Climate Crisis – Worse Than We Think?

written by Richard Greenblatt | July 5, 2019

If you are a reader of *New Politics*, you almost certainly believe that the climate crisis is real, that it poses an existential threat to human society as we know it, and that the capitalist mode of production is the root cause of the crisis. I am not going to spend much time on these questions directly[1]. Rather, I will look at the current state of the climate and its likely trajectory over the next several years, with an eye to understanding the choices that confront those of us who are ecosocialists in responding to the crisis.

First, let's take a quick look how the climate is changing now, and how it is likely to change in the near future. Spoiler alert: there is little reason for optimism.

To have even a 50% probability of keeping the global average temperature change to under 1.5°C, global net CO_2 emissions need to decrease by about 5% per year starting now, according to generally accepted climate models[2]. However, even if all the countries that signed the 2015 Paris Agreement were to meet their obligations under the treaty, global emissions would stay at about their current level, or even increase, from now until 2030[3]. The likely prognosis is even worse than this. The Paris Agreement national contributions voluntary and unenforceable. The US, historically the world's largest net CO_2 polluter, withdrew from the agreement following Trump's election. In May 2019, the global atmospheric CO_2 levels reached a record high, the highest in at least 800,000 years[4]. In June, temperatures in Europe saw new record highs[5].

Our chance for keeping CO_2 emissions below 1.5°C global warming threshold is likely to be exhausted by about 2030[6]. Since there is an uncertainty of about ±10 years in this estimate, we may have already overshot this limit as you are reading this. At best, we probably have until about 2040. After that, we're toast.

To compound the tragedy, technologies such as solar and wind power, along with the necessary storage technologies for all-day, all-weather reliability, are now available at costs comparable to conventional fossil fuel electrical power generation[7]. It is the political economy of capitalism that stands as the largest obstacle to halting and eventually reversing global heating.[8]

If, as seems likely, current trends continue, we can expect a transformation of global political, social, and economic relations, although the nature of the transformation remains undetermined. Without our effective intervention, the most likely outcome is a world of increasing inequality, war, and suffering, a world of climate apartheid, to use Philip Alston's evocative term[9].

What should our response be? It must be grounded both in politics and in technology.

From a technological standpoint there are three approaches to the climate crisis: mitigation (decarbonization), adaptation (also known as resilience; addressing the present and future harmful effects of global heating) and remediation (practices that reduce the already emitted atmospheric CO_2 levels, or reduce their effect on global heating).

Socialists, along with others on the broad left, have generally focused (correctly, in my opinion) on mitigation. We have for decades emphasized the importance of a just and rapid transition to a net-zero-carbon-emissions economy. This is the focus of the Green New Deal, developed by Green parties internationally for over a decade, and more recently adopted in more limited form by sections of the Democratic Party in the U.S. and by climate activists, including Extinction Rebellion and the Sunrise Movement. The fight for decarbonization is essential, and something we must continue to support and develop. However, while this is necessary, it is not sufficient for our project.

Remediation technologies are more problematic. Some, like reforestation and improved agricultural practices, are clearly desirable and should be supported. Others, especially atmospheric and oceanic geoengineering approaches, are based on technologies that are not currently available, with unknown but potentially dangerous consequences.

Socialists need to pay more attention to the question of adaptation. As heating increases, the changes that we have already begun to observed (e.g., dangerously hot summer temperatures, increased severity of storms, increased frequency of flooding and wildfires, warming of the polar regions, and so forth), will only continue to grow both in frequency and intensity. We need to address how these changes effect working people's lives around the world, We need to identify their consequences, and propose solutions in a consistent and coherent way.

Let's look more closely at some of the social and political issues that are influenced by uncontrolled global heating. This includes the increased risk of war, migration, public health, land and water use, and agriculture.

At the international level, the climate crisis is dominated by the interrelated issues of war and migration. As sea level rise, temperatures soar, and extreme weather events become the new normal, more and more of the earth will no longer sustain human society, at least with current social relations and agricultural practices. The G7 (representing the world's largest economies) have identified resource competition, livelihood insecurity, volatile food prices, and trans-border water management as among the key factors leading to instability, migration, and the increased likelihood of war[10], calling climate change "the ultimate threat magnifier". U.S. military planning, under both Republicans and Democrats, has integrated the climate crisis into its strategic planning[11], and other nations are doing the same. In a world already divided into the rich nations, largely in the temperate regions of the northern hemisphere, and the remainder, especially in tropical and sub-tropical regions, this global division can only intensify under the pressure of global heating, given the continued hegemony of capital.

As the climate crisis deepens, trans-border as well as intra-border migration will continue to grow. Although climate is not the only issue accelerating migration[12], as the century-long history of U.S. imperial intervention into Central America clearly demonstrates by example, the contradictions of imperialism are magnified by the effects of global heating. The Intergovernmental Panel on Climate Change (IPCC) has estimated that there may be as many as 200 million climate migrants by 2050, although this estimate is subject to considerable uncertainty[13]. Migration has already become one of the main sources of rising far-right nationalism and xenophobia in both the US and Europe. This trend is likely to continue without a strong and coherent response from the left.

The health effects of global heating include increased heat exposure (especially dangerous to vulnerable populations,such as the elderly), occupational health (including labor-time lost), under-nutrition, mental health, cardiovascular and respiratory diseases, and vector-borne diseases, including the spread of tropical diseases to previously temperate regions, according to a recent survey article in the respected medical journal *Lancet*[14]. The monetized global cost of climate-change-related health effects has been estimated to be in the trillions of dollars[15]. Savings from improved health are likely to be twice as large as the investments required to keep global heating below 1.5°C. In other words, the savings from improved health alone would most likely more than pay for the costs of decarbonization. Could there be a clearer example of capitalist irrationality?

Land use patterns, both rural and urban, are influenced by global heating both directly (through mean and extreme temperatures) and also indirectly (through changes in rainfall, extreme weather, and sea level rise).

Agriculture, including farming, fisheries, and forestry, are among the sectors most threatened by global heating. Food production in a vast variety of differing ecosystems must adapt to the shocks of climate change, including both long-term changes in temperature and water availability, as well as short-term changes, like the increased frequency extreme weather events. It must do so in the face of increasing population and the pressure of expanding urbanization. Global food production is responsible for as much as half of global greenhouse gas emission, with livestock production as a central problem[16]. Producing healthier, more nutritious food more sustainably in the face of changing climate will require adaptations in the use of land and water, including improved conservation methods for soil, water, and forests. It will also entail an assessment of crop suitability based on expected changes in weather and climate, and changes in consumption patterns to reduce livestock, especially beef, production. Other changes that are not specifically climate related, but are required for a healthy environment, will also be needed, including the reduction in food waste and in the use of pesticides and herbicides. The adaptation of agriculture to climate change is absolutely critical if we are to have any hope of prospering as a global society.

Urban land use patterns must also adapt to the necessities of climate change. Beyond simply infringing on agricultural land, urban sprawl creates problems of its own. First, it makes ecologically sound transportation planning far more difficult. Second, it has increased exposure to wildfires, seen recently in California and Spain, for example. Third, and perhaps most immediately, coastal regions, both urban and rural, are exposed directly to the already existing threat of rising sea levels. It has been estimated that the U.S. federal, state, and local governments will have to spend over $1.4 trillion in the next 20 years to defend coastal communities from rising sea levels[17], and this is probably only about 10-15% of the total (public+private) expenditures needed just to adapt to rising sea levels. In south Florida, for example, flooding and heating have increased noticeably over the last several years. As Miami sinks into the sea, “climate gentrification” has become a real problem for working class and minority communities. Real estate developers and speculators are moving into once undesirable neighborhoods like Little Haiti, which are built on higher ground and further from the ocean floods than are the beach communities for which Florida is known[18].

How then, should the left adapt its response to the current state of the climate crisis? To begin, there are three points, that may be obvious (to some of us, at least), but are still worth emphasizing.

First, in spite of the discouraging progress so far, we must not concede defeat on the centrality of mitigation/decarbonization. Decarbonization is the only real, long-term solution.

Second, we need to develop our strategies at a range of levels, including the global, national, regional, and local. This implies that programmatic demands will vary (but not conflict) depending on the geographic and political context.

Third, the central role that capitalism has played in the origin and deepening of the climate crisis needs to be our north star in orienting towards real and lasting solutions. Market based solutions, along with reliance on capitalist political parties, have failed and will continue to fail. Individual lifestyle changes, while they may make some of us feel better, are clearly inadequate.

There is an additional, fourth point, that perhaps not all ecosocialists would agree on. That is, our response to global heating must address not only mitigation, but also adaptation. In other words, we need to propose solutions for the immediate consequences of as yet uncontrolled global heating. The requirements of decarbonization and adaptation are not opposed to one another. Rather they point together towards a a potentially sustainable future. In what follows, I focus on the issues of adaptation, along with their connection to decarbonization.

Like many other ecosocialists, I favor the use of a transitional perspective when developing programmatic demands[19]. Working within social and political movements, we should specify concretely what changes are needed to solve the climate crisis, independent of what capitalism is capable of providing. Working people did not create the crisis; working people should not be expected to pay for it, nor to suffer from it. Because I am most familiar with the U.S., my comments have a U.S.-centric approach. I would hope that others with differing experiences who may share my goals will continue to contribute to this ongoing discussion.

While the root causes of both war and migration extend beyond the climate crisis, it is clear that global heating will continue to play an substantial casual role. This means that we should see both antiwar and immigrants rights activism as an integral part of the climate movement.

Unfortunately, following the failure of the antiwar movement to prevent the U.S. invasions of Iraq and Afghanistan, the movement has fallen on hard times. In the U.S., it is weak and poorly organized at the national level, and almost non-existent in most places at the local level. Recent events in Iran and Venezuela (among other places) underscore the importance of common work by both antiwar and climate justice activists.

A similar approach should also be applied to migration and immigrants rights. This is an issue of special importance now, given the odious policies of reactionary nationalists worldwide, and of the Trump regime specifically, which has continued and deepened the worst aspects of immigration policy under Obama. The climate justice movement must support the right of safe passage for migrants, that is, open borders.

The question of war is also related to the question of funding both climate mitigation and adaption. The U.S. Department of Housing and Urban Development will soon be proposing grants totaling $16 billion to protect cities against natural disasters[20]. This probably less that 2% of the amount actually needed just for the effects of rising sea level and extreme weather. We need fully fund disaster relief and climate adaptation. The funding could easily come from the military budget, currently at over $1 trillion per year, when considering overall costs. If the U.S. war machine was a nation, it would rank about 55th in the world for greenhouse gas emissions, comparable to those of Sweden or Portugal[21].

Adaptation at the local level needs to be addressed with local specificity. However, when looking at both short-term changes (e.g.,.responding to the the immediate effects of heating, sea level rise, and extreme weather by building seawalls), and longer term adaptation (e.g., more resilient urban planning), there are some general principles that emerge.

We must advocate adequate pubic funding at all levels to protect against rising temperatures directly, and also against the indirect effects, such as sea level rise, extreme weather, and threats to

public health. As a recent study[22] points out, there are at least 241 cities with a population over 25,000 in the US that will each require at least $10 million each, just to protect against a typical annual storm. In addition, “communities will need to protect drinking water resources, replace water mains and upgrade sewer treatment facilities, raise and repair roads, control larger and more frequent wildfires, re-nourish beaches as rising seas lead to increased erosion, provide aid to growing numbers of climate refugees (especially low-income families of color displaced by climate gentrification), retrofit stormwater drainage infrastructure, build cooling centers and air-conditioned public housing, adjust to longer, hotter droughts, recover from more severe storms, and respond to the spread of vector-borne diseases like Lyme, West Nile virus and Zika.”

Pro-market neoliberals will certainly advance the idea of privatization as the solution, as they did in New Orleans following Hurricane Katrina in 2005. The city then privatized essentially all of its public education system. While there have been some measurable improvements in school performance following privatization, these are due principally to increased public spending flowing to the private school system[23], along with other factors unrelated to privatization, rather than to benefits of privatization as such. In addition, privatization has led to the loss of unionized teaching jobs.

Resilient urban planning must be driven by popular needs, not real estate speculation and financial gain. We need safe, affordable, high quality social housing and free quality public transportation.

A market-based economy is not the solution – it is the problem. It is capitalism in general, and the fossil fuel and the banking and financial sectors in particular, that are responsible for creating the climate crisis. They are the ones who should be held to account. If they are unable or unwilling to do this, they need to be socialized so that we can get the job done.

[1] Recent articles in *New Politics* on the climate crisis may be found here and here.

[2] IPCC Global Warming of 1.5°C: Summary for policy makers (2018). To stay below 2°C, global net CO_2 emissions need to decrease by about 3% per year

[3] Lawrence and Shäfer, *Science* 364, 829 (2019)

[4] *Nature*, 7-13 June 2019

[5] https://www.nytimes.com/reuters/2019/06/28/world/europe/28reuters-europe-weather-france-record.html

[6] Peters, *Nature Geosci*, 11, 378 (2018)

[7] Can the world thrive on renewable energy?, *Economist*, 13 July 2017

[8] Other major sources of industrial CO_2 emission such as cement production still await satisfactory technical progress, however; see https://www.energycentral.com/c/ec/63-ways-cut-global-warming-impact-cement

[9] https://www.theguardian.com/environment/2019/jun/25/climate-apartheid-united-nations-expert-says-human-rights-may-not-survive-crisis

[10] https://www.newclimateforpeace.org/

[11] https://climateandsecurity.org/2019/01/18/new-pentagon-report-the-effects-of-a-changing-climate-are-a-national-security-issue/

[12] It is unlikely that climate change played a critical role that the Syrian uprising against Assad in 2011 and later, for example, see https://doi.org/10.1016/j.polgeo.2017.05.007.

[13] International Organization for Migration, *Migration and Climate Change* (2008)

[14] https://www.thelancet.com/climate-and-health

[15] https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30029-9/fulltext

[16] *Science* 570, 275 (2019)

[17] http://www.climatecosts2040.org/files/ClimateCosts2040_Report-v4.pdf

[18] https://www.nytimes.com/2019/06/24/us/miami-democratic-debates.html

[19] e.g., Booth, https://www.marxist.com/transitional-programme-for-the-environment.htm (2018), Romer, https://newpol.org/issue_post/what-do-eco-socialists-have-to-say-about-the-climate-movement/ (2019)

[20] https://www.nytimes.com/2019/06/19/climate/seawalls-cities-cost-climate-change.html

[21] https://www.theguardian.com/environment/2019/jun/12/pentagon-greenhouse-gas-emissions-portugal

[22] http://www.climatecosts2040.org/

[23] https://www.washingtonpost.com/education/2018/09/04/real-story-new-orleans-its-charter-schools/?utm_term=.2eacd636a4c3