Emergency Powers Background Paper v2

"Avoiding catastrophic climate breakdown is to do the seemingly impossible. And that is what we have to do."
Greta Thunberg (then aged 16), 30/03/2019

1. Introduction

Prince Charles said at the 2021 Conference of the Parties (COP26) "we have to put ourselves on what might be called a warlike footing ... because time has quite literally run out" to halt the devastating climate change threatening the planet. He went on to say that we need to *reduce* the amount of carbon in the atmosphere. He was saying things that no elected politician has so far been willing to say.

This paper addresses the question "What emergency powers do we now need in the face of the developing climate emergency?"

2. Facing an existential emergency

Evidently we now face an existential emergency. Despite the scientific warning, successive Intergovernmental Panel on Climate Change (IPCC) reports, and Conferences of the Parties, it is evident that the effort made by the United Nations over many years to co-ordinate reductions in carbon emissions has failed. This is an absolute emergency, "our house is on fire", and we have to take drastic action to change course. What would it mean to "put the economy on a war-like footing" or, since this is not in fact a war, into emergency measures. At the very least this implies an economy in which individual desires, wants and needs are subordinated to the collective will to succeed in the collective endeavour, meeting an existential crisis. In this case the endeavour is to overcome the danger we face from a climate cataclysm.

When 'the economy' is in 'emergency measures' we expect to have less freedom and convenience in our day-to-day lives. These things have to be curtailed for the sake of a collective future that we all value. By extension, the collective willingness to do this is achieved by an emphasis on *fairness*, although this cannot always be completely achieved. All this is very much in the opposite direction from the direction to taken by the economy and society here and in the rest of the world since 1979. Since then unregulated capitalism has driven rapid economic development, especially in some parts of the world. The development has been based on the ruthless extraction of finite resources. It has lifted many people out of poverty in some parts of the developing world, but at the price of a huge increase in inequality, threats to human rights and a rapidly developing climate and ecological crisis. It has reduced the economic power, and impoverished a section of the working class in the already industrially developed world. Arguably then choosing the means to achieve and maintain the collective will to succeed are just as much an issue in putting the economy on an emergency footing as more concrete issues about the management of production and consumption. It is about mobilising and maintaining the will of the

population to make sacrifices for the sake of our children and grandchildren. In addition, in order to maintain peoples commitment to sacrifices made for the good of future generations we must commit to a better future society for all.

3. Why do we need it? Because there is no carbon budget

The process inaugurated by the United Nations has failed. As Antonio Guterres, Secretary-General of the United Nations, said in April 2022 “The jury has reached a verdict. And it is damning. This report of the Intergovernmental Panel on Climate Change is a litany of broken climate promises. It is a file of shame, cataloguing the empty pledges that put us firmly on track towards an unliveable world. We are on a fast track to climate disaster. Major cities under water. Unprecedented heatwaves. Terrifying storms. Widespread water shortages. The extinction of a million species of plants and animals. This is not fiction or exaggeration. It is what science tells us will result from our current energy policies." As he pointed out, "current climate pledges would mean a 14 per cent *increase* in emissions.” (My italics). The task set by the IPCC has not been honestly engaged with, as he said "Some Government and business leaders are saying one thing, but doing another. Simply put, they are lying. And the results will be catastrophic. This is a climate emergency."

4. Tipping points

As the working group noted there are many signs that the situation is worse than that predicted by the IPCC. To quote over 11,000 climate scientists, Ripple et al (2019) “The climate crisis has arrived and is accelerating faster than most scientists expected ….. It is more severe than anticipated, threatening natural ecosystems and the fate of humanity (IPCC 2019). Especially worrisome are potential irreversible climate tipping points and nature's reinforcing feedbacks (atmospheric, marine, and terrestrial) that could lead to a catastrophic “hothouse Earth,” well beyond the control of humans (Steffen et al. 2018)”.

Evidence of this continues to accumulate. For example, there is no doubt that the loss of summer sea ice in the Arctic is already causing the release of methane from frozen methane clathrates in the shallow seas adjoining Siberia, Shakhova et al (2019). The defrosting of the tundra is leading to the thawing of soils containing large amounts of organic material, and this will release carbon dioxide when it exists in aerobic conditions, and methane when it is in anaerobic conditions. Permafrost that was expected to defrost, according to the IPCC models, in 2090, was found to have defrosted in 2019, Farquharson et al (2019). The Amazon and other tropical forests are losing their capacity to absorb carbon, Pearce (2020). *The process is going into reverse* and a substantial part of the Amazon Rain forest now emits carbon. Tropical wetlands are producing increasing amounts of methane as temperatures increase. The proportion of methane in the atmosphere is increasing faster than the proportion of CO2, and the small amount of methane in the atmosphere now accounts for 25% of climate forcing, that is to say heating.

There is evidence that changes are accelerating. Tipping points are being passed. Armstrong McKay et al (2022) argued that at the present temperature increase of 1C may have triggered some tipping points. According to the Climate Change Advisory Group (2021) "the Arctic holds vast quantities of stored methane that is locked within permafrost, frozen soils, and beneath the sea floor of the Arctic Ocean. Rapid warming of the Arctic is causing permafrost to warm and destabilise. The increasing carbon dioxide and methane emissions from Arctic permafrost have resulted from it flipping from a carbon sink to a source. In 2019, the Arctic is estimated to have contributed roughly the equivalent of 6.3% of that year's anthropogenic CO2 emissions. Permafrost thaw has also released unspecified quantities of CH4 which, on a molecular basis, is 140 times as powerful a warming influence as CO2, and nitrous oxide, which is roughly 300 times more powerful per molecule a warming agent as CO2 on a 20-year basis. It has recently been estimated that around 12 times more nitrous oxide is being released from permafrost than previously thought." The changes in the Arctic have destabilised the Polar Jet Stream, allowing very cold air to move south, causing extreme weather events, and allowing warm air to move north, provoking further ice melt and accelerating the melting of the Greenland Ice Sheet. These are all indications that secondary effects of anthropogenic emissions are now kicking in, effects we cannot expect to be able to control. Hansen et al, in a re-analysis of much climate data argue that in fact, even if we could stabilise

Evidently there is now an immediate crisis that has to be faced. As professor Sir David King said a year ago “What we do over the next three or four years, I believe, is going to determine the future of humanity”. It is clear that the crisis is now and every country in the world needs to make the maximum possible emissions reductions now, and to work towards increasing reductions in every sector year on year after that, before going on to achieve a carbon negative economy.

This should not surprise us. As long ago as 2008 Hansen et al said “If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO2 *will need to be reduced from its current 385 ppm to at most 350 ppm*”, (my emphasis*)*. Today the level is 418ppm (according to Daily CO2) and rising. They argued that humanity faces the danger that a point would be reached when positive feedbacks would be triggered and continuing global heating is no longer under our control. Hansen et al (2022) in an extensive re-analysis of much climate date argued that at current levels of GHGs in the atmosphere (if we could stabilise them at this level) nevertheless 10C of warming is baked in in the next 100 years. Hence all climate scientists agree that there is an urgent need to eliminate GHG emissions and then to reduce the levels in the atmosphere.

Why does the IPCC/COP Process continue to fail?

Scientific shortcomings:

The IPCC failed to predict the speed at which global heating would progress and give rise to positive feedbacks. This reflects failures in the scientific approach taken by the panel, and the political process in which important aspects of IPCC reports had to be signed off by the UN's member state governments. Discussing this Wadhams (2016) noted that the 2013 Fifth Assessment Report of the IPCC AR5 Summary for policymakers, gave a *false account* of Arctic Ocean ice loss. It presented information about ice loss during the period 1950 to 2005 as empirical data when it was in fact projected from modelling. The actual empirical data was available and showed a more serious rate of loss. It then presented data that was modelled from 2005 to 2100, proposing different scenarios assuming different levels of greenhouse gases in the atmosphere. Yet the data for the period 2005 to 2012 was available, and showed a more serious rate of ice loss than the modelling. The data should have been used to inform the modelling of the future more accurately. This may help to explain why the defrosting of the Arctic Ocean and the tundra, with its resulting positive feedbacks, is occurring now much earlier than the IPCC predicted. Wadhams went on to argue that such scenarios as RCP 2.6 (controlling emissions so effectively that anthropogenic radiative forcing, would be limited to 2.6 watts per square metre) were presented at a time when this was no longer feasible. According to Wadhams the IPCC report noted the possibility that methane and other greenhouse gases would be released as the arctic warmed, but failed to pursue the implications for the climate. Today the IPCC continues to assert that positive feedback in the climate system can be prevented at a time when empirical evidence makes it clear these have already kicked in.

The power of the fossil fuel and financial lobbies:

In the 1980's some politicians, including, for example Margaret Thatcher, were open to thinking about the dangers presented by climate change. However, the situation changed rapidly. As is by now notorious, the fossil fuel industries mobilised public relations agencies and so called 'think tanks' to present arguments denying or spreading doubt about climate science. The arguments, even the agencies themselves, were those that had been used to suppress action against tobacco companies in the light of findings about health effects. They put pressure on politicians, and shaped their financial sponsorship of them, to weaken government's responses to the climate crisis. Examples include attempts by the US government to silence James Hansen, and the removal of Robert Watson as Chair of the IPCC at the instigation of ExxonMobil. He had been proposing that global warming was progressing a third faster than previously thought. Campaigns of harassment and deliberate disinformation led to a situation in which climate scientists themselves practised self-censorship of their results. Organisations such as the Heartland Institute, in the US, and Net Zero Watch, aka The Global Warming Foundation/Forum in the UK, as well as many others produced and promoted such material and it was reproduced mainly in the right-wing press (Carter and Woodworth 2018). A very detailed account is given by Oreskes and Conway (2010).

In summary then, there were some scientific failures and there have been some scientific surprises. The climate system proves to be more dynamic and unstable

than most scientists expected 40 years ago. However, the failures of the IPCC/COP process can be seen as driven by commercial interests deliberately promoting disinformation and buying political influence, with the help of elements of the media. We must also face up to our own sense of entitlement to consume what we want, and mindlessness about the consequences for others. As a party we need to confront our fears of making ourselves unelectable if we face the electorate with the actual immediacy of the emergency and the need to make rapid reductions in consumption.

Re-thinking the crisis

Up to now the work of the Climate and Ecological Emergency Working Group has been guided by the IPCC reports. We have tried to make the Green Party's policies more radical than those required by the IPCC, but nevertheless have looked towards an orderly and gradual transition in which each sector would make cuts driven, in the main, by carbon taxation, with the possibility of some further regulation and even possibly rationing. Arguably, this does not go far enough. In the past one form of existential emergency faced by societies was war. In that context the population had to set aside selfish concerns and come together in solidarity. Sacrifices could then be accepted as necessary, *insofar as they were made by everyone*. Faced with the failure to achieve international solidarity a few small countries have attempted to get to zero carbon emissions, but no major economy has attempted this. The world needs countries with major economies to take the lead in rapidly reducing emissions, and adopting policies to draw down carbon. This is what the Green Party should ask the society of the UK to do. In addition, just as we have argued for making emission cuts in advance of those the IPCC then called for, now, facing the failure of the IPCC process, we should argue that the UK has a duty to take the lead in showing that policies that genuinely aim to tackle the crisis can be achieved and maintained in a free society.

4. What does it involve?

The emergency is caused by the high levels of consumption in relatively wealthy countries like the UK, and the emissions from developing countries that would like to match our levels of consumption, and by the economic interests, both national and international, that drive them. We need to achieve climate targets rapidly, and to show that we can achieve them without impoverishing people, losing the infrastructure of civilised life, or unduly reducing people's freedom.

During the First and Second World Wars the UK government made use of powers to:

- Ration food, fuel and some other items
- Control and direct industry
- Censor the press and broadcasting

To what extent would such powers be needed in the war against the climate emergency? Obviously the power to ration certain commodities and goods could

be invaluable in reducing the consumption of high carbon goods. Some limits on personal freedom to choose follow from that. What may be harder to swallow for Green Party members is that to maintain such policies, and lead the struggle to prevent a climate cataclysm, it will be necessary to regulate the forces that control public opinion. However, just as in wartime we are not free to repeat the enemy's propaganda, so in this struggle the vast power of corporations, media barons and wealthy individuals to control public discourse will have to be challenged.

5. Rationing

Green Party discussions of rationing to date

Up to now the Green Party (GP) policy on the climate emergency has been focused on the use of carbon taxation and dividend to shape less carbon intensive production and consumption. The idea of rationing has been discussed and rejected. Although, as Flint et al noted, "The simplest and most certain way to share a scarce commodity such as the right to emit greenhouse gases is to allocate every resident a quota which would be reduced each year. In the case of emissions this would be complex, hugely disruptive and, we believe, widely resented. Rationing could not be made to work without considerable enforcement and that would only be possible if the majority of people saw the need."

Flint also noted that "The WG considers that emissions rationing may be needed in the future if other means fail but rejects it for the foreseeable future" and that "Conference inserted the word carbon before rationing in order to suggest that any proposal would be quite different from the rationing used during World War 2. However, this insertion may not have the intended effect. Every product and service has embedded carbon so carbon rationing would affect every product and service. WW2 rationing, by contrast, affected only some" Flint et al p55."

For those reasons the Green Party rejected rationing and instead relies on carbon taxes. These would be used to discourage consumption of goods that have high 'costs' in Greenhouse Gas Emissions (GHGs). However, because a carbon tax alone would increase the cost of living it would be likely to impose a disproportionate burden on the poorest members of society. Therefore, the Green Party proposes a system of carbon taxation *and dividend*. A substantial part of the tax take would be re-distributed to the population on a per capita basis. If the rich consume more than the poor this could be seen as a re-distributive tax.

Re-thinking rationing

Faced as we are with the developing crisis the time has come to re-consider. Carbon taxation may be a useful way of shaping the production of some commodities. However, the sole use of carbon taxes to reduce consumption has disadvantages. The Climate Change Advisory Group (2021a) noted "carbon prices are unlikely to be sufficient by themselves to reduce emissions at the pace

needed." They may not be effective enough, and they may not be experienced as fair. Despite the use of the dividend wealthier people would still be able to consume more. Rationing should be reconsidered as an alternative approach to reducing GHGs, at least in some sectors of the economy. This would not exclude the use of carbon taxes, or the use of progressive income and wealth taxes to level the playing field when it comes to achieving fair reductions in consumption.

Policy Options

Why target aviation, road fuels, and meat and dairy foods?

The Climate Policy Working Group Background Paper Flint et al 2019 provides a comprehensive review of the UK's greenhouse gas emissions and of our policies aimed at phasing these out by 2030. The group also acknowledges the need to reduce emissions as soon as possible. Evidently there are some areas, such as domestic heating, where it will be difficult to make changes in a very short time. In other areas, such as forestry and land management, it may be possible to make the sectors carbon negative in time, but this will require very substantial changes in existing government policies in order to make changes that will take years to take effect. For example, re-afforestation may take as long as 50 years to capture significant amounts of carbon, and the trees must survive the dangers of disease, drought, and changes in policy if they are to store carbon long term. However, in some areas progress could be made quite rapidly if government had the will to do so. Such areas are the use of private fossil fuel powered cars, leisure flying, and the consumption of meat and dairy foods

Specific targets

Allwood et al (2019) detailed the changes that would have to be made in order to achieve the UK governments target of achieving net zero emissions by 2050. In advance of COP-26 Allwood et al (2021) considered the changes that would be required to meet the UK governments pledge to reduce UK carbon emissions by 68% from 2018 to 2035, with a view to eventually achieving a net zero economy in 2050. This is a far less ambitious approach to emissions reductions than the one taken by the Green Party. Nevertheless it is useful to compare our proposals with theirs. Apparently nothing of what they proposed as necessary was agreed at COP-26 and virtually no action has been taken to achieve the targets. Nevertheless the reports were written by experienced engineers in the field of climate adaptation and contain useful information.

Road fuels and car use

Fossil fuel powered cars are thought to give rise to 70Megatons of Carbon Dioxide equivalent (MtonsCO2e) emissions in the UK (BEIS 2020), amounting to 13-14% of total greenhouse gas emissions from the UK, as well as much local air pollution. The aim of the policy is to provide a mechanism for phasing this out rapidly. The policy should be understood in conjunction with those aspects of the current Transport Policy Chapter in Policies for a Sustainable Society that focus

on both reducing the need to travel, and providing more sustainable means of doing so.

Today the infrastructure of work, education and distribution has been completely re-organised around the private car. Therefore, to reduce emissions arising from private cars the existing policies on modal shift, and on public transport, have to be pursued energetically, alongside efforts to reduce car use and the carbon emissions that arise from that use. In reducing access to petrol and diesel peoples' occupations would need to be taken into account, and so would needs arising from remoteness etc. Given the history of resistance to reducing fuel use, we should be aware by now that this will not be accepted unless it is accompanied by other policies, most importantly the provision of subsidised, or even free, public transport.

It is possible to *imagine* maintaining the existing pattern of travelling with a shift to electric car use. However, to replace the 30 million or so private vehicles in the UK with electric vehicles would be an enormously carbon intensive project in itself. Also, until our electricity supply is completely decarbonised, adding electric vehicles is not carbon neutral. It is already Green Party policy to aim to reduce the amount that people travel in their everyday lives, and to reduce the proportion of journeys made by car. This could be achieved more quickly if there was downward pressure on car use achieved by rationing the availability of petrol and diesel fuels.

As an interim measure we should ration the use of petrol and diesel in private cars with a view to phasing out their use between now and 2030. In 2020 the Autumn Conference adopted a policy to remove such vehicles from the roads in 2030. Hence, this policy can be seen as an additional policy to achieve that goal, and one that would still be relevant in the (likely) event that the GP has not been in a position to enact its policy by 2030.

Private cars: As regards the use of cars Allwood et al (2019) noted that even by 2050 the UK would not have sufficient electricity generation capacity to power a fleet of cars equivalent to what we have today. Instead there would then be only 60% of the equivalent power used today (and derived from fossil fuels). Therefore they proposed that from 2050 we will have to use 40% fewer cars, or the same number but 60% of the size and weight. The implication is that we should expect to have significantly less renewable energy available to power electric cars in the next decade. In order to make substantial and rapid emissions reductions in this area we need a radical re-think about private transport and the availability and use of private cars.

<u>Aviation</u>

Eighty-five per cent of UK flying is for leisure purposes. Estimates of the sectors contribution to UK GHG emissions vary, depending on the assumptions made. It may account for 12% of UK CO2 emissions (Bows and Anderson, Tyndall Centre, 2006). They say "The scale of anticipated aviation emissions is such that this single sector will consume around one third of the UK's Paris-compliant carbon

budget." Melia (2020) argued that the CO2 effects of UK aviation currently amount to 8% of the UK's total, but that depending on the assumptions which are made, a rule of thumb multiplier, taking account of non-CO2 affects, may be anywhere between 1.0 (no difference) and 4.0 (four times greater). The Institute of Technology and Engineering (2021) argues that aviation accounts for 23% of UK CO2e emissions. There is no technological fix for flying and none is expected even by 2050, as the engineering report to Parliamentary Climate Change Committee, Allwood et al (2019), noted. On the face of it civil aviation should simply stop. There would need to be a debate about humanitarian flying, and the needs of geographically divided families, but really these account for a very small proportion of total flights.

The goal would be to eliminate flying for leisure purposes, with possibly some variation for people with family members in other countries. Hence for most people there would be no "ration". In the event that genuinely sustainable aviation fuel becomes available in future this policy would be reviewed.

Meat and dairy foods

Allwood et al (2019) argued that there would be a need to entirely eliminate beef, lamb and dairy foods after 2030 in order to achieve the UK government goal to reduce UK carbon emissions by 68% from 2018 to 2035. By contrast the Green Party working groups on climate change and on food and agriculture envisage a much-reduced dairy industry after 2030, and this would produce a limited amount of beef, as this is an inevitable by-product of the dairy industry. Our policies envisage less substantial, but still significant reductions in the production of other meats and eggs. Since we assume that the UK has to take responsibility for the emissions arising from imported goods we can assume, for the sake of this discussion, that there is no such trade in these foodstuffs, or that imports exactly cancel out exports.

As is well known eating meat and consuming dairy products makes a disproportionate contribution to GHG emissions. The WG noted that food and agriculture production in the UK produced 47MtonsCO2e, and imports of food and fodder accounted for a further 28MtonsCO2e, in 2016. The goal must be to drastically reduce this total. Feeding crops to animals to produce meat and dairy foods is very inefficient as a way of providing food for human populations. However, not all aspects of animal husbandry are equally inefficient in these respects. Cattle raised for beef, and sheep, have the highest GHG footprint, while the production of pork, poultry and eggs have lower footprints. A rationing system should take these different factors into account. It would do so by allotting points to different products in such a way that those choosing to consume beef would be using up a disproportionate amount of their ration. Other foods would not need to be rationed. It is likely that the party would also wish to take account of animal welfare issues. For example, eggs may be the best source of animal protein vis a vis GHG emissions, but this might not hold true if animal welfare was improved.

This policy is consistent with that proposed by the Land Use WG. It would reduce the greenhouse gases produced by our agriculture and food sector. In addition it would free up land currently used for pasture. Some land in the UK used for pasture or fodder for the production of meat and dairy products could produce other foods for human consumption, and some managed for forestry or for carbon capture, as policies under discussion envisage.

Other high carbon areas of production and consumption such as the steel, cement and construction sectors are not addressed by these policies, although direct government intervention might prove necessary if taxation and regulation fail to achieve the necessary carbon reductions.

The politics of rationing

There are two goals. The first is to bring about rapid reductions in greenhouse gas emissions in a fair way. The second is political. It is to "Tell the Truth", to adopt a policy that highlights the real and immediate danger that humanity faces by insisting on the need for these policies despite the fact that they will not be comfortable for many people. We should not shrink from invoking the image of previous emergencies in order to do so.

Government action to reduce consumption is always likely to be unpopular if the population is not persuaded of the necessity. The Working Group noted research on public attitudes that found that "The greater the mitigation potential of an action the less willing are households to implement it, especially with regard to travel. *The measures that people said they would adopt voluntarily reduced their emissions by 26-30%*" (my emphasis). Rationing and regulation might be unpopular, but research (Dubois et al 2019) indicates that while people are reluctant to change their behaviour in regard to how they travel, "many people would be willing to accept changes in their travel options if they applied to everyone". That is what rationing would achieve.

6. Control and direction of industry and commerce

At present it is unclear what would be required. Probably a great deal. For example, fossil fuel companies currently control oil and gas production in the UK. This has to be phased out, but it is not in the short-term interests of the shareholders that it should be. Arguably the government should take control of these industries, phase out their production, prevent them from investing in further fossil fuel production in the UK or elsewhere, write down their value, and re-direct any further investment towards renewable energy sources. It is reasonable to ask, to what extent should shareholders, and potential beneficiaries, such as investors in pension funds, be compensated? It could be argued that those who have intentionally or inadvertently (in the case of people buying private pensions) should be punished for their choices by losing their investment but many people would feel that to be unfair. In many other sectors of the economy similar questions have to be faced. Similarly, a small number of international corporations now control food production and marketing. Almost certainly a Green government would have to intervene in their activities.

Another sector in which direct government intervention may be required is banking and finance. The reality is probably too complex to flesh out here, but a Green government would need to take powers to control industry and commerce where necessary.

7. Freeing the press and broadcasting

It is necessary for the Green Party to tackle the myth that we have a "free press'. To use that term is grossly insulting to the media barons who, after all, paid good money to purchase it, or to develop new broadcasting platforms under their control. Unfortunately, they mostly align their interests with fossil fuel interests and international capital more broadly. In fact, at the present time publicity about the CEE arrives late or never, even from the publicly owned broadcasters. We have seen how, in the United States, public discourse controlled by press barons has both suppressed action on the climate emergency, and supported and enabled the on-going attempt by Donald Trump to overthrow US democracy. In the UK the public would be right to be suspicious of any proposal to place the press and broadcasting under the control of the state. On the other hand leaving it in the control of ruthless self-interest should be seen as equally unacceptable. For this reason a Green Government should propose to transfer the editorial control, but not the ownership, of the press and broadcasters, to wider editorial panels drawn from civil society, to include schools of journalism, social and other scientists, representatives of professional bodies and trade unions, for example. It should also strengthen the regulations in relation to the requirement and governance, including a right of reply, where false statements or accusations have been made. Likewise corporations and wealthy individuals should not be allowed to finance organisations that pretend to be genuine sources of information in order to pursue their narrow sectional interests by misleading the public.

8**. International relations and treaties**

A government that seriously intends to tackle the climate emergency will have to opt out of existing agreements about trade, capital flows, and such international laws as those governing patents. The Energy Charter Treaty, which allows fossil fuel corporations to sue governments for billions of pounds if government decisions impair their profits. This treaty makes it completely impossible to save the human race from extinction. Since it is very unlikely that countries that are heavily invested in fossil fuel production would agree to suspend or cancel the treaty individual governments that seriously intend climate action will have to withdraw from it. This is just one example of ways in which emergency action on the climate is likely to create conflict over trade. However, this will have to be faced if we are serious about tackling the emergency. Radical restrictions on the consumption of meat and dairy foods might cause conflict with trade partners who currently export such products to the UK. Some of those countries will probably be more reasonable to deal with than fossil fuel corporations.

9. A better and fairer society

The first and second world wars had a marked impact on the political life and public attitudes in the decades that followed the wars. In 1914 the developed industrial nations of the west, the UK, the US, France and Germany, were characterised by very high levels of economic inequality. The effect of the wars reduced the inequality because governments felt compelled to use progressive income taxes and wealth taxes to pay off the public debt arising from the wars. This reduction in inequality failed to create a fairer society in the years after 1918, because governments failed to take any action to provide the 'land fit for heroes' that had been promised during the war. Hence the inter-war years were years of great social bitterness in the UK. After the Second World War the Labour government understood the macro-economic analysis of John Maynard Keynes, and acted on promises made by the National Government during the war, to reform social and economic conditions, (Piketty 2014). As a result society was more equal and happier in the period between 1945 and 1979 at which point the post war consensus was abandoned. In order to maintain support for effective policies on the climate it will be necessary to unite people as far as possible around the idea of maintaining a fairer society in future.

10. Political implications: No party is too small to make a difference

The Green Party has no prospect of forming a government during the few years that are left to make a major impact on the developing crisis. Our policies exist to explain what we think the government should be doing, and what we would be doing if we were in power. The more challenging or shocking they are the more likely they are to get discussed and to help to shift public understanding of the crisis in the right direction. Hence, our policies can be seen as working to shift the 'Overton Window' towards a more honest and realistic appreciation of the need for fundamental change in economic relationships, nationally and internationally, with a view to limiting the extent of the coming catastrophe. In addition we should remember that many more people are becoming aware of the climate emergency. They are crying out for leadership, but getting little from political parties.

Finally, we must remember: No party is too small to make a difference.

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