted, reflecting the economic pressures on the ['legacy media'](#)²⁴, driven by the new on-line/social influencer ['multi-level marketing'](#)²⁵ (MLM) machine.

As green issues have matured against that 'background noise' of the ecological crisis; and as government inaction has shifted to the lackadaisical definition of targets, quotas, and especially subsidies; the [pressure for environmentalists](#)²⁶ to promote certain issues has shifted from one of 'making change', to promoting '[a business plan](#)'²⁷. In part the result of neoliberal values infiltrating all levels of society, 'green' ideas [have ceased to be](#)²⁸ an advocacy for political action. Instead they advocate for one infrastructure plan or another which seeks to 'green' the modern lifestyle – *without changing it*.

This position was openly articulated by [Jonathon Porritt](#)²⁹ – one of those most directly responsible for ejecting radical thinking from first the Green Party, then Friends of the Earth. In his 2005 book, '[Capitalism as if the World Matters](#)'³⁰, he states:

*“Incremental change is the name of the game, not transformation. And that, of course, means that the emerging solutions have to be made to work within the embrace of capitalism. Like it or not, capitalism is now the only economic game in town... For fear, perhaps, of arriving at a different conclusion, **there is an unspoken (and largely untested) assumption that there need be no fundamental contradiction between sustainable development and capitalism.**”*
(my emphasis in **bold**)

As 'regulation', let alone 'limits' or 'prohibition' becomes a dirty word in the skewed-to-the-right media environment, so ecological issues are expected to perform within the processes of the corporate world. This is the environment which has spawned, '[ecomodernism](#)'³¹.

George Monbiot's 'accuracy problem'

The basis for most discussions about 'future change' today, is 'stasis': Proposals do not challenge '[business as usual](#)'³², which is why the ideas being publicly debated seek to preserve the core of the way things are. This is the contradictory paradigm within which [George Monbiot](#)³³ is trapped.

I specifically use the word, 'trapped': If he moved out of that niche I'm sure he would lose that media profile. He is permitted to perform that role in the media environment precisely because of the values he advocates, not because of the veracity of the ideas he promotes. It is his own, personal cost-benefit exercise that he chooses to occupy that role – *but that doesn't mean it is evidentially correct*.

I first bumped into George Monbiot at events in Oxford, and on roads protests, in the early 1990s. We occasionally corresponded, but that ended when he gave support to nuclear power in the late 2000s. Or to be more precisely, I kept trying to advance the alternative case and he simply refused to respond – even when we met in public.

These days, when I publicly challenge his assumptions he never responds. He also blocks people on social media who query his work.

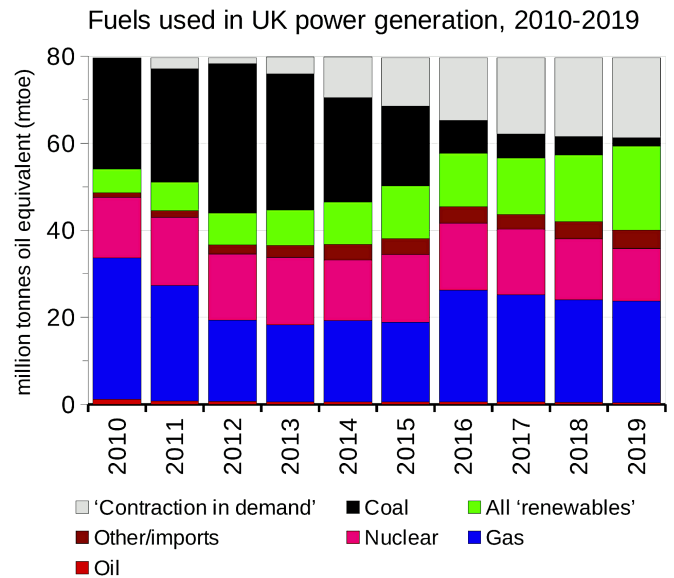
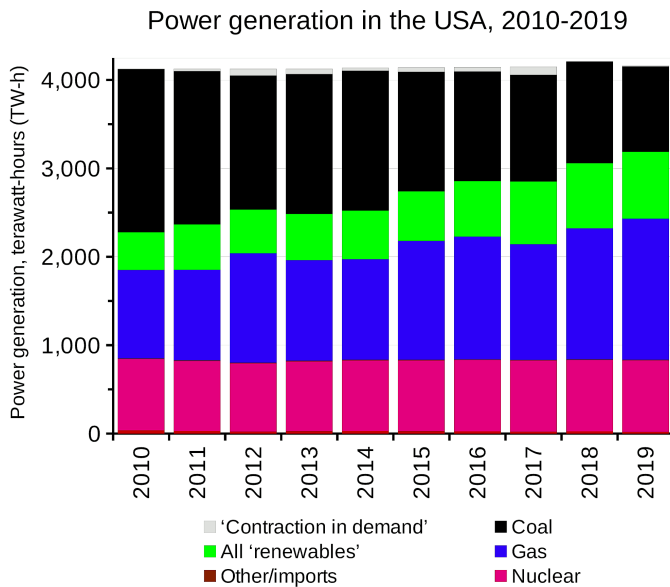
The difficulties with *The Guardian* – the largest remaining allegedly 'politically liberal' broadsheet within Britain's right-biased media – have been growing for some time. Recent campaigns to '[dump The Guardian](#)'³⁴, and [high-profile resignations](#)³⁵, have called into question the quality of their reporting. Once again, this highlights both the intellectual boundaries within which George Monbiot operates, and the 'conformity' those pressures may apply to the subjects he covers.

His columns in *The Guardian* are sparsely sourced, and sometimes factually flawed. My last '[public deconstruction](#)'³⁶ of one of his columns was published in May 2020 – when he attacked the then recently released film, '[Planet of the Humans](#)'³⁷.

At the time I published a short blog post, which had been extracted from a twenty page complaint (with forty references, mostly to academic journals and official data sources) which I wrote to *The Guardian's* '[Reader's Editor](#)'³⁸. I never received an acknowledgement... *despite sending it twice!*

Critical of Michael Moore, the structural flaw in that article was the fallacy of '[affirming the consequent](#)'³⁹: It suggested that as right-wing climate deniers liked Michael Moore's new film; then the position that Moore depicted must be friendly to climate denial too. In reality, many 'anti-greens' [didn't like](#)⁴⁰ the film's message. The reason they talked-up the film was precisely because its message made liberal environmentalists feel uncomfortable.

The article attacked the film's assertion that photovoltaic (PV) panels produce little energy once the [manufacturing costs](#)⁴¹ are considered – stating that, “*On average, a solar panel generates 26 units of solar energy for every unit of fossil energy required to build and install it*”. It would appear he hadn't [read his source](#)⁴², which stated those statistics could not be quoted in that context because it would underestimate the impacts of PV by 30% to 250%.



Analysis of electricity generation in UK and USA from my May 2020 [blog post](#)³⁶: The statistics from the [UK](#)⁴³ and [USA](#)⁴⁴ demonstrate that the scenario shown in the film is correct for the USA; and that in the context of the UK, the percentage growth of renewable power is more influenced by the collapse in electricity demand rather than the increase in renewable generation capacity.

In that paragraph he also attacks the film-makers statement that, “You use more fossil fuels to do this than you’re getting benefit from it. You would have been better off just burning fossil fuels in the first place.” That quote has been taken out of context. That statement is not about solar PV, or wind power; it’s about the gas-fired [Ivanpah Solar Array](#)⁴⁵ – a wholly different type of technology to PV.

The article then goes on to state, “*Planet of the Humans* also claims that you can’t reduce fossil fuel use through renewable energy: coal is instead being replaced by gas.” Unfortunately that is precisely what the official energy statistics in the USA show is happening (see graph above). From 2010 to 2019, as old coal-fired plants were retired, they were replaced with new, larger gas-fired plants using the large quantities of fracked natural gas being produced at that time. There is also [academic research](#)⁴⁶ to back-up the point made in the film.

The article then goes on to state that, “in the third quarter of 2019, renewables in the UK generated more electricity than coal, oil and gas plants put together. As a result of the switch to renewables in this country, the amount of fossil fuel used for power generation has halved since 2010.”

That statement is a manipulation of objective fact:

The ‘third-quarter’ is late Summer, when power demand is at its lowest and solar hits maximum. It’s not representative of average demand and supply.

More significantly though, what’s been dominating energy trends in Britain has been the collapse of electricity demand. That is in part the result of austerity choking growth, and especially heavy industries, such as metals and chemicals, moving offshore. Those effects are far more significant than new renewable capacity in cutting fossil fuel use – but that doesn’t even merit a mention.

Especially over 2015/16, much of the retired coal-fired capacity was matched by natural gas, not new renewable capacity. And the fact electricity demand shrank by a over a fifth from 2010 to 2019 means that in percentage terms – without adding a single wind turbine or solar panel – the proportion of renewable energy would have increased anyway.

The article then introduces the most [toxic argument](#)⁴⁷ which ecomodernists promote to silence opposition: Accusations of Malthusian ‘*population control*’ – where again the film is misquoted:

“The film offers only one concrete solution to our predicament: the most toxic of all possible answers. ‘We really have got to start dealing with the issue of population... without seeing some sort of major die-off in population, there’s no turning back.’”

That ellipsis – the ‘...’ highlighted above: That’s not skipping a few words or a sentence; it skips about 80 seconds of discussions. In running those statements together, it completely ignores the context within which each was made – specifically, the issue regarding the use of energy in agriculture.

The article then concludes this section by stating: “High consumption is concentrated in countries where population growth is low... When wealthy people, such as Moore and Gibbs, point to this issue without the necessary caveats, they are saying, in effect, ‘it’s not Us consuming, it’s Them breeding.’ It’s not hard to see why the far right loves this film”.

I challenge *The Guardian*’s editors to find any point in the transcript of the film where this is implied – and to listen to the “caveats” about rich-nation’s consumption which were made throughout the film. In fact, during that ‘ellipsis’ where Monbiot omits what is discussed, it is stated, “We have to have our abilities to consume reigned in, because we’re not good at reigning them in if there are seemingly unrestrained resources”.

George Monbiot is not promoting an objective, evidence-based view of our predicament. He is promoting an ideological, idealised vision where the affluent states can continue their current lifestyle by adopting new and more efficient technologies – a sort of ecological, “have your cake and eat it too”.

That’s not a problem: *Objectively, I’m doing the same, too, by making these observations – albeit from a radically different perspective.*

What we need to pursue is why George Monbiot, apparently willingly: Misquotes what is said in a film to cast slurs about right-wing conspiracies; uses academic research in a manner that is specifically excluded by its authors; misrepresents official energy statistics to imply something they do not show; and thus, overall, denies what a large body of research evidence now demonstrates to be a fair assessment of our ecological predicament.

Ecomodernism’s ‘data problem’

First advanced by figures such as [Stewart Brand](#)⁴⁸, [Kevin Kelly](#)⁴⁹, and [Amory Lovins](#)⁵⁰, ‘ecomodernism’ came out of the American environmental movement in the 1980s proposing a simple idea: The only way to beat the destructive business process is to ‘do business’ better than they can, in an ecological way; the assumption being that higher efficiency would enable economic competition due to higher productivity, and hence profitability.

Though there are various [manifestos](#)⁵¹ and [institutes](#)⁵², ‘ecomodernism’ is not a coherent group. It represents a spectrum of ideas stretching

from: The loosely ecological (e.g. George Monbiot); to progress-obsessed techno-Utopians (e.g. [Mark Lynas](#)⁵³); to ideologically right-wing libertarians (e.g. [Michael Shellenberger](#)⁵⁴); to corporate-oriented eco-technocrats (e.g. [Jonathan Symons](#)⁵⁵).

Generally, though, ecomodernism is heavily influenced by liberal economic theory: The idea of free, globalised markets; a reliance on technological innovation and efficiency, to drive down impacts while driving up productivity; the maintenance of property rights; and moreover, an unquestioning adherence to the economic hegemony of the ‘Western lifestyle’ – and the need to perpetuate the affluence and material consumption that lifestyle demands.

This is where ecomodernism hits the reality of the ecological crisis. For all their protestations, basically [‘the thermodynamics say no’](#)⁵⁶. In particular:

- ◆ [Energy efficiency](#)⁵⁷ is not open-ended – it is a one-time saving, after which wholly new technologies must be invented, or systems significantly changed – and in general it is a diminishing return with fixed theoretical limits, where each improvement saves less-and-less;
- ◆ The heart of this idea is [‘decoupling’](#)⁵⁸ – the assumption that the use of technology can break the link between human lifestyles and their ecological impact – which currently has [no strong evidence](#)⁵⁹ to support it;
- ◆ As with neoliberal ideology in general, ecomodernism will not accept strong [‘ecological limits’](#)⁶⁰ – despite the fact recent research confirms that [after 50 years](#)⁶¹ the [‘Limits to Growth’](#)⁶² study is [still on-track](#)⁶³; and
- ◆ They do not consider the [embodied footprint](#)⁶⁴ of their activities on [resource depletion and pollution](#)⁶⁵ – and often invoke the quasi-mystical power of ‘innovation’ to solve that without proof of its feasibility.

Perhaps the area where the ignorance of ecomodernism reigns supreme is in the area of energy resources. It is assumed that we can simply turn-off fossil fuels and switch-on ‘clean’ renewables:

For the strongly technocratic end of the ecomodernist spectrum that transition is innately connected to nuclear power – despite the fact there’s [not enough uranium](#)⁶⁶ to do this (they argue that there’s more than enough [uranium in sea water](#)⁶⁷, despite the fact this process has yet to be commercialised, and has [questionable economics](#)⁶⁸).

For the strongly ecological end of ecomodernism that transition is connected to the use of [“100% renewable energy”](#)⁶⁹ – despite the growing evidence to show that there are [insufficient mineral resources](#)⁷⁰, and [complex barriers](#)⁷¹, to construct the scale of infrastructure required to replace the ‘energy service’ of fossil fuels.

When I give lectures, this is the point where people are often confused: If the highly technological solution to climate change is not possible, and the renewable solution to climate change is not possible, *then what option is there?*

The fact people commonly ask this question demonstrates why George Monbiot, and the other ecomodernists pundits in the media, have become an obstruction to the ecological debate.

There is an entire movement around [degrowth](#)⁷², and the [‘simplification’](#)⁷³ of human lifestyles, which is not currently being referenced within the UK media debate. [It challenges](#)⁷⁴ the implicit bias of mainstream environmentalism: It entails reducing material affluence, and tackling the excesses of consuming lifestyles through the national and global redistribution of resources.

Take, for example, electric cars: The media debate is presented as a divide between ‘petrol heads’ and ‘affluent green consumers’ – but neither side ever enters in to a discussion to justify maintaining the ‘private car’ as the priority for moving around.

In 2020, the [Climate Change Committee](#)⁷⁵ (CCC) canvassed opinion on electric vehicles. An expert panel assembled by the Natural History Museum [told the CCC](#)⁷⁶ that:

“To replace all UK-based vehicles today with electric vehicles, assuming they use the most resource-frugal next-generation NMC 811 batteries, would take 207,900 tonnes cobalt, 264,600 tonnes of lithium carbonate, at least 7,200 tonnes of neodymium and dysprosium, in addition to 2,362,500 tonnes copper. This represents, just under two times the total annual world cobalt production, nearly the entire world production of neodymium, three quarters the world’s lithium production and 12% of the world’s copper production during 2018. Even ensuring the annual supply of electric vehicles only, from 2035 as pledged, will require the UK to annually import the equivalent of the entire annual cobalt needs of European industry.”

Mineral resources are a significant barrier. And the CCC’s response to this critical issue, being spelled-out by Britain’s pre-eminent geological institute was... *silence*. [A briefing](#)⁷⁷ they published later doesn’t even mention the issue.

Put that case differently: A grid-powered trolley-bus moves passengers many-times more efficiently than multiple battery-powered cars. So where is ‘the lobby’ for the elimination of cars? [It does exist](#)⁷⁸, but gets little media coverage as it challenges the dominant assumptions of the consumer lifestyle – in this case, the primacy of the ‘private car’.

Renewable energy and green technologies, such as electric cars, are dependent upon mass electrification; and as a result, [a huge expansion](#)⁷⁹ in metal production [using resources](#)⁸⁰ which have a finite, limited supply. There is also growing evidence that the extraction of those resources across the globe could be especially [damaging to biodiversity](#)⁸¹.

Some of these metals – such as copper, cobalt, or rare earths – are so limited that they are a barrier to a [‘Green New Deal’-type plan](#)⁸²; and the energy return of renewable technologies [will continually fall](#)⁸³ in the future, as these metals deplete, as the [energy used in their extraction](#)⁸⁴ increases. Even if we ‘innovate’, such as [swapping lithium with sodium](#)⁸⁵ in batteries, trace amounts of rare earths and other metals are still required; and the yet to be invented nano-technologies proposed as substitutes have an uncertain efficiency or efficacy.

How then can groups promoting the ‘Green New Deal’ – such as the [‘Zero Carbon Britain’](#)⁸⁶ (ZCB) – advocate 100% renewable energy without also advising of the resource or pollution risks inherent in that project? The reason, from my own experience arguing with ZCB for over a decade, is they just ignore them: They ignore them because ‘people in power’ – like the CCC – don’t want to hear them, and so they exclude them from their considerations.

What is certain is that while a segment of the globally affluent may be able to scrape a carbon-free lifestyle, there are not sufficient resources to [allow everyone else](#)⁸⁷ on the planet to consume in that way. And the over-riding reliance on a single metric to judge progress – *carbon emissions* – is leading to a willing ignorance over both the global pollution, resource depletion, or biodiversity loss, that would result from such a ‘green’ future.

George's fallacies on fermentation

Firstly, as others have demanded my opinion on this recently, do I think that George Monbiot is being funded by corporate interests to talk about precision fermentation?

I really don't think that matters at all!

Whether he's being funded or not doesn't change the underlying technical arguments; and to raise that as an issue distracts from the evidence for why he is wrong. *Motive* is not the issue here; the issue is *evidence*.

Let's address the big issue first: *Technically there is no 'food production' crisis!*

As George Monbiot commented in his [interview with Owen Jones](#)⁸⁸, world hunger is rising – now probably extending to a billion people or more, including in the most developed states. That last part is the critical issue: The reason people in affluent states skip meals is the same reason those in poor states die of malnutrition – *it's an issue of allocation, not production*.

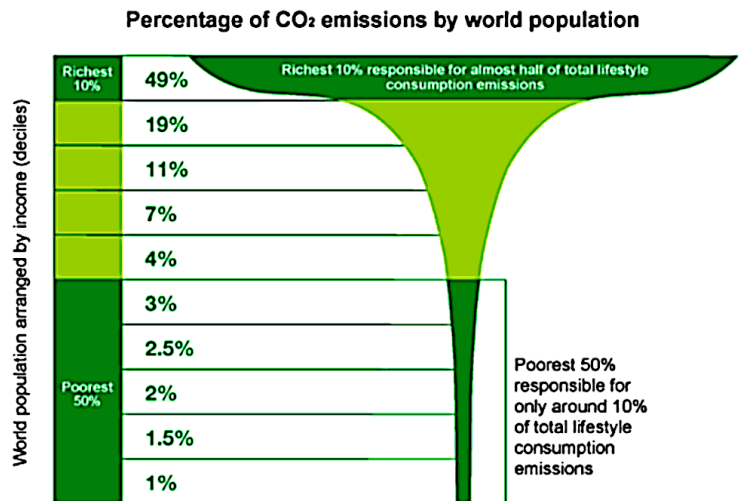
The [reasons for world hunger](#)⁸⁹ and malnutrition in both poor and rich states are variously, depending upon the location, the result of:

- Economic inequality;
- Climate change;
- Conflict or displacement;
- Natural disasters;
- Urbanisation and/or isolation from the land, restricting access to food except by payment;
- Poor diet due to the economic or social barriers to accessing good quality food; and
- Social/state imposed barriers restricting access to land or food by certain groups.

[Precision fermentation](#)⁹⁰ is the idea that by using genetically engineered micro-organisms, grown inside industrial vats, protein can be produced far more 'efficiently'; and with secondary processing and chemical additives, those simple proteins can be engineered into 'nutritious' [meat substitutes](#)⁹¹.

Given that brief summary, does anything stated there address the points in the list above of the primary reasons behind global hunger? *No*.

To even talk about precision fermentation in the same context as hunger belittles the [global inequalities](#)⁹² that drive it; and distracts from the [necessary changes](#)⁹³ to national and [global governance](#)⁹⁴ in order to address those issues.



'The Champagne Glass Graph' – made popular by the [UN Human Development Report](#)⁹⁵ in 1992, then resurrected by Oxfam in their ['Extreme Carbon Inequality'](#)⁹⁶ reports – this shows the unequal share of global carbon emissions, but its general proportions are also correct for energy consumption, metal consumption, digital devices, etc.

The root of global hunger is inequality: Global inequality is not the 'fault' of those who are hungry; it is due to the 'choices' of those running national and global governance systems. That system is dominated by a globally affluent elite: Where the [10% of the world's population](#)⁹⁵ benefiting from that mechanism [consume half of everything](#)⁹⁶; while the 'bottom half' consume just 10%.

Let's be absolutely clear on this: There is a [Human Right to Food](#)⁹⁷. The fact hundreds of millions are hungry, yet enough food is produced for all, is a [matter of political choice](#)⁹⁸, not 'fate'.

I've read George Monbiot's book, ['Regenesi](#)⁹⁹. Personally, I've found his recent books rather rambling – lamenting the ills of the world, yet ignoring the 'radical' solutions available if he could remove his mental shackles to society, 'as it is'. We need to stop worrying about how bad things are, and concentrate on the simplest ways to make them better.

For example, in chapter 5 he says:

"City farms, allotments, and guerrilla gardens help us to feel a sense of connection to the land and engage our minds and hands in satisfying work. But, with one or two exceptions it's unlikely to satisfy more than a tiny fraction of demand. The reason should be obvious: land in cities is scarce and expensive."

Why is land in cities expensive? Because it is owned by a minute minority of the population called 'landlords'. *Why is that an ecological issue?*

Climate change is a physical restriction on humanity. How much food you can grow on a square metre of soil is also a physical restriction. 'Property rights' [are completely abstract](#)¹⁰⁰ – *they do not exist*, just like the monetary values property rights are traded with. They are not a 'physical' restriction.

If we are truly saying that climate change and ecological breakdown are 'existential' – that society lives or dies by what we do in the next decade – who could support a wholly 'abstract' division of the land in a way which prevents people from providing their needs in the most low impact way?

Once again, we come back to the issue of inequality: In Britain, [less than 1%](#)¹⁰¹ of the population own ~50% of the land. In 'Regenesi's', George argues that the intellectual property rights on the technological solutions to climate change must be weakened. Why, then, can't we also restrict property rights on the land, or cap land values or tax excess wealth, to facilitate low impact lifestyles?

In [a short film](#)¹⁰² on 'Regenesi's', George states: *"...in Finland, scientists are brewing-up an entirely different kind of food. Inside these tanks, protein is being produced by... bacteria. The only inputs are water, carbon from the air, a sprinkling of nutrients and electricity to split the water into hydrogen and oxygen. And the only waste product... is water."*

In the previous section I outlined the problems with ideas like the 'Green New Deal', and the material and geopolitical barriers to expanding renewable energy to match fossil fuels. By advocating the use of electricity to produce protein – perhaps [up to 25 times more](#)¹⁰³ energy per unit of protein – it necessarily involves: A certain level of mineral extraction; a certain level of pollution; and a certain level of biodiversity loss as a result of those operations.

Are any of those impacts factored into George's presentation of the process? *No*.

Finland is a good example: While 26% of their electricity comes from hydro and wind, around the same comes from nuclear – and that is projected to rise as their new, delayed, and massively over-budget EPR nuclear plant comes on-line. Does the fermentation process, therefore, consume uranium and produce high-level nuclear waste? *Arguably yes*. Is that considered in George's model? *No*.

I don't want to labour the point, but this model of how the process works is highly misleading: It does

not measure the related impacts of creating the electricity; or extracting and purifying the artificial nutrients; or the associated energy and pollution costs of processing the 'protein gloop' into 'cultured meat'. It is very much like the nuclear industry's argument that '*nuclear power doesn't emit carbon dioxide*'; and yet from the concrete in the reactor, to ore processing at the uranium mine, greenhouse gases are embodied throughout that process.

In affluent states the major source of protein is meat; but in poor states the major source of protein [is vegetables and cereals](#)¹⁰⁴. How does that square with Monbiot's assumption that meat production [for the global population](#)¹⁰⁵ is a homogeneous issue?

Likewise, humans need [roughly 50g to 60g](#)¹⁰⁶ of protein per day. On average most countries scrape that amount in their national diet; but in the affluent world people on average consume [at least twice that](#)¹⁰⁷ amount or more. Does George Monbiot discuss the inequality of global protein intakes, and how that too leads to damaging health impacts, just as too little protein does? *Not that I can find*.

Turning to George Monbiot's [recent column](#)¹⁰⁸ in *The Guardian*, we see this same simplistic, narrow-boundary analysis applied as a justification:

"The first is to shrink to a remarkable degree the footprint of food production. One paper estimates that precision fermentation using methanol needs 1,700 times less land than the most efficient agricultural means of producing protein: soy grown in the US. This suggests it might use, respectively, 138,000 and 157,000 times less land than the least efficient means: beef and lamb production."

According to both his book and his column, then, the choice is between intensive animal agriculture, intensive soy production, or precision fermentation: That's an entirely '[false dilemma](#)'¹⁰⁹, ignoring the large body of evidence on viable alternative options.

His book, 'Regenesi's', doesn't discuss '[permaculture](#)'¹¹⁰, or '[integrated polyculture](#)'¹¹¹ – even though [recent research](#)¹¹² shows those systems to be far less polluting, and [as much if not more](#)¹¹³ productive, and economically far more beneficial to those involved, than the intensive farming system he rails against. Even [urban allotments](#)¹¹⁴ – which he dismisses in the book – are [as good as, if not more](#)¹¹⁵ productive than intensive agriculture, with [higher levels of biodiversity](#)¹¹⁶.

If we know there are easily implementable systems that can produce the same, if not more food, with less impacts, why doesn't George evaluate these 'other' options? Why doesn't he investigate the details behind why a third of the world's food is grown by 'small farmers' [using only a quarter](#)¹¹⁷ of the farmed land area? (hence, a third-more productive than intensive agriculture) And how does his characterisation of the problem of protein production fit to the varied models of small-scale agriculture – or indigenous animal herders or hunters – who do not practise intensive production? These alternatives are dismissed without investigation.

[Interviewed by Aaron Bastani](#)¹¹⁸ – the man who wrote the book on, ['Fully-Automated Luxury Communism'](#)¹¹⁹ – one-hour in George states:

“By doing it this way you can localise your food production, and it can be much cheaper. You're not paying soft currencies for hard currencies, you're not using your local currency to buy stuff on the dollar market. You're producing your own food locally, and it could have a massive impact in reducing hunger but also in allowing people to assert sovereignty over their own food supply.”

Those points apply even more strongly to locally-based agriculture, or small-scale plots or urban allotments, than to precision fermentation.

He also fails to note the up-front demand for electricity, water, concentrated nutrients, and a processing capacity to turn the 'protein gloop' into an appetising foodstuff. *Are those factors which are all locally available?* Clearly, not. Even 'locally produced' solar electricity requires photovoltaic panels which are the product of a globalised mining, manufacturing, and logistics chain, that operates on the hard 'dollar' currencies he's being critical of.

George Monbiot's analysis of the land required to support 'cultured meat' is incomplete. It doesn't include the land-take of the system's ['externalities'](#)¹²⁰ such as: Power generation; nutrient production; or the land mined for metal or phosphate resources. Unless that essential part of the system is included, he is not making a 'like-for-like' comparison, and so no claims can be made as to its advantage.

In contrast, what do localised permaculture or integrated polyculture systems depend upon? [Seeds](#). Literally, the most complex part of a local food system is developing the right seed variety for the local

climatic conditions; and once obtained, they can be simply grown and shared – no hard currencies or mechanised logistics chains required.

Small-scale animal agriculture, integrated into fodder cover and nutrient cycling, may be part of that process – especially at higher latitudes where the growing season is shorter. That, again, is something that requires a local assessment of the best options for food production. But to reduce this entire debate to, *“Technology Will Save Us All!”*, is simplistic, illogical, and not based upon evidence.

I have wrestled with 'Regenesi's' since I read it. His recent Guardian columns only add to my concern about his public pronouncements. I can rationalise their flaws and failures in only one way: The levels of compromise George Monbiot engages in, to maintain his position within the media environment, mean that he can no longer represent ecological reality to his audience.

Conclusion: If ecomodernism's tinkering has failed, it suggests their model is wrong

Multi-level marketing, created off the back of the social media boom, is as revolutionary as the fears raised by [Vance Packard](#)¹²¹ about the [marketing boom of the 1950s](#)¹²². Whether by direct payment, goods-in-kind, or just because of the 'group identity' it confers, the manipulation of ['social influencers'](#)¹²³ by political, financial, and industrial interests, represents a new 'wild west' in – to use Edward Bernays' famous phrase – ['The Engineering of Consent'](#)¹²⁴.

George Monbiot is such an influencer – and a valued one as his audience is largely made-up of the affluent middle class with disposable incomes. And in the marketing of that message – unlike other advertisers – he is wholly unaccountable as he ['accents the positive'](#)¹²⁵ and buries the bad news.

Although Jonathon Porritt may have felt either the honesty, or entitlement to state the assumptions behind the 'ecomodernist' viewpoint, many do not. They bend and twist their ideas to avoid ever confronting reality: That their technocratic machinations are devised to maintain their material entitlements.

We must [revivify the 'radicalism'](#)¹²⁶ that Porritt and others excluded from the movement in the 1980s as they sought compromise with the establishment; and reinvigorate the [deep ecological debate](#)¹²⁷ on ['materialism' & 'inequality'](#)¹²⁸ that has been suppressed for too long.

Ecomodernism can never address the economic and social inequalities which benefit the globally affluent, while creating suffering or hunger for other living beings (humans included). Just like the establishment's failure to address colonialism, doing so would question their own political and economic advantage in the here-and-now – raising difficult questions of justice and accountability for past policies.

When I raise the issue of class identity, affluence, and the ecological crisis, a number of people in the environment movement – especially of the 'ecomodernist persuasion' – are driven to apoplexy.

I understand that: It challenges the very basis of their self-identity, and hence their security and well-being. But it's equally valid to require anyone objecting to this approach to view the issue from the opposite side: From the majority who are economically excluded from the debate; and why the low-tech/low impact options for change are excluded from that debate, as the privileged pundits leading it feel uncomfortable talking about them.

Through his columns in *The Guardian*, and his recent book, George Monbiot has created talking points that seek an ecologically-benign 'stasis' in the human system – ignoring the needs and current predicament of the nationally and globally poor: To even mention the word 'hunger' in the context of precision fermentation, I find offensive; to talk of technocratic solutions that are reliant upon globalised commodity systems, when the barriers to accessing food are the result of the neocolonial domination of the resource production, I find repugnant.

What I have not raised here is his ['Reboot Food'](#)¹²⁹ initiative, and in particular his ['manifesto'](#)¹³⁰ – including its: Calls to legalising gene editing (without specifying which of the many

processes available should be made 'legal'); calls for 'rewilding' (without specifying what that means, and to what extent 'rewilding people' is permitted'); and calls for greater food labelling (which presumes the perpetuation of the highly centralised industrial food production and distribution system). That 'manifesto' deserves a deep-dive of its own!

If 'ecomodernism' is focussed on enabling certain technological or consumer choices, when many are excluded from those choices not simply by price, but by the fact they can barely scrape the basics for a viable lifestyle, then how is that debate going to ever create a mass movement for change? Worse still, the political-right that George seems so afraid of will weaponise that failure to engage across the social spectrum, to obstruct change, and alienate those making such arguments.

George Monbiot has a highly privileged position which he could use positively: He could deconstruct the economic and social processes that created his privilege; and through that process, both advocate for radical ecological change, and build bridges with those economically excluded from the advantage that he has benefited from.

He chooses not to do that. Instead, he advocates for 'solutions' which preserve the economic advantage of the Western lifestyle above any criticism that it is physically and practically beyond salvage.

We need seeds, not solenoids; plots not vats; gardens, not economic globalism. Above all we need land rights, and access to land, to disengage from the global economic system that is the root of human exploitation and ecological destruction. For a catchy sound-bite to encompass that, let's say, "we need to rewild the people alongside all the other animals".

As I have reviewed here: George Monbiot's representation of ecological issues in the media has become increasingly narrow; biased towards the perpetuation of affluence and establishment power; and as a result, he is apparently twisting, misquoting, or stating incomplete information, in order to maintain that position. What he promotes is an 'extreme centrism', which, through highly questionable technocratic schemes, seeks to preserve the entitlements of affluence against the inevitable crash of that lifestyle. As a result, he is sanitising ecological destruction and global inequality, to maintain the artificial lifestyle of the affluent minority who have benefited the most from industrialisation – which, in the end, is what has created the ecological crisis, and which must be curtailed to avert it.

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