

## 10 YEARS OF THE CLIMATE CHANGE ACT: LABOUR LEADERSHIP AND FUTURE AMBITION

NEW GROUND  
10 YRS  
OF THE CLIMATE  
CHANGE ACT  
SPECIAL EDITION

**Barry Gardiner MP**

*Climate Change on the  
Global Stage*

**Lord Adonis**

*Brexit risks the  
Climate Change Act*

**Chi Onwurah MP**

*Delivering a Just  
Transition*



# Welcome to our 2018 Winter Edition

PHILLIP FENTON

The 26th November 2018 will mark the 10th anniversary of the Climate Change Act; world leading legislation that committed the United Kingdom to legally binding targets to reduce UK greenhouse gas emissions by 2050, and with pathway to achieve that target.

As SERA - Labour's environment campaign we believe it is important to recognise and celebrate Labour's long and proud history on the environment. We rightly champion Labour's setting up of the NHS but Labour also established the National Parks, opened up access to the countryside and passed the Climate Change Act – and at a time when the country was plunged into recession through an international financial crisis.

But, it is not enough to simply celebrate past successes but shape our future. Since 1973 SERA have been urging the Labour movement to recognise the environmental challenges we face, not as inconvenient truths that will hinder business, society and government as many Conservatives view things, but to deliver opportunities and fairness.

We see this approach in Labour's recent 'The Green Transformation' policy document released at Labour Party conference in September. The cross-departmental document written by Rebecca Long-Bailey, Shadow Secretary of State for Business, Energy and Industrial Strategy, and Sue Hayman, Shadow Secretary of State for Environment, Food and Rural Affairs recognises that we need societal transformation to tackle the underlying drivers of environmental degradation. This transformation will be advanced by Labour principles of justice, equality, solidarity and democracy. Labour also recognises that this green transformation will bring cheaper energy, growing global markets for green tech and new high-tech jobs in renewable industries.

The theme of the SERA rally at this year's Labour conference marked the decade of the Climate Change Act, with a series of powerful speeches including from Hilary Benn, who took the legislation through Parliament. On the anniversary of the Act we have organised an event with Ed Miliband MP, former Labour leader and Secretary of State for Energy and Climate Change. We have asked also Labour politicians and campaigners to renew their commitments to comprehensive climate action and champion Labour's net-zero emissions 2050 target.

In this edition of New Ground we also focus on the Climate Change Act anniversary with many thought-provoking articles on how we achieve change ahead, from the grassroots, in different parts of the country and nationally and internationally.

Brexit continues to bring huge uncertainty for our environment and risks our battle against climate change. Lord Andrew Adonis has written on this and SERA supports a People's Vote, for the sake of our planet and all of us - the environmental movement should unite behind a vote.

Labour must remain bold. We must also secure a Labour Government to achieve the change that is required to steer the country into a low carbon future that will benefit our planet, our communities and our natural environment. This edition of New ground marks Labour's leadership on climate change and how Labour can continue to lead, from council chambers to the global stage.

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## SERA AT LABOUR PARTY CONFERENCE 2018

SERA well and truly put the environment on the agenda in Liverpool with 10 fringe events on a range of key issues including Climate Change, plastic pollution, agriculture and transport.

We hosted over 90 speakers and engaged over 1,200 people off and online.

Search 'SERA Labour' on YouTube to find our channel and watch our events on demand.



# CLIMATE CHANGE ON THE GLOBAL STAGE

BARRY GARDINER MP

**It's ten years on from the 2008 Climate Change Act. Time perhaps you might think, to reflect and celebrate all the progress we have made. Time to reflect that the UK has cut emissions of greenhouse gases by 43 percent since 1990 whilst growing our economy: achieving the Holy Grail of decoupling economic growth from carbon emissions.**

Well, think again.

Better still - wake up! Global greenhouse gas emissions haven't fallen; they haven't even flatlined. They are on the rise. In fact, when you look more closely at the UK, even our reduction in emissions production can be interpreted another way. The British economy has moved rapidly from a manufacturing base towards the services sector. This means that more of the goods we buy and use are now produced overseas. So, it can be claimed that instead of reducing emissions, we have simply offshored them. From that perspective, the UK's carbon footprint has barely changed at all since the 1990s.

All this is not to deny the significance of 2008. There has been real progress: the move away from coal fired power stations, the emergence of electric vehicles, the plunging costs of renewables has far exceeded what most people thought possible. And yes, the Climate Change

Act was a big part of why all that happened. It was, and still is, a world-leading piece of legislation and certainly one of the greatest legacies of the last Labour government.

Labour's 2008 Act provided the template to achieve just that. Instead of the finger wagging of a top-down set of obligations that was proposed in the failed Copenhagen climate negotiations of 2009, the world moved in the 2015 Paris climate negotiations to a set of voluntary promises: the not-so-snappily named "Intended Nationally Determined Contributions"! These INDCs were the bottom-up responses made by countries in light of the scientific evidence that set in place the 2°C target. This was the astonishing achievement of the Paris Agreement. Everyone knew the INDCs were not enough — at best they would still see warming of between 2.7 and 3.4°C — but even the most recalcitrant countries had pledged something. And now with unanimous support, the world leaders committed to a process of ratcheting up their efforts. This ratcheting process was both in terms of increasing their emissions reduction efforts but also critically, what had seemed like a throwaway line in the 2009 Copenhagen Accord about further investigation into the possibility of a 1.5°C threshold now took hold in a commitment to stay within that more ambitious temperature limit of 1.5°C.

Last month's report by the Intergovernmental Panel on Climate Change showed us what this means. On current trends, we are at risk of passing the 1.5°C threshold as soon as 2030, in little over a dozen years' time. This is the challenge that the world must rise to: 12 years to stop climate change.

You might imagine that our government would once again wish to set an example and lead the world in rising to this much tougher test. You would be wrong. The government's response was quite properly to ask the independent Committee on Climate Change to advise on what action it should take to respond to the IPCC report. And then to quite improperly instruct the CCC that it should not recommend anything that would alter the carbon budgets that have already been set. But those carbon budgets already cover the period of the next 12 years! Neither Swift nor Kafka could have parodied such a ridiculous position. It is beyond parody. The government is told there is 12 years to save the planet and it says we will consider changing its plans in 12 years' time!

The inescapable fact is that we are now closer than ever before to catastrophic climate breakdown. And the government seems think that anything we may do here in the UK to reduce emissions and mitigate climate change will not matter unless the

rest of the world joins us so there is no point doing anything until everyone else does.

Certainly, the architects of the global consensus achieved in Paris have passed their legacy to a generation of newcomers that are not as convinced of the urgency with which this crisis must be averted. Obama is out. Merkel barely clings on. Next year's UN climate conference takes place in a Brazil that just elected Jair Bolsonaro as president: another politician who has threatened to withdraw from the Paris Agreement.

*The inescapable fact is that we are now closer than ever before to catastrophic climate breakdown*

With isolationism in the ascendancy, many in the environmental movement have invested their faith in the mantra that "small is beautiful". In the USA where Trump has abandoned the federal program and is resiling from the international agreement there is much talk of the subnational and non-state actors — communities, towns, cities — picking up the pieces.

But while grassroots and local-scale activity is necessary, it is not sufficient. No amount of tinkering around the edges could possibly deliver what is required. The IPCC report on 1.5°C called for "rapid and far-reaching" systemic changes to our global economic and political structures.

So, whilst it is true that the UK going it alone is simply not enough and we need a global solution to a global problem, it is morally negligent of our government to simply hold its hands up and say we will wait. Politics is about leadership. And so is economics. It is called first mover advantage!

This leadership is precisely what the Labour Party offers: a green jobs revolution that will radically decarbonise our society, insulating 4 million homes to high energy

efficiency standards in our first term, unleashing seven times as much offshore wind power, and creating more than 400,000 high-quality, unionised jobs in the wind, solar and energy efficiency sectors.

It is a transformative domestic vision. It will also position us internationally to capture a large share of global demand for the technology and the skills required to move all countries onto a low-carbon pathway. Perhaps the toughest task ahead of a future Labour government is to now bring together every nation to join us on the path to net zero emissions.

Labour is determined that Britain should be at the forefront of the new climate economy, a true global leader recognised as such. Achieving this means looking at all aspects of our international relations and seeing how we could empower outward facing departments — International Trade, International Development, the Foreign Office — to accelerate climate action.

These departments have been neglected by the Conservatives. On Boris Johnson's watch, the number of full-time officials working on climate change in the Foreign Office dropped by 25 percent. And unlike the Tories, which in previous years sent a fifth of aid abroad to fund fossil fuel projects, a Labour-led DFID will fully divest from using aid money to build polluting oil and gas infrastructure that deteriorates air quality in the developing world and hastens the breakdown of our climate.

As Shadow International Trade Secretary, I want the Department to work with, not against, our radical climate agenda. How was it that the Tories (and their Liberal coalition partners) allowed 99.4 percent of the UK's export credit financing for energy in developing countries to go to fossil fuels. That's nearly £3 billion worth of financing for fossil fuel projects. This undermines our commitment to the Paris Agreement and our international pledge, as a G20 member, to eliminate fossil fuel subsidies. In fact, the government denies the very existence of any subsidies to the fossil fuel industry.

A Labour government will get our priorities right. That's why we will redirect UK Export

Finance support for energy towards low carbon projects. This is just one small part of our plan to reform the global trading system so that it protects, not degrades, our environment. In September, I went to the World Trade Organisation to launch the Just Trading initiative — a new progressive manifesto for trade. It is a vision where trade deals can create a virtuous cycle of prosperity and development that will set the foundation on which we can build a truly sustainable future.

This embodies Labour's agenda: transformative, outward-looking and radical. Those values must also define our approach to climate change on the world stage. Ten years ago, Labour's Climate Change Act was a ground-breaking moment in the history of environmentalism. It made us climate leaders. This Tory government has been resting on our laurels!

The IPCC report must give a new urgency to politics. With limited time to avoid the human catastrophe that we now know will result if we exceed the 1.5°C threshold and the international scene now dominated by moral pygmies, the UK must step forward and lead the way through the darkness. Unafraid to confront allies that drag their feet. Bold in our assistance to countries whose very existence is threatened by rising seas.

We, the Labour Party. The party of internationalism and solidarity. The party that believes in the power of collective action across borders. Knowing that by the strength of our common endeavour we can achieve more than we could ever do alone. This is who we are. And that is why the next Labour government cannot come a moment too soon.

**BARRY GARDINER MP** is Shadow Secretary of State for International trade and Minister for International Climate Change. He is Labour MP for Brent North. He tweets at @BarryGardiner





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# LABOUR, TEN YEARS ON

BRYN KEWLEY

**The meeting was in Exxon's headquarters. James Black from their Engineering and Research division was set to present top company executives with some disturbing findings. Fossil fuel emissions were changing the global climate and 'present thinking holds that man has a time window of five to ten years before the need for hard decisions regarding changes in energy strategies might become critical.' The year was 1977.**

Yet it took many more years, scores of international summits, thousands of pages of scientific documents and a mass movement of campaigners, enlightened businesses and MPs to encourage the UK government into legislative action.

In response to expectations in 2006 that the government was going to miss its climate change targets and with no clear fall in emissions since the mid-1990s, many NGOs were encouraging climate legislation. One of them was the 'Big Ask' campaign. Run by Friends of the Earth under Tony Juniper part of the 'ask' was annual targets with three per cent reductions in emissions year on year.

That year Labour MP Michael Meacher subsequently published an original Climate Change Bill calling for this three per cent annual reduction every year till 2050. An Early Day Motion was tabled that supported the Bill, agreeing with the Government's Chief Scientific Advisor that climate change was a threat to civilisation. It was signed by 412 MPs from across the House.

Through the Queen's Speech in November 2006 the Labour Government introduced their own Climate Change Bill. This Bill would put the long term target of 60% emissions reductions into statute, establish a 'Carbon Committee' to provide advice, create enabling powers to put emissions reductions in place and establish a regime of monitoring reports to Parliament.

The draft Climate Change Bill was published in March 2007 with the accompanying press release stating that we could no longer 'close our eyes and cross our fingers'. However the government pushed back on the annual targets which it felt didn't provide enough flexibility, opting instead for five yearly budgets.

Further changes were recommended in the summer of 2007 by a Joint Committee of both Houses which examined the bill. They warmly welcomed the leadership being taken by the government, and agreed with the five yearly carbon budgets, but took umbrage at the lack of inclusion of emissions from international aviation and had significant concerns about the enforceability of the budgets.

By November the Bill was ready to be tabled, initially in the Lords, under a new Labour Prime Minister. Gordon Brown gave a speech at the time, thanking contributors and stating that "evidence now suggests that as part of an international agreement developed countries may have to reduce their emissions by up to 80%. So we

will put this evidence to the Committee on Climate Change, ask it to advise us as it considers the first three five year budgets on whether our own domestic target should be tightened up to 80%."

It was slow progress, but methodical. The Bill was heavily amended by both the opposition and the government during its passage – finally reaching Royal Assent on the 26th November 2008, over a year after being introduced. The final Act carried the 80% emissions reduction target considered broadly consistent with having a 50/50 chance of keeping to 2°C of warming.

Ten years on, and through the Great Recession, the Climate Change Act and its Committee have stood the test of time. Despite a lack of enforcement we have, in a very British way, carried on with what is necessary to do our bit.

The Act has been surprisingly resilient to attacks from the final few superannuated climate sceptics like my very own MP Christopher 'chopper' Chope (who recently made headlines for opposing the upskirting ban). Having been one of only five MPs to vote against the passing of the Climate Change Act he has gone on to support private members bills which among a list of proclaimed 'true-blue' proposals, attempted in 2014 to dissolve the Department for Energy and Climate Change.

Whilst some of the Act's strength resides in its resilience this flexibility has come at a cost.

## Climate change has arrived early and we need to go further and faster

Almost all of the UK's emissions reductions have come from the coal/renewables switch in the energy sector, with few contributions from other major emitting areas.

The rise of renewable energy has seen an extraordinary acceleration outstrip the predictions of even the most bullish NGOs. At the start of this decade Britain had seven times more generating capacity from oil, gas and fossil fuels than from renewable energy. RenewableUK reported that it took 19 years for the UK to build its first 5GW of wind capacity. Now we can build the same amount of wind in 2 years. We're connecting 3.8GW of solar, onshore and offshore wind and biomass each year. Only this quarter we tipped the balance and now have more installed renewable capacity than fossil fuels. Throughout this transition the cost of building renewables has fallen precipitously.

Good news. And yet the Arctic Circle was on fire this summer. Climate change has arrived early and we need to go further and faster. This is why Labour's pledge to build 60% of our power and heat from low carbon and renewable sources by 2030 is so important. Labour would ban fracking and get building the technologies of tomorrow. Despite the progress the energy battle is far from won with trends of variable generation, decentralisation, democratisation, digitalisation, keeping the lights on and the bills down all still able to scupper progress.

Managing the continued acceleration in energy requires close scrutiny, especially with its increasing interconnectedness with other key sectors which are still heavily emitting and need to be decarbonised, principally heat and transport. Unlike building renewables which is a remote change, the challenges involved with heat and transport like insulating homes, changing boilers

and what car you buy, are very personal decisions needing different solutions.

The long view on heat looks something like energy efficiency first, followed by hybrid heat pumps which aren't disruptive to install, run on electricity 80% of the time and otherwise run on a mixture of green gases and hydrogen from electrolysis cracked from water at times of cheap electricity availability.

Transport will become heavily electrified faster than most predict. Many in the energy sector are relaxed about how much more electricity this will require, approximately 16%, but significant amounts of charging infrastructure and grid upgrades are needed to ensure we don't melt the wires. All these issues are interrelated and the answers won't be found in a silo.

And there are many more big policy questions to struggle with. To date the majority of negative emissions are expected to come from biomass energy with CCS – yet currently this technology is creating significant emissions. Any animal with two stomachs, principally cows and sheep, and the supply chains that support them are significant entrenched emitters. The aviation sector continues to grow with a tiny minority of society taking the lion's share of heavily emitting long haul flights. Crashing out of the EU carries substantial risks for UK climate action, one often ignored are the efficiency targets which have driven white goods such as washing machines to use much less energy, reducing emissions and cutting bills.

The Climate Change Act has got us on a path of progress but there is a lot to be done, starting with that target of 80% emissions reductions by 2050. After the Paris Climate Summit heard from vulnerable

nations like the Marshall Islands which will cease to exist if the sea rises with 2°C, the world agreed to aim for 1.5°C. The recent IPCC report highlighted that this will save millions from water scarcity, food pressures and keep us away from dangerously risky tipping points such as melting permafrost releasing methane.

This is why Labour announced that it wanted a net-zero emissions target. Effectively this means changing that 80% target to 100%, with the caveat that if we struggle to abate all emissions from one sector, the shortfall must be made up with negative emissions in another. As with the target change in 2008, also based on evolving science and international consensus, the Committee on Climate Change have been asked to look at the evidence and provide advice. Considering that climate change impacts are increasingly being felt today, it'll be important that they come back with strong suggestions.

Crucially, we're not doomed. Progress is accelerating. 41 years on from James Black's prediction to Exxon, despite a recession, Brexit and Trump, and notwithstanding a shift in the international post-war liberal order, it feels for the first time that if, and only if, we keep our foot firmly on the accelerator and our eyes on the road ahead we might just make it through this together.

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# BRISTOL A LEADING GREEN CITY

MARVIN REES

**Earlier this year, Jeremy Corbyn highlighted the 'first shoots of the renaissance of local government for the many, not the few'. Perhaps nowhere are these shoots greener than in Bristol.**

Bristol was one of the first local authorities to own a wind turbine, amongst the earliest to set up a council-owned energy company providing 100% green tariffs, and the only UK city to spend a year as European Green Capital. And, now, with a majority for the first time since 2003, we are building on Labour's legacy in Government, including implementing the Kyoto Protocol through the Climate Change Act. With a Green Party in name only here – one which votes with Tory councillors against some £14 million of our capital investment in clean energy while supporting developments which would have worsened already illegal air quality for some of the poorest Bristolians – my all-Labour administration are at the forefront of action against climate change.

No more immediately do these causes of social and environmental justice intertwine than in the case of fuel poverty. My administration has installed district heating systems and is progressing plans for heat networks. We have placed new insulation in 20,000 council properties and are promoting fuel poverty projects across the city, which are saving Bristolians money and helping the environment. Solar power is being installed on new council houses as part of work which will see our ambitious pledge to build 2,000 new homes – including 800 affordable – per year by 2020 exceeded by almost 50%.

Since the local is also global, it's worth saying the recent report from the Inter-governmental Panel on Climate Change has highlighted just how pressing the challenge of climate change is for our planet. Few people still doubt the proven science which conclusively shows just how much humans have contributed to what's happening and the scale of the emergency we face. That's why we have led efforts for the Avon Pension Fund to see climate change as a threat and better consider other environmental, carbon, and social risk through a comprehensive and long-term sustainable investment strategy.

At the recent Global Parliament of Mayors summit in Bristol, city leaders from six continents gathered with networks like the C40 Climate Cities Leadership Group to support the Bristol Declaration. It calls on national governments and international organisations to recognise that, without a fundamental shift of global governance to empower and include cities and regions, challenges like climate change will most likely go unresolved.

I also used the GPM conference to bring together the leaders of all core cities and the metro mayors in one room for the first time. This produced a clear joint position across party lines, lobbying the Government for a £2 billion Clean Air Fund to equip local leaders with what's needed to improve air quality. This builds on the record of local Labour councillors and community campaigners, who fought through every stage of the planning process to stop 48 diesel generators being built next to a

nursery school in the city. New plans for a STOR plant in the same community will no doubt face similar opposition, backed by Bristol Labour. We are working on a range of options for a Clean Air Zone for Bristol, all of which will deliver compliance with the required standards within the shortest possible time. An Outline Business Case with a preferred scheme will be submitted later this year, followed by a consultation. At the same time, further bids to Government to implement a scheme and fund mitigation measures that will reduce the impact on specific groups. With responsibility already shifted from Westminster to town halls to address illegal air quality, the required resources need to follow in a package ten times larger than that which the Government announced in the Spring.

*Bristol is one of very few cities where bus use is growing, and we have already placed the largest biogas bus order in the country to clean up our public transport*

Bristol is one of very few cities where bus use is growing, and we have already placed the largest biogas bus order in the

country to clean up our public transport while also retrofitting the oldest, most polluting vehicles to improve standards. We are leading regional work worth more than £7 million to invest in Low Emissions Vehicles, and have invested almost as much again in bringing the council's own fleet of vehicles to standard. This was a key manifesto commitment and part of our progressive budget, which the so-called Green Party opposed along with the Tories and Lib Dems.

We are also leading efforts to deliver an underground/overground for Bristol, part of a philosophy which says that reliable, affordable, and convenient public transport is needed to reduce congestion on our roads. My administration is also exploring an expansion of rapid transit options, including on key arterial routes into the city. Alongside this, through MetroWest planning with partners, we are reopening old suburban train stations and building new ones across the city and region to give people more options for how to get around, starting the work of undoing the Beeching cuts. And, as a Cycling City, we are investing in 12 segregated cycling routes covering some 75 miles; facilitated the spread of hire bikes; and, to encourage cycling and also highlight our commitment to sport, brought the Tour of Britain to Bristol.

*As a council we met our carbon emissions reduction target early and have upped it*

And, after successful soft market testing, Labour-run Bristol City Council has garnered almost £1 billion of interest in pioneering projects to transform how Bristol generates, stores, and utilises energy. 180 investors from all around the world, from the Japanese national bank to Warren Buffett's Berkshire Hathaway investment vehicle, have sent in expressions of interest in the exciting City LEAP programme. As a council we met our carbon emissions reduction target early

and have upped it and I am confident that, as a city, LEAP will enable the city of Bristol to be run entirely on clean energy by 2050, in line with our manifesto commitment. If Government steps up to provide the resources and powers we need – and only then – then we may well be able to bring this date forward by at least a decade.

I agreed with three-quarters of Bristolians that litter was a big issue for our city. Making our streets measurably cleaner was a key commitment of mine and has led to the Clean Streets campaign. This project has worked with scores of local primary schools and community groups to mobilise over 3,000 volunteers on litter picks. We have raised awareness, strengthened communities' pride in where they live, and saved the council money all in one go. Campaigns on the city's bus shelters have highlighted good work while also publicising increased enforcement efforts around littering, dog fouling (one of the cornerstone of local government work), and other environmental crimes. Offenders are now subject to new £100 on-the-spot fines, with 10,000 already issued since last year. Meanwhile, Council-owned Bristol Waste Company has installed covert CCTV cameras at fly-tipping hotspots, 'spy bins', and issued dozens of fly-tipping fines in the last month alone.

Bristol is also home to Kerry McCarthy, easily Parliament's greenest MP. With her, we are working on a pollinator action plan for the city's bees, pulling together an action plan around single-use plastics, and are exploring alternatives with other councils so that we can be able to phase out the use of glyphosate. Kerry's pioneering work in Westminster around food waste and plastic pollution was ahead of its time, and has been backed here in Bristol by our administration. Bristol Waste's award-winning pilot campaign saw the amount of food waste collected for renewable energy generation in parts of south Bristol increase by 87%, and has since been rolled out across the city. Alongside this, the Feeding Bristol pilot has achieved charity status and our efforts with city partners around food poverty saw 13,000 meals distributed to children this summer that might otherwise go without due to holiday hunger.

*All of this good work is only possible because of the financial rigour which we have brought to the local authority*

All of this good work is only possible because of the financial rigour which we have brought to the local authority. Just as there are no jobs on a dead planet, as we've seen from Northamptonshire and may well see from other Shires given the continued austerity agenda from national government, there can be scant investment in local services and projects without a financially sustainable council. Doing the boring well has enabled our administration to support and work with the city, and the green shoots of municipal socialism flourish.

More widely, we have been accredited as a Living Wage employer and reduced senior management by £1.6 million, again despite the opposition of all other parties. Labour-run Bristol is the only core city with a 10:1 pay ratio, a 100% council tax discount for our poorest residents and care leavers up to their 25th birthdays and full council tax on second/empty homes. Our pioneering Children's Charter is inspiring cities the world over, and our transformation of adult social care will deliver the support which people want despite central Government passing the buck. With this, and the environmentally sound policies we have already delivered, across the board Bristol is up there amongst the most progressive local authorities in the country.

MARVIN REES  
is the Mayor  
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# BREXIT RISKS THE CLIMATE CHANGE ACT

LORD ANDREW ADONIS

**Britain was once a global leader on climate change. The 2008 Climate Change Act was the world's first legal framework that set binding carbon and emissions targets, and was explicitly emulated by countries ranging from Sweden to New Zealand. It helped drive change in European Union carbon targets, and was followed by the UK playing a leading role in the EU advancing action on climate change.**

Crucially, by leading the European Union on climate change, Britain also led the world. The EU has become the global environmental standard and regulation setter and has used its significant trade clout to tackle climate change. This year, it announced that it would refuse to sign trade deals with countries that did not ratify the Paris change agreement, an agreement Britain played a key role in negotiating not least due to the stature that the Climate Change Act gave us.

Catastrophically, at a time when the Intergovernmental Panel on Climate Change is urging unprecedented international collaboration and efforts to prevent environmentally debilitating rises in global temperatures, Britain is going in the opposite direction by leaving the EU.

Brexit will have hugely negative consequences for the implementation and legacy of the Climate Change Act.

First of all, it will result in eye watering losses of EU funding that will make it far harder to meet the Act's bold targets. The UK receives over £5bn in funding from the EU for projects that support the environment and tackles climate change, and a further £8bn in loans from European

Investment Bank doubles the amount lent by the UK's Green Investment Bank. With the Government already ignoring warnings by the Committee on Climate Change that not enough is being done to meet the targets set out in the Climate Change Act, and instead scrapping subsidies for onshore wind and dismantling the Department of Energy and Climate Change, it is unlikely that this loss of funding will be made up once Brexit has hit the national finances.

Brexit will also force the UK to leave the EU Emissions Trading Scheme since membership requires accepting the jurisdiction of the European Court of Justice. This is an archetypal case of Brexit destroying the gains of international cooperation in a fit of absence of mind. The EU Emissions Trading Scheme is the world's most ambitious effort to create a trading scheme that caps the level of emissions from the burning of fossil fuels, covering eleven thousand installations. The UK's exit from it would significantly weaken it, while leaving the UK to set up a smaller, less effective, and less stable replacement.

Then there is the loss of EU environmental legislation, which covers roughly half of the UK's emissions reductions up to 2030. The Government has promised to preserve these environmental standards with a "green Brexit", but it has already emerged that the green watchdog supposed to hold the Government to account incredibly has no powers relating to climate change.

Brexit will also demolish Britain's role as a key global player on climate change that the Climate Change Act brought it. In a single stroke, Britain will lose its place as a key advocate of bold

EU action on climate change, and as a member of the EU negotiating block with powerful international influence.

Brexit is not unravelling the Climate Change Act by accident. Weakening environmental protection, as well as worker and consumer rights, is precisely why Brexiters like Boris Johnson, Jacob Rees-Mogg, and Michael Gove want to leave. They see Brexit as a chance to 'unshackle' Britain from the 'corpse' of EU regulation. Their real agenda, as Will Hutton and I argue throughout our new book 'Saving Britain', is the triumph of 'Thatcherism in one country'. It is not for nothing that arch-Thatcherite Home Secretary Sajid Javid gleefully outlined a "huge shopping list" of policies in the event of no deal that included deregulation on workers' rights, scrapping automatic enrolment into pension schemes and ditching environmental regulations.

The Climate Change Act, which exemplifies progressive internationalism, is anathema to this libertarian ideology.

If Britain is to once again lead the way on climate change, this Thatcherite revival must be halted, and Brexit must be stopped.

LORD ANDREW ADONIS is a Labour peer, former transport secretary and former chairman of the National Infrastructure Commission. He has campaigned on vice-chancellor's pay and now is a leading voice against Brexit. He tweets at @Andrew\_Adonis



# TURNING OUR ATTENTION TO THE NEW ENVIRONMENT BILL

TONY JUNIPER CBE

**November 2008 saw one of the most significant moments in the history of efforts to protect our common environment. That was the month when the Climate Change Act passed into law, the first legal framework of its kind in the world, and it marked a turning point.**

Although born amid the chaos of the global financial crisis, the Act put the UK on a new long-term pathway towards decarbonisation. There remains a long road ahead, as the recent Intergovernmental Panel on Climate Change report showed, setting out why it is imperative that we keep up our ambition to emit zero greenhouse gases before the middle of this century. Nonetheless, from our standpoint today we can see the profound impact and importance of that pioneering law. For example, the UK just passed the historic point where renewable power generation now contributes more of our electricity than fossil sources. That would not have happened without the Climate Change Act.

Ten years on, and in a new period of political turmoil, this time arising from the UK's impending departure from the European Union, the Prime Minister has said that the Government will soon bring forward a new Environment Bill, the first in more than twenty years. This could mark a similarly significant watershed, if only the political support needed for significant progress can be mustered.

As was the case with the Climate Change Act, an ambitious new Environment Act is not only needed here at home in aiding the recovery of nature in Britain, but also because of the potential for

the UK to show leadership in the face of what is a gathering global crisis.

That crisis has been well documented. Only last month the scale and pace of what is going on was underlined in WWF's Living Planet Report. It showed the terrifying rate of wildlife decline, revealing an average 60 per cent reduction in vertebrate populations across the world since 1970. The global picture is broadly reflected in UK trends. Take the State of Nature report produced by the UK's conservation groups. This comprehensive 2016 survey of our wildlife found that of the 4,000 or so species studied, some 56 percent had declined over the past 45 years or so and that one in seven were at risk of disappearing from our shores altogether.

*The manner in which we produce much of our food has not only caused the loss of birds and butterflies but also damaged the soil that is so vital for future food security*

The reasons for all this are well known. They include the huge scale of habitat loss and the rise of ever more intensive agriculture. The manner in which we produce much of our food has not only caused the loss of birds and butterflies but also damaged the soil that is so vital for

future food security. Most of our rivers are polluted, not only by farm chemicals but shockingly, 40% by raw sewage. Many of us breathe polluted air, and we have a serious waste problem too, including the effects of plastic that is escaping into the sea.

These and other factors are behind the startling and troubling fact that the UK is now regarded as one of the most nature-depleted countries in the world. For a nation with such strong public backing for environmental causes, this seems not to match our palpable national appetite to live in a green and pleasant land. The decline of our wildlife also leaves us as diminished advocates for environmental causes on the global stage, in protecting endangered wildlife, conserving tropical rainforests and safeguarding the coral reefs.

This is one more reason why a new Environment Act is so important, for without credentials based on taking action ourselves, our ability to inspire the global-scale ambition that is so desperately needed will be considerably weakened.

In 2020, governments of the world will come together to agree on a series of new commitments. One of the important events will be the meeting of the United Nations Convention on Biological Diversity, which must set out a new global accord for the recovery of nature. That global deal will only be as good as the countries that negotiate it though. And this is why British leadership could be so important, as it was when the Paris Agreement on Climate Change was adopted in 2015.

Back then the UK was seen by many as one of the countries that set the tone for

# ASK YOUR MP TO FIGHT FOR NATURE

Many of our laws protecting the environment currently come from the European Union. But with Brexit approaching, the UK government is rewriting lots of these.

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the talks, having taken the step in 2008 of adopting its national climate change law, with legally binding science-based targets for emissions reductions. As the world slides toward a mass extinction of wildlife, such leadership is needed again now, to show what is possible when science, policy and inspirational leadership come together.

This will require real vision and an outstanding idea that cuts through to the core of the problem. Such an idea must embody the headline goal that nature will be left in better shape than we inherited it. If such a transformative idea were enshrined in law, like the Climate Change Act, it could set the tone for what is needed across the world. We all depend on nature and what is needed now are new agreements that go beyond slowing down the decline to putting into place laws and policies to reverse that decline.

In addition to making proposals for a robust new environmental governance system, policed by an official watchdog with robust powers and bite, the new legislation must include a clear overarching duty on all public bodies to adopt policies and decisions that will lead to nature and our environment being left in a better state, thereby providing legal underpinning for the Government's 25 Year Environment Plan published earlier this year. The approach we have now has helped in some cases to slow the decline, but this is not enough and now we need more ambition. Such a duty would clearly signal and require that by law.

That ambition is important not only for wildlife but also because a healthy natural environment is the foundation of our wellbeing, prosperity and security. To make sure we set off with a clear sense of direction in rising to that new ambition, a set of thematic and time-bound objectives should be adopted. The Secretary of State will need to achieve these to comply with the overarching duty.

These objectives should address a range of environmental issues, including in relation to air and water quality and improved soil health. There should also be objectives set out for the recovery of species, habitats and the health of ecosystems. There should also be more explicit aims relating to people, for example, to ensure everyone has access to high-quality green space close to where they live.

Given the breadth of what needs to be done and the extent to which no single Government department has the means to achieve it alone, the new Environment Act should include a new duty on all Ministers, across departments, to contribute towards achieving the objectives and targets. Reports on overall progress would be prepared every year, published and independently scrutinised.

This is an ambitious agenda, and it needs to be, for if we don't act soon much of life on Earth will be lost. If we can't halt nature's decline in the UK, one of the world's richest countries with strong public

backing for environmental improvements, it is hard to imagine where it could happen.

In order to achieve the breakthrough required, there will need to be cross-party backing for the new law, as was the case for the Climate Change Act. And there will need to be unity across Government departments too, especially from the Treasury. Businesses are calling for the new law and many members of the public are expressing their wish for action as well.

As we approach key choices, we should have in mind that we are literally the first generation to understand the full scale of human impacts on the world that sustains us, while at the same time the last to be in a position to take the actions needed to avoid the disastrous consequences of continuing environmental decline. The stakes are increasingly high and we have a clear choice: whether to act and lead, or to make excuses and bury our heads in the sand.

History and our children will laud and thank us for taking one path, and regard our failure with incredulity should we take the other.

TONY JUNIPER CBE is Executive Director of Advocacy and Campaigns at WWF UK. He tweets at @TonyJuniper



# DELIVERING A JUST TRANSITION

CHI ONWURAH

**As a child I had the 'The How and Why' series of books and one which made a particular impression was 'The How and Why of the Polluted Earth'. It told the tale then – in the mid-1970s – of the destruction of the environment and the unfair exploitation of its resources. That was one of the (many) reasons why I joined the Labour Party at the age of 16. For me Labour was about safeguarding the environment. The world needs to work for everyone, not just those with the money to move to higher ground. The collectively and solidarity at the heart of our Labour values must extend to our global environment and everything in it. Yes, that is partially self-interest but it's also socialism.**

So, I am proudly 'Green Labour' and a supporter of SERA.

My Labour values also both reflect and recognise the way in which working people across the world want to take pride in the work they do, making and building things. For me, the clue is in the name – Labour. Work matters to people.

This is certainly true in Newcastle – the city I grew up in and now represent – where we are proud of our industrial heritage.

Growing up in the shadow of Stephenson, Armstrong Parsons – that's Rachel Parsons, by the way, the world's first female naval engineer and the founder of the Women's Engineering Society - and other greats of our industrial past was part of what inspired me to study electrical engineering and become an engineer. I wanted to build and make things which made the world better.

And of course the roots of our party lie in the first industrial revolution when massive technological change led to extremes of exploitation and inequality. The Labour movement was formed to make work safer and better and share more fairly its rewards.

Now some will tell you that these two traditions are incompatible. That to support

our industrial base we must abandon our carbon reduction goals – or vice versa.

Well, I disagree. I believe that by being bold and ambitious, investing in sustainable manufacturing methods as part of a circular economy we can build the industrial economy we want while safeguarding our planet.

This will mean recognising the economic, environmental and social problems that current methods of production can create – and fundamentally changing the way we make things. In other words – industrial evolution.

The conditions are ripe for this.

The global market for sustainable business operations is expected to reach between US \$1.5 trillion and \$4.5 trillion by 2020.

Greater energy and resource-efficiency could generate an extra £10 billion per year for the UK economy, 300,000 new jobs and a 4.5 per cent reduction in our total annual greenhouse gas emissions.

This is an opportunity we need to seize – and we can only do so with a renewed focus on sustainable economic growth.

Labour's industrial strategy is challenged, mission oriented and values driven. It's draws on the work of world renowned economist Mariana Mazzucato who in her book 'The Entrepreneurial State' explains how by setting out missions we can bring together people, resources, investment and infrastructure from across Government and the private and third sectors to address the great challenges of our time.

The first Labour mission is to draw 60 per cent of our energy from low-carbon sources by 2030. At Labour Conference our shadow secretary of state Rebecca Long-Bailey also announced that Labour would seek to deliver net zero emissions by 2050.

To achieve this we'll work with the private sector to develop new sustainable

technologies such as carbon capture and storage (CCS), affordable electric vehicles, and low-carbon chemical processing.

Investment in these sectors will help us to meet our environmental targets, but it will also create new jobs in high-skill, high-productivity industries.

Our National Education Service will provide free, high-quality learning allowing people of all ages to train and re-train to meet the skill needs of this new, green economy.

We want to use the power of Government to address our creaking infrastructure and close the productivity gap at the same time so we can better use the resources we have. Our £250bn National Transformation Fund will do what it says on the tin, transform our railways, our broadband, our energy infrastructure, bringing our investment in infrastructure up to basic OECD levels.

In addition, we will set up our £250 Billion National Investment Bank made up of a network of Regional Development Banks, bringing investment decision making back to our regions, enable decision to be taken locally, by the people who best know their local economy.

Our plan for a National Care Service will raise standards and job quality in the care sector, an industry in which 80 per cent of workers are women, properly valuing their contribution to our economy.

This is how Labour will transform the relationship between the economy and the environment. Labour will ensure a just transition to a carbon neutral economy that works for everyone – and cares for everyone!

CHI ONWURAH is Shadow Minister for Industrial Strategy, Science and Innovation and Labour MP for Newcastle upon Tyne Central. She tweets at @ChiOnwurah





# NO TIME TO DELAY WE MUST DRIVE DOWN TRANSPORT EMISSIONS

VENN CHESTERTON

**It is incumbent on us to look for ways of reducing our emissions everywhere and across all sectors. The case is well proven that climate breakdown will threaten every aspect of daily life. Latest figures from the Intergovernmental Panel on Climate Change (IPCC) illustrate that we can emit about 500 gigatonnes of carbon dioxide if we want a 66 percent chance of staying below a 1.5C rise in global temperatures. Our current rate is about 1 gigatonne every nine days. This gives us globally and collectively twelve years. So the case is clear - we need to decarbonise all sectors rapidly. And in most sectors emissions are reducing. However transport stands out as a sector in which emissions are going up. Personal transport is responsible for the biggest portion of those emissions. What options do we have at our disposal, and what policies do we need to push?**

## Cycling and walking

This is the most obvious and most visual. Many – although not all – car trips today are single occupancy which are well within walking and cycling distance. Reshaping our urban areas to better align to those such as The Netherlands has long been on the agenda. But the reality is still quite different. In the UK we continue to build new housing estates which have car dependency baked in. New builds, and most importantly existing communities, need to radically change how road space is allocated. Much like what has

happened in my local area of Waltham Forest but on a much more significant scale. However I do not believe that the rapid reduction of CO2 required will be achieved through a step change in walking and cycling alone. Twelve years is not enough time to change the fabric of our urban areas to enable cycling and walking. And this type of mode shift requires real behavioural change which takes generations to succeed.

## Buses, lots of them

This is where I see great CO2 saving potential if deployment is rapid. Look at what London did in the early noughties and what Transport for Greater Manchester are trying to do at the moment for inspiration. Within a few years, they transformed a fragile and disjointed operation into an integrated service that passengers really counted on. This transformation today would look like a 'turn up and go' service with wide coverage and consistent journey times that can be relied on each day across urban Britain. To achieve this we need a huge programme of bus priority across the country, bus lanes, traffic light phasing and congestion charging. These new buses and infrastructure would be electric - the technology already exists and is of a high standard like what we see in Nottingham. Successfully done within the next 3-5 years would enable today's urban populations to leave their cars behind thus reducing CO2 emissions drastically and within the timescales set out by the IPCC.

## What about the cars

We have built our lives and an economy around them. I do not see a scenario where the car goes away. Rural areas do not lend themselves to buses, those with mobility issues rely on the car and many people will simply not be willing to give up their cars and the enjoyment many do derive from the associated freedoms itself.

*The challenge here is therefore ensuring that every car which is sold is electric within the next decade*

The challenge here is therefore ensuring that every car which is sold is electric within the next decade. This also presents opportunities for other renewable energy sources. A huge fleet of electric vehicles (EV) would give us the back-up energy storage and grid services to make renewable energy a more compelling offer. This is because they can store energy when it is being produced and release it when it is required by using vehicle to grid technology. Even without vehicle to grid, a huge fleet of EVs all charging at the same time provides opportunities to balance the grid simply by restricting charging to some vehicles during peak times. If hydrogen technology can

*Many leading climate change scientist are presenting scenarios which show that we have already sealed our fate and have little control over the level of warming we will experience*

make the break-throughs required to be a commercial success, a similar logic applies.

However the main barriers to EV take up are twofold. The most pressing problem is around production – globally we do not make enough. This is a huge opportunity for the UK to be at the centre of this revolution and take advantage of all of the green jobs which would come with it – from design to building the main components that go into an electric car such as electric motors, power electronics and batteries. It is also an opportunity to replace existing jobs in today's internal combustion engine centric car industry.

Barrier number two relates to the perception that EVs are less seamless than a fossil fuelled car. The main issue here is convenient charging. Most of the time the vehicle will charge when it is sitting outside your house and this is easy if you have off-street parking. However about 40 percent of people park on the street and therefore will need to rely on charging being available on residential streets. There are solutions in the pipeline for this which need to be developed so that they are ready for rapid deployment in the early 2020s when supply catches up with demand. This means local councils working with central government and technology providers to develop rapid rollout plans for the early 2020s.

On the occasions that a journey is over 250 miles, which is likely to be the standard range of an EV by the early 2020s, they will

need to be a robust nationwide network of reliable rapid charging hubs on the strategic road network. The technology exists for this now and will be different for each hub depending on the expected demand and the grid capacity. Some will be off grid using batteries to store locally produced renewable energy whilst others will be grid connected solutions, most will be somewhere in between. Much like on-street charging, the highways authorities, central government and technology providers need to ready themselves for rapid rollout in the early 2020s.

*Furthermore driverless cars are coming, and the UK is well positioned both in developing the technology and for production and deployment*

Furthermore driverless cars are coming, and the UK is well positioned both in developing the technology and for production and deployment. I believe the switch to driverless cars will start in the mid-2020s which has the potential to radically alter the relationship with the private car, and the type of charging infrastructure we build as a nation needs to be cognisant of that.

*Fundamentally we need to be reducing the amount of fossil fuels we use. The speed of change is the most important element of this*

Emitting more CO2 without being cognisant of the consequences as a society is a reckless and risky gamble. Every tonne we can avoid adding to our atmosphere will give us a better chance of avoiding climate breakdown. Many leading climate change scientist are presenting scenarios which show that we have already sealed our fate and have little control over the level of warming we will experience. I do not hold this same pessimism. There are two clear paths to take - significant investment in buses and a step change in support for electric vehicles. Fundamentally we need to be reducing the amount of fossil fuels we use. The speed of change is the most important element of this.

VENN CHESTERTON  
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# GET ABOARD THE HYDROGEN FUTURE

MIKE MULDOON

**A decade ago the UK agreed a worldwide first, the Climate Change Act. With binding targets to reduce CO2 emissions and decarbonise the UK economy, the goal has been to help reduce global warming and the UK's contribution to CO2 emissions - our country being one of the world's significant contributors.**

The Committee on Climate Change, established as part of the Act, reports to Parliament on the progress of the country in meeting its targets. The latest report, published in June, outlined that in 2016 greenhouse gas emissions were 43 per cent below 1990 levels. The target is at least 80 per cent by 2050. The Government has set five-year 'carbon budgets' to 2032 outlining the reduction needed in each. While the UK met the first budget, is set to perform better in the second and the third budgets, it is not on track to meet the fourth or fifth, covering 2023-27 and 2028-32 respectively.

The report also outlines where change has taken place in different sectors. Since 1990, the energy sector has reduced emissions by over half largely arising from the growth of renewables and the reduction in use of coal. Other greenhouse contributors like waste have also seen significant reductions during the period. However, this has not been mirrored in transport. Indeed in 2015-16 transport actually saw an increase in emissions of two per cent while it is also now the largest emitter at 28 per cent of total emissions in 2017. This is unsustainable. While the energy sector receives praise for the reductions, more action is needed to tackle emissions right across the economy,

in particular in transport. Rail needs to ensure its contribution to emissions, nearly one percent of the total, is eliminated, as well as be a zero-carbon alternative to the other forms of transport that contribute significantly to greenhouse emissions.

Climate change is not the only environmental concern - poor air quality has also been receiving greater attention. Two years ago, a report published by the Royal College of Physicians and the Royal College of Paediatrics and Child Health found poor air pollution contributes to 40,000 early deaths in the UK. City leaders, like London Mayor Sadiq Khan, are increasingly shining a spotlight on the dangerous levels of particulates and nitrogen oxides in our air and outlining plans to reduce this including the use of diesels, a major cause of the particulates and nitrogen oxides that contribute to poor quality air. Diesel railways are a contributory factor and there is a particular concern regarding the level of emissions found at railway stations.

Research published earlier this year for the University of Birmingham and Network Rail Strategic Partnership found high level of nitrogen oxides and particulate matter at Birmingham New Street station, one of the UK's busiest, and in excess of EU limits, while the Rail Safety and Standards Board is studying the concentration of nitrogen oxides at London King's Cross and Edinburgh Waverley stations.

These two environment challenges of greenhouse emissions and air quality are red flags for the rail sector, and with the decade anniversary of the

Climate Change Act, a timely reminder for action. Lasting and transformative change is needed, and it is possible.

At Alstom, operational and environmental excellence is one of the five pillars of our 2020 strategy. We are investing in the transport of the future, bringing underexploited technologies to market, and are at the forefront of meeting these challenges. We think the rail sector can move quicker to a zero-carbon and clean air future, by utilising a tried and tested technology - hydrogen. It is a technology that enables trains to emit just high quality, pure water - putting an end to the carbon footprint of CO2 emissions as well as air pollution. This is not some distant prospect - it is a viable solution now.

*...the rail sector can move quicker to a zero-carbon and clean air future, by utilising a tried and tested technology - hydrogen*

Our award-winning Coradia iLint has entered passenger service in Germany. It is the first operational hydrogen train in the world.

In the UK, we are working with Eversholt Rail to convert existing rolling stock (Class 321s) to hydrogen operation, re-engineering existing trains to replace

existing, polluting diesels. Hydrogen trains bring not just environmental benefits - the hydrogen fleet will be one of UK's most advanced. It will enable the smoother and quieter rides for passengers that hydrogen brings whilst also reducing noise and emissions for the neighbours of the railway.

*Hydrogen trains bring not just environmental benefits - the hydrogen fleet will be one of UK's most advanced*

Hydrogen trains could be operational in the UK within three to four years, just ahead of the fourth carbon budget period starting in 2023, where more rapid progress in carbon reductions is certainly required. We are pursuing multiple opportunities to deploy the trains, and the more that are adopted, the better the trajectory for the fourth budget would be.

Alstom builds trains and transport systems across the world - we see huge potential for these clean and environmentally beneficial services, and particularly here in the UK. The potential is great as nearly one third of UK trains operate on diesel. Electrification and hydrogen are both solutions, with hydrogen particularly advantageous where wires for electrification are impractical or too costly to install.

We need a national debate on how the country can get on board as rapidly as possible. The government has laid a challenge to decarbonise the rail sector by 2040 and end use of diesels. Hydrogen has the opportunity to play a leading role and it is for rail operators and train building companies alike to step up and work with government to deliver this.

There are other areas too. Transport is largely devolved in Scotland. The Scottish Government has outlined the potential for hydrogen, including for ferries - there is opportunity for rail services too.

The voices of metro-mayors and council leaders in cities, counties, and regions can also be important to support and champion clean and environmental trains serving their regions, which in turn help contribute to local air quality and carbon targets and plans. The opportunity is to change existing services to run on hydrogen as well as commence new services such as the proposed Oxford to Cambridge railway, just one of many that could benefit from hydrogen technology. Moving forward, any new railway should surely set out to be zero emission from inauguration.

While our focus at Alstom in the UK is on the rail sector, we also recognise hydrogen trains are part of a wider hydrogen economy. Alongside the transformation of rolling stock, production of hydrogen needs to be scaled up, which in turn offers more possibilities. A large plant producing hydrogen is being planned for Liverpool, which would create thousands of jobs. Other opportunities for production

*Hydrogen trains could be operational in the UK within three to four years, just ahead of the fourth carbon budget period starting in 2023*

include tapping into spare capacity from renewables. A hydrogen future could help meet the ambitions laid out in the Government's Clean Growth Strategy and in turn the Government's Industrial Strategy can be harnessed to align and shape the approach across government, with the investments, policies and actions needed to realise the potential.

The prize is to enable cleaner, quieter, smother rail connections which are a critical driver of growth. The transformation and decarbonisation of train fleets also provides quality, high-skilled jobs, as we have at our facility at Widnes - the most sophisticated centre for train modernisation in the UK.

A clear commitment to a hydrogen rail transformation programme will enable the enormous potential to be realised, facilitate industry to gear up and jobs to be created, and provide an investment path for technologies to be deployed. Britain built the first railways, we have an opportunity today to lead the world into the new rail age.

MIKE MULDOON  
is Head of Business  
Development,  
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# STUDENTS CHAMPIONING SUSTAINABILITY

QUINN RUNKLE  
MEG BAKER  
RACHEL DRAYSON  
JEN STRONG

**In a recent NUS survey of 2500 students across the UK, 69 percent said they 'would be likely to vote for a political party that increased action to protect the environment'. Whilst demanding this leadership from politicians for sustainability, students are already acting to advance sustainability on their own campuses, in their communities, and through their course curricula.**

NUS is the representative body of over 600 students' unions in further and higher education across the UK and the collective voice of over 7 million students. The mission of its sustainability work is to see all students, regardless of discipline, develop the knowledge, skills, attributes, and values to create a more just and sustainable world, both in the present and for future generations.

The student movement in the UK has a long and rich history of leading the way to create a better world. Whether through electing the first black president of any national organisation in the UK, electing the first paid trans representative in Europe, or being the first national organisation to call for a ban on single-use plastic straws, the student movement has consistently been at the forefront of social change.

For nearly a decade, NUS' longitudinal research has demonstrated young peoples' interest in, and demand for,

sustainability as a part of their college and university education. This research has consistently shown that 85 percent of students think sustainability should be a priority for their college or university and 70 percent of students think it 'should be embedded throughout all courses'.

This article outlines examples of students' engagement in sustainability on campus, in the curriculum, and with their local communities alongside sharing further evidence of student interest in, and demand for, sustainability.

## Changing behaviours on and off campus

Every year over 100,000 students engage in NUS' Student Switch Off campaign. Focussing on simple sustainability actions in halls of residence, the campaign is an accessible and fun inter-hall competition providing incentives for students to change their behaviours and work collectively to reduce their energy consumption and improve their recycling rates.

Over the campaign's 12-year history over 20,000 tonnes of carbon have been saved equating to over £2.5 million saved for the education sector through unnecessary energy consumption in their residential buildings. Over 7,000 students have been trained as campaign ambassadors, acting as an entry point to sustainability leadership amongst their peers on campus.

The successes and experiences of Student Switch Off in the UK is currently being shared with a European audience, with a further six countries currently running the competition on their university campuses through the 'SAVES 2' project supported through EU funding.

Through campaigns like Student Switch Off, students have the opportunity to take tangible actions to reduce their personal environmental impact and contribute to a significant collective achievement. Across the UK, 55 percent of students report having taken a personal action to protect the environment (which might include dietary changes, cutting down on single-use packaging, or adopting energy/water saving behaviours).

In addition to individual behaviour change, students report a wide range of other actions they have taken to create change;

- 58 percent of students say they have signed a petition,
- 20 percent have joined an organisation linked to the environment,
- 12 percent have spoken to someone they consider 'influential' so as to create change,
- 11 percent have gone on a protest, and
- 9 percent have contacted their MP.

Although individual behaviour change is important, these other types of engagement in 'active citizenship' are critical for creating a more sustainable future. The urgency of climate change, as the recent Intergovernmental Panel on Climate Change report suggests, will require transformational changes across all parts of society.

Students understand the urgency of climate change. The latest findings in NUS' tracker survey exploring students' attitudes towards climate change found that:

- 84 percent say they are fairly or very concerned about climate change,
- 71 percent think that the UK is already feeling the effects of climate change, and
- 75 percent would vote for a government that increased action to tackle climate change.

This nationwide survey replicates the questions in the Energy and Climate Change Public Attitudes tracker - carried out by the UK government (Department of Energy and Climate Change and subsequently Department for Business, Energy and Industrial Strategy) since 2012.

## Creating change through curriculum reform

Sustainability does not only influence students' behaviours and actions, but also their formal learning whilst in college or university. 60 percent of students consistently say they want to be learning more about sustainability and 66 percent of students say that, in considering graduate jobs, they would willingly take a role that pays £1000 per year less to work for an organisation with a good ethical and environmental record.

Students have a desire to see sustainability in its broadest sense (encompassing environmental, social, and economic issues) embedded across all disciplines. In embedding this content, students do not want a 'one-size-fits-all' approach nor do they want a stand-alone module on sustainability - instead, they wish to see sustainability woven into their studies in a way that is relevant and meaningful to

their discipline and to their future career.

Because of this demand, NUS worked with partners across the sector to develop Responsible Futures - a framework and accreditation mark to embed sustainability across all parts of student learning. This now runs at over 30 institutions working in partnership with their students' unions, representing half a million students in the UK. To earn the Responsible Futures accreditation, institutions and students' unions must undergo an audit conducted by their own students. This audit, facilitated by NUS, allows students to hold their institution and students' union to account on their sustainability commitments. It serves to showcase innovation and good practice across the sector to drive forward transformational change in education.

## Students leading change in their community

In response to the finding that two thirds of students are seeking graduate roles with organisations who have positive environmental and social ethics, NUS has launched Placements for Good this year. The call to create momentum around impactful work-based learning opportunities was passed at NUS national conference in spring 2017 highlighting far reaching student demand for this. In many instances placements and internships have been deemed to provide little value to either employer or students and through Placements for Good NUS are attempting to address this. NUS will be working with employers to ensure student placements are beneficial in supporting their core business as well enhancing their progress for sustainability and ethics. Students will gain pre-placement training and support from NUS sustainability professionals to empower them with knowledge, skills, and competencies to address issues on and provide intervention for organisational practices such as community engagement, ethical supply chains, recycling and carbon reduction.

Further successes in community engagement around sustainability have been seen through the innovative My World My Home project run by Friend of the Earth in partnership with NUS. Using a community organising approach, groups of students

have been trained and gained qualifications to develop local environmental campaigns of significance to their towns and regions. Hubs of students in colleges across South Wales, East Midlands and London have been engaging with their students, teaching staff, community members and local decision makers to show the passion and strength of feeling of young people in further education about sustainability, and making proactive, positive changes to their colleges and local areas. My World My Home has directly engaged 150 students at 20 colleges and reached a further 7500 through associated campaigns.

## Conclusion

Through programmes and campaigns like those discussed, it is clear that students are engaging deeply in sustainability on their campuses, through their curriculum, and within their communities.

Students engage in sustainability through a range of topics and NUS celebrates the breadth of sustainability across the student movement. As reflected by the UN Global Goals for Sustainable Development, sustainability is broader than simply recycling and energy saving. It must encompass social, environmental, and economic issues and solutions to sustainability challenges must be inclusive of the most marginalized voices in society. The need for an intersectional approach is demonstrated through the impact of climate change which is already being disproportionately felt by women and people of colour.

Worldwide, just 3 percent of people attend university and yet those who attend university make up 80 percent of leadership positions. It is therefore critical that education plays its role in equipping our future leaders with the knowledge and capabilities to transform society.



**FOR MORE INFORMATION**  
about NUS' sustainability  
work, including copies of  
the research mentioned in  
this article, please visit:  
[www.sustainability.  
nus.org.uk](http://www.sustainability.nus.org.uk)



# CAN WE GROW A CLIMATE SOLUTION ON A BILL OF PROMISES?

VICKI HIRD

**The oceans are heating up and our weather is becoming more erratic. The climate breakdown is revealing itself. Without doubt, climate change will seriously threaten global food security in a variety of ways, impacting productivity, compromising global nutrition and harming livelihoods. But the very nature of those food systems is also severely undermining our ability to tackle the breakdown. New institutional and political interest needs to get the UK into a new era of low carbon food systems. The recent report by the Climate Change Committee sheds useful light on the transformational changes needed to ensure land becomes a more effective carbon store but also how water, healthy soils, wildlife, timber and food, are all at risk from a warming climate. But it is clear from this report that the conflicting demands on land to deliver multiple purposes – from carbon storage to food production and new homes – means a strong political steer is needed to avoid huge, unintended consequences. And that we need to change behaviour.**

The CCC report starts to correct the neglect given to the significant greenhouse gas emissions from the land and from our food supply when compared to transport, energy and housing emissions. A business-as-usual approach for the food system would make it impossible to meet our Paris Agreement goal to limit temperatures rises to 1.5oC. 10 percent of our UK emissions are from agriculture activities alone – from carbon dioxide released as soil is disturbed to methane emissions from livestock. Then add the considerable emissions involved in our food consumption, often incurred overseas.

But do politicians understand enough about the climate connection with land? Not only in terms of emissions but also how we need to manage the changes wisely for nutritional security, environmental protection and to ensure viable farm rural economies and jobs. Climate change will dramatically affect our farming but also our food and feed imports which are currently around 40 percent. A climate change committee report on coastal risks highlights agricultural land already at risk of coastal flooding. Add all the other climate risks to all UK production and then combine it with the damage to food and fisheries production around the globe... We are facing some scary gaps in supply.

There are signs of hope and some major blockages to effective action on all this. Government commitments, institutional action and new regulations are beginning to create noise over land based emissions. At the global level and, after many delays, the UNFCCC is working on agriculture and raising expectations. A new global coalition - Climate Land Ambition and Rights Alliance – is urging action but rightly making sure it is rooted in social justice and agroecology. In the UK, the Climate Change Committee has revealed that emission reductions in the agriculture sector have flatlined over the past 6 years and how steps are needed to tackle this. There has till now been too little clarity on the emissions themselves, too few policies and incentives to ensure reductions from the land based sectors and they have had other pressures to contend with. That is changing.

Incredibly there has been a fight on to include climate in the remit of the new

environment watchdog that will emerge from the Environment Bill. Let's hope the correct side wins and we see effective regulation to protect carbon storage on the land. Finally the citizen and parliamentary 'Net Zero' initiatives are yielding results such that the government has asked the CCC if the UK should set a date for a net zero emissions target that will include land. The phrase even got into the Agriculture Bill second reading. But we need action now and a focus on 2050 targets is too late.

Talking of Agriculture Bills it is worth exploring how the UK transition out of Europe and the resulting shiny new farm policy will help in this task regarding farming? It is certainly an opportunity. Shadow Farm Minister David Drew recently noted at the Agriculture Bill Committee "agriculture has to play its part in dealing with climate change... farmers are already paying the price for climate change.... It is crucial to deliver the budget in a way that allows farmers to make those changes."

The fact that the Agriculture Bill does, actually, mention climate change is a start. Much of the farming community is on board and taking steps whilst climate science denial is increasingly isolated. The Bill provides powers to give financial support for "mitigating or adapting to climate change" as well as other related areas.

The Bill could help deliver on a key 'win win' outcome: carbon storing nature. Restoring habitats – not only for the crucial wildlife they support and natural system they protect – but because they also secure carbon in the land will be key. Many farmers recognise enhancing soil

*Much of the farming community is on board and taking steps whilst climate science denial is increasingly isolated*

carbon will benefit yields but they could go further, protect habitats and maybe reap rewards via the new Environmental Land Management Scheme. Peatlands and wetlands, semi natural forests and woodlands and well managed permanent grasslands are all needed.

Soils should be another core focus. We need a UK wide plan, with incentives, advice and training to ensure that all soils are in better condition, with growing levels of organic carbon and healthy soil biota as soon as possible. Other outcomes from new policy must be more farmers using organic farm techniques, which can enhance carbon sequestration, more agroforestry, cutting back on artificial nitrogen use – a key source of fossil fuel use and nitrous oxide emissions. We need to be phasing out any subsidies to the false solution of large scale biomass (which takes precious land and creates all sorts of environmental harm). We'll also need the Environment Act, due after Christmas, to set baseline regulations and enforcement.

But it is not just about farming practice but about what grow or rear to eat. One final source of optimism is that we the people are starting to shift our diets to more carbon friendly ones. The highest carbon part of the nation's diet is the meat and dairy element, with rice (a key methane source) and airfreighted foods lower but still relevant. In the UK we eat nearly two times the global average of meat and dairy. Wasting food is also an obvious waste of the emissions involved in producing it. The growth in both awareness and changing dietary habits towards reduced meat and more plants and less

food waste can only be a good thing – as long as it does not destroy the livelihoods of good livestock farmers maintaining good soils in a mixed system with high animal welfare. We need to eat less and better meat. Encouragingly, the majority of British adults agree that their behaviour changes the earth's climate and also tend to agree that if we all made changes to our diets, we could significantly reduce the impact of climate change.

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Blocking action however are major political and structural problems. Brexit is dominant. Then there is the political reluctance to commit to budgets for supporting farmers in the transition or to bringing in measures to address behavioural changes. And whilst the Agriculture Bill contains powers to support action it contains no duties, no

set budget after the next election and has a long list of priorities – will climate get a look in? This is a Bill of promises.

The food system itself beyond the farm gate though is probably the biggest barrier. Many decades of concentration in food businesses, of developing fossil fuel intensive, complex, long distance distribution chains and cheap food marketing are all hugely difficult to reverse. The farmer has never been paid less out of the pound the consumer spends. Until we have a better balance of power in the food chain and proper true costs accounting it is hard to believe public support can deliver all the transformations needed in an integrated way without unintended consequences... Climate action should not lead to greater intensification or concentration of power.

The Defra Agriculture Bill provides some solutions but it is only possibilities, buried within many other high expectations, coupled with low responsibilities and an even lower budget after 2022 unless something changes. It's not enough. Ultimately we need to see major political ambition, involving multiple departments to deliver an unambiguous and coherent UK plan with targets and resources to cut emissions from food production and consumption. We need to support farmers in the transition.

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# HILARY BENN AT SERA RALLY

## LABOUR PARTY

## CONFERENCE 2018



You can view Hilary's speech as well as a range of SERA's other conference fringe events by searching 'SERA Labour' on YouTube to find our channel with a range of policy discussions

**This is a copy of the speech Hilary Benn gave at the SERA Rally celebrating ten years of the Climate Change Act at Labour Party Conference 2018 alongside other fantastic speakers including Rebecca Long-Bailey, Sue Hayman, Paul Nowak and Lisa Nandy.**

"We are celebrating what Labour achieved in government and I wanted to begin with national parks. They didn't come about by accident, they came about because the post-war Labour government dealing with the ravages of a destroyed Europe, and amid all of the challenges; the establishment of the National Health Service, the nationalisation of industry, and implementation the welfare state, found time to legislate for beauty. And they took the idea; a man called Sir Arthur Hobhouse had drawn up a list in 1948 of all the beautiful places in England that he thought should be preserved for posterity, and the Labour government passed the National Parks Act in 1949.

I was the last in the line because when I became environment secretary, a little while after the second report on the South Downs National Park appeared on my desk and it made certain recommendations and said there were some disputed areas, so I said to my civil servants "we'd better go and have a look!" They said, "I beg your pardon Secretary of State, what do you mean, go and have a look?!" And I said "yes, I'm going to go and have a look". "Well, you can't do that?" "Why can't I go and have a look?" "Because you might talk to people." And they said; "you realise

Secretary of State, you are acting in a quasi-judicial capacity?" And we reached a compromise in the end, a very British compromise. If someone said good morning to me, it was okay for me to say good morning back. And we spent the day traveling from one end of the proposed national park to the other. And low and behold the Secretary of State reached a conclusion that all the disputed areas should be in the national park. One of these areas was Ditchling. If you stand at the crossroads in Ditchling and you look at Ditchling Beacon, that wonderful part of the South Downs, I decided right, we're going to go back to Ditchling to sign the legal orders and we did it in the back garden of the Ditchling tea rooms with the Ditchling Beacon peering over the back wall and smiling approvingly at the creation of the South Downs national park. The significance was that the South Downs was the last in the list that Sir Arthur Hobhouse had drawn up in 1948.

So when people tell you on the doorstep, and they do sometimes to us; "politics, nothing ever changes. You promise one thing, you do another". It's not true is it?! We demonstrated it with the national parks in 1949 and we demonstrated it ten years ago with the Climate Change Act.

Rebecca Long-Bailey talked about an irresistible demand for change from the bottom up and that is the story of how the climate change act became to be part of the statute. Because, do you remember the big ask campaign from the Friends of the Earth? I remember attending the cabinet subcommittee where we debated whether we should

have a climate change act and we agreed in the end that we would, even though at that moment in time we weren't absolutely sure what we were going to put in the legislation. It was a combination of bottom-up demand and political leadership. Courageous Labour political leadership that meant we were the first country in the world to put the climate change act on the statute book. Again, I happened to be the climate change secretary at the time when the Climate Change Bill was introduced to Parliament.

*We have both a political and moral responsibility as a party and a movement to ensure we do pass on a safe secure sustainable world to the next generation*

I just want to say this, because we've heard from Rebecca Long-Bailey and Sue Hayman and others about what the next Labour government wants to achieve but we have both a political and moral responsibility as a party and a movement to ensure we do pass on a safe secure sustainable world to the next generation. Last month, our third grandson was born and by the time my three grandsons reach my advanced age,

they will be sharing this planet with three times as many fellow citizens as I was sharing with when I was born. Now, what are the challenges we face as humankind at the beginning of the twenty first century? It is to ensure we have a safe and secure sustainable world; we have to tackle climate change. When I visited the flooded areas all over the country in the wake of the 2007 floods, people would come up to me and say "Mr Benn, do you think this is the result of our climate changing?" The truth is it is.

I have visited areas of famine, I have met people who have fled the village they were born and brought up in Kenya, and they pitched up outside of a town living in benders made of bent over twigs and scraps from the towns rubbish tip. One women, babe in arms, five other children living in a small bender. Why had they come to the town? Because it had stopped raining where they were living. If it stops raining where you've been living, you can't grow your crops and you're not going to stay to die of starvation.

And if the sea levels rise, think of Bangladesh. If the sea levels rise the way some scientists predict, believe me, Bangladesh is moving house. That is 140 million people moving house and they will probably try to move next door. So human beings have a great desire and urge to survive and that's why we have a role and a responsibility to play our part.

And the last thing I want to say, touching on Brexit is this: When I went to the Bali climate change talks in 2007, leading

the British delegation, and what we managed to achieve on that occasion or at least keep the door open to a continuation of the talks which culminated in the Paris agreement. I can tell you because I have seen it with my own eyes; the power of Europe turning up and talking with one voice. Global collective reductions in emissions looked to be between 2 and 3 degrees so Europe turned around and asked is this alright with you, because think of the consequences of even what may seem very small temperature changes. The truth is, the environment is held in a very delicate balance, and as soon as temperatures change there will be big consequences, and if we are to deal with the challenges the world faces, the only way in which humankind can do that is by cooperating with our neighbours and our friends by working internationally. And at a time when we have an absolute abrogation of leadership on the part of the United States of America (when I though President Bush was bad, I knew nothing compared to what the current occupant of the White house is doing) and that is a cause not of despair, it is a cause of renewed determination on the part of all of us in the environmental movement and the Labour movement to say this will not happen. We will make sure it doesn't happen because we will continue to campaign to bring about change and to show the power of politics to transform people's lives, that is what our movement is about.

Finally, the reason I was so keen to come here today was because I wanted to thank SERA along with everyone else

because the leadership which you as an organisation have given in flying the green flag in the Labour Party. It's been a journey, has it not? And persuading everyone is, even in difficult economic times just as important as when times are good. And long may SERA's success continue. Maybe some of us here will come back in ten, twenty, thirty years' time to celebrate fantastic achievements of the next Labour government! Keep it up".

*We will continue to campaign to bring about change and to show the power of politics to transform people's lives, that is what our movement is about*

**HILARY BENN MP**  
Hilary Benn is a former Secretary of State for Environment, Food and Rural Affairs and Labour MP for Leeds central. He tweets at @hilarybennmp





## CASTING NET ZERO:

WHY AMBITIOUS ENVIRONMENTALISM AND  
'GREENSIAN ECONOMICS' WILL BENEFIT US ALL

JAKE SUMNER

**When the Labour Government passed the Climate Change Act it was groundbreaking because it legally committed successive governments to carbon reduction and set our path to the global 2015 Paris Agreement. It was also a demonstration of leadership. The Act responded to the Gordon Brown commissioned Stern Report, which detailed the impact of climate change. Although the science was clear (and still is) the Act nevertheless required political leadership, building a consensus for action and influencing public opinion.**

Since then progress has been achieved, but Britain's carbon reduction targets won't be met from 2023 onwards. This sharpens the need for renewed leadership and action today.

Time is running out. The Met Office says changes to our weather are unprecedented. We've seen unprecedented fires in California and the Arctic to flooding in India. In October the Intergovernmental Panel on Climate Change's issued a stark warning saying rapid, far-reaching and unprecedented changes is needed in all aspects of society with just 12 years before we hit the critical 1.5 degree increase in temperature and we're set to breach two degrees in our lifetimes. Already the impact of one degree is materialising.

The economic and social costs of climate change are profound, the greatest we've faced, including the destruction of agricultural land and water supplies, collapse of productive capacity, impact on human lives and biodiversity, as well as major cities from Shanghai and Rio to

Miami and Alexandria going underwater. Impacts are if anything underestimated.

Despite the consequences, decisions are ducked for short-term considerations. We saw David Cameron as Prime Minister call environmental measures 'green crap' and axe policies including low carbon homes. We see it in Theresa May's Government enacting special rules to enable fracking which prioritises harmful fossil fuels, scars the landscape and threatens water pollution and earthquakes.

It's also a mistake to see climate actions as simply due to necessity and obligation. There is a compelling positive case for ambitious environmentalism.

Achieving 'net zero' - zero carbon energy, zero emission transport, zero carbon buildings and zero waste/carbon manufacturing, combined with advancing the natural environment and sustainability - means meeting carbon goals and bringing significant benefits. We should be confident in a comprehensive, rapid, green economic and social programme - let's call it a 'Greensian stimulus.'

So, what could we gain? Lower utility bills, affordable-to-run homes, cheaper and new possibilities for travel, improved health and well-being, saved lives, economic resilience and security, innovative new industries and export sectors, skilled well-paid jobs and opportunities and investment for local communities.

Some say we can't afford environmental change but increasingly we can't afford not to. A credible and strong

environmental programme is a credible and strong economic programme. Marrying social justice and green goals provides answers to social, political and economic challenges.

Labour's programme is moving in this direction, with joined up policies including a commitment to net zero carbon by 2050, 60 per cent low carbon energy by 2030, community energy, retrofitting homes, a green growth industrial strategy and a Clean Air Act.

A green transformation can be secured.

When the Climate Change Act was passed, five per cent of electricity was from renewables. Despite, barriers established by the Coalition and Conservative Governments, renewables reached nearly 32 per cent of electricity output in Q2 2018. Conversely, coal was 36 per cent in Q4 2008 dropping to 1.6 per cent in Q2 2018, and for three days in a row no coal was used. Wind overtook nuclear for the first three months of 2018 and a windy day produced 37 per cent of electricity.

Costs are falling. Wind is Britain's cheapest form of energy. Solar is just behind. Bloomberg New Energy Finance confirms costs will be cheaper still and a BVA study said that if the financial support for onshore wind was reintroduced capacity could grow to axe another £1.6bn off the collective electricity bill. Yet, under this Government onshore wind is largely blocked, the growth of solar is falling and the Swansea tidal lagoon was axed.

Wind and solar can bring energy surpluses, particularly on sunny and windy days, and enable hydrogen production. Hydrogen can be easily stored as well as heat homes and power transport, producing no emissions just pure water.

Hydrogen trains now run in Germany; they should in Britain. Scotland wants ferries to go hydrogen. Norway is building hydrogen ships, helping address shipping's 2.5 per cent of global emissions. Why not maritime Britain? Hydrogen cars have been developed and buses operate in London. It's no wonder that the 'hydrogen economy' is gaining traction with Liverpool Region Mayor, Steve Rotherham, championing a major hydrogen plant in Liverpool.

There's an electric vehicle revolution taking shape too, including bikes.

Cheaper and clean transport and energy combined with using data and new manufacturing techniques such as 3D printing are changing how, what and where we produce, and move goods and provide services. We're just scratching the surface of the possibilities.

Clean energy and transport saves lives. Dirty air causes an estimated 40,000 premature deaths a year and the British Heart Foundation says it's a major cause of heart attacks and strokes. We know that some of the poorest people are most affected and 2,000 schools are in poor air hotspots.

An energy transformation can change control of these resources. The growth of community energy with 300 projects across Britain, means communities own energy resources, reduce carbon, have lower bills and generate income for their areas. Producing our own renewables also means ending the fuelling of petrodollar regimes while our aid budget can assist communities to develop their own energy assets in some of the poorest countries.

Britain's housing crisis needs 300,000 new homes constructed a year. Once built these homes will last decades. If they were net zero (insulation and renewable energy - a requirement in Santa Monica, California and a world first) they would use fewer resources and be cheaper to live in. Retrofitting existing housing can also bring similar benefits.

All these areas are engines of innovation, export potential and opportunities for

skilled, well-paid jobs. The TUC has backed a 'Just Transition', ensuring people are not left behind in the low carbon future. Green can be embraced by unions. Yes, jobs will change, but it doesn't necessarily mean fewer jobs. In the USA there are two to three times as many jobs in clean energy than fossil fuels and are among the fastest job growing sectors.

Ambitious environmentalism means a renewal for nature, biodiversity and public green space. Just as our campaigning forebears sought access to nature and in 2000 the Labour Government opened up thousands of miles of countryside, we must now demand a sustainable, biodiverse countryside as well as access to all for quality, green spaces in towns and cities.

A boon for nature is for us too. As Mind champions, green space improves mental wellbeing, while the charity, Fields in Trust, found parks save the NHS £111m a year and generate £34bn of mental and physical wellbeing benefits.

Millions more trees should be planted, which clean the air, reduce carbon, preserve the soil and increase wellbeing and the beauty of our landscape. As recommend by a Royal Commission in 2004, there should be a blue lifeline of marine protection areas around our shores to preserve sea life.

*With a huge public response to harm from plastics, let's seek zero waste manufacturing and urgently phase out single use plastics*

With a huge public response to harm from plastics, let's seek zero waste manufacturing and urgently phase out single use plastics. MEPs voted to do this in EU by 2021 yet Britain simply consults. As the BBC reports, an Indonesian inventor has created biodegradable seaweed packaging. We can to, harnessing the industrial strategy and our science expertise?

Why is the Government waiting until 2040 to end petrol car sales, missing the

benefits of rapid change? Why is there no at scale programme from local institutions from churches and mosques to community centres and schools, to benefit from local energy generation? Why not exempt solar roofs from business rates to spur take-up?

There should be a comprehensive programme across business, government, devolved nations and localities, matched by investment, action and legislation, that quickens and scales green transformation. We could start in the poorest areas, with new green energy, commercial space, transport and homes, and train people to build them and run services.

*Why aren't we rewriting rules to reward activities that support our future not destroy it*

Why aren't we rewriting rules to reward activities that support our future not destroy it. Or green the Treasury, a carbon budget for each department and the Green Book appraisal of policies actually living up to its name, fully factoring climate impacts. Financial investments and pensions should too. The EU has just agreed to cut emissions further, by 45 per cent by 2030, while Spain and Denmark have agreed net carbon by 2050. Britain should too and lead again.

This should be the left's 'big idea'. A radical green economy - zero carbon energy, transport, housing, zero waste and ambitious environmentalism - offers Britain the chance to become healthier, wealthier, more resilient, cooperative, mobile, dynamic, innovative, contented, respected and generous. Zero can be our hero.

JAKE SUMNER  
Co-Chair SERA  
and former  
Labour adviser  
He tweets at  
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*HERE*

ANNA MCCORRIN



# 10 YEARS OF THE CLIMATE CHANGE ACT:

*HOW LABOUR CAN MAKE BRITAIN A CLIMATE LEADER AGAIN AND BUILD A GLOBAL GREEN ECONOMY*

EDUARDO GONCALVES

**The UK Climate Change Act - which is about to celebrate its 10th anniversary - was notable in many respects, not least as it was the first such legislation passed by a nation-state anywhere in the world. What was perhaps the biggest game-changer was the then Labour Government's confident narrative that a clean economy is a strong economy.**

The infectious positivity of the message has been borne out by hard facts. Even in the post-crash recession, the UK's green economy sector quietly grew 5% a year. Stock markets may have been flat or falling, but the portfolios of green tech and related companies outperformed their peers by 3:2. Renewables were creating more jobs per joule than any other sector in the energy market.

In recent years, over 150 Fortune 500 and FTSE companies have committed to switching to 100% renewable power. More than 1 million businesses swung behind the 2015 Paris climate accord - one of the key reasons why politicians felt able to agree more ambitious targets than many had dared hope for. In the space of a decade, the clean tech market will have tripled in value to a staggering \$2 trillion.

However the current Conservative government appears blind to these opportunities - and to the IPCC's stark warning that we may have as little as 12 years to drastically reduce carbon emissions or risk uncontrollable climate change. The decision to press ahead with fracking makes a mockery of the government's

protestations that it is taking climate change seriously. As a Friends of the Earth spokesperson dryly put it: "You can have fracking or you can deal with climate change. You can't do both." Britain was once seen as a global leader on climate - now it is looked down upon as a laggard.

Yet if the IPCC's report wasn't enough, then consider the fact that Lloyds of London, the global insurance giants, believes that the world's largest cities face an estimated annual average loss of \$123 billion as a result of climate-related extreme weather. Or that scientists are telling us that climate change is already reducing yields and stripping nutrients from vegetables, raising serious questions over the future of food security and public health around the world.

*Scientists are telling us that climate change is already reducing yields and stripping nutrients from vegetables, raising serious questions over the future of food security and public health around the world*

By the end of this century, as much as half of the world's landmass could be covered by drylands. By 2050, there could be as many as 200 million climate refugees in the world, creating a humanitarian crisis of potentially biblical proportions - and political and economic turmoil the like of which has never been seen before. Pentagon assessment reports list climate as a major threat multiplier, creating fertile breeding hotspots for terrorist ideologies to take root and recruit. Thus the current government's myopia isn't simply reckless - it is arguably irresponsible and unforgivable.

A clear strategy on climate action should embrace a vision of a clean industrial revolution as a counter-strategy to austerity, and a driver of prosperity and well-being. At home and with our international partners, we should also target major emitters in a focused manner. The landmark Carbon Majors report found that a staggering 71 percent of all global warming was down to the activities of just 100 companies.

But we need to not lose sight of the fact that our carbon footprint constitutes just 60% of humanity's total ecological footprint. Here in Britain for example, we currently live in a way - were it to be replicated globally - that would require 3 planets to support us, feed our demand for consumables and absorb our waste. We are living beyond our means, as if there was a limitless planetary credit card that we can draw upon. The end result is that we are degrading our natural capital, making it virtually impossible for future generations to survive, let alone thrive.

NE 10 YRS OF THE CLIMATE CHANGE ACT SPECIAL EDITION

*Of all the challenges we face in this century, the biggest one is figuring out how we can meet the basic needs of all the world's people with dignity*

The conventional discourse may promise constant economic growth. But the consequences of pursuing it as if nothing has changed are that we risk irreversibly altering the planet's climate, driving one third of the world's species to extinction, causing millions to die every year from air pollution, and leaving us with just 60 harvests before our soils run out of fertility.

Let that last figure sink in. We will no longer be able to grow food within our and our children's lifetimes because the soils they grow in will be so depleted that the crops will fail.

Of all the challenges we face in this century, the biggest one is figuring out how we can meet the basic needs of all the world's people with dignity - and do so in a way that doesn't leave future generations picking up a tab they can't afford. We need an economic strategy that is compatible with the natural limits of our planet, that is respectful of other living creatures, and that is socially equitable.

Labour's Climate Change Act was a huge achievement that pointed Britain and the world in the right direction. It was a bold step that delivered real change, and was framed in such a way that it inspired other governments - and indeed businesses - to act. We now need to go further. We need to make Britain the global hub of a clean industrial revolution - and usher in an age of 'one planet living'.

Jeremy Corbyn's plan to create 400,000 skilled jobs in the green economy reflects precisely the level of ambition that is

needed to meet this challenge. What is needed is an overarching strategy to build a strong, green economy - and make Britain a global climate leader once again.

The role of citizen action may be key to helping achieve this.

There are over 650 climate lawsuits currently going through the courts in the United States. They are inspired by the landmark battles against big tobacco, and the victories against racial desegregation of schools which changed America. In the past few days, a Dutch court has confirmed a previous ruling that the government must accelerate planned cuts in greenhouse emissions. It follows a case brought by a group of 900 Dutch citizens.

Here in the UK, a lawsuit has been brought by a group called Plan B. Led by barrister Tim Crosland, the group of 13 are aged from 9 to 79, and include a rabbi worried about the imminent humanitarian crisis, and university students concerned for their future. Their campaign has won the support of the government's former chief scientific adviser, Professor Sir David King.

There are cases being brought by local governments which are suing big oil companies in order to recoup predicted costs of climate mitigation measures. Oil companies are also being targeted because it is now known they deliberately concealed studies showing the likely impact of burning fossil fuels. Instead of publishing their research, companies such as Exxon spent nearly \$16 million funding

climate-skeptic groups, and quietly building taller rigs in anticipation of rising sea levels.

James Hansen, the former NASA scientist who first drew the world's attention to the threat posed by global warming, has thrown his weight behind the lawsuits. Alongside mass political mobilisation, he says they are the best and last hope for fighting the mortal threat of climate change.

Just as the clear call for climate action from businesses gave politicians the lead to aim higher in Paris, citizen action is now needed to empower political leaders to redesign the parameters of economic thinking and practice in order to make the accord's goals a reality. A clean industrial revolution is as much a cultural and social enterprise as it is an economic one.

The 10th anniversary of the Climate Change Act is a fitting moment for Labour to set out a positive vision for this revolution which can create the conditions for a strong and sustainable economy that protects all life on earth.

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# WHAT CAN BE ACHIEVED LOCALLY? THE MANCHESTER CLIMATE CHANGE RESPONSE

LYDIA MERYLL

**In 2009 SERA joined a group of environmental activists to lobby Manchester City Council on their lack of practical action on Climate Change. The Agenda 21 discussions had been aspirational but lacked citizen engagement. NGO activists and local environmental businesses contributed to the complex ideas for City-wide change. At that stage, the science was not clear about local metrics for carbon reduction. One SERA member had attended an IPCC meeting in Geneva and reported back on the massive scope and independent reliability of this world-wide scientific community. Together we designed a plan of action and called it "Manchester a Certain Future".!**

Meetings took place in the Town Hall. The Leader of the Council attended every meeting, arriving on his bike. He still does. We worked in Theme Groups, chased up promises and stressed the urgency of each measure. The Council was already facing huge cuts from central government and so became increasingly difficult to service these meetings. The role of the NGO sector became essential. Manchester Climate Change Agency became an ALMO, housed in a local eco architect's office. Partnerships became increasingly important. The Council updated its plans at yearly assemblies.

From this citizens' initiative grew the Carbon Literacy project, a comprehensive way of training leaders and staff in a whole range of organisations. The project, now run by Cooler, grew to work beyond the

City to all the 10 Greater Manchester Boroughs. One of Cooler's aims was to get carbon reduction messages out to ordinary members of the public. They held 'carbon classrooms' in shopping centres, led by university students and by children. These young people aged between 8 and 14 came from local Eco Schools, devising games so that adults could ask questions and learn. This has grown into the extensive intergenerational learning project now run in other public spaces by the NGO, Manchester Environmental Education Network [www.meen.org.uk](http://www.meen.org.uk)

In 2012 growing the local economy remained a Council priority. Ease of transport was seen as essential. Air quality wasn't good, but we were not aware of the extent of the toxins or the relationships between nitrous oxide, particulates and asthma. We certainly didn't equate the air pollution with excess carbon into the atmosphere. We had not yet started to experience the floods or seen the heathlands burst into summer fires. There was a massive amount of public education to be done. We had not even dreamed of Brexit!

In 2015 SERA Manchester members and other FoE activists rode into Paris for the Conference of the Peoples COP 21. We met thousands of other activists from all over the world in social gatherings and demonstrations around the Eiffel Tower and the Champs Elysee. A month later, in Jan 2016, after the Paris Agreement was signed, Manchester committed to become a ZERO Carbon City before 2050.

It all felt heroic. But it was far from public knowledge. We were a small band of mostly white middle class activists who lived in a bubble. Then Michael Gove MP, then Secretary of State for Education, shrank the Secondary Curriculum, editing climate change except from all but Geography, a specialist choice of study, and fragmented across Science curricula. Primary Eco Clubs were being cut for lack of funding. In 2009 Labour had funded a Sustainable Schools strategy and introduced a national Inspection criterion for Sustainability across the whole school. This was scrapped (except in Scotland, where it still flourishes) We now lacked any public education strategy.

Adult Education, including Unionlearn, was shrunk to a minimum. Many later trained in carbon literacy. Trades Unions such as Unison, UCU, FBU and The Bakers and Allied Food Workers Union were keen, but had access only to on-line materials. Now Universities came forward through the Environmental Association of Universities and Colleges (EAUC), the Greener Jobs Alliance and the National Union of Students. Prof Kevin Anderson from the Tyndall Centre, University of Manchester, took the message of the Carbon crisis to local Councillors and public forums.

In 2016 we discovered we had a new City Region structure and elections for Greater Manchester Mayor. ManchesterSERA hosted a Green Gathering inviting candidates to meet environmental activists from the proposed expanded Greater Manchester Constituency. Andy Burnham came to that meeting. There

were passionate and very well informed contributions, round tables and discussions. When he won that election, he appointed an experienced civil servant to lead on green issues and called up help from the partners who had met him at that event. He also called upon the Tyndall Centre's expert advice. We all contributed to his first Green Summit in March 2018. SERA was invited on to the Steering Group to support change through the Labour Movement, Trades Unions and through CLP Environmental Officers and Ward and Constituency mechanisms. Green Summit II will take place in March 2019.

Some sceptical local politicians associate environmental intervention as something to do with the Green Party. The complex science of Carbon Budgets has to be connected to other more immediate issues, single use plastic waste, air quality outside schools. These are rightly presented as health issues which require immediate action. Indeed the UK Government has been fined by the EU for failing to act on shocking air pollution. Cities will produce plans by December. However these are proxy issues when it comes to Climate Change!

In 2018 Cllr Angeliki Stogia, Manchester City Council Executive Member for Environment Planning and Transport, faces this challenge head on. Her policy paper "Playing our Full Part: How Manchester's residents and businesses can benefit from ambitious action on Climate Change." The aim: to become Carbon neutral by 2038. She convinced Councillors to adopt a plan to change the city's behaviour in

relation to food waste, energy efficiency, transport, and new green investment strategies. "This goes right at the heart of what we are in politics for: to improve social equality, to promote social justice, to protect those on low incomes, to lift people out of poverty: people that live in disadvantaged areas, and live on lower incomes usually have to bear the brunt of pollution, food and fuel poverty. Our plan has to highlight how it underpins existing Council strategies, it's not just about how we grow our economy, it is also about how we deliver our social policies."

However, she accepted that environmental activists use language which excludes a large proportion of the community. What are "fossil fuels, carbon budgets"? Plain language and local relevance was essential. People had already grasped the urgency of the poor air quality and see the impact on the health of older people and children, so that was a good place to start, calling for Clean Air Zones. She pointed out that we had been able to change smoking habits by using health evidence, so it will be possible to show the causes of dirty air. "Dirty air can only be stopped if everybody takes responsibility". While Manchester City Council and the Combined Authority are looking at the scale of the problem and potential solutions, we all need to play our part. We need to know what support that the government will give; vehicle scrappage; upgrade measures? What is Highways England going to do? We need to show ordinary citizens how we can all breathe cleaner air?

Each Ward will explain how residents can contribute – and why. The overarching aim would be for all future policy decisions to be Climate-proofed. In Wales the Assembly insists all policies have to demonstrate the impact on future generations. Angeliki wants to strengthen local standards for insulation in new build and push for adequate retrofit.

If unions lead on divestment from fossil fuels from the Greater Manchester Pension Fund, alternative investments can be in renewables investments. Whole communities have not been asked yet. They may have practical experience of disaster management: understanding of flood management in Bangladesh, dealing with drought in Kenya... Proactive outreach is needed. SERA has convinced our MP, Afzal Khan, to promote the agenda. He planted a symbolic Tree and committed to buy a hybrid car.

Cllr Stogia asked SERA to take a clear role with the Council as a "critical friend" and to offer the elected members support with practical ideas from elsewhere in the UK, through the linked up cities collaborations like UK100. She asked how to join and become a member of SERA.

LYDIA MERYLL is a SERA executive member, community activist and environmental educator. She leads Manchester SERA. She tweets at @lydia\_meryll



*The complex science of Carbon Budgets has to be connected to other more immediate issues, single use plastic waste, air quality outside schools*



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