These articles were mostly published in the socialist newspaper produced by Workers' Liberty, *Solidarity*. Two were documents discussed and passed at WL conferences. One was published in the US socialist journal *New Politics*. One was written for a bulletin at Ende Gelände.

Workers' Liberty is a revolutionary socialist organisation active in the
Socialist politics and climate change (2018)

An introduction to the 2018 edition of this pamphlet, by Neil Laker

Since the first edition of this pamphlet in 2015, little tangible progress has been made in preventing climate change. Fossil fuels remain dominant in the global economy. Capitalist governments refuse to take serious action to make the required energy transition in anything close to the 12 years the Intergovernmental Panel on Climate Change (IPCC) has calculated as the window to avoid dangerous, escalating and irreversible climate change. Liberal ideas about how to overcome these challenges dominate the left and the climate movement.

But there is still time. Through the organisation of the working class as a socialist movement, lasting inflictions such as climate change can be limited and adapted to; and the damages of capitalist exploitation on human lives and the Earth stopped altogether.

Fossil fuels and global capitalism
Since 1880 the global climate has warmed by an average 0.8°C. 2016 was the hottest year on record, and 16 of the 17 warmest years on record have been since 2000. These and other undeniable signs of capitalist-driven climate change have led to increased discussion in the scientific community about the danger of a ‘hothouse earth’ scenario. This is where a number of tipping points are in danger of amplifying the greenhouse effect further, and quicker. For example, the melting of Siberian permafrost which stores huge amounts of methane, CH₄, (20 times more powerful per molecule at causing the greenhouse effect than CO₂); the acidification and warming of the ocean, inhibiting its capacity to absorb carbon; a similar effect in the soil, transforming it from a carbon sink to a carbon-emitter. A number of other factors identified in the August 6 Proceedings of the National Academy of Sciences paper on the danger of the ‘hothouse earth’, such as the loss of the Amazon, could be accelerated and triggered within a short period of time unless emissions are dramatically reduced.

Politically, it is only the socialist movement that can take the measures necessary to minimise the coming storm. International agreements have been a monumental failure: since the first IPCC report in 1990, CO₂ emissions have risen by 60%. The same total volume of emissions from 1751 to the publication of that report were produced in the time from then to 2016. More than half of the emissions since the foundation of the IPCC in 1988 were made by just 25 corporate and state-owned entities, and over 70% were produced by the top 100 companies.

The COP21 in Paris in 2015 committed to holding the increase in the global average temperature to well below 2°C, which would require vast decarbonisation by 2030. The agreement made no commitments about how this should be achieved, other than reassurances of flexibility and a restatement of faith in the emissions trading schemes—whose achievements to date in terms of reductions are negligible, if not actively harmful—and wide adoption Carbon Capture and Storage technologies which are largely untested on such a scale and remain surrounded by scientific controversy. Indeed scientists have estimated that even if all the pledges of the Paris treaty are kept, global temperatures will rise to 2.7°C above pre-industrial levels. To make matters worse, since then, Trump has pulled the US out of the treaty. President-elect Jair Bolsonaro in Brazil, whose background lies in agro-business, has promised to cut down the Earth’s largest carbon sink, the Amazon rainforest. His election strengthens the populist right-wing movement against action on climate change.

There has been a recent flurry of excitement over signs that that energy production may be beginning to shift in favour of renewable power. Renewable generation rose by 9% in 2016 and was the source of just over half of new capacity added worldwide. As demand for renewables is rising, production costs fall, as seen in the decline in the cost of wind turbines by a third and solar panels by 80% since 2009. However this is but a glimpse of the bigger picture. In 2015, wind and solar power accounted for just 4.4% of global
electricity. The real expansion of fossil fuel generation continues faster than that of renewables, even while the installation costs of renewable energy are cheapening in relative terms. This is because the overall volume of fossil fuel production is so much greater than renewables, that despite steadily increasing investments into renewable energy capacity, the expansion in total energy consumption in 2015 and 2016— which is of course predominantly produced by fossil fuels— equalled the total 2016 renewable energy production. The expansion in fossil fuel production alone from 2012 to 2016 is greater than the total 2016 wind and solar production. This means that while wind and solar are added energy to the total consumption pool, they are not really replacing any fossil fuels. This reflects David Harvey’s observation that “fixed capital confines the trajectory of future capitalist development, inhibits further technological change and coerces capital precisely because it is ‘condemned to an existence within the confines of a specific use value’.”

Even with renewable technology cheapening, as long as fossil fuels remain highly profitable, capitalists will continue to exploit them, even in the face of devastating environmental impacts.

The UK economy mirrors the global trend of rising renewables failing to unseat fossil fuels. As renewable capacity rises, there are new natural gas power facilities being planned, alongside Tory-backed fracking projects to provide some of the fuel. Drax power station in North Yorkshire is proposing the largest ever UK gas units, financed by huge government subsidies. In its own environmental impacts report on the project, Drax confesses that it will “represent a significant net increase in greenhouse gas emissions and have therefore negative climate impacts”.

Corbyn’s Labour Party and climate change

Politically there have been openings as well as setbacks. While the government plans new fossil fuel energy, the Labour Party has undergone dramatic shifts. In 2017 it proposed an energy price cap, manufacturing and energy jobs through large renewable energy projects, for “publicly owned, locally accountable energy companies and co-operatives to rival existing private energy suppliers, with at least one in every region”. Labour intended for those companies to be able to buy grid infrastructure, to create “public ownership over time”.

A new policy outline, The Green Transformation, appeared at the Labour conference in September 2018. For all the talk of—and need for—democratic control, these proposals came from above, and are less ambitious than the ‘1 million climate jobs’ document produced by the Campaign for Climate Change Trade Union group a decade ago. The Green Transformation instead proposes 300,000 climate jobs; 60% of all UK energy from low carbon or renewable sources within 12 years of Labour coming to power (a nod to the IPCC recommendation time-frame); development of tidal lagoons; policies towards decentralised renewable energy such as public ownership of transmission and distribution networks; a ban on fracking and retrofitting of poorly insulated housing stock.

Though Labour proposes a semi-public, semi-co-operative alternative, there is little acknowledgement of the role that capitalist energy systems have played, and will continue to play, in creating emissions unless the energy market, and fossil fuel companies are confronted. As Paul Burkett has argued, “the energy transition requires an active suppression of fossil fuels, not just adding renewables as ‘another slice to an ever growing energy pie’.”

For example, The Green Transformation refers to how UK housing stock is among the most costly to heat in Europe—but fails to mention the role of private big six energy companies, whose profits increased tenfold between 2007 and 2016, in causing fuel poverty and inaction on fossil fuels.

What is needed is the abolition of the market in energy through public control of the energy companies and decommissioning of their fossil fuel assets. Labour suggests that it will “work closely with energy unions to support energy workers and communities through transition”.

Corbyn’s Labour Party and climate change

Politically there have been openings as well as setbacks. While the government plans new fossil fuel energy, the Labour Party has undergone dramatic shifts. In 2017 it proposed an energy price cap, manufacturing and energy jobs through large renewable energy projects, for “publicly owned, locally accountable energy companies and co-operatives to rival existing private energy suppliers, with at least one in every region”. Labour intended for those companies to be able to buy grid infrastructure, to create “public ownership over time”.

A new policy outline, The Green Transformation, appeared at the Labour conference in September 2018. For all the talk of—and need for—democratic control, these proposals came from above, and are less ambitious than the ‘1 million climate jobs’ document produced by the Campaign for Climate Change Trade Union group a decade ago. The Green Transformation instead proposes 300,000 climate jobs; 60% of all UK energy from low carbon or renewable sources within 12 years of Labour coming to power (a nod to the IPCC recommendation time-frame); development of tidal lagoons; policies towards decentralised renewable energy such as public ownership of transmission and distribution networks; a ban on fracking and retrofitting of poorly insulated housing stock.

Though Labour proposes a semi-public, semi-co-operative alternative, there is little acknowledgement of the role that capitalist energy systems have played, and will continue to play, in creating emissions unless the energy market, and fossil fuel companies are confronted. As Paul Burkett has argued, “the energy transition requires an active suppression of fossil fuels, not just adding renewables as ‘another slice to an ever growing energy pie’.”

For example, The Green Transformation refers to how UK housing stock is among the most costly to heat in Europe—but fails to mention the role of private big six energy companies, whose profits increased tenfold between 2007 and 2016, in causing fuel poverty and inaction on fossil fuels.

What is needed is the abolition of the market in energy through public control of the energy companies and decommissioning of their fossil fuel assets. Labour suggests that it will “work closely with energy unions to support energy workers and communities through transition”.

Corbyn’s Labour Party and climate change

Politically there have been openings as well as setbacks. While the government plans new fossil fuel energy, the Labour Party has undergone dramatic shifts. In 2017 it proposed an energy price cap, manufacturing and energy jobs through large renewable energy projects, for “publicly owned, locally accountable energy companies and co-operatives to rival existing private energy suppliers, with at least one in every region”. Labour intended for those companies to be able to buy grid infrastructure, to create “public ownership over time”.2

A new policy outline, The Green Transformation, appeared at the Labour conference in September 2018. For all the talk of—and need for—democratic control, these proposals came from above, and are less ambitious than the ‘1 million climate jobs’ document produced by the Campaign for Climate Change Trade Union group a decade ago. The Green Transformation instead proposes 300,000 climate jobs; 60% of all UK energy from low carbon or renewable sources within 12 years of Labour coming to power (a nod to the IPCC recommendation time-frame); development of tidal lagoons; policies towards decentralised renewable energy such as public ownership of transmission and distribution networks; a ban on fracking and retrofitting of poorly insulated housing stock.

Though Labour proposes a semi-public, semi-co-operative alternative, there is little acknowledgement of the role that capitalist energy systems have played, and will continue to play, in creating emissions unless the energy market, and fossil fuel companies are confronted. As Paul Burkett has argued, “the energy transition requires an active suppression of fossil fuels, not just adding renewables as ‘another slice to an ever growing energy pie’.”

For example, The Green Transformation refers to how UK housing stock is among the most costly to heat in Europe—but fails to mention the role of private big six energy companies, whose profits increased tenfold between 2007 and 2016, in causing fuel poverty and inaction on fossil fuels.

What is needed is the abolition of the market in energy through public control of the energy companies and decommissioning of their fossil fuel assets. Labour suggests that it will “work closely with energy unions to support energy workers and communities through transition”.4 It should

---

1David Harvey The Limits to Capital, Verso 2007 (quoting Marx, Grundrisse)
2Labour manifesto For the Many Not the Few, 2017, pp.20-22
4The Green Transformation, Rebecca Long-Bailey and
guarantee those workers support and compensation through expropriation of the profits of the fossil fuel sector. Moreover this line reveals their understanding of fossil fuel workers as a group to be managed—alongside, and in the control of the interests of businesses—rather than as a leading force, let alone recognising them as the only group able to change power relations and end fossil fuel production in the timescale needed. These are historic and pressing responsibilities which Labour is currently avoiding, in a wider strategy which aims at radical change but does not intend to challenge the economic relations of capitalism. As Will Steffen et al. state in the National Academy of Sciences journal: “Incremental linear changes to the present socioeconomic system are not enough to stabilize the Earth System. Widespread, rapid, and fundamental transformations will likely be required to reduce the risk of crossing the threshold and locking in the Hothouse Earth pathway”. Labour’s current platform is insufficient in urgency, scale and ambition. We need democratic control of energy as a measure both to fulfil our obligations to minimise climate change and as a positive step towards full socialist ecological planning. Labour’s strategy leaves emissions reduction to the dynamics of a market, rather than taking control of that process.

Climate change underlines the need for the development of the British left towards unapologetic class politics and transformation of the economic relations which have led to ecological crisis. But the current approach from Labour on energy reflects the impasse of their wider economic strategy. Their approach seeks to avoid confrontations with powerful interests (in this case the Big Six; in a wider sense the super-rich and financial class) in order to appear amicable to both the wealthy and the dispossessed. On aviation, they propose categories by which to accept airport expansion which does not acknowledge that any airport expansion contradicts even the current insufficient targets on emissions reduction. Moreover Labour “commits to supporting climate mitigation and adaptation efforts led by the countries in the Global South, and to supporting countries severely affected to cope with associated loss and damage,” without making the connection between the climate crisis and migration. There exists a pressing need for open borders, for positively preparing for mass migration if we really mean to achieve climate justice.

Advancing workers’ interests and delivering on climate justice with the necessary urgency requires initiative to organise workers in polluting industries, while supporting climate justice politics in their unions. It requires ending the private ownership model which makes carbon emissions and the destruction they entail profitable. It means a shift to a new, Marxist and humanist way of looking at the world based on the value of lives and ecosystems; it means expropriation, democratic ownership and ecological planning in industry. This begins with a turn within the labour and climate movements towards the workers of fossil fuel sectors in order to shut them down for good.

The climate movement
There has been an important continuation of mobilisations and direct action on climate change in the last 5 years. In the UK the climate movement has mostly been focused on opposing fracking in Yorkshire (with success) and Lancashire (ongoing). In Germany there has been an impressive growth of the Ende Gelände protests, where thousands of activists from across Europe have occupied coal mines and infrastructure in the Rhineland and the Lausitz. Similar climate camps have been organised in Wales, the Netherlands, and elsewhere, and are growing in numbers. We have supported and participated in these mobilisations, while arguing for them to have an orientation to workers in fossil fuel industries (the main piece from our bulletin at the Ende Gelände camp in August 2017 is reproduced in this pamphlet). Without such an orientation, indeed without a political programme at all, these actions are limited.

Beyond demanding ‘system change not climate change,’ the climate activist movement is still characterised by an absence of a political programme. In the words of Mann and Wainwright, this means that “most of the time, the tacit

Sue Hayman, September 2018, p.9
5 Will Steffen et al ‘Trajectories of the Earth system in the Anthropocene’, Proceedings of the National Academy of Sciences August 2018

6 On climate migration from Syria see for example Andreas Malm, ‘Revolutionary Strategy in a Warming World’ Socialist Register 2017.
assumption is that ‘system change’ means a green, renewables-based capitalism.” This is true of the Extinction Rebellion protests, the bravery of which does not compensate for the lack of strategy to overcome the power of fossil fuel capitalism. A tactic of mass arrests is not to be sneered at, but it will not lead to systemic change. That lies in the hands of the working class, and the key to mobilising their power remains the task of connecting ecological Marxist politics with the workers’ movement. Therefore a fundamental element of the movement against climate change must be political education to empower workers and activists to organise collectively to overthrow it. As Rosa Luxemburg argued at the Stuttgart congress of the SPD, 4 October 1898: “the only violent means that will bring us victory are the socialist enlightenment of the working class through day-to-day struggle.” In face of climate change this means connecting working class demands of green jobs, housing, and democratic control of the fossil fuel industries with direct action to speed up the end of fossil fuels—through mobilising the power of workers across all industries. This pamphlet is a collection of articles contributing to that process.

7Geoff Mann and Joel Wainwright, *Climate Leviathan*, Verso 2017.
Workers’ Action for Climate Justice (2017)

Mike Zubrowski, wrote this article in August 2017, for the Workers’ Liberty bulletin at Ende Gelände.

In 2016’s Ende Gelände, 4,000 people occupied coal diggers in Lausitz, blocking coal mining infrastructure for over 48 hours. This kind of climate activism challenges the coal industry and raises awareness of the urgency of ending it. It contributes to building a mass movement that takes direct action to challenge climate change, while capitalist states and market “solutions” completely fail to. We must build and expand this movement, but crucially we need to link with workers in the energy sector, including coal, to end coal and transition to a sustainable society.

There is a little-known but inspiring history of workers organising to take environmental action that we can learn from and build on:

- Builders organised “Green Bans” in Australia in the 1970s, organising company-wide strikes to successfully prevent environmentally destructive construction projects, sometimes working with community activists.

- In the UK in 2009, previously un-unionised workers at a large wind-turbine factory were supported by environmentalists to occupy the factory for nearly a month, demanding that the factory should not be closed down but instead be kept open, and taken into public ownership. Whilst ultimately unsuccessful, it pressurred the government and gathered lots of support from trade unionists and trade unions, and community campaigners and beyond.

- The Lucas Plan was advocated and campaigned for by workers across the factories of an arms company, Lucas Aerospace. The plan set out a blueprint for a transition to making environmental, and socially useful, technology using the company’s pre-existing technologies and the workers’ skills.

The workers’ movement can and must replicate and build on these cases to fight for a transition to a zero-carbon society. In these examples, and others, environmental activists – both workers, and activists in solidarity with these struggles – raised the possibility and urgency of such actions, sometimes bringing environmental angles to originally non-environmental disputes.

The unlimited drive for more profit within capitalism means that ultimately climate change cannot be effectively tackled without overthrowing capitalism, and creating a democratic and sustainable alternative. Whilst the climate crisis threatens most of humanity, its roots in capitalism and so the exploitation of the working-class means that workers must play a central role in stopping it. The working-class alone has the power and interest to replace capitalism with a democratic alternative that is socially just and ecologically sound. Capitalism’s unlimited profit drive necessarily also drives it for the greatest possible exploitation of workers. This in turn pushes workers towards organising and fighting in defence of their interests and against exploitation. These struggles as they increase in strength tend to increasingly challenge capitalism, and point towards a society beyond it. As workers and the whole working-class perform the labour which keeps society running, they have the potential to overthrow capitalism, and are the only class with the power to build a new, democratic society.

Not only do working-class climate actions – such as green bans and worker-led transition plans – prevent environmental destruction and support sustainability, but they build towards overthrowing capitalism and creating a new society. Through these struggles workers build their collective organisation and strength, and simultaneously challenge the idea that their industries and society should be run by the capitalist boss in the interest of profit. Rather, actions like these raise the possibility of industries and societies run by the workers themselves, in the interest of humans, and of environmental sustainability – and they demonstrate that this is possible.

We need working-class orientated revolutionary environmentalism within both the workers’ and environmental movements. As an environmental movement we need to engage with and support
workers’ struggle. In our activism we must raise demands and slogans which reflect this. Not only to shut down coal mines and coal-fired power stations, but for investment in green energy and technology that will replace the energy and jobs produced by the coal industry. Energy workers must be part of leading this transition. We should link to and engage with workers in RWE and beyond, finding activists and potential activists, and taking up jobs in the sector to organise for this. This kind of activism is difficult as workers in such industries, feeling their jobs threatened, are often encouraged by their bosses to feel hostility to environmentalism. But such activism is necessary to stop climate change, and to build a better society.
‘The mill owners told the workers to bow down to the steam idol or starve’ (2016)


Fossil Capital explores the crisis posed by climate change by looking at the origins of capital’s dependence on fossil fuels. It is a significant contribution and sound introduction to Marxist ecological thought. Above all the book demonstrates how capital accumulation and the global climate have a deep and inseparable relationship, and in particular that the history of the working class is an environmental one.

The question of why capitalism is still overwhelmingly wedded to fossil fuel consumption is approached in two ways: by investigating the original transition to fossil fuels, then asking what the nature of their interrelation with accumulation suggests about the prospect of a sufficient transition to renewable energy. Malm proposes a re-reading of the eclipse of water by steam power in the period 1825-1850, arguing that the defeat of the British working class movement was a key moment in the emergence of fossil fuels as the “general lever for surplus value production”. The consequences of the transition – the compulsion to accumulate capital through relative surplus value (the speeding up of production by technical means) – illuminate the difficulties of a going beyond fossil fuel-based capitalism in the present day: while the workers’ movement’s original confrontation with steam offers our movement much to aspire to.

The transition to steam

---

The first trial of Boulton and Watt’s double-rotating engine in the cotton industry ended poorly, principally due to the costs of the machinery and its fuel compared to the naturally-occurring power of rivers and waterfalls. For a technology with these attributes to court mass popularity, the conditions in industry could only have been such that mill owners prioritised concerns for control over the labour process above the cost of mechanisation. Mill owners sought solutions to the industrial crisis in 1825, which compounded the recurring lapses of wages beneath the cost of subsistence. In this setting embezzlement was rife and labour militancy was fermenting. But wage rises were “out of the question”, other than where mass strikes forced employers into concession, endangering profits and deepening the crisis further. In this setting a shift to the power loom was a preventative investment against theft; for cotton capital as a whole, it achieved the consolidation of power over the labour process. Steam power also “had the prime advantage of overcoming the barriers to procurement not of energy, but of labour” in its ability to adapt to the urban environment, thereby “relieving us,” as J.R. McCulloch referred to his class, “from the necessity of building factories in inconvenient situations merely for the sake of a waterfall. It has allowed mills to be placed in the centre of a population trained to industrious habits”. The proximity of factories to populous towns moreover freed the capitalist from the care and responsibility for child labourers – an advantageous development as many capitalists puzzled over how the coercive apprentice system instilled “no desire to perform labour” amongst its young participants.

In Marx’s view, machinery is “is a power inimical to [the worker], and capital proclaims this fact loudly and deliberately, as well as making use of it. It is the most powerful weapon for suppressing strikes, those periodic revolts of the working class against the autocracy of capital”. It was a crucial tool which the mill owners employed to stymie the labour unrest which “threatened to drive the infant factory

---

8Malm, Fossil Capital, p.289

9p.55
10p.74
11p.124
12pp.123-124
13p.133
Ultimately the transition to steam power offered capital the ability to discipline labour through relocation to settings with a high surplus population, enabling it to seek out the most profitable pools of labour power, to level down wages, and to enforce an accelerated and regular industrial output. This presentation of the transition as a form of crisis resolution in response to workers’ agitation offers a key insight as to why capital has continued to fuel climate change. The general adoption of high pressure steam power in British cotton production after 1850 entailed the increasing dependence of economic growth upon a steady expansion in coal supply. In a competitive market this translated to “grow by burning or die”. Malm suggests that this developed to the extent that fossil fuels became “the general lever for surplus-value production”. Thus a significant part of the climate crisis with which we are confronted today was itself the infant of crisis conditions. Capital’s response in that instance was to subject labour to the rhythm of machines—an approach maintained throughout its history.

The climate of the factories

Malm tentatively highlights the environmentalist dimensions to worker resistance to the imposition of machinery, and in particular the 1842 general strike. “There is a current of unsuccessful opposition to steam running all the way from the Albion Mill to the late nineteenth century, waiting to be uncovered”; its literature bore “the persistent imagery of belching smoke and consuming fire, noxious atmosphere and receding nature, extinct vegetation and unbearable heat—‘the people looked parboiled.’” But capitalists’ opposition to legislation to limit pollution and the unbearable climate of the factories was successful. Manufacturers commonly claimed the quantity of smoke in Manchester was a barometer of its prosperity. The effect of the Ten Hours Act (1847) was limited by speeding up the machines through higher pressure. Indeed, according to von Tunzelmann, the Ten Hours Act was “probably the most important determinant’ of the rise of high-pressure steam and, by extension, the final victory of the engine in the cotton industry (and beyond). This illuminates how relative surplus value is a response compelled by labour insurgency in its struggle against capital. It was a technological and organisational fix to the crisis presented by militant labour, a victory for capital on the back of a military intervention against the attempts at insurrection. The working class movement took decades to recover from this defeat—with its environmental concerns largely suppressed until the work of avant-garde writers such as William Morris.

Capital’s trajectory in spite of the scientific research into global warming reinforces Marxian value theory: “capital recognises no boundary in nature… solely concerned with the expansion of abstract value, it can drain nature on biophysical resources without really noticing what is in there, its eyes firmly fixed higher”—on its profits. Moreover Malm has transposed Marx’s argument on the organic composition of capital (the ratio of dead to living labour, increasing over time and producing a falling rate of profit) into a rising fossil composition of capital. “Operating over the span of history,” the tendency of capital to reduce the portion of human labour relative to machinery “translates into a law of a rising concentration of CO₂ in the atmosphere.” These dynamics, plus those of relative surplus value, having been first properly expressed during the consummation of coal and the cotton trade, lay the contradictory foundations of global climate change, through the necessary production of CO₂ as condition to surplus value. Part of the conditions to accumulation is the primitive accumulation of fossil fuels—“for capitalists to burn fossil fuels, there have to be other capitalists specialised in their production, and for the former to burn more, the latter have to deliver it in greater quantities, the two cycles ever intertwined”—which forms a permanent foundation for the fossil economy.

---

15 Malm p.191
16 p.257
17 p.289
18 p.244
19 p.247
20 p.191
21 p.288
22 Marx, Capital vol. I, p.762
23 Malm p. 354, 356
24 pp. 325-326.
Global fossil capitalism

Malm polemizes against the dominance of geography in Marxist thinking, but spatial contradictions are dominant in the tendencies he identifies, betraying this conviction. The transition to steam was dependent upon the reordering of nature to produce in a "unique form of spatiality" out of the tension between the mobility of the stock (coal) vis-à-vis the "stillness of the waterwheel".25 Likewise, as he traces the development of fossil capital into the present, the dynamic of relocation and mobility is central. For example, Chinese industrial militancy – steadily rising in confidence since 2010 – poses a threat to cheap labour power (pertinently China’s output counted for 55% of the global emissions figure between 2000 and 2006, and up to two thirds afterward).26 Yet business owners were shocked at prospects of relocation due to poor fossil fuel infrastructure at alternative sites: Asian and sub-Saharan locations suffer from overburdened electricity grids, while to counter this the Vietnamese state “pledged to accommodate incoming capital – above all by establishing coal mines and coal-fired power plants”.27 The basic tendency of capital to relocate in pursuit of cheap labour therefore increases carbon intensity.28 Indeed, “[s]preading factories across more Asian countries to safeguard against bolshiness would translate into more chimneys in more places, more fragmented-integrated production chains, more self-reinforcing spirals of accumulation...”29 On this basis Malm adds to Bev Silver’s observation that “where capital goes, labour-capital conflict Shortly follows” by suggesting that “where capital goes emissions will immediately follow”.30

Capital’s drive for mobility and flexibility paradoxically “ends up fixing it in ultra-heavy means of production and transportation” (power stations, factories, railways etc.), undermining further relocation, as capitalists are inclined to keep their sunk investments in operation for as long as possible.31 As David Harvey has noted, when “capitalists purchase fixed capital, they are obliged to use it until its value (however calculated) is fully retrieved”.32 This basic tendency behind the continued burning of fossil fuels stems from the geographic characteristics of fixed capital, and is exemplified in the fact that two-thirds of American power plants built since the 1890s still remain in use.33 Until labour challenges the movements inherent to capital accumulation, this is likely to remain the case.

25p.164
26 p.331; pp. 347-351
27pp.348-349
28 p.337, pp. 350-351
29 p.351
30 p.353
31 p.358

32Harvey, The Limits to Capital (Verso 2007), p.220
33Malm. p.358
Towards an independent working-class climate movement (2011)

By Daniel Randall and Paul Hampton, published in the American socialist journal New Politics, summer 2011

Our politics – working-class self-emancipation – are given a new urgency by the danger of catastrophic climate change. The need to transition society to, at the least, a low-carbon economy, based on production for need rather than profit, is extremely urgent.

But one of the many tragic legacies of Stalinism has been the virtual disappearance from Marxism of the nuanced ecological politics and analyses that were once integral to it. Stalin’s hyper-industrialisation drives, for example, left little room for the subtle understanding of humanity’s relationship to nature developed by Marx and others. As a result, many ecologists believe that the working class and the organised labour movement, the privileged agents in the Marxist world-view, are irrelevant to tackling environmental degradation - if not part of the problem.

But beneath the excrement generated by Stalinism runs a rich seam of independent working-class ecology, which we believe has a great deal to offer the fight to tackle climate change. We argue that class is central to the fight for a coherent ecological politics in the twenty-first century. A Marxist approach provides both the vital analysis of structures and causes, and the focus on working-class agency that is necessary to successfully revolutionise society to tackle climate change.

Exploiting workers, subsuming the planet

Marxism has a sophisticated view of the relationship between human society and nature, starting with the concept of metabolism (stoffwechsel). Burkett and Foster have explained how labour mediates the relationship between society and nature; how the metabolic rift conceptualises the breakdown in humanity’s broken relationship with nature under class society; and how socialism will reconstruct this metabolism in a more rational way.

Similarly, Smith’s “production of nature” approach draws into sharp relief the impact of capitalism in reshaping, remaking and reworking nature all the way down. Smith argued that, “No part of the earth’s surface, the atmosphere, the oceans, the geological substratum or the biological superstratum are immune from transformation by capital” and that “the alteration of climate by human activity” was an expression of this relatively new phenomenon of the social production of nature.

The chief virtue of this Marxist approach is the emphasis on changing social relations to tackle ecological problems. The idea of the production of nature implies an historical future that is still to be determined by political events and forces.

Marxist political economy of class societies provides a wealth of insights into the drives that cause ecological damage. In particular Marx understood that the unlimited drive to amass profits for capital accumulation overrode other imperatives such as human need or environmental sustainability. Central is the Marxist conception of classes, defined under capitalism by the exploitation of waged labour by capital. The forms of exploitation - the creation of absolute surplus value, (or the formal subsumption of labour to capital) and relative surplus value (or the real subsumption of labour to capital) – explain the dynamism of the system but also simultaneously

the enormous power of workers within it. Some Marxists have extended these insights about exploitation to ecological degradation, and introduced the concepts of the formal and real subsumption of nature into capital. Under the formal subsumption of nature, “firms confront nature as an exogenous set of material properties and bio-/geophysical processes, but are unable to directly augment natural processes and use them as strategies for increasing productivity”. In contrast, “under the real subsumption of nature, limited to biologically based industries, firms are able to take hold of and transform natural production, and use this as a source of productivity increase”. In adapting these concepts, they “highlight some of the different ways in which biophysical systems are industrialised and, in some cases, can actually be made to operate as productive forces in and of themselves”. Under real subsumption “capital circulates through nature (albeit unevenly) as opposed to around it. Biological systems are made to act as actual forces of production”.

The parallels between the real subsumption of labour and the real subsumption of nature should be clear. It is precisely the same mechanisms that give rise to worker exploitation (longer working day, the reorganisation and mechanisation of the labour process, etc.) that also give rise to ecological damage. These analogous, simultaneous processes have a common root in the drives of capital.

**Workers as strategic ecological actors**

A further conclusion from this political economy is to elevate the working class to a unique position as the essential progressive agent of social change under capitalism. Workers have the power and the interest to found a democratic collectivist alternative to capitalist (and Stalinist) class society that is socially just and ecologically sustainable. Therefore workers, who have the historical incentive to mitigate and ultimately abolish their own exploitation, also have a significant and privileged stake in abolishing the processes that give rise to the degradation of the natural environment. The working class is the agency capable of embracing the general, universal interest of ecology as its own special interest.

The specific impacts of ecological degradation on working-class communities also provide an immediate motivation for workers to resist climate change. Obach argued that, “it has been established that lower-income groups suffer disproportionately from the effects of environmental degradation in terms of its negative health consequences and other quality of life issues”. He added that, “research has demonstrated that, sometimes as a matter of policy, hazardous, environmentally undesirable facilities are sited in or near low-income communities. The health implications for communities surrounding such facilities are well established”. Similarly, “policies designed to protect the natural environment also tend to impose a greater economic burden on the working class”.

Throughout the history of capitalism organised working-class movements across the globe have at times displayed a tremendous and inspiring willingness to tackle ecological questions. In the United States, that tradition includes the OCAW strike and boycott against Shell Oil in 1973 and the alliance of Teamsters and “Turtles” which disrupted the WTO meeting in Seattle in 1999. There are tremendous examples from “water-wars” in South Africa in Bolivia, as well as oil struggles in Nigeria, landless worker and peasant movements in Brazil and in countless other places, South and North, where workers have led progressive ecological struggles in their own interests.

**Green bans and workers’ plans: strategies in working-class ecological struggle**

The movement led by Australian building workers in the 1970s is perhaps the most inspiring example of workers organising to take action in defence of the planet. In the first half of the 70s, the New South Wales Builders’ Labourers Federation (NSW BLF) imposed around 50 green bans in and around Sydney. The term “green ban” - refusing to work on environmentally injurious constructions - was coined by NSW BLF secretary Jack Mundey as a more appropriate description of a refusal to

---


work, previously known as “blacking”.  

The first green ban was introduced at Kelly’s Bush in June 1971. After a corporate developer attempted to re-zone the parkland, The ‘Battlers for Kelly’s Bush’ community group was formed to oppose it. The Battlers contacted the BLF, who agreed to impose a ban on redevelopment. The struggle to save the Rocks, Sydney’s first area of European settlement, from proposed redevelopment was considered the most important green ban. The Rocks Residents Group developed a ‘People’s Plan’ for the area after the BLF introduced a ban.

Woolloomooloo, probably the most successful green ban, saw local residents establish an action group after the local state issued plans to demolish housing to build high-rise office blocks. The BLF imposed a green ban and, with pressure from the local residents, a satisfactory community solution was reached. Other green bans included Victoria Street, the Sydney Opera House car park, the Newcastle hotel, the fight to prevent the North West freeway cutting through the inner-city suburbs, and the struggle to save the Theatre Royal from demolition. Some green bans were permanent, some achieved their aims, while others were lifted at the request of local resident action groups or the National Trust.

The struggle to transform the NSW BLF itself was crucial to its development of radical ecological politics. Most of the NSW BLF leadership at the time were dissident communists, receptive to new left ideas. The period before the “green bans” movement had seen a rank-and-file caucus ousted, conservative bureaucrats and push the union to fight on the immediate day-to-day concerns of its members. It was through the process of resisting the ways in which capitalism exploits workers that BLF activists were able to develop an understanding of the ways in which capitalism exploits the planet, and of how that environmental exploitation is in turn underpinned by and premised on the exploitation of workers.

The BLF showed that a militant, political labour movement was well placed to achieve radical environmental ends. As Mundey put it: “Trade unions must become involved with environmental issues, and environmentalists must become more concerned with the importance of promoting trade union struggles for socially useful production and consumption. Too few people question the products we make.” Mundey also emphasised that ecology is a vital matter of working-class self-interest: “The myth that the environment movement is the preserve of the do-gooding middle class must be exploded. It is, in fact, the workers who are most affected by the deterioration of the environment and it is therefore up to the trade union movement to give it a higher priority to fighting to improve it.”

During the same period in Britain, a large number of union branches and rank and file organisations – faced with employer-led restructuring and job losses – produced “workers’ plans” for the reorganisation of production in their workplace. These plans invariably questioned the logic of capitalist production for profit and asserted the need for “socially-useful production”, often making explicit proposals for “green” production.

Probably the most famous was the Lucas Aerospace Corporate Plan, published by a cross-union combine committee in 1976. The document detailed plans for heat pumps, solar cells and fuel cells, windmills and flexible power packs, as well as a road-rail public transportation vehicle, a new hybrid power pack for motor vehicles and airships. It stated: “New, renewable, sources and more efficient methods of conversion must be developed. Solutions to the problem based on nuclear power give rise to new problems of health, safety and even survival. Instead R&D should focus on new sources of energy and new types of energy conversion transmission and storage.”

Organised workers in major military contracting firms such as Vickers and Rolls-Royce produced similar initiatives. Chrysler car workers also developed this approach, demanding diversification into public transport and agricultural

---


40Verity Burgmann “The social responsibility of labour versus the environmental impact of property capital: the Australian Green Bans movement”, Environmental Politics

vehicles. A statement from Chrysler stewards stated: “The widespread ecological and environmental criticism of the private petrol-driven car as a socially irresponsible form of transport suggests to us that we must explore the feasibility of new kinds of products of a socially useful kind to harness the skills of the existing plant and machinery, and direct it away from a commodity whose profitability and usefulness is rapidly declining.”

Other workers’ plans also emphasised renewable and environmentally friendly technologies. Workers at GEC Trafford advocated wave, wind and nuclear power. Its report noted: “In the Severn Estuary, with its 40ft tidal range, Britain has one of the world’s best sites for tidal power… Once built, this barrage would supply this energy almost free of charge. With no fuel costs to meet, the only major cost would be the maintenance and overseeing of the equipment.”

Although these plans were snuffed out by the employers’ offensive and the wave of austerity imposed by Thatcher, they indicate the potential power of a militant working-class movement to relate constructively to pressing ecological issues.

Ecology without class: the limits of the “Green New Deal” and “ecosocialism”

A class-struggle response to environmental destruction is still a minority idea within the environmental and labour movements. Even on the left, a response that puts workers’ agency, self-organisation and struggle at its centre competes with models that look elsewhere for agents of change – states, NGOs or nebulous alliances of “social movements”.

The Green New Deal is one such approach. Writing in New Politics, Ashley Dawson argued for such a model - yet workers hardly get a look-in. While he calls for the creation of a “Green Corps, a millions-strong army of workers trained in environmental stewardship and the creation and deployment of green technology”, workers in currently-existing jobs (rather than jobs we might wish to see created in the future) are absent from the picture and presumably have no specific agency other than as one component part of a “broad variety of social movements” which can lobby governments to implement the emissions-restriction measures.

In Britain, the Green New Deal report, authored by prominent Green politicians, NGO officials, media personalities and business people, demanded the price of fossil fuels be driven up until they’re “high enough to tackle climate change effectively by creating the economic incentive to drive efficiency and bring alternative fuels to market.” The authors appeared to have forgotten about fuel poverty, or that a dramatic rise in fuel prices will hit working-class people hardest. Higher prices are, of course, the classic market ‘solution’ to almost any problem.

The listed agents for change identified in the British Green New Deal report speaks volumes about its project. It seeks to bring “diverse social and industrial forces together, leading to a new progressive movement,” and looks to the “exciting possibility of a new political alliance: an alliance between the labour movement and the green movement, between those engaged in manufacturing and the public sector, between civil society and academia, industry, agriculture and those working productively in the service industries.” This is the politics of the green popular front; while the climate crisis might pose a threat to the bulk of humanity, the crisis’s roots in class exploitation mean that the resistance to it must have working-class leadership.

Undoubtedly, amongst this growing mass of supporters there will be more and less radical conceptions of what the Green New Deal means. But they share a common starting-point in that they all identify top-down measures implemented by existing states as the key weapon for combating climate change. The explicit affinity with Roosevelt is telling. His New Deal was a top-down, state-capitalist solution to an economic crisis that contemporary Marxist critics rightly identified as “aiming at the restoration of capitalist profits”. “New Deal” models are, fundamentally, about saving capitalism from itself.

A less explicit but similarly mistaken retreat from

---

42 Wainright and Elliott (1982) p.142
class is beaten by the Belem Declaration and the “ecosocialist” milieu around it. Although its authors and supporters are ostensibly revolutionary socialists, there is a lack of clarity about the role of the working class as an ecological actor. At least one of them, Joel Kovel, is quite explicit that there is "no privileged agent of eco-socialist transformation" or any "privileged role to be played by the international proletariat".  

The Declaration contains a great deal of legitimate and useful criticism of "market solutions", and is right to emphasise that a revolutionary anti-capitalism is the only ultimate alternative to climate crisis. But the Declaration’s anti-capitalism and “ecosocialism” lack a sharp focus on class. While it alludes to “the struggles of labour”, the closest it gets to identifying a specific agency for anti-capitalist change is naming “the poor and indigenous peoples”. Without question, peasant and indigenous movements in places most immediately threatened by the consequences of climate change have a vital role to play. But in a world in which capitalist labour relations predominate almost everywhere (even in those countries where the wage-working class is still a minority), it is only as part of an alliance led by organised workers that those movements can hope to have a significant impact.

To emphasise the necessity of working-class leadership is not to downplay, dismiss or de-legitimise the struggles of other oppressed or exploited groups; it is simply to acknowledge that we live in a capitalist world, where working-class struggles do have a privileged role and position, and certainly not only within the advanced-capitalist “global north”. For Chinese and Korean auto-workers, Bangladeshi garment workers, Nigerian, Iranian and Iraqi oil workers and many others, the need to develop a working-class programme for tackling climate change may very soon become a matter of life-and-death urgency.

The quote from Evo Morales which acts as the Belem Declaration’s epigram betrays an incoherence on the question of agency. Morales may be a radical reformer, but he remains the head of a bourgeois government administering a capitalist state. In a book to promote the Declaration and its “ecosocialist” approach, edited by another of its authors, the contrast is clear. The book contains four contributions from members of the Cuban ruling bureaucracy (a state in which independent trade unions and political parties are illegal), one from Morales and another from a supporter of Hugo Chavez’s government. Few entries point towards the ecological potential of workers’ struggles. The emphasis is on top-down action by the leaders of states; the fact that the states in question spuriously pretend to some species of anti-capitalism is only evidence that the malign influence of Stalinism in the left and the labour movement still needs combating.

None of this is to suggest that it is wrong to demand action from existing states or that state measures cannot produce progressive results. It is not to make a fetish of the “bottom-up” as against the “top-down”. The question is one of agency: is the state itself to be looked to as the agent for change, or is that agent to be the working-class – which may well place demands and force concessions from capitalist states, but from within a framework of self-organisation and class independence.

**Working-class climate action in the UK: the significance of Vestas**

A modest contribution towards developing a working class-based ecology perspective has been made in Britain. The Workers’ Climate Action (WCA) network was founded in 2007 by a group of class-struggle activists (including Trotskyists, anarchists and others) working in the climate and labour movements. It fights for working-class environmentalism and revolutionary ecology within both movements, and as a direct-action solidarity network to engage with and catalyse workers’ struggle, with a particular focus on workers in high-emissions industries such as aviation and energy. When the 2008 Camp for Climate Action took place near the Kingsnorth coal-fired power station, WCA supporters participating in the Camp marched with a banner reading “Yes to Kingsnorth workers, No to E.on bosses”. When British Airways workers struck against pay cuts and job freezes in 2010, WCA activists organised solidarity to connect the workers’ immediate struggles to questions of

---


47The Belem Ecosocialist Declaration (2008)

transition and conversion. The environmental profligacy of BA bosses was clear: they flew empty jets in order to diminish figures for the number of planes grounded by the workers, in an attempt to play down the strike’s impact. By involving itself in the strike on the basis of working-class solidarity, WCA was able to begin to develop ecological politics around a dispute that had no ostensible ‘environmental’ angle (and indeed could be seen as pro-emissions). WCA has also sought a close relationship with transport workers’ unions, particularly the RMT (which represents workers on the London Underground and is arguably Britain’s most industrially-militant union), in order to raise demands for the expansion of public transport.

Perhaps the most significant struggle in which WCA has played a leading role was at Vestas, on the Isle of Wight (a small island of less than 150,000 people off the southern coast of England). Vestas is the world’s largest producer of wind turbines and was the single-biggest private sector employer on the island. Despite turning record profits, the firm announced the closure of its manufacturing plants in 2009. Although objective social conditions cried out for the factory to remain open to continue producing vitally-needed renewable energy equipment, its bosses closed it due to a lack of sufficiently-responsive markets. This came as the then-Labour government began making lofty promises about a “green energy revolution” and the creation of hundreds of thousands of green jobs.

The plant was not unionised, but following factory-gates agitation by WCA supporters and large public meetings, a group of workers developed sufficient confidence to occupy the main factory site, which lasted for nearly a month. Although workers were not strong enough to restart production under their own control or, ultimately, to save the plant from closure, they cohered an alliance of trade unionists, community campaigners and radical environmentalists. They exposed the disgusting hypocrisy of the Labour government and the callously anti-worker (and, necessarily, anti-planet) practises of even a so-called “green” employer like Vestas. They provided a living, breathing model of working-class ecology and turned a sleepy island into a flashpoint of class struggle.

Vestas was a tragic but chemically-pure demonstration of the specific ways in which wage-labour and the profit motive necessarily lead to environmental degradation, and of the way in which the environmental damage capitalism causes is inextricably bound up with its exploitation of workers. The Vestas struggle came in the same year as a number of other workplace occupations, including a particularly long-running one at the Visteon car plant in north London. There too, issues of sustainability and just transition were discussed. Across the UK, union reps in schools and colleges, central and local government, in the health service and in private industry, workers are taking action on ecological issues.

In the struggles ahead, activist networks like Workers’ Climate Action will become even more important for developing a working-class response to the ecological and economic crises. Struggles like the green bans, Lucas and Vestas developed battles over day-to-day conditions into struggles for workers’ control. They posed, as Trotsky put it in Transitional Program, “the question of who is the boss in the factory: the capitalist or the workers?” They asked which interests should predominate – the interests of profit, or the interests of human need and environmental sustainability. And they asked why it was, if it was the workers who possessed the skills to develop plans run their workplaces sustainably, justly and democratically without bosses, why they could not in fact run them? And, if they could run their workplaces along such lines, why couldn't they similarly run a whole industry? A whole city? The whole world? It is time for the organised labour and its supporters in the ecology movement to ask, and answer, those questions again.
The shop stewards who represent the future (2015)

Martin Thomas reviews *Workers and Trade Unions for Climate Solidarity*, by Paul Hampton.

Under the carapace of often sluggish official union responses, a network of “thousands of union [workplace] reps [is] making a substantial contribution towards curbing carbon emissions across the UK”.

The movement to have workplace reps active on environmental issues, or to elect special environment reps, was stimulated by official union and Labour government policies, and in some workplaces even by bosses wanting to show a green face.

But Paul Hampton’s research finds that “even less adversarial union reps tended to go beyond the parameters laid down by government and employers”. And sometimes where “the company says it is interested in climate change”, still “when proposals are put forward by union reps, they are rejected allegedly on cost ground every time”.

“No buy-in from senior management. Seen as trouble-making!”

At least one workplace reports a “greater appetite amongst rank and file members to get involvement with tackling environmental issues than... for... traditional trade union areas. We have no problem recruiting green reps”.

The numbers are still in the thousands rather than the hundreds of thousands, and there is always the danger of union reps being channelled into just cajoling workmates about switching off photocopiers and the like. But Paul Hampton finds some workplaces where union initiatives have led to sizeable cuts in emissions, 40%, or 55%.

Official union attention to climate change tends to fade when severe immediate economic problems hit, but Paul Hampton also finds that rank and file reps, once activated, retain their interest even when climate change is out of the news.

His chapter on workplace reps is joined in the book by chapters on the interrelation of climate politics and class politics; on union debates and policies worldwide and in the UK; and on the 2009 Vestas occupation, in which workers at a wind turbine factory in the Isle of Wight occupied the workplace to try to stop closure.

Older union responses tended to be reactive and conservative, focused on defending existing jobs with little regard to long-term social viability. Paul Hampton reports exceptions from long ago, such as the New South Wales (Australia) Builders Labourers Federation’s “green bans” in the early 1970s, the action which first gave the name “green” to a strand of politics. But the TUC congress did not debate climate change until 1988.

Soon the idea of “just transition” became hegemonic. Paul Hampton recounts the origins of the idea in the late 1960s, in the thinking of Tony Mazzocchi, a radical left-wing official in the US Oil, Chemical and Atomic Workers Union.

The “GI Bill” of 1944 had provided four years of income, health coverage, and college fees for demobilised soldiers. Mazzocchi argued for similar provision for “demobilised” workers in irreparably-polluting industries.

The formula has gone through many re-workings. It now appears in official UN documents. In 2009, in the same year as it was refusing to save the Vestas factory by nationalising it or to give legal back-up to union environment reps in workplaces, the Labour Government announced a “Forum for a Just Transition” as a joint body of bosses, unions, and government.

Elsewhere, “just transition” has been seen as a matter of pressing for worker-protection clauses in emission-reduction policies which it was assumed capitalist governments would push through anyway, rather than as a matter of the workers’ movement formulating and pressing independent policies for emission-reduction.

Most trade union policies operate within the discourse of “ecological modernisation”, which Hampton identifies as one of the two main bourgeois responses to climate change (beyond, of course, the out-and-out right-wing response of
Neo-liberal climate-mitigation policies see the answer entirely in terms of tweaking markets, by carbon taxes or emission trading schemes. Ecological-modernisation policies include more direct government action and the nurturing of a “climate change advocacy coalition” around “an awkward alliance of technocratic civil servants, opportunistic environmental NGOs, and profit-seeking financiers”.

However, more independent working-class responses continue to emerge. Paul Hampton describes the campaigns for “energy democracy”, centred around public ownership and control of energy industries, and for “one million new climate jobs”, to be created by direct employment in a public climate service. He explains the difference between “green jobs”, which can be more or less anything, and “climate jobs” working specifically on climate mitigation.

He also describes some unions with more advanced policies. “Considered to have the most progressive union environmental policy” is, perhaps surprisingly, the Australian Manufacturing Workers’ Union, which “argues for a comprehensive industrial policy, laying the foundation for a just transition to a low-carbon economy”.

The chapter on the Vestas factory occupation in 2009, where Workers’ Liberty activists were central in building initial momentum and organising support, tells the story of the most radical recent working-class climate action at a rank and file level.

Framing all the detailed research is an argument against seeing the climate question as one of whether an undifferentiated “we” can save the planet. “We’ should not assume that the same structures that gave rise to climate change in the first place will continue... ‘we’ cannot rely on the same business and state actors who caused the problem to tackle it”. The working class is the social force which has the strongest interest in tackling climate change, and the embedded sense of social solidarity and social cooperation necessary to tackle it.

I would also have liked to see more discussion is market-tweaking policies. Paul Hampton makes a convincing argument that current such policies are “at best insufficient and at worst a distraction”, and slams the inefficacy of the European Union’s Emissions Trading Scheme.

But markets will exist for some time even after a socialist revolution. A workers’ government would not only tolerate those markets, but also judiciously manipulate them, for example to make energy from renewables or nuclear cheaper than energy from fossil fuels.

Market-tweaking policies are surely insufficient, but they have to be part of the package even under a workers’ government. Which ones are useful (although insufficient), and which ones are merely “a distraction”? They will all have downsides: how can those be mitigated?
Climate change and extreme energy (2013)

Document passed by Workers’ Liberty conference, October 2013

1. The world has entered a new geological era – the Anthropocene – where human intervention can drastically affect the planet. This threatens important planetary boundaries: biodiversity, climate change, nitrogen, land use, freshwater, toxics, aerosols, ocean acidification and the ozone layer.

2. The metabolic rift between nature and society is the result of capitalist relations of production. The rational social production of nature requires conscious, collective control - or the ecosystem on which life depends will be altered irrevocably. Climate change

3. IPCC reports confirm that global temperatures have risen by nearly a degree over the last century and may increase by 2-6°C in the next 100 years. They confirm that human activity is the principal cause of climate change, particularly fossil fuel burning in energy and transport, and agriculture.

4. A significant turning point was reached in May this year when the global carbon dioxide concentration briefly hit 400 parts per million. Greenhouse gas emissions have increased by a quarter in half a century and are accelerating. The planet is already heading away from the zone which has sustained life for countless millennia.

5. Floods, droughts, storms and heat-waves are already afflicting societies. Threats of disease, to food, settlements, industry, health and ecosystems have already been registered. These impacts will affect the migration of labour, create climate refugees and generally hit workers hardest.

6. Contemporary climate change politics has reached an impasse. None of the bourgeois fractions of advanced capitalism in energy, finance and industry, nor of their representatives at the head of states and multilateral institutions, has devised a significant plan to tackle climate change. Capital has failed to meet the climate challenge.

7. The efforts of bourgeois states to secure a global agreement failed at Copenhagen in 2009. Despite the promises, at present no deal to reduce emissions is close. The principal market mechanism – the European Union’s emissions trading scheme – has floundered. The net result so far has been the over-issue of free permits, the collapse of the carbon price, while generating billions of profits for fossil fuel giants.

8. Capitalism has so far found few technical fixes. Carbon capture and storage (CCS) has not been perfected and rolled out. Nuclear technologies that burn waste products without high carbon emissions (including thorium) are technically possible but their development has stalled. There is some progress with wind technology, with 300,000 turbines worldwide and more jobs, although this is still not adequate. There is still insufficient investment to assist the spread of solar technologies and tidal power, which could provide renewable energy at low cost.

Extreme energy

9. Capitalism does not stand still. A new “golden age” of fossil fuels is emerging. There is a resurgence of oil and gas production, spurred by unconventional sources such as tar sands and hydraulic fracturing (known as fracking), with coal demand growing faster than renewables. If no action is taken by soon, much of the energy infrastructure will be locked in for decades. This ‘extreme energy’ scenario threatens to derail global efforts to prevent dangerous climate change.

10. The global “carbon budget” – how much oil, coal and gas could safely be burned and still have some reasonable hope of staying below two degrees – is roughly 565 gigatonnes of carbon dioxide by mid-century. However fossil fuel companies have perhaps five times the reserves of coal, oil and gas on their balance sheets and are allocating billions to developing more. The New York and London stock markets are becoming
more carbon-intensive. This is the paradox of neo-liberal climate politics: either a carbon bubble leading to financial collapse, or continued profitable fossil fuel burning with dire climate consequences.

Fracking

11. Shale gas is extraction is now profitable because of advances in drilling and other technologies, in the context of higher oil prices. The principal reason to oppose fracking is that the process is at odds with efforts to reduce the greenhouse gas emissions that cause climate change.

12. Gas-fired power stations emit 57% less carbon dioxide per kilowatt-hour than coal-fired plants. However shale gas has higher production-related greenhouse gas emissions than conventional gas. Venting emits damaging 'fugitive' methane, perhaps making shale gas as polluting as coal.

13. Although the expansion of shale gas has coincided with falling emissions in the US, at least half of the reduction there is due to nuclear and renewables. Although shale gas has displaced some domestic coal burning, coal was exported and will result in emissions elsewhere. "Climate mitigation in one country" is not progress if it simply displaces the emissions.

14. There are other significant environmental impacts of fracking, including water pollution and high water consumption, seismic activity, noise and traffic. Socialists are rightly sympathetic to local communities facing these hazards, which are often imposed without democratic consultation.

Tar sands

15. Another form of extreme energy is the production of tar sands oil, particularly in places like Canada and Venezuela. The TransCanada Keystone XL oil pipeline, announced in 2008, is an addition to the larger Keystone pipeline system. If completed, it will provide a more direct route and will carry about twice the oil. The extraction of oil from tar sands has 12–17% higher greenhouse gas emissions compared to conventional oil. Other concerns include the risks of a pipeline spill polluting air and critical water supplies, as well as impacts on ecosystems.

16. The dangers and possibilities of extreme energy for the labour movement are summed up by the US experience. Four US unions including the Teamsters signed agreements with TransCanada over the Keystone XL pipeline, reflecting an explicit business-labour partnership.

17. However most Canadian unions have opposed the pipeline from the beginning and more recently in the US, some transport, United Steelworkers and SEIU have opposed it. The biggest climate demonstrations yet in the US took place in February 2013, with 40,000 people protesting in front of the White House and more than a thousand arrested in opposition to the pipeline.

Nuclear

18. The urgency of the need to replace fossil-fuel electricity generation makes blanket opposition to nuclear power wrong. The development of solar, wind, tidal, etc. power is an urgent necessity; and so is the redesign of cities and buildings and transport to reduce energy use; but the scale of the task of replacing fossil fuels demands that governments pursue all these changes simultaneously.

19. Nuclear power will be an essential part of any concerted social effort to control carbon emissions and global warming, at least in the next few decades, because it provides baseload power (i.e. power that is available at all hours) and can have facilities constructed in a very wide variety of places. It operates when and where the sun is not shining, the wind is not blowing, the tides are not flowing, etc. It is now, after over 50 years, an established and well-tested technology. Maybe, in time, technologies will be developed which enable sufficient electricity generation from renewables alone (for example, maybe in future we know how to build grids which enable the transmission of power over vast distances with little energy loss). But they do not exist now, and to replace fossil fuels as the baseload form of electricity generation is urgent now.

20. "Pro-nuclear" is not the right word for our stance. Rather, we are not absolutely anti-nuclear. We do not rule out the development of nuclear power technology, just as we do not flatly oppose the development of most other technologies, even under capitalism; instead, we contest the social conditions of the development of the technology (workers' and democratic control, public ownership, health and safety monitoring, workers' rights, etc.)

19
21. Properly deployed, nuclear fission is a low-carbon substitute for coal as a centralised form of baseload generation. Compared weight-by-weight, uranium 235 delivers a million times more energy than coal: even on the basis of a full life-cycle analysis, nuclear uses much less land than solar photovoltaics (PV) and wind. Biomass uses more than a thousand times the land area of nuclear power.

22. None of this implies being blasé about the problems accompanying nuclear power. It does imply that we should not be blasé about: - the much greater problems accompanying a failure to switch quickly from reliance on fossil fuels for baseload power; - the safety and environmental risks - much less publicised, but often not smaller - which accompany other forms of power. (Solar power, for example, generates a far greater bulk of toxic waste than nuclear power); - the technical difficulties (in the short term, impossibility) of replacing fossil-fuel power fully by solar, wind, tidal, etc.; or - the difficulties (in the short term impossibility, at least in the decades when we hope to see the rest of the world’s population levelled up to the standards of comfort and access to technology which even the most frugal of us enjoy in Britain) of dealing with the carbon-emissions problem simply by energy-economy measures.

23. One objection to nuclear is safety. There are problems, but the record of the last 50 years is one of safety and environmental problems very small compared to those of fossil-fuel power. The comparison holds even counting in Chernobyl and Fukushima, though of course we, and for that matter even capitalist governments, will demand of all future nuclear power development that it avoid the safety flaws shown there. Nuclear power stations do not explode. Several times now nuclear installations have been destroyed by bombing, and without catastrophe. The vast majority of studies have found no link between nuclear power stations and cancer incidence in the local populations of nearly a dozen countries from France to Sweden. After Chernobyl, exhaustive studies of affected populations, firefighters and ‘liquidators’ who later cleaned up the site, yield an estimated death toll of less than 50. Several thousand children did suffer from thyroid cancer as a result of radioactive iodine doses received after Chernobyl, but only 15 of the estimated 4,000 cases have proved fatal.

Chernobyl was a disaster, but not a disaster that puts nuclear power in a different league from other technologies. Probably more people die and get ill every week, in China alone, as a by-product of fossil-fuel power, than have died or got ill from nuclear power over the whole life of the technology. Much greater numbers have died or got ill from accidents or environmental knock-on effects with hydroelectric power. We do not reject hydroelectric power or solar power out of hand, and we should not reject nuclear power out of hand.

24. Another objection to nuclear concerns waste disposal. Once spent fuel rods are removed from the reactor core, they are stored in cooling ponds until their radiation levels decline sufficiently for them to be stored in dry steel casks. The level of radioactivity emitted declines by a thousand times in 40-50 years. In the longer term, geological disposal of waste that cannot be recycled or otherwise put to good use is an engineering challenge, but one that can be solved even with today’s technology. The vast majority of waste will in just a few hundred years be no more radioactive than the natural uranium ore that it was originally derived from. A concerted development of nuclear power opens the possibility of developing thorium reactors on a large scale: they can use most of what is currently nuclear waste as fuel and convert it into relatively harmless materials.

25. The objections to nuclear are important, but they are not decisive in the face of the increased threat of dangerous climate change and other planetary boundaries. In the absence of viable alternatives to nuclear in the present and near future and given the limits of energy efficiency - the argument that nuclear power must be part of any effective social effort to control carbon emissions and global warming is convincing.

Jobs and fuel bills

26. Many of the arguments around extreme energy have been pitched towards workers, with promises of jobs, lower fuel bills and energy security. David Cameron has said 75-150,000 fracking jobs are possible, while Cuadrilla has promised to create 50,000 jobs across the UK. However Cornell Labor Institute research found that the Barnett Shale in Texas had created only 3,200 construction and energy jobs over ten years, while the Marcellus
Shale had created no more than 10,000 new jobs.

27. Similarly, grand promises have been made about lower fuel bills, in the context of over 5 million people in the UK mired in fuel poverty (spending a tenth of their income on fuel bills). However because gas prices are segmented, and Britain an even more “liberalised” market than Europe, it is unlikely that gas consumers would see much, if any, benefit in terms of reduced gas and electricity bills. Energy analysts mostly believe fuel prices will go up in the coming decades.

The labour movement
28. So far UK trade unions have not done much about extreme energy. The TUC Congress 2012 passed a motion opposing it. Some unions have supported an international campaign for “energy democracy”, which promotes a sharper critique of fossil fuel firms, while promoting public ownership and democratic control over energy.

29. Organised labour cannot present itself as a progressive social movement while siding with extreme energy corporations against those in the communities jeopardised by dirty energy development. Unions cannot afford to alienate climate justice activists who share our broad social objectives and have been actively engaged in the battles to protect workers’ rights and collective bargaining.

30. Beyond supporting direct action protests against fracking, tar sands and other fossil fuel expansion, socialists have significant arguments and strategies to offer. First, privately owned energy firms and bourgeois-state corporations run according to market imperatives continue to invest in fossil fuels at the expense of less polluting sources such as renewables and nuclear. Taking ownership and control of these capitalist energy giants is necessary, so that climate change can be mitigated to the extent necessary and in the time left.

31. Second, private ownership and control of energy makes democratic oversight and accountability much harder. This is true at various scales, from getting a global agreement between states to tackle climate change, to government policies (like the Tory tax-breaks for shale), all the way down to local people who find firms fracking without their say-so. Socialists need to advocate maximum democratic control and planning. The basic answer for workers in extreme energy industries is conversion, paid for by the employers and the state.

32. We advocate and fight for a big programme of research and investment to expand renewable energy generation. We advocate and fight for a comprehensive programme of measures to redesign living spaces, industry, transport, etc to reduce energy consumption and carbon emissions while protecting and improving living standards. This includes fighting for a shorter working week and longer holidays.

33. What is needed in this situation is a working class-based climate movement. Socialists should articulate a critique of the systemic causes of climate change and the inherent limits of capital’s approach. We orientate to the labour movement, aimed at mobilising workers who are the immediate victims of exploitation and environmental degradation and so have a direct material interest in campaigning around climate change.

34. The organised labour movement has immense social, economic and political power to deploy against capital. This means transforming the existing trade union movement, sloughing off the pedestrian, pro-capitalist partnership approach and mobilising union reps for climate action. It means championing efforts like the Vestas occupation in 2009, in which workers’ direct action became a magnet for solidarity. It includes support for the Campaign against Climate Change’s “One Million Climate Jobs” campaign.

35. A working class movement will have to challenge capital’s ownership and control of the means of production, which in the hands of the bourgeoisie are simultaneously the means of climate destruction. Social ownership and workers’ control of the major energy firms (as well as the big banks that finance big energy) is a burning necessity to get to grips with climate change. Climate-related employment is also the direct answer to the economy mired in economic stagnation.

36. There is huge scope for forming alliances between the labour movement and climate
activists. This includes support for and struggle alongside with anti-fracking and anti-tar sands campaigns, which are taking on the extreme energy agenda. Climate campaigning cannot be a desirable add-on for the left. Either it is an integral part of the struggle for socialism, or we face a future of climactic barbarism.

37. The broadly anti-capitalist climate movement, which reached its height around the 2006-2009 Climate Camps, has revived somewhat around opposition to extreme energy and fossil fuel expansion. We should get involved in its activities wherever possible, argue for a consistently working-class political focus, and look for opportunities to connect the movement to organised labour.

38. Workers' Liberty was highly active in the climate ferment of 2006-10, including the Climate Camp movement, both in our own name and as part of Workers' Climate Action. We played a central role in a number of attempts to generate links and discussion with workers in environmentally damaging industry and transport, and the central role in sparking the 2009 Vestas wind turbine workers' occupation on the Isle of Wight. During that time, we also did quite a bit of work developing our Marxist ecological theory.

39. Comrades should educate themselves in our recent tradition on climate change. WL branches and fractions should seek to hold public meetings to propagate those ideas. WL comrades should intervene in international, national and local ecological campaigns and work alongside climate activists.
'The transition has hardly begun...' (2018)


"The challenge," writes Simon Pirani in *Burning Up, A Global History of Fossil Fuel Consumption*, "is to understand exactly how political, social and economic forces combined to produce a disaster of this magnitude." Our understanding of the disaster of climate change is greatly enriched by Pirani's book. It overcomes this challenge though extensive research on the relationship of fossil fuels and the world economy, and in particular by then moving towards the necessary political conclusions—ecological socialism—which flow from analysis of that relationship.

Pirani is a researcher at the Oxford Energy Institute, whose work on Russian politics led him to the matter of gas, energy and then climate change. The book is dedicated to the journalist Pavel Sheremet, who was assassinated in Kyiv in June 2016.

*Burning Up*'s concern is 1950 onward: the 'great acceleration', as termed and understood by the Anthropocene Working Group as the beginning of a new period in geological history. Under Keynesian spending policies, major expansion of consumer goods, and the development of new markets, the world economy tripled in size between 1945 and 1973. The total consumption of fossil fuels in the nineteenth century began to take place every 3 years. All this depended on cheap oil, which averaged at around $1.80 per barrel during the 1960s. In Pirani's view, this period of "transition to an oil- and electricity-dominated system...was not directed at providing electricity access or improving lives; if we can speak of an aim or direction, it was to do with capital accumulation and the concentration of wealth and power".

The boom-time combination of strong economic growth and cheap energy ended in the 1970s. A number of OPEC states had asserted control over oil production from international oil companies operating in their territories, and negotiated price rises with the oil companies in 1973. They responded to western support for Israel in the 1973 war with Palestine by cutting exports by 10%, and placing an embargo on sales to the US. A barrel of oil rose to $11.65 in 1974, from $3.29 the previous year. Although Pirani notes how the US was relatively insulated through its domestic oil production, these events shook the post-war popular imaginary of cheap oil as given, and forms a major turning point in world energy use. A second shock came with the Iranian revolution in 1979, featuring a 2 month oil workers' strike, a peak price per barrel at $36.83 the following year, and contributing to the recession of 1980-82.

Pirani makes four observations on the major effects on energy and the world economy in this 'crisis decade': First, expensive oil stimulated a renaissance in coal, and an expansion of natural gas and nuclear energy. Second, the oil shocks triggered structural changes in the composition of global industry, with a broad movement to “export energy-intensive processes to the Global South where labour was cheaper”, while the OECD economies began to focus on more profitable fabrication and finishing. Third, the energy intensity of leading OECD states fell by 4% from 1973-1982, in part by efficiencies prompted by the crisis. And fourth, the efficiency innovations undertaken in heavy industries were not replicated in transport, as governments made significant interventions in

---

49 *Burning Up*, p.139
50 p.79
51 p.93
52
53 OPEC: Organisation of Oil-Exporting Countries
54 e.g. nationalisations in Algeria, Iraq and Libya (1971-3), while various negotiations between Saudi Arabia, Abu Dhabi, Kuwait and Qatar and international oil companies led to concessions of oil assets. OPEC national oil firms share of assets therefore rose from 10- to 79% from 1970 to 1979—with a corresponding fall in the share of international oil company assets. *Burning Up*, p. 94
55 p.95
56 OECD: Organisation for Economic Co-operation and Development [the advanced capitalist countries]
attempt to keep petrol prices cheap – meaning consumption continued to grow overall post-1973, albeit at a relatively slower rate. This reflects the policies of capitalist states who went to great effort to facilitate capacity of existing forms of fossil fuel infrastructure (as they still do), easing the link, for example, of petrol-based transport to employment regimes through subsidies and cuts to fuel taxes (most generously in the US, but in fact across the OECD). Therefore consumption was “hardly dented”. Any efficiencies or technological transformations were outweighed by an increase in the volume of cars.  

Following the second oil shock, the world market in which international oil companies were dominant gave way to a traded commodity market where barrels were increasingly sold on flexible contracts. In the US, efficiency gains of the 1973-83 period were reversed in the re-acceleration of 1983-98. Research into renewables and conservation prompted by the oil crisis were targets of cuts from the Reagan administration. Environmental protections were generally lowered with the restoration of profit and the drive to deregulate, e.g. to enable easier offshore drilling, and reduce fuel standards. This sowed the seeds for environmental, and the later powerful climate scepticism in the US. Huge subsidies paid out to energy companies—$230 billion per year, according to research by the World Bank in 1992. Natural gas was legalised for sale for electricity in the US in 1987, and in the EU in 1991, supplied by a new pipeline linking Russian gas to Western Europe. Fossil fuel consumption remained highly concentrated: “In 1987, 90% of coal was consumed by 15 countries; 80% of petroleum products by 28 countries; and 91% of natural gas by 20 countries”. Enormous inequalities are also evident in electricity provision in the developing world: “In the 1970s most of the world’s rural population had no electricity—including 96% of Africa’s, 85% of Asia’s and 77% of Latin America’s”. As recently as 2013, 237 of around 1250 million Indian people were still left without it.

The neoliberal turn launched a global wave of energy privatisations, with Chile as the prototype. Building on this, the “unbundling” of UK electricity generation, transmission and distribution in 1989 “became the standard model used in 1990s privatisations internationally.” The breakup of generation assets was pursued by the IMF and World Bank, who aided multinational companies to negotiate deals that avoided “the long, arduous business of improving underfunded distribution systems,” and kept largest risk elements with the state. In Nigeria, electrification had been attempted through the National Electric Power Authority (NEPA) from 1972. In the 1990s entire Lagos neighbourhoods “could be left in complete darkness for months,” according to Ayodeji Olokuju. With the distribution network was in a state of neglect, and corruption widespread in NEPA, opening it up to the market was was pushed as the solution. Following several unsuccessful privatisation attempts, NEPA was broken up and sold from 2005. Of the 23 firms that had bought elements of the infrastructure, only one had done “anything tangible” three years later. In Russia, the privatisation following the collapse of the Soviet regime had disastrous consequences. In 1975, combined heat and power generation—a way of recycling excess heat from electricity generation by directing it to industry and homes—was being used to heat 42% of urban housing. The privatisations overlooked this, and it was broken up and replaced with inefficient autonomous heating systems.

Industrial restructuring across the global economy led higher fossil fuel intensity in OECD consumption, embodied by the rise of freezers, dishwashers, microwaves, takeaways, fast-food, private transport, computers, and televisions; central heating was a feature of 80% of OECD households in 1990 compared to 35% 20 years ago. It is important to note that throughout, Pirani discusses both China and the Eastern bloc with as critically as he does with the leading market economies. In the final chapter he clarifies: “what I understand by socialism [is] a future social form antithetical to twentieth-century state ‘socialisms’.”
earlier. Industry's share of fossil fuel consumption in the OECD fell from 40 to 31% between 1980 and 2015 while the non-OECD economies rose from 28 to 52%. In other words, “rich countries tend to reduce their domestic portion of materials extraction through international trade, whereas the overall mass of material consumption generally increases.” This forms a further obstacle to minimising climate change in the present, given that industrial globalisation positions energy intensive processes “out of sight, out of mind” in policy terms” for the leading capitalist states. On technology Pirani manages to emphasise the importance of technical systems without placing responsibility on individual consumers: factors are systemic, arising from the nature of technology and the society that produces it. Therefore “obstructions to the future transition are political and social, more than technological”. This weighs strongly against individualised population-based explanations of climate change that dominate the discussion, such as feature in the work of the Intergovernmental Panel on Climate Change (IPCC). Pirani is also critical of the role technology has played in the twentieth century, citing a study by Joann Vanek which found that for women without paid work outside of the home, hours of housework were not significantly less in the 1970s than they were in the 1920s. This mirrors a trend in the workplace generally, whereby deep and complex integrations of technology into the labour process have produced no resultant reduction in overall work hours.

Readings of bubbles trapped in ice cores at the Soviet Vostok station in Antarctica, and data from new precise computer modelling which suggested a 0.2°C warming effect since the 1960s, moved a conference of scientists of 29 countries at Villach in October 1985 to agree that “significant global warming, caused by the greenhouse effect, was likely during the first half of the twenty-first century, and scientific-political cooperation was needed.” This led to the formation of the IPCC in 1988, which remains central to the scientific-political discussion today. However the first major international agreement—in Rio, 1992—aligned with the US agenda in stating the aim of stabilising greenhouse gas emissions, but with no targets or coordinated energy policies as scientists were hoping for. “The imperatives of capital accumulation trumped the need for collective state action articulated at Rio”...by 2005, “world CO2 emissions would be not 20% lower than the 1988 level, but 35.3% higher.”

The continued growth of the world economy on a fossil fuel basis ran against the hopes of the IPCC scientists. While Europeans had attained the energy consumption levels of the postwar US in the 1970s, Chinese and Indian high-income households reached these levels in the 1980s and 90s respectively. Into the first decade of the new millennium, “global fossil fuel consumption grew at a faster rate than at any time in history.” Expanding coal made up the majority of this growth, predominantly for extra-OECD industry and in particular steel production. China overtook the US in emissions terms in the mid-2000s. One feature of this was a rise in private car ownership from 2 million in 1994 to 8 million in 2001 and 73 million by 2011. Chinese coal consumption accounted for 48% of global coal consumption by 2010, paid for in 23,418 mining related deaths from 2001 to 2008.

The Kyoto Protocol (1997) was the first treaty to establish any concrete targets, aiming at 5% emissions reduction by 2008-12. This was met but mainly irrespective of the agreement, having more to do with the global economic crisis, Clean Development Mechanism swaps, the shifting of many industrial processes to developing economies, and emissions being measured from 1990, the decade of the former Soviet states’ major slump. In 1997 the US Senate voted unanimously to reject the treaty.
against binding reduction commitments, and refused to ratify the Kyoto Protocol.\textsuperscript{82} Some attempts at carbon trading were established such as the European Union Emissions Trading System (2005) based on permits to emit. It completely failed in its basic objective to set a price for carbon that was suitably profitable as to be attractive for trade. Too many permits were issued, there was blatant and widespread corruption, and instead of rising, which may have incentivised energy efficiencies, the permit price crashed repeatedly, meaning no market could operate.\textsuperscript{81} In 2007 the European Commission set targets aimed at reducing emissions to 30% beneath the 1990 level by 2020, leading to (limited) institutional support for renewable energy technologies. In China the 11\textsuperscript{th}, 12\textsuperscript{th} and 13\textsuperscript{th} Five Year Plans (spanning 2006–2020) contained “robust” energy efficiency measures, alongside a serious impetus to relocate and reduce coal (though due to urban air pollution rather than concern for global warming), and “substantial investment” in wind power.\textsuperscript{82} These measures were accompanied by a failure to agree any actions at the Copenhagen Conference of the Parties in 2009.

Pirani describes the 2010s as a time of extremes, as fossil fuels remain overwhelmingly dominant in global energy composition, and the transition towards renewable energy has hardly begun.\textsuperscript{83} The global financial crisis produced a momentary dip in emissions, after which they returned to growth. There has been a relative decline in the speed of new coal, but it is still growing in overall volume through expansion in south-east Asia, India, Turkey and Ukraine—the latter two opting for coal in order to reduce dependence on Russian gas. “Between 1990 and 2015, renewables’ share of electricity generation worldwide rose from 1% to 5%”.\textsuperscript{84} Despite falling costs, in 2015 they made up just 7% of electricity generation across OECD.\textsuperscript{85} The COP21 agreement in Paris that same year signalled the end of international targets, as states were allowed to decide their own reductions to limit climate change to 2°C (with just an aspiration of limiting it to 1.5°C) through Nationally Determined Contributions. However climatologists have estimated that “if all the [Paris] pledges were kept, global average temperature will rise by 2.7°C, as opposed to the 1.5–2°C targets (and by 3.6°C if policies are unchanged)”.\textsuperscript{86} And since then the IPCC has upscaled the risks of a 1.5°C scenario.

The political perspective that Pirani states clearly and concisely at the end builds directly from the preceding scientific and hisorical research. These are conclusions reasoned from studying the world economy’s dependence on fossil fuels and the failures to change course over the last 30 years. They are not easy answers, but the necessary, difficult, radical ones.

For Pirani, the question is not a technocratic one about the implementation of ‘the right technologies’, but of being capable to “beat the inertia of existing social and economic systems” that maintain and profit from the continuation of fossil fuel dominated production.\textsuperscript{87} The transition to a sustainable energy system therefore cannot be made in isolation from one towards a sustainable and egalitarian society. It is not just a question of how energy is produced, “but also the technological systems that consume it and the social and economic contexts in which they operate.”\textsuperscript{88} Making this societal transition will require the resolve to break the resistance of groups that have an interest in keeping fossil fuels in circulation.\textsuperscript{89} It means a break with the idea that the elites who have failed to take meaningful measures to climate change for 30 years are capable of addressing problem at all.\textsuperscript{90} Any progress to this point has come outside of the Rio/COP framework, from struggles from below that have forced concessions over the provision of energy, such as in India and South Africa.\textsuperscript{91} For example, when the apartheid system collapsed in 1994, just 40% of South Africans had electricity access. By 2006 this had risen to 73% because of the efforts of a township-organised protest movement which demanded and forced change.

\begin{flushleft}
\textsuperscript{80}p.140 \\
\textsuperscript{81}p.164 \\
\textsuperscript{82}p.165 \\
\textsuperscript{83}p.167 \\
\textsuperscript{84}p.168 \\
\textsuperscript{85}p.168 \\
\textsuperscript{86}p.163 \\
\textsuperscript{87}p.169 \\
\textsuperscript{88}p.187 \\
\textsuperscript{89}p.189 \\
\textsuperscript{90}p.197 \\
\textsuperscript{91}On struggles around electrification in India, see pp.114-117
\end{flushleft}
from state authorities.\textsuperscript{92} They show a way forward.

The only objection I would add here is on the matter of who makes change. Pirani is not wrong to suggest it is civil society: mass disobedience and direct action are playing a major role in the climate movement.\textsuperscript{93} And clearly a wide coalition is needed, and is to some extent starting to take shape. But that cannot compensate for the weakness of organised labour, the unique force with the potential of making systemic change in the struggle for climate justice. Our discussions of climate change must have an explicit working class orientation, whatever the state of the workers' movement at present.

Facing the present crisis practically, Pirani offers four proposals. “Remaking the relationship between cities and countryside, by making the divisions between them less extreme, and moving urban built infrastructure away from the currently dominant energy-intensive model”; transformation of urban transport infrastructure; fully integrated, decentralised electricity networks; and moving towards a sustainable consumption by technological change such as basic reparability of goods.\textsuperscript{94}

These must be combined with a vision of a future in which social change transforms not only property relations but also the labour process through which humans relate to nature ... such a vision offers the most compelling alternative to the dogma of economic growth and the assumed inevitability of exploitation, inequality, and worse that it implies. Such a transformation would offer the best conditions for a transition away from fossil fuels.\textsuperscript{95}

This a vital contribution to the climate and socialist movements. We should organise so that its insights are heeded.

---

\textsuperscript{92}p.119-120
\textsuperscript{93}p.191
\textsuperscript{94}p.189
\textsuperscript{95}p.180
William Morris: ecology and the shift to socialism (2009)

Part 6 of our series on the politics of late 19th century socialist William Morris, by Paul Hampton, published February 2009

Sometime in 1882, William Morris decided he was no longer a radical and began to associate himself explicitly with socialism. He stated in How I Became A Socialist (16 June 1894) that by the summer of 1882 he was ready “to join anybody who distinctly called themselves Socialists.” (Edward Thompson, William Morris: Romantic to Revolutionary, 1976)

In January 1883 Morris joined the Democratic Federation and began his agitation for socialism — a commitment that he would maintain to his death. He continued to be a dedicated conservationist. In his celebrated lecture ‘Art under Plutocracy’, delivered at the Russell Club at Oxford University in November 1883, at which he unashamedly urged the audience to join the socialist cause, Morris repeated some of his earlier themes.

He said: “I can myself sympathise with a feeling which I suppose is still not rare, a craving to escape sometimes to mere Nature… I can deeply sympathise with a weary man finding his account in interest in mere life and communion with external nature, the face of the country, the wind and weather, and the course of the day, and the lives of animals, wild and domestic; and man’s daily dealings with all this for his daily bread, and rest, and innocent beast-like pleasure.” (A L Morton, Political Writings of William Morris)

In ‘Under an Elm-Tree; or, Thoughts in the Country-Side’, published in Commonweal (6 July 1889), he described his joy at the countryside: “Midsummer in the country — here you may walk between the fields and hedges that are as it were one huge nosegay for you, redolent of bean-flowers and clover and sweet hay and elder-blossom. The cottage gardens are bright with flowers, the cottages themselves mostly models of architecture in their way. Above them towers here and there the architecture proper of days bygone, when every craftsman was an artist and brought definite intelligence to bear upon his work.

“Man in the past, nature in the present, seem to be bent on pleasing you and making all things delightful to your senses; even the burning dusty road has a look of luxury as you lie on the strip of roadside green, and listen to the blackbirds singing, surely for your benefit, and, I was going to say as if they were paid to do it, but I was wrong, for as it is they seem to be doing their best.

“And all, or let us say most things, are brilliantly alive. The shadowy bleak in the river down yonder, which is — ignorant of the fate that Barking Reach is preparing for its waters — sapphire blue under this ruffling wind and cloudless sky, and barred across here and there with the pearly white-flowered water-weeds, every yard of its banks a treasure of delicate design, meadowsweet and dewberry and comfrey and bed-straw — from the bleak in the river, amongst the labyrinth of grasses, to the starlings busy in the new shorn fields, or about the grey ridges of the hay, all is eager, and I think all is happy that is not anxious.”

In News from Nowhere, he has Ellen express his what he would later call his “deep love of the earth and the life on it”: “O me! O me! How I love the earth, and the seasons, and weather, and all things that deal with it, and all that grows out of it — as this has done!”

However I would argue that his conversion to socialism developed his ecological politics in a number of significant respects. In particular Morris developed a more sophisticated conception of the relationship between nature and human society, a more adequate explanation for the causes of ecological degradation, a notion that the working class could become the vital social agency in ecological as well as wider politics and a positive conception of socialism as a more ecologically sensitive as well as a freer, more equal and non-exploitative mode of production.

He also gave more concrete responses on the nature of work under socialism (including on factories and machinery), on forms of energy, on transport, on housing and urban life, and on
lifestyle politics, that repay reading today.

Morris had read Marx’s *Capital* in French by 1884 (in an authorised English edition was still to be properly translated at this time). The first fruits of this reading were contained in the lecture, ‘Useful Work versus Useless Toil’, (21 January 1884).

Morris expresses the primacy of nature in terms very similar to Marx, arguing that “Nature does not give us our livelihood gratis; we must win it by toil of some sort of degree” and that “Wealth is what Nature gives us and what a reasonable man can make out of the gifts of Nature for his reasonable use. The sunlight, the fresh air, the unspoiled face of the earth, food, raiment [clothing] and housing necessary and decent…” (Morton)

He also summed up the nature-society nexus in the language of the time: “Men urged by their necessities and desires have laboured for many thousands of years at the task of subjugating the forces of Nature and of making the natural material useful to them. To our eyes, since we cannot see into the future, that struggle with Nature seems nearly over, and the victory of the human race over her nearly complete… Thus then have the fruits of our victory over Nature been stolen from us, thus has compulsion by Nature to labour in hope of rest, gain, and pleasure been turned into compulsion by man to labour in hope - of living to labour! What shall we do then, can we mend it?” (Morton)

Morris repeated this theme in a lecture, ‘How We Live and How We Might Live’ (30 November 1884). He argued that humanity’s progress had been broken and halting “and though he has indeed conquered Nature and has her forces under his control to do what he will with, he still has himself to conquer, he still has to think how he will best use those forces which he has mastered. At present he uses them blindly, foolishly, as one driven by mere fate.

“It would almost seem as if some phantom of the ceaseless pursuit of food which was once the master of the savage was still haunting the civilised man; who toils in a dream, as it were, haunted by mere dim unreal hopes, born of vague recollections of the days gone by. Out of that dream he must wake, and face things as they really are. The conquest of Nature is complete, may we not say? and now our business is and has for long been the organisation of man, who wields the forces of Nature.” (Morton 19)

Morris came close to identifying the dichotomy between nature and human society that Marx called in *Capital* the “metabolic rift”. This was most eloquently expressed in ‘Socialism from the Root Up’, jointly written with Bax and published in *Commonweal* (19 May 1888): “Consequently, with the development of material civilisation from the domination of things by persons to that of persons by things, and the consequent falling asunder of Society into two classes, a possessing and dominating class, and a non-possessing and dominated one, arose a condition of Society which gave leisure to the possessing or slave-holding class, the result of which was a possibility of observation and reflection amongst the upper class. As a consequence of this a process of reflection arose among this class which distinguished man as a conscious being from the rest of nature.

“From this again arose a dual conception of things: on the one hand was man, which was familiar and known, on the other nature, which was mysterious and relatively unknown. In nature itself grew a further distinction between its visible objects now regarded as unconscious things, and a supposed motive power which acted on them from behind, which was conceived of as manlike in character, but above mankind in knowledge and power, and no longer a part of the things themselves, but without them, and moving and controlling them.”

Morris also expressed this idea in his fiction. In *News from Nowhere*, he has Clara sum it up: “Was not their mistake once more bred of the life of slavery that they had been living? — a life which was always looking upon everything, except mankind, animate and inanimate — ‘nature’, as people used to call it — as one thing, and mankind as another. It was natural to people thinking in this way that they should try to make ‘nature’ their slave, since they thought ‘nature’ was something outside them.”

And Morris believed that through the socialist reorganisation of society the reconciliation of human society and nature would be affected. Humanity would be “set free from intestine warfare among ourselves for the nobler contest with Nature, and should find that she also when conquered, would be our friend, and not our enemy”. ‘Attractive Labour’, *Commonweal*, June 1885
Not that socialism was simply a panacea for all ecological problems. In a lecture, ‘Society of the Future’ (13 November 1887) raised the possibility of more profound changes in humanity’s relationship with the environment, where socialism would be “a society conscious of a wish to keep life simple, to forgo some of the power over Nature won by past ages in order to be more human and less mechanical, and willing to sacrifice something to this end.” (Morton).
Climate change and socialist politics (2008)

Document passed by Workers’ Liberty conference, October 2008

1. Climate change is a fact of life on earth in the early 21st century and in all likelihood will remain a significant ecological and social question for the foreseeable future. It has substantial consequences for working class politics. The AWL has a significant role to play in drawing out the political implications of dangerous climate change and taking part in the fight to prevent it.

The science of climate change
2. There is now a wide consensus among scientists and governments that climate change is unequivocal. Average global temperature rose significantly during the 20th century and has risen faster since 1970.

3. Increases in temperature are very likely due to increased greenhouse gas concentrations resulting from human activity. Global atmospheric concentrations of carbon dioxide, methane and nitrous oxide have increased markedly since 1750. These increases are due primarily to fossil fuel use, land-use and agriculture.

4. As far as can be determined, the positive feedback effects outweigh the negative feedback effects: that is, an increase in carbon dioxide and methane in the atmosphere, and consequent warming, tends on balance to reduce rather than increase the capacity of the earth’s surface to reabsorb or to retain carbon. Beyond a certain level, for example if the melting of large tracts of previously permanently frozen ground releases large amounts of methane into the atmosphere, the positive feedback can become catastrophic.

5. If greenhouse gas emissions continue at current rates, temperatures will rise to dangerous or even catastrophic levels for the ecosystem and for human social life.

Marxism and climate change
6. Since its inception in the 1840s, Marxism has had a well-defined conception of nature and consequently had much to say about ecological issues. Marxists including the forerunners of Workers’ Liberty began discussing climate change in the 1980s. However we have not until recently started to develop a coherent political response.

7. A Marxist materialism must recognise the natural and environmental limits to human and animal life. Marxists also register that little of nature remains untouched by present day human society. Climate change is the clearest expression of the production of nature by class society. In Capital, Marx described the metabolism between human society and its natural environment. Climate change is a form of the metabolic rift between humanity and the conditions of our existence.

8. For Marxists, climate change is the product of class relations and in particular of capitalist social relations of production. The Marxist account of capitalism centres on the exploitation of waged labour by capital in the context of generalised commodity production. But the same processes that lead to the pumping of surplus value from the working class also lead through the capitalist labour process to the degradation of nature. The production of commodities, in which use value is distinguished from exchange value, is the root of both the exploitation of waged labour and the despoliation of eco-systems.

9. The avid pursuit of profit by competing capitals is the driving force behind the exhaustive use of fossil fuel energy sources. Accumulation is the goal of capitalism as a whole and takes place regardless of the consequences. This implies: expansion into ever-wider areas of space and their subsumption under the rule of capital, the creation of a constant stream of commodities that permit the realisation of value however wasteful this may be and the attempt to keep consumption at a level at which this realisation can be assured.

The working class and climate change
10. The special interest of the working class in preventing climate change is given by the common root of exploitation and environmental degradation. Just as waged workers are the basic exploited class under capitalism, so capitalist relations give rise to environmental damage.
11. The working class also has a special interest in preventing climate change because workers are hardest hit by its effects. Workers will be expected to pay for market-inspired “solutions” in the form of lower wages, higher prices, higher taxes and other penalties. Preventing climate change is a matter of basic working class solidarity and internationalism.

12. The working class has the social power to prevent climate change. Workers have the power to strike, to occupy workplaces and to halt production. The working class has the power to substantially modify and partially control the labour process under capitalism, both for its own material well-being and for wider social goals. Workers have the potential to control and limit carbon emissions through collective action.

13. Workers have the social power to overthrow capitalism and to reorganise production under different imperatives — such as to meet social needs and to respect ecological limits. Workers have the power to control the size and distribution of the surplus product through the common social ownership and control of natural resources and the means of production.

14. Marxist analysis goes beyond the simple attribution of climate change to the profit motive. Arguments at this superficial level allow for the possibility that environmental protection itself (including climate change mitigation) may be accomplished profitably, if only the right conditions are established by the state. Such politics are now widely put forward by business and its representatives in government — e.g. the Stern Report 2006.

15. Marxists believe that in a world of competing capitals, some sections of the bourgeoisie will look upon climate change as an opportunity to make profits, whilst other sections of capital will see mitigation as a threat to their current and future profits. Above all Marxists preach no trust in the capacity of the bourgeoisie to tackle climate change.

16. Given the nature of capitalist social relations and the system of competitive states, international and national agreements will in all likelihood fail to prevent dangerous climate change. The lamentable record of attempts to reduce carbon emissions from the Rio summit in 1992 to the Kyoto agreement in 1997 — as well as the recent talks in Bali — suggest that the global capitalist class will not seriously tackle the problem.

17. Marxists recognise the ideological dimension of climate change and the way in which it has become part of the dominant, hegemonic discourse of the ruling class. Climate change will be and already is used to rationalise anti-working class politics. It will form a component of the justification of governments and employers who want workers to pay for the “transition to a low carbon economy”.

**Market mechanisms**

18. The price mechanism is the principal means by which capitalism allocates resources. Therefore most bourgeois political responses to climate change assume that mechanisms to create or work with the market (e.g. emissions trading, carbon taxes) are the answer.

19. It is both characteristic and sickening that capitalism can only deal with a threat to the future of humanity by creating another commodity that can be traded at a profit. This represents the commodification of another sphere of life rather than an adequate approach to reducing carbon emissions.

20. Capitalists measure profit as the amount of money left over after the outlays on production and distribution have been met. There are manifold ambiguities in the way profit is recorded, some depending on the accounting honesty of a particular firm others a straightforward omission from the books. One such example is the depletion of natural capacity in the process of production. For example, if all the real costs of creating a hamburger were factored in and if the producer wanted to maintain the current level of profit, consumers would have to pay around £100 at the McDonald's counter. Each and every item put on the market for exchange has a hidden, unaccounted for ecological cost. They have never been consistently recorded because there has been no incentive to do so — nobody currently owns biodiversity, the water or carbon cycles (and nor should they!). Any attempt by capital to adjust itself to account for these costs is unlikely — such moves would destabilise the market and squeeze
their own profits. Capital faces the spectre of a significant rise in costs related to the depletion in natural capacity (for example the cost of moving production to areas not ecologically exhausted by production or the cost or renewing such areas). How they will respond to this rise in costs and the implications it will have upon workers is an urgent question for the labour movement.

**Carbon trading schemes**

21. Carbon trading schemes have not prevented the growth of carbon emissions. Countries, industries and firms receive quotas of emissions, but there is nothing to prevent them exceeding them. They just have to pay the market price set for the permits by supply and demand. Supply is set by governments to reflect an “acceptable” level of emissions. If, as with the EU scheme, this level is set too high (and there will be pressure from business to ensure it is) the net effect may be zero or even negative. Rather than restricting carbon emissions, the scheme serves primarily to enrich those (heavily carbon-emitting) businesses that secure big quotas and the traders who skim off fees from the trading.

22. The trading of carbon credits may also be a means for the export of the costs of adjustment from advanced countries who have far more financial power, to others. By buying up the carbon credits of less polluting (typically less industrialised) countries, the advanced countries can both carry on polluting themselves and force others to cut their emissions.

**Taxation**

23. Our general policy is for direct progressive taxation, summed up by the slogan: “Tax the rich”. Indirect taxation is almost always regressive (anti-egalitarian – because poorer people pay more as a proportion of their income) and elitist (entrenching certain forms of consumption as the exclusive preserve of the rich). We don’t rule out the use of indirect taxes on particularly polluting activities and products but we should only promote them where alternative policies (regulatory and infrastructural measures and subsidies for greener alternatives) are not practical and where the likely effect is a change towards less polluting consumption patterns rather than simply raising the cost of living for working class people or preventing working-class access to travel, leisure, culture etc. We do not see indirect taxation as an instinctive first response to carbon pollution.

24. We have no objection to linking taxes on cars to their fuel economy/carbon emissions. The proposal to charge a higher rate of congestion charge for Band G vehicles (the category of highest-carbon-emitting vehicles which includes many but not all 4-wheel-drive vehicles and also includes many high performance, luxury and executive cars) should be broadly supported but we should point out the inadequacy of this measure and demand regulatory and infrastructural measures to shift use from high-emitting to low-emitting vehicles and from cars to public transport, cycling and walking. We can also support further measures against 4x4s on road safety grounds (e.g. restricting ownership by requiring owners to demonstrate a need for their off-road vehicle – e.g. for use in farming or forestry).

25. We do not make a priority of demanding lower taxes on vehicle fuels. However, we point out that the expansion of affordable public transport, in particular rail, bus and coach services (financed by progressive taxation), backed up by regulation such as enforcing bus lanes in cities and towns and coach lanes on motorways, will be more effective as well as more egalitarian than taxing fuel in making public transport a more attractive option than the private car.

26. Almost half of journeys by air in Europe are now less than 500km. For many such relatively short journeys, air travel is now much cheaper than rail, despite being ten times as polluting. That is in part due to the low rate of taxation on air travel. There is no tax on aviation fuel, and it costs about $800 per metric tonne, as against about $3000 for petrol in the UK or $1000 in the USA, and $400 for bunker (shipping) fuel. We demand policies that would have the effect of replacing short-hop air travel with rail and coach travel. Primarily, this means improving and expanding rail and coach networks and regulation limiting air travel, including bans on flights if less-polluting, viable, alternative transport is available. Taxes on short-hop flights could be part of such a policy and we don’t necessarily oppose them, but we shouldn’t make them our priority demand.

**Subsidies and incentives**

27. We are for subsidies and incentives focused on
those who would not otherwise afford to undertake energy saving or emission reducing actions such as insulation. We support subsidies for cheap or free travel on public transport. We are against tax breaks or other hand outs to capital as a means of compensation for ending environmentally damaging forms of production.

Rationing
28. Our attitude towards rationing is basically the same as towards taxation: acceptable only where there is no better alternative but not the basis for a general strategy to resolve global warming. Rationing is more equitable than regressive taxation, though the rich will usually have access to a grey market. It is in addition highly bureaucratic. We are opposed to individual carbon rationing, which would be unworkably complex.

Regulation
29. We do not believe that capitalism can be regulated out of existence. However we support environmental regulation to mobilise workers against the interests of capital and to secure immediate changes. Regulatory measures are the most effective way of ensuring emissions reductions, as long as they are adequately enforced, and should be the main focus for our immediate demands.

30. We want regulation designed to affect global warming on: * what can be produced, how and where (e.g. forcing companies to adopt low emissions technology; preventing wasteful production); * outlawing certain forms of consumption (deforestation); * issues concerned with land use and planning (building of roads and airports).

Technological fixes
31. There are current no viable “technological fixes” to smoothly circumvent the contradiction between maintaining current levels of production and consumption and reducing CO2 emissions.

32. “Carbon capture” technology, whereby you burn fossil fuels but pump the carbon dioxide underground, will in the foreseeable future be too expensive and too limited to offer serious alleviation. Even were it to be practical, carbon capture would allow current levels of emissions to continue.

33. Opencast coal mining: We are opposed to opencast coal mining and new coal fired power stations because: * coal is a high-carbon-emitting fossil fuel (even in comparison with other fossil fuels) * opencast mining poses a serious public health problem * opencast mining is particularly destructive and despoiling of the environment, threatening biodiversity, local eco- systems and the aesthetic qualities of the countryside.

Nuclear energy
34. The UK government is promoting nuclear energy as part of its strategy to reduce carbon emissions. It wants private capital to build a new generation of nuclear reactors over the next fifteen years. We should oppose the expansion of nuclear power in today’s conditions of capitalist globalisation. In particular we should oppose the British government’s promotion of a new generation of nuclear reactors. A new generation of nuclear reactors would only make a small contribution to cutting carbon emissions, but with huge side effects, such as an increased risk of nuclear weapons proliferation, the risk of a catastrophic reactor accident and the generation of waste. Nuclear power is not going to be cheaper than many renewable energy sources by the time new plants are built, and may detract from efforts to develop renewables or improve energy efficiency.

[Defeated amendment on nuclear energy – for WL’s 2013 change in policy, see p.8-14 of this pamphlet] Replace all of 34. with an addition to 31: Sustainable human development requires the replacement of electricity generation from fossil fuels by less emitting and more durable forms. At present nuclear power is the most thoroughly developed and tested form of base-load electricity generation, and certainly among the safest. It would be foolish for us to play scientific super-expert, and claim that we have an assured way of managing the replacement of fossil fuels while using only wind, wave, tidal, solar, hydroelectric and similar alternatives; equally foolish, of course, for us to become unilateral nuclear-power enthusiasts. We should not become the political “tail” of those sections of capital interested in wind, wave, tidal, solar, hydroelectric, etc. generation and therefore intent on talking down nuclear, nor of populist fear of higher and more complex technology. We should not oppose nuclear power development, but instead demand democratic, social, and workers’ control, and public ownership,
over both it and all other new forms of electricity generation.

Airport expansion
35. New runways at Heathrow, Stansted, Edinburgh and Birmingham airports will double the number of flights in and out of the UK in the next 20 years. These flights will generate more greenhouse gas emissions that will further contribute to global warming. We should join campaigns to oppose the expansion of Heathrow and other UK airports, and argue for a working class based approach orientated to the labour movement and local people.

Biofuels
36. Biofuels are no answer to the problem of global warming, indeed there is mounting evidence that they are accelerating climate change. The promotion by western governments of liquid biofuels (oil from crops such as palm, soya, maize etc. or ethanol which is produced by, for example, fermenting sugar cane) is not producing a sustainable alternative to burning fossil fuels. Finding the land to grow biofuel crops is causing tropical deforestation in South East Asia and South America. Tropical deforestation, as well as being a major cause of climate change, is an alarming threat to biodiversity. In addition, the burning of food products for fuel is likely to contribute to increased food prices and food shortages, precipitating famine and starvation, particularly in the third world. For these reasons, we are opposed to policies for expanding the use of biofuels. While it is worthwhile recycling used cooking oil as vehicle fuel, this constitutes a tiny proportion of fuel requirement, even a tiny proportion of the amount of biofuel which will be produced and consumed to comply with the planned biofuel targets.

The Climate Change Bill
37. The Climate Change Bill currently going through the UK parliament is aimed at “moving the UK to a low-carbon economy”. It commits the government to targets to reduce carbon emissions over the coming period and establishes a framework for reporting on the problem.

38. The government’s targets are too conservative and do not apply directly to industries or employers. They only cover carbon emissions rather than all greenhouse gases. Aviation and shipping are excluded, despite being the fastest growing sources of carbon emissions.

Contraction and convergence
39. In principle we support the idea of Contraction and Convergence – that a sustainable global target figure for carbon emissions is set and that this figure is divided up between all the world’s nations according to their population. In other words, the target for per capita emissions will be the same for every country. This will place the onus to reduce emissions on the richest countries while the poorest countries (which currently have very low carbon emissions) will be able to increase emissions as they develop industry, infrastructure, public services etc. - nevertheless, we generally favour and fight for the least polluting forms of development. However, this doesn’t commit us to supporting any plan going under the name of “Contraction and Convergence” and, while we support the principle, there may be important exceptions (for example concerning differing geography between nations) which mean that sticking rigidly to a formula may not be the best way to uphold the principle. We judge any such situations concretely.

“Sustainability”
40. The dominant ideas on the environment are often expressed in terms of “sustainable development”. In reality these ideas most often mean sustaining capitalism, with the veneer of ecological awareness. We should be sharply critical of ideas which cast a veil over the capitalist roots of climate chaos.

41. Local communities supplied by local production is seen as more ecologically sound and provides a grounding for local action. This is equivalent to reversing the whole division of labour developed by capitalism and reverting to semi-autarkic production. This response to climate change is both utopian and reactionary and we should continue to oppose it. It may also cause unintended ecological side effects, accelerate the destruction of forests and sustainable agriculture and lead to land grabs driving peasants off their land.

42. Nevertheless, the drive of big capitalist corporations to find the cheapest site for each phase of their production process, and to extend their reach into ever-more-widespread markets, has generated ecologically destructive "surplus" commodity-miles. A not negligible part of world
trade is a matter of very similar goods, differentiated mainly by brand name, being swapped to and fro between countries thanks to the specifically-capitalist drives of the corporations behind those brand names. This is facilitated by the fact that sea freight and air freight are able to use the sea and the air as "free resources"; paying no price for degrading them; are very lightly taxed; and are subject to less environmental regulation than industrial activity tied to particular places. Charges on road freight, even in Britain with its relatively high fuel taxes, are estimated to cover only about half their social and environmental costs. Democratic social planning, when it overthrows the rule of competition for private profit, will almost automatically "localise" economic activity and reduce commodity-miles to some degree; it will consciously strive to do so to a greater degree, without relapsing into illusions of autarky.

Existing campaigns to prevent dangerous climate change

43. There is no single overarching campaign against climate change in the UK and not one that is widely backed by the labour movement. Rather there are a range of NGOs, coalitions and political organisations taking action on the issue.

44. NGOs such as Greenpeace, Friends of the Earth and Oxfam all campaign on climate change, by lobbying governments, taking legal action, organising letter writing and in certain cases, through direct action and demonstrations. These NGOs operate entirely within the perspective of reforming capitalism, even when their rhetoric is sometimes anti-corporate. They do not tackle the fundamental causes of climate change nor do they look to workers to take action on climate change.

45. Stop Climate Chaos was established as a coalition specifically to tackle climate change in 2005. It includes the major NGOs and Unison affiliated in 2006. However it is a campaign focused mainly on influencing the government and business, with no real orientation towards unions, no local groups or campaigns to participate in. It is not a vehicle for organising a mass, democratic campaign to prevent climate change.

46. The Campaign against Climate Change (CaCC) is a loose alliance of greens with the revolutionary left. The SWP and the ISG are prominent within the CaCC. Its annual conferences attract around 400 participants and it has organised the demonstrations on climate change in London over the past two years. In February this year it organised a successful trade union conference attended by 300 people. The PCS affiliated last year and motions have been put in other unions, such as the CWU and NUT. Unison conference in 2006 passed a resolution to affiliate, but the bureaucracy refused to do so.

47. The CaCC does blame capitalism for climate chaos and engages in direct action. Until last year it had little to say to the labour movement, but this has improved recently. It is the best vehicle to intervene in nationally and where groups exist, for branches locally. We should therefore support union affiliations to the CaCC, whilst seeking to make it more democratic, more inhabitable for workers and politically sharper.

48. There are other campaigns against climate change, such as Rising Tide, Plane Stupid, the Climate Camp etc. We should attend their events and seek out political discussion. We are in favour of direct action on climate change – even where this might conflict with the immediate attitudes of unions in those workplaces. However we seek to build understanding with workers in those industries and challenge the idea that these workers are "part of the problem" in the struggle against climate change.

49. Workers' Climate Action (WCA) is a promising initiative that some comrades have taken part in following the Heathrow Climate Camp. It wants to engage in direction action as well as imbue the environmental movement with a working class orientation. WCA is campaigning around workers at Heathrow airport and Kingsnorth Power Station. It aims to support workers in these workplaces develop plans to change the nature of their production that will form the basis for a progressive transition to a low-carbon society. Workers' Liberty members should play a key role in WCA and help the campaign to develop.

50. We fight for a united, militant campaign to prevent dangerous climate change. Such a campaign should orientate towards the labour movement without being bound by the trade union bureaucracy. It should consist of democratic structures, including elected and representative
committees nationally and locally and fighting policies.

For a labour movement orientation on climate change
51. To make the labour movement the leading agency for combating climate change involves winning wide sections of the working class to coherent ecological politics.

52. There is a tradition of action on the environment by unions across the globe. Trade unions have long had concerns about pollution, health and safety and living conditions of working class communities.

53. Union direct action has also been taken to protect workers and the environment. The very term "green", in politics, originates from action taken by the combative and left-wing Builders Labourers Federation in New South Wales in the early 1970s to block environmentally-destructive building projects. A combined offensive by the employers, the Maoist federal leadership of the BLF, and other union bureaucracies, destroyed the strength of the NSW BLF in 1975, but unions continue to do smaller-scale "green bans" in Australia to this day. In Britain, unions were instrumental in effectively banning the pesticide 2,4,5-T (known as Agent Orange) and to stopping the dumping of nuclear waste at sea in the 1980s. Shop stewards at Lucas aerospace developed alternative corporate plans in the late 1970s, including for fuel cells, a hybrid car and a road-rail vehicle for integrated public transport.

54. Most international and national union federations have had policy on climate change for 20 years. In Germany, construction unions have negotiated an agreement with the government to fund energy efficiency improvements in homes. In Spain, unions have been involved in national, regional and workplace collective bargaining on climate change.

55. We recognise that action on climate change may also cut across the immediate concerns of some unions on jobs and conditions. We fight for the bosses to pay for the transition, not workers. 56. Capitalist consumerism, including working-class participation in capitalist consumerism, is a part of the ecological crisis. It is not ecologically possible for the entire world population to live in the manner of a relatively well-off worker in California. Socialism will, and will have to, replace the marketing-driven drive to accumulate ever more shiny gadgets with more social and human forms of enjoyment. It will go beyond the "stupidity" inculcated by capitalism, where, in Marx's words, "private property has made us so stupid and one-sided that an object is only ours when we have it – when it exists for us as capital, or when it is directly possessed..." Nevertheless, we cannot be flatly "anti-consumerist" either. A higher standard of living is also the process whereby the working class expands its needs, wants, horizons, ambitions, culture. Pressure to reduce working-class consumption, within capitalism, means pressure to reduce working-class self-assertion, to increase capitalist authority, to increase profits, and to increase capitalist exploitation both of humanity and of nature. Rather, the working class must "push through" capitalist consumerism to socialist ways of life.

57. Material abundance is a precondition for the development of a fully liberated, democratic society. Current scientific research indicates that if we hold abundance to mean a global levelling up of living standards to those enjoyed by well-off Californian workers, for example, it will never be achieved. In the October 2005 edition of Monthly Review, John Bellamy-Foster cites a study by the National Academy of Sciences to the effect that "the world economy exceeded the earth's regenerative capacity in 1980 and by 1990 had gone beyond it by as much as 20 percent. This means that 'it would require 1.2 Earths, or one Earth for 1.2 years, to regenerate what humanity used in 1999.'" The implication is that to achieve a straightforward levelling up with current technology is a physical/ ecological impossibility. We would quickly exhaust the planets natural capacity and bring further ecological destruction upon ourselves.

For a working class programme of action on climate change
58. A number of widespread technical and social changes are needed to tame climate change. This means replacing fossil fuels by less-emitting forms of electricity production such as renewables; measures to economise on energy use and eliminate waste, e.g. improvement of old buildings and better design of new ones; introduction of less-emitting forms of transport to replace those based on the internal combustion engine; the readjustment of land use, e.g. reforestation; social
redesign to limit the growth of transport-use by people and goods e.g. reduction of commuting.

59. We should avoid falling into a maximum-minimum split in terms of what we advocate as a solution to climate change, i.e. advocating petty "realistic" measures for now and all-transforming socialist measures for the unspecified future, with no bridge between the two sets of measures. The maximum would be just to make propaganda saying capitalism is to blame and socialism is the answer – both true and necessary but with little direct leverage on the immediate crisis. The danger is that we appear abstract and utopian and leave the field open to reformist demands that are not effective and maybe not even desirable. There is also a lesser danger that in recognising the urgency of the problem and the need to do something, we fall into ourselves supporting such ineffective or undesirable reformist programmes.

60. We need to develop a programme of transitional demands on climate change, stemming from today's conditions and today's consciousness of wide layers of the working class, and capable of mobilising and transforming the organised labour movement to fight for power. Some action by workers to change the terms of their exploitation or to reduce it is often simultaneously the means by which carbon emissions can be reduced (e.g. shorter hours, workers' control).

61. We fight for trade union independence from the bosses and the government and for the development of an independent working class perspective on climate change. Concretely this means winning rank and file militants and organisations to progressive politics on climate change. It means organising workplace and industry-wide committees and caucuses that fight for action on climate change at work and in working class communities.

62. For a 32-hour maximum working week, as a step towards a 4 day week! We fight immediately for shorter hours, longer holidays, more leisure time with no loss of pay as part of the struggle to secure the material interests of workers during any transition to a low carbon economy.

63. Workers' control of production! Workers' plans are central to reducing carbon emissions at work and reasserting workers' right to manage production in all areas of work.

64. Workers' control is necessary to deal with the shift from wasteful, high emission or polluting production to alternative jobs. Workers' control is essential for protecting the interests of workers in jobs in existing, often ecologically damaging, forms of production. We fight for the labour movement and workers in the industries affected to discuss and develop ecologically friendly alternatives to existing jobs.

65. Open the books! We fight for the right to know about real scale of workplace, industrial and employer greenhouse gas emissions, energy use, transport arrangements, waste etc.

66. We fight for energy efficiency at work. Workplaces should be audited by union reps to determine improvements in production technologies, insulation, lighting, computer use, recycling etc. The financial gains from energy efficiency should be passed onto workers. We fight for legal rights for trade union environment reps, with powers analogous to safety reps, as part of a trade union response to climate change.

67. For a crash programme of free insulation and other energy saving measures, starting with the social housing, the elderly and low paid workers. High quality home insulation should be made freely available to those who want it.

68. For cheap or free public transport! We fight for integrated transport systems to provide a real alternative to the car. For safe cycle routes, separated from traffic, and subsidies to encourage cycle use. For intercity coach travel expanded and made more efficient. For dedicated coach lanes on motorways, coach stations at motorway junctions rather than city and town centres, linked with local public transport services. For an immediate programme of building high speed rail links. For the renationalisation of rail and bus services.

69. We fight for a moratorium on road building and on airport expansion, and for an expansion of cheap rail transport. For a workers' enquiry into transport, including domestic flights.

70. Changes in ways of living and levels of consumption are required, particularly in the advanced countries. All sorts of possibilities exist
for changing the way people live – for example, creating communal and local facilities such as laundries or childcare, which reduce the need for transport and avoid the unnecessary duplication of consumer durables. The question is not whether a means can be found to avoid this but rather the class issue of who pays.

71. For public ownership of supermarkets and agriculture. Half a dozen supermarkets dominate the food retail sector. The food industry, from production to retail, is a major contributor to carbon emissions. Supermarkets are extremely wasteful of energy in heating, lighting and refrigeration as well as the over-packaging of food. Wasteful competition in agriculture adds massively to the energy used in transporting and storing food as well as in agricultural techniques (e.g. heating polytunnels). Democratic workers’ control would provide the basis for tackling these problems. It would also facilitate a serious collective response to the problem of nutritionally poor modern western diets which, apart from damaging human health, tend to be the most carbon-emitting.

72. Massive public investment is a pre-condition for changing present behaviour. For expropriation and social ownership and direction of the big financial institutions which at present dominate the allocations of credit and investment. Immediately there needs to be R&D and the development of renewable energy and low emissions technology; investment in public transport, expanding rail, bus, coach, tram, light rail and underground networks; and investment in public housing, built to high, energy-efficient standards.

73. For public ownership of the energy and transport industries! The privatisation of energy and transport industries over the past 25 years has only benefited the bosses and their lackeys, at the expense of job losses and worse conditions for workers and a worse service for the public. Privately run energy and transport makes the fight to reduce carbon emissions harder. We therefore demand that these firms brought under public ownership and workers’ control.

74. We demand the imposition of high standards of building regulation and minimum fuel consumption requirements on all cars and lorries with improvements, modifications and substitutes to existing vehicles paid for by the big auto firms. We demand stricter regulation of all forms of industrial pollution and stiffer enforcement and penalties against corporate polluters. We want to redesign towns, cities, and urban/industrial networks to improve the environment.

75. For international solidarity! For an international treaty to cut greenhouse gas emissions, with the most drastic reductions made by the richest countries. Cancel the debts and remove the trade restrictions on countries that already suffer the effects of dangerous climate change. For subsidies to stop the destruction of the rain forests and to support reforestation. For the massive transfer of wealth to the poorest people of the world to improve their living standards and to help them protect their own environment.

76. For a workers’ government, and a world federation of workers’ governments! The fight against climate change must be advanced now under capitalism. But a lasting and socially just transition requires the overthrow of capitalist government and the rule of the working class, indeed the rule of the working class on a world scale. We fight to build working class parties with the politics, outlook and mass basis in the working class to lead the fight for socialism.
Urgent and radical action on climate change


We note with grave concern
• The new UN Intergovernmental Panel on Climate Change report arguing we have little over a decade to reduce emissions to a level which can prevent runaway global warming.
• The rise of a Brazilian far right committed to accelerating the destruction of the rain forest.
• The imprisonment of three non-violent anti-fracking activists in Lancashire. (We send solidarity; call for their release and for the party nationally to do the same; and affirm our opposition to fracking.)

We endorse the policy submitted to this year’s conference:

“Capitalism’s fossil fuel reliance is subjecting the planet to disasters… Radical international action is needed: we must take a lead by implementing democratic public ownership and planning for a ‘just transition’. We can slash emissions while raising living standards: creating millions of useful, public, high paid, unionised jobs, and transforming environmentally damaging ones through reskilling and planning.

“We commit to:
• A national climate service/strategy, manufacturing, installing and training in renewable technologies, facilitating a rapid shift away from fossil fuels.
• Nationalising energy supply/generation and the Big Six to create an integrated and democratic national energy system.
• Nationalising public transport, with bus, rail and tram part of an expanded and democratic system.
• A public program of insulation and building zero-carbon council housing.

• Ending fracking, fossil fuel extraction and airport expansion.

“The party will encourage CLPs to collaborate with climate change and environmental campaigners; work with unions to build links and campaigns with workers in relevant industries; produce model materials to help.”

We welcome the commitment to create 400,000 “good jobs” tackling emissions and climate change. To meet the scale of the challenge, those jobs must be the start of a larger program. It is also essential that they are public sector jobs in publicly-owned and democratically-run structures, on the lines set out above.

We will mobilise for the 1 December Together for Climate Justice Demonstration.