

Paris: Optimism, Pessimism and Realism

Brian Heatley

Introduction

A climate agreement has been signed in Paris. After years of squabbling all the Great Powers,¹ followed rather less enthusiastically by almost the entire international community, have, for the first time, come to an agreement. Optimistic upbeat press releases claim that this at last is the deal that will put us on the way to limiting dangerous climate change to a manageable and safe 2°C, or even 1.5°C. Obama has his 'turning point for the world' and the world is on the way to being saved! And enthusiasm for this second great Treaty of Paris and French diplomatic triumph ominously matches that for the Treaty signed by the Great Powers almost a century ago at Versailles.

The rich world's environmental movement's public response has largely reflected this optimism: Greenpeace UK concluded that COP21 shows the end of fossil fuels is near.² The message from environmentalists up until Paris has been that if the world's politicians act now, drastically cut emissions and invest massively in renewables, then the climate will by and large be OK, and the massive investment required will spark a new sustainable economic boom, dragging us out of the great recession. Otherwise we are all doomed, on a planet that will fry us. We contemplate nothing in between, or at least try very hard not to think about it, and the main point therefore is to prevent climate change, not to be forced to live with it. As for Paris, of course there is much more to be done, but the agreement is a big step in the right direction.

In reality, despite the hype, Paris punctures this optimism. The world has not been saved any more than it was in 1919. Too little has been agreed far too late. The real meaning of Paris is that dangerous climate change by 2100 is

¹ Great Powers may seem anachronistic, but I will argue later that that is exactly how we should see them.

² <http://www.greenpeace.org/international/en/news/Blogs/makingwaves/cop21-climate-talks-paris-negotiations-conclusion/blog/55092/> accessed 141215.

now all but inevitable, and that after 2100 it will get worse. It was probably already too late before Paris. Many poor-world environmentalists already knew this, despite their quixotic but successful quest for a reference to a now impossible 1.5°C rise in the agreement. A lot of us in the rich world already really knew it too, but didn't like to come to terms with it, or even talk about it. This is probably because it conflicts with our deep belief in and commitment to progress; the idea that the world, for everyone, and despite setbacks, is getting better and better.³ And with progress in mind, many have a pervasive faith that technology will somehow clear up the problem. However, even if the world sticks to the path implicitly agreed in Paris, at the very best we are now locked in to global warming of at least 3 - 4°C by 2100, and more thereafter. At worst it may be much more, and either way we face many uncertainties including catastrophic runaway climate change.

The main argument of this piece is that the Green movement has to come to terms with this awful fact; we have failed in our mission to prevent damaging climate change. Acceptance of that will have profound consequences for our politics:

- while we must of course continue to act to prevent further climate change, we must also begin to prepare for the world as it will inevitably become;
- that world in 2100 will be profoundly altered, where perhaps a billion people in the poor south will die from famine or disease or migrate, and even places less directly affected like the UK will face huge challenges; and
- two cherished political ideas, currency not just of the green movement but also of all on the liberal left, progress and human universalism, and

³ I started writing this piece before I was aware of and read John Foster's new book, *After Sustainability*. Foster too sees our belief in progress as the main reason we cannot face the fact that it is now too late to avert seriously damaging climate change. But Foster takes a very different approach, rooted in philosophy. Part of my background is as an historian, and this paper is complementary I hope to Foster's work, trying to address some of the political and economic implications of climate change. And I am aware too that others have begun to approach the subject, most notably the group of writers, artists and thinkers associated with the Dark Mountain Project (<http://dark-mountain.net>), who approach it from yet another perspective.

explained in greater detail towards the end of this piece, face crumbling before an assault by brute events.

We first set out why Paris won't work. Then we speculate on the consequences of a 3 - 4°C rise by 2100, and more thereafter, for the world system, by first looking at regional climate change and then considering the likely economic and political effects. We turn then to what this means for the UK and its politics and security, ending with a plea for progressives to forget progress, at least for a hundred years, and be realistic about how far human universalism can be preserved.

Why Paris makes at least a 3 - 4°C rise by 2100 virtually inevitable

The substance of the Paris agreement (the 1.5°C and 2°C targets are no more than pious aspirations⁴) essentially amounts to a series of unilateral 'Intended Nationally Determined Contributions' (INDCs) by individual countries, which will after the agreement comes into effect become registered and monitored actual 'Nationally Determined Contributions.' They are no more than what each country has been prepared to contribute. The EU countries for example have promised collectively a 40% reduction on domestic green house gas emissions by 2030. China says that its emissions will peak in 2030 at the latest, and that it will lower the carbon intensity of GDP by 60 - 65% below 2005 levels by 2030. The US has undertaken to reduce net green house gas emissions by 26–28% below 2005 levels in 2025. And so on. In total 185 countries covering around 94% of world emissions made such promises.⁵ There is also an agreement to try to do better in the future: National Contributions will be revised every five years, and must always improve on previous aspirations, but they are not legally binding. And

⁴ Judge for yourself. What Article 2 of the agreement actually says is *This Agreement, ... aims to strengthen the global response to the threat of climate change, ... by ... Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels...* The crucial word here is 'aims'. The proposition advanced is simply wrong; no one really aiming at these objectives would also accept national plans that, as I shall show, simply contradict these aims.

⁵ See <http://climateactiontracker.org/indcs.html> accessed 131215. 3% of the remaining 6% is international aviation and shipping not covered by the agreement.

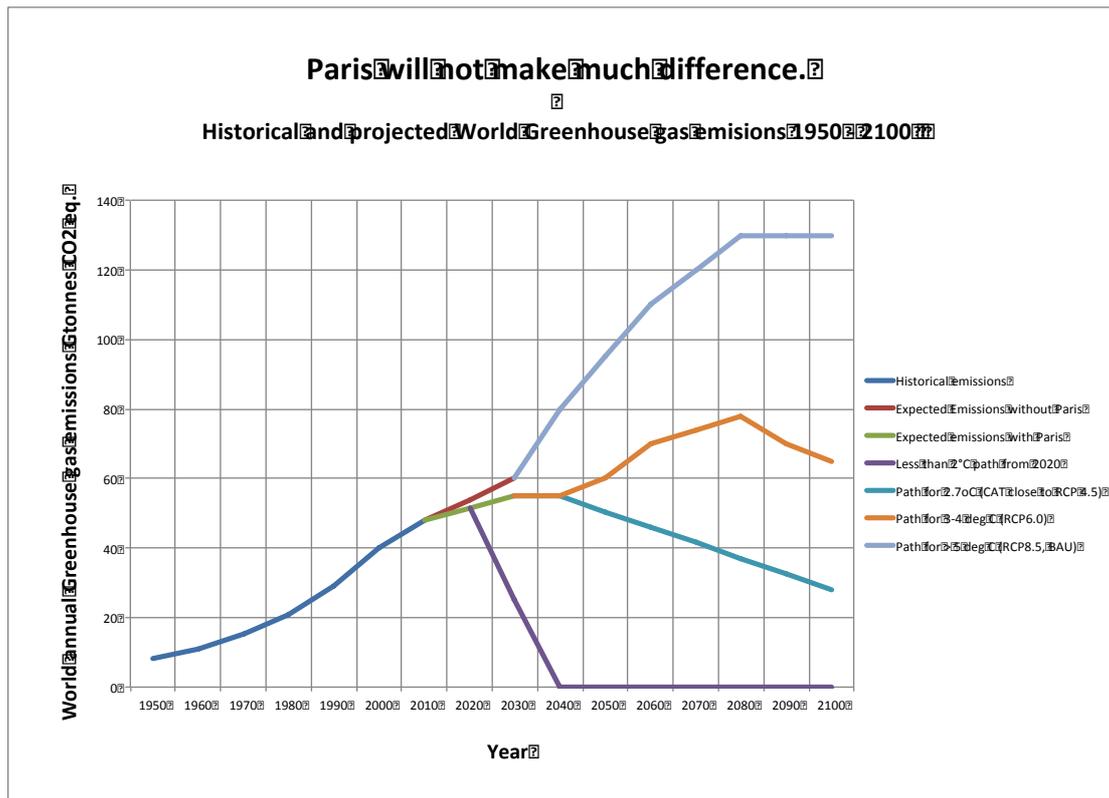
the rich countries have promised \$100 billion in extra aid to help the poorer countries develop renewables and adapt to climate change – but are not legally bound to provide it.

So what's wrong with that? Progress moving towards the 2°C target combined with commitments from the biggest emitters seems great. The problem is that *quantitatively* this simply doesn't remotely add up to sufficient reductions to contain human induced climate change within a 2°C rise within the current century. At best it means that the temperature will rise by about 3 - 4°C by 2100. While this prediction is the result of a detailed calculation,⁶ the big picture that we will breach 2°C is very simple to understand. To keep within the 2°C limit the Intergovernmental Panel on Climate Change (IPCC) estimated that the whole world could not add after 2010 more than a total of about 1000 further gigatonnes of greenhouse gases to the stock already in the atmosphere.⁷ We now add to that stock at a rate of about 50 gigatonnes a year. Even with the Paris pledges (which incidentally don't cover international aviation and shipping) we will go on emitting over 50 gigatonnes a year for the next 20 years, or a total of 50 times 20 which equals 1000 gigatonnes. It defies everything we know about the longevity of energy infrastructure investments and how the economy works to suppose that emissions will just stop altogether in the 2040s, especially in growing economies. So 2°C must inevitably be substantially breached.

An alternative approach to seeing that remaining within 2°C is impossible following Paris is to look at the UN's own graph produced this October on the effects of the intended national contributions as compared to what is needed to have a two thirds chance of staying within 2°C. However, while the UN has simply concentrated on the years around Paris, we gain a different perspective by embedding a simplified version of their graph within the whole time period 1950-2100.

⁶ See below.

⁷ IPCC Fifth Assessment Report, summary for Policymakers, p. 10.



The blue line on the left shows what has happened up until 2010. The short red line from 2010 to 2030 shows what is expected to happen without Paris. The still rising green line shows what is expected if Paris were fully implemented. No, it's not very different. If at Paris it had really been agreed to stay within 2°C, and this started in earnest in 2020 then the reduction would have to follow the steep purple line on the graph, with emissions reaching zero by 2040. This is simply not going to happen; such a reduction would imply a commitment in the rich countries to a radical de-growth strategy, which does not exist.⁸

Press reports⁹ have suggested however that Paris will result in a 2.7°C rise, which looks comfortingly close to 2°C. The 2.7°C rise prediction¹⁰ comes from

⁸ See <http://www.newstatesman.com/2013/10/science-says-revolt> accessed 30/12/15 for one justification of this.

⁹ "The INDCs have the capability of limiting the forecast temperature rise to around 2.7 degrees Celsius by 2100, by no means enough but a lot lower than the estimated four, five, or more degrees of warming projected by many prior to the INDCs," said Ms. Figueres <http://newsroom.unfccc.int/unfccc-newsroom/indc-synthesis-report-press-release/> accessed 021115. . Also in <http://www.theguardian.com/environment/2015/oct/30/worlds-climate-pledges-likely-to-lead-to-less-than-3c-of-warming-un> accessed 021115 which summarised this to say Pledges by most of the world's countries on climate change are likely to lead to

one of a number of scenarios explored by Carbon Action Tracker.¹¹ It optimistically assumes countries will continue to accelerate the rate of reduction in greenhouse gases as they have done for Paris, so emissions peak in 2030 and then decline gradually to about 1990 levels by 2100.¹² It is represented by the light blue line on our graph.

However, surely the most optimistic assumption we are entitled to make based on current political agreements and actions across the world is that emissions will continue to rise after 2030, perhaps leveling off later in the century. This is broadly represented by the orange curve on the graph, which is associated with a 3-4°C rise.¹³ We might instead expect the future simply to reflect the past, and follow the top light blue line, which is the IPCC's 'Business as Usual' case, where the temperature rise is in the range 4-5°C.¹⁴

The notion that emissions really are after all going to go down after about 2040 is altogether too reminiscent of St Augustine's *'Oh Lord make me pure, but not yet'*¹⁵, or the business plan that predicts recovery, but always starting

less than 3C of global warming over the century, [analysis of the data by the United Nations suggests](#). Which just wasn't so.

¹⁰ "The INDCs have the capability of limiting the forecast temperature rise to around 2.7 degrees Celsius by 2100, by no means enough but a lot lower than the estimated four, five, or more degrees of warming projected by many prior to the INDCs," said Ms. Figueres <http://newsroom.unfccc.int/unfccc-newsroom/indc-synthesis-report-press-release/> accessed 021115. . Also in <http://www.theguardian.com/environment/2015/oct/30/worlds-climate-pledges-likely-to-lead-to-less-than-3c-of-warming-un> accessed 021115 which summarised this to say Pledges by most of the world's countries on climate change are likely to lead to less than 3C of global warming over the century, [analysis of the data by the United Nations suggests](#). Which just wasn't so.

¹¹ See <http://climateactiontracker.org/global.html> accessed 021115.

¹² This path bears some resemblance to the IPCC's RCP 4.5, and the assignation of the average temperature rise of 2.7°C to such a path is reasonable, if much too precise.

¹³ There is some difficulty in aligning the deal done in Paris with the emissions pathways (RCPs in the jargon) used in the IPCC Fifth Assessment Report. Paris on the whole only consists of promises made up until about 2030; eg 2030 for the EU, 2025 for the US, mainly 2030 for China but some remarks about 2050 and so on. The IPCC pathways summarise total world emissions until 2100. The Paris deal is clearly way above RCP2.6 even by 2030, which is the pathway that is likely to keep warming within 2°C. Even if emissions rise only slowly after 2030 and peak later in the century, the result is probably somewhere around RCP6.0, which the IPCC Fifth Report associates with temperature rises of 3 - 4°C by 2100, excluding any abrupt climate changes. See Chart on pg 9 of the Summary for Policymakers. This is below their no mitigation assumption RCP8.5 associated with 4 - 5°C of warming.

¹⁴ RCP 8.5 in the IPCC reports.

¹⁵ See for example <https://lexloiz.wordpress.com/2008/10/15/'lord-make-me-pure-but-not-yet'-augustine-s-naughty-prayer/> accessed 201115.

the year after next, never now. The danger is that 'Business as Usual' might yet prevail.

OK, Paris said that everyone was going to try harder next time. But equally there is no international legal machinery to enforce the Paris commitments, and there must be severe doubts whether some countries will actually keep to their commitments; the US Senate for example may simply not ratify the US commitment, or the next US President may not even ask Congress. The great powers and their energy companies are simply not suddenly going to turn round and leave pretty much all the remaining fossil fuels in the ground. If the people with money and power in the world believed that really was going to happen, share prices of the major fossil fuel companies would have collapsed by now. They have not.

So the most probable and prudent assumption – still perhaps a bit optimistic – must be that the level of global temperature rise associated with carrying on as we are with emissions limited to broadly current levels – at least 3 - 4°C rise by 2100 – will now happen. This view is shared by one of the UK's foremost climate scientists, Professor Kevin Anderson, former Director of the Tyndale Center. With his colleague Alice Bows-Larkin, Anderson's work on carbon budgets has revealed the gulf between political rhetoric on climate change and the reality of rapidly escalating emissions. His work makes clear that 'there is now little chance of maintaining the rise in global temperature at below 2°C, despite repeated high-level statements to the contrary. Moreover, his research demonstrates how avoiding even a 4°C rise demands a radical reframing of both the climate change agenda and the economic characterisation of contemporary society.'¹⁶

The UNFCCC technical documents simply do not address what will happen to temperatures in the longer term after 2100. They say *'the use of climate models to estimate end-of-century temperatures resulting from specific post-2030 assumptions (like constant or linear extensions of emissions or assumed*

¹⁶ Taken from Kevin Anderson's Manchester University website at <http://www.manchester.ac.uk/research/kevin.anderson/> accessed 261015.

*constant climate policies) is considered to be out of its (i.e. the report's) scope.*¹⁷ Moreover a 3 - 4°C rise by 2100 is the lower bound; there is huge uncertainty about the potential for various types of positive feedback, where warming initiates further warming mechanisms, such as die back of tropical forests, methane emissions from the tundra and methyl hydrate emissions from the deep ocean, all of which could result in runaway climate change leading to a 6°C rise or more in the longer term. And apart from feedback effects, there are major uncertainties about other possible effects, such as how quickly the Greenland and parts of the Antarctic ice caps will melt, radically changing sea levels and altering how far heat is reflected back or absorbed (the albedo effect), or whether northern Europe will continue to be warmed by ocean currents. These are just the 'known unknowns'; there will surely be issues no one has even thought of. Because of these effects, there is a case for arguing that a 3 - 4°C rise simply implies a rise of at least 6°C, albeit slightly later.

Moreover, global average temperatures are expected to continue to rise after 2100 even without feedback effects and assuming optimistically that there are no further emissions after that date. Even a further 1°C or 2°C rise will massively increase the effects of climate change set out in the next section.

So we must now face our future on the assumption of very substantial climate change. This is not to give up on the struggle for mitigation, but it is to recognise that major damage is already virtually inevitable. The focus of mitigation must be to prevent even worse damage. Indeed, focussing on the damage we have already done will increase the case for mitigation.

It's not just dangerous climate change. Climate change is simply where the environmental shoe is pinching first. But it is combined with a still increasing world population, depletion of non-renewable resources, exhaustion of some renewable resources, other pollution such as plastics in the oceans and synthetic chemical in the Arctic, and the destruction and degradation of

¹⁷ FCCC/CP/2015/7 para 208.

natural habitats and the services they provide us, including clean water, flood prevention and clean air.

The effects of 3 - 4°C of warming by 2100

What are the consequences of a 3 - 4°C rise by 2100? The Intergovernmental Panel on Climate Change (IPCC) has produced in its Fifth Assessment Report a detailed account of the likely risks for the main regions of the world. It is insufficiently appreciated that damaging climate change will affect different parts of the world unequally. Broadly the tropics will suffer far more than the higher latitudes. It will also do so deeply unfairly; the countries and regions least to blame historically for climate change will generally fare worse than the very countries responsible for causing it. Some blameless small island states will literally disappear.

Specifically, and paying particular attention to the 'great powers' for it is they who will continue to dominate the world system into the twenty second century¹⁸, and taking some account of other already existing resource and ecological issues, this what we might expect:¹⁹

- the US and wider North America will suffer primarily from increased wildfires, heat induced deaths and flooding²⁰, compounded by existing

¹⁸ This concentration on power politics takes a bit of getting used to for most on the green left. For it demands a concentration on how the world is likely to be rather than how we would like it to be. I do not much like this picture either, but I think it is important to face these rather bleak thoughts.

¹⁹ This account largely ignores changes to wildlife and ecosystems. They will of course be severe, and amount to a dreadful crime against nature; ecocide is the term that has been coined to describe them. This account is however mainly directed at trying to understand the effects on human beings, economies and politics. Of course changes to eco-systems will affect us indirectly, but the concentration here is on effects above all on food production, human health and potential human migration.

²⁰ These detailed assessments are derived from the Intergovernmental Panel on Climate change 5th Assessment report, most specifically Assessment Box SPM.2 Table 1 which summarises the key risks for each region. I have in particular focused on the scenarios for the longer term (2080-2100) with a global average of 4°C of warming. For Asia in particular – which is so much bigger in both population and area and more diverse than any other region – I have drawn more on the specific chapter in the report. The petty politics of the IPCC summarizing process causes some odd effects. For example identifying three key risks for each of Australasia and Asia gives the former far too much importance in terms of the effects on people.

problems of water stress in some areas. But the US is a wealthy country, with an effective government and has relatively recent history in the last two centuries of internal migration. The US will cope, even if it resorts to ever more draconian measures to protect its southern border from migration;

- despite facing huge ecological changes, especially in the forests of the Amazon basin, the prospects for Central and South America are highly variable, and include decreased food production and an increase in diseases. But population pressures are relatively low, and severe problems on a huge scale are unlikely. In particular the numbers seeking to migrate will be large, but not on the same scale as in Africa or Asia;

- Europe faces considerable challenges, only partly mitigated by its relative wealth. Perhaps the main problem will be increasing aridity in southern Europe, devastating agriculture and creating pressures for northward migration. Flooding and occasional extreme heat will also be hazards. It is not clear that the European Union can survive these pressures; the recent refugee crisis has shown that its solidarity is fragile. Without the EU the weight of the individual European powers in world affairs will be much diminished, and their economic, diplomatic and military ability to secure a disproportionate share of world resources may be compromised, leading to a decline in living standards but starting from a high base;

- Asia's great powers Russia, India and China face contrasting futures. Russia is a vast country and the effects of climate change will vary greatly, but on balance it might face greater opportunities than threats. The ability to expand its agriculture northwards, despite the disruption to its infrastructure caused by melting permafrost, and opportunities in the warming arctic might well outweigh problems in its drying south. The main question is how far it has the political and economic ability to respond to these changes. India and Pakistan on the other hand face huge problems. Lower rice yields on the whole are expected with rising temperatures. Heat stress will severely damage wheat growing and create severe food insecurity in the Indus and Ganges valleys.

Flooding will displace millions of people in Bangladesh. The Indian sub-continent faces famine in many areas and forced migration for huge numbers of people. China looks less vulnerable, although climate change will compound its already existing severe environmental problems. Increased rain should compensate for reduced meltwater in its great river valleys, posing problems of water management but in a country with a two millennium history of controlling its water supplies on a sub-continental scale. Although major overall food insecurity is unlikely, local problems will arise and probably cause famines as in the 1970s. The prospects for the countries of central Asia are mixed, with increased aridity being the major problem, perhaps putting migratory pressure on both Russia and China;

- the poorest continent containing a billion of the world's poorest people, Africa, together with the already troubled Middle East, will be the hardest hit by climate change. The relentless expansion north, south and east of the Sahara desert, will displace hundreds of millions of people by making food security impossible. In tropical Africa diseases will increase their range and incidence. Already fragile states in both Africa and the Middle East inhabited by already very poor people will probably collapse, bringing war and forced migration on an unprecedented scale;
- while damage to unique ecosystems, such as coral reefs will be terminal in Australasia, and already arid but thinly populated regions may get drier, the main effects in Australia and New Zealand will be increased floods and coastal erosion, to which these comparatively rich countries should be able to adapt;
- some particular but relatively quite small groups, such as those living in the Arctic or on low lying islands will face total changes to their way of life as the traditional ecosystems on which they depend are destroyed or their land is simply flooded; and
- the oceans will warm and become more acid, causing decline in tropical fisheries in particular, affecting the ability of people in coastal

communities mainly in the poorest parts of the world to obtain protein from the sea.

Overall a vast genocide is likely to take place, greater than any in the twentieth century, with the perpetrators in the rich North retaining their power while the victims in the poor South may batter at the doors of the North but will probably not be able to gain entry. The US will be strong enough to retain its overall global hegemony over a diminished world if it chooses to do so, with Russia gaining strength in Eurasia. China's march to prosperity and power will be stunted as it grapples with colossal environmental problems, while the Indian sub-continent, and especially Africa and the Middle East will slip into war, famine and massive population loss.

What will happen to the British Isles?

The likely direct effects of 3 - 4°C of global warming on the British Isles look quite mild compared to this global holocaust. We can expect milder wetter winters, and drier hotter summers (especially in our most densely populated and most prosperous region, the South East), combined everywhere with more extreme and unpredictable weather. Flooding and coastal erosion will become more frequent and more destructive. Our wildlife will suffer much more than we do, with many species, as elsewhere in the world, being unable to adapt or move quickly enough.

Much more will need to be done on a fairly familiar list of additional investment, which while not depressing the economy as a whole will reduce consumption and divert resources to investment:

- flood defences;
- water conservation infrastructure, especially in the South East;
- changes to agricultural practices and crops; and

- loss of some land altogether to coastal erosion and sea level rises,²¹ and in particular increased flooding risk to London.

While it might not seem like it to those currently affected by flooding (I'm writing at New Year 2016), coping with this is well within the capabilities of the British economy and state if it puts its mind to it; the warmer climate will be welcomed by many and will reduce heating costs.

But these direct effects on the UK are only the tip of the iceberg, and the only parts to have engaged our domestic political consciousness. Far more important is preparing for the breakdown of the current international system of trade and security. We are an economy far more engaged in the wider world than most, and crucially depend on the rest of the world biologically in the form of massive food imports.²² We cannot easily and quickly feed ourselves, and not at all in the meat intensive ways that we do now. The UK has a specialist economy heavily dependent on international trade; just like a specialist organism in any ecosystem we rely on the survival of that ecosystem. So we must think about what the economics and politics of the international ecosystem in 2100 might look like.

Perhaps the biggest single question is how far the present system of international free trade and easy movement of people known as globalisation will endure. There are at least two major ways in which it might collapse. The first is a serious and at least partially global war, which might act in the same way as World War I did to end the first period of globalisation. The fragile and fractious world described in the previous section would seem to provide plenty of opportunities for such a calamity, which of course could itself have huge implications for our security.

The second is the attitude of the United States. Since World War II the US has both engaged, often militarily, with the whole world and promoted and

²¹ 7000 properties to be lost to coastal erosion by 2100
<http://www.theguardian.com/environment/2014/dec/28/7000-uk-properties-sacrificed-rising-seas-coastal-erosion>.

²² Yes UK agriculture seems to supply quite a high proportion of our needs, but is massively dependent on huge imports of feedstuffs.

hugely benefited from international free trade, the sea lanes policed by the huge and dominant US navy. It is US corporations who are at the forefront of promoting the World Trade Organisation (WTO), and it is the US that dominates world economic organisations like the International Monetary Fund (IMF) and the World Bank. The US is the state embodiment of international capitalism, and it seems unimaginable that it should withdraw from that position.

Yet it has not always been that way. Between 1812 and 1914, and again between 1920 and 1941 US foreign and trade policy was essentially isolationist. After World War II it looked entirely possible that the US would withdraw again; keeping the US engaged in Europe was regarded as Ernest Bevin's great post-war foreign policy triumph. Isolationist voices have never been absent in US politics, and it is entirely possible that faced with a collapsing, unstable, war ridden Eastern hemisphere the US may simply retreat to its self-sufficient Western hemisphere fastness, protected in particular from the vast potential migrations in the Eastern hemisphere by the Atlantic and Pacific oceans.

The future of globalisation, whether destroyed by general war, or by US isolationism, or both, has a potentially profound impact on the UK. While UK governments will no doubt pursue their long traditional policy of trying hard to use their influence to maintain a world with free and plentiful international trade, it is unlikely they can be decisive; the decision will be made in Washington. That has the consequence that the UK must at least prepare for a world with much reduced international trade, and cease regarding an alliance with the US as being the cornerstone of its security policy. Other consequences are that:

- a breakdown in world trade would threaten our very biological survival through a reduction in food and animal feed imports, rather as occurred in the World Wars of the last century. Food security policy, based on much greater self sufficiency, though possibly within northern Europe, must be a priority. This will need at least more labour

intensive and land efficient husbandry, fewer animals and less meat. The most glamorous, exciting job in the cabinet by 2080 will be Minister of Agriculture;

- we may face possible worldwide epidemics of existing or new diseases, and need to develop the epidemic management policies to deal with them;
- quite apart from mitigating climate change, maintaining our energy security will mean that we need to shift anyway from our current increasing (fossil fuel) energy imports²³ to being self-sufficient in energy supplies in the UK;
- massive security challenges. Some believe the current Syrian civil war was at least partially caused by climate change.²⁴ In future we must expect more fragile states and more local or even global wars – which may directly affect the British Isles. Our concerns will become more local simply because of our inability to influence events in the wider world. A priority will be to keep the peace near us in Europe, and at least maintain a reasonable level of trade in Europe, especially in food. This means a security policy based on the actual threats we might face, concentrating more on defence of our home territory and less on expeditionary capacity;
- huge levels of forced and often unavoidable migration,²⁵ perhaps akin to the fifth century, and possible forcible attempts to take over the remaining habitable parts of the world, including the UK, by people displaced from elsewhere. It is hard to imagine the UK maintaining an open borders policy in these circumstances.

It may be objected to all the forgoing that it is conjecture piled upon speculation, situated in a sea of uncertainty. We have to assume what the

²³ See <http://www.parliament.uk/briefing-papers/sn04046.pdf>.

²⁴ See <http://www.scientificamerican.com/article/climate-change-hastened-the-syrian-war/>. And Professor Seager, of Columbia University, has argued that the root cause of the Syrian conflict was 1.5 million migrants from rural communities fleeing a three-year drought made more persistent and intense by human driven climate change. See Independent, 08/09/15.

²⁵ Professor Norman Myers, who argues that climate change could cause 200 million people to be displaced by 2050. <http://www.osce.org/eea/14851?download=true>. I've seen no estimate for 2100, but a billion may be nearer the mark then.

likely emissions following Paris will be; we have to believe the climate models that predict 3 - 4°C rise; we have to accept the consequences of this average rise for different parts of the world; we have to engage in a kind of futurology concerning the evolution of the world political system; and finally make an assessment of the effects of all this on the UK. Surely it's just all too uncertain to act on such a wobbly pile of propositions.

But what is the alternative? Food, health, foreign, aid and security policy planning in particular need to take account of the long term, and must therefore proceed on some assumption about what we might think the future might look like. The main alternative hypothesis, which is that the world will continue to look much as it has before, is plainly not adequate.²⁶ OK, we face colossal uncertainties, but that doesn't mean that the best thing to do is to be like the rabbit and stare at the headlights bearing down on us. Others more expert could no doubt come up with a more informed account of our future; the main point of this report is to argue that climate change will happen and that this assessment must be done.

The UK, together with the other rich countries, will also face a huge moral and political choice. How much of their effort should go into helping poorer countries adapt to climate change so far as that is possible, and how much into defending our own populations and territories from the potential collapse in the international order, and in particular the pressures of mass migration? Of course some part of any help to poorer countries will help reduce the pressures on our own countries, and so is self-serving. But humanitarian concerns and our responsibility for the bulk of the historical emissions that have caused the problem suggest we should do much more than that. It is doubtful however whether even if the rich world gave as much support as it

²⁶ I suspect people will believe much of the climate science, backed as it is by numbers and assessed probabilities, and cloaked in the authoritative jargon of science, but balk at the assessment of what will become of the international political and economic order. Historical projection, involving human choices to come, has tended to be left to prophets and Marxists. Yet over the long term the relative position of nations has not been so hard to predict – the rise of Russia and the US was foreseen in the nineteenth century, and with it the decline of Britain. There is wide agreement now about the rise of China. I'd argue that much of this is not actually much more uncertain than long range climate prediction.

possibly could, even setting aside domestic political constraints, to the poor world's adaptation effort, it could ever be enough to prevent all the perils to international order and UK security listed above. But where will the balance be drawn?

Universalism and progress – implications for political principles

With this end of innocence two great political principles dear to the hearts of all on the left, not just the green left, will also perish. First to die must be the idea of progress. And with that we will also have to come to terms with the impossibility of the aspiration of human universalism. Let me explain.

Modern politics is almost universally optimistic. Above all politicians promise a better future, generally predicated on economic growth. Green and other progressive politicians in particular exemplify this; the green, sharing, caring future will not only save the planet, but it will be better than the past. This applies both to those who believe that green growth and sustainable development is possible and those, like Green House, who see material growth in the economy as ending and envisage a smaller economy, but which will still nevertheless offer a better life. With Corbyn's election as Labour leader, the project to build a new alliance on the left of politics is above all seen as a 'progressive' project; let the progressives unite.

Yet the bleak world presented above does not represent progress; the twenty first century for most people in the world is going to be worse than the second half of the twentieth century, not better, however you dress it up. It will be worse materially (and many of us unhappy with rampant consumerism in the rich north may worry little about that, but poor people in both the rich north and the poor south will be genuinely less well off), but also worse morally and politically. As John Gray has argued, while progress in science and human knowledge is cumulative, moral and political progress is always at risk, and it

cannot be taken for granted that a success in one generation, such as the abolition of slavery, will hold forever from then on.²⁷

Failure to come to terms with the end of progress is part of the reason we find it so very hard to think about the world we face. Thinking about it confronts our most basic belief, cemented by ten generations of economic growth, that the world is getting better. We will need to get closer to one aspect of the mind-set of the last genuinely sceptical Prime Minister, Lord Salisbury, in the 1890s, who aimed to do no more than prevent the world from getting worse (of course, he was worried about different things, like Britain's relative decline as a power, and the decline of the aristocratic landed interest in an era of advancing democracy, but the point is he was not 'progressive'; rather unfashionably even then, he did not expect the world to get 'better.')

But it's not just progress that is threatened. One central point of this report is to suggest that green-minded politicians and the environmental movement need to be honest with the public. It is no longer a matter of saving the world; the world is already at least half doomed. It is more a matter of coming to terms with what we have done, and preparing to meet that world. In the jargon, we need increasingly to emphasise adaptation, not forgetting we still need mitigation, that is reducing and soon eliminating, our greenhouse gas emissions.

Those of us who call themselves 'progressives' have always been more comfortable with preventing climate change, mitigation, rather than adapting to it. Partly that is just a commitment to the long term, the conviction that we should not leave these problems to our grandchildren.²⁸ As responsible people we should deal with the causes, not the effects of problems, prevent the problem arising, not cure it after the event. And the forces ostensibly²⁹ behind climate change, the oligopoly of big fossil fuel companies, power

²⁷ Gray, John, *The Silence of Animals: On Progress and Other Modern Myths* (2013).

²⁸ Shared incidentally by the rhetoric about the national debt, that we should not leave it to our children.

²⁹ Their supply of fossil fuels depends on our willingness to consume them.

companies and the motoring lobby make attractive political targets for those on the left.

But there is a deeper reason for prioritising mitigation. When I cut my personal emissions, the benefit will be felt, in an infinitesimal way, by everyone on the planet and by future generations. Personally I get no meaningful benefit. If the UK cuts its emissions, the UK actually benefits just a little, but all other countries and their inhabitants benefit a little bit too. The point is that mitigation is necessarily a *universalist* project; an altruistic act that benefits everybody on the planet. Progressives are comfortable with universalism. It is after all what motivates our interest in alleviating poverty everywhere, or seeking universal peace and disarmament, or being sympathetic to the needs and aspirations of migrants. Un-selfishness, expanding the moral universe beyond myself, my family, my generation, my race, my gender, our country and even our species is what 'progressives' are all about.

It is in particular the opposite of far right nationalist or fascist ideas, which confine moral sympathy to one's own nation or race, and regard ourselves as locked in a struggle to the death with other races and nations for lebensraum, for an ecological niche. It is easy to forget that whole nations accepted these ideas only seventy or eighty years ago, and under far less provocation by events. The challenge for our politics will be to preserve some of our universalism in the face of events that will make its practical application impossible, and which will fan much more extremist and right wing alternatives.³⁰

Increasing our focus on adaptation changes the political and moral emphasis. Adaptation is a local project. How do we protect our locality, our country, our way of life, from the effects of the climate change? While governments in the rich world may be persuaded to give help to poorer countries' adaptation

³⁰ There is a frightening account of how climate change might feed Nazi ideas in historian Timothy Snyder's article in the Guardian at http://www.theguardian.com/world/2015/sep/16/hitlers-world-may-not-be-so-far-away?CMP=share_btn_link accessed 261015.

needs, this is ultimately voluntary, and rich country electorates will come down to demanding priority for the preservation of their countries' security and basic living standards. Conservative politicians and thinkers have this local focus naturally, given their commitment to nation, kith and kin, and perhaps that is why they have always been lukewarm about mitigation. It is an approach implicit for example in Roger Scruton's *Green Philosophy* or Nigel Lawson's *An Appeal to Reason*. And perhaps too conservatives are less attracted to progress, despite their politicians' rhetoric, and more concerned, as was traditional for them, with defending what we have. The electorate sense this, and this may be at the root of conservative electoral success that many on the left find hard to understand. But we should not forget that what we have includes political ideas like tolerance, respect for others, freedom of expression, and politics will become more a matter of preserving these than expecting their expansion.

However uncomfortable politically and morally, 'progressives' must nevertheless now face up to the need for adaptation. There is no longer a choice between mitigation and adaptation. It is too late, damaging climate change will happen, and no responsible politicians can ignore it. That is not to say we should not continue pressing for mitigation, we must, but an emphasis on mitigation alone is no longer tenable. Indeed, facing up to adaptation and seeing how difficult it is will strengthen the case for preventing worse damage, that is for mitigation.

Conclusion

So, in short, Paris means that it is now too late to avoid profoundly damaging climate change. We must both not let our belief in progress prevent us from facing that, and accept that, as in the European Early Middle Ages, we are entering a new Dark Age; for a century or so progress is over.

Nor must we let the relatively small direct climate challenges to the UK blind us to the fact that the effect on the current world system will be profound, and that a nation extremely integrated with that system must prepare for huge

uncertainties. For many of us on the left this concentration on UK security will be extremely challenging, undermining our commitment to a human universalism which while still morally right will become a project impossible to achieve or even contribute much to through participation in UK politics, though it is imperative that the idea is kept alive.

I said earlier in this piece that the last pessimistic Prime Minister was Salisbury. Actually that's not quite right. Before he was Prime Minister, Churchill was universally pessimistic in the later 1930s, holding up correctly the prospect of another awful war with Germany. He paid for it by being in the political wilderness.³¹ And he swiftly returned to total, if improbable, optimism during the war itself. But it was a grim optimism based on an appreciation of realities, and that's what I think we need here. Yes, the prospects are awful, but we can make them less awful if we prepare for them, and then we would have a chance that we might preserve much that is good about our democratic structures, and a commitment to universalism and the wider and poorer world tempered by realism. We cannot pretend we can avoid it altogether, or, alternatively, simply decide, as many have, that we are now doomed whatever we do, avert our eyes and retreat into a merry but short private life. It's much more complicated than that lazy dichotomy, and my two-year-old granddaughter doesn't have the second option.

³¹ And he was very alone also because he had a controversial political past that alienated him from the left, and pursued other unpopular policies like opposing the gradual move to Indian self-government.