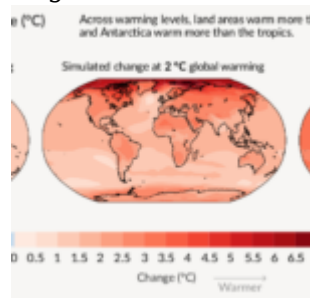


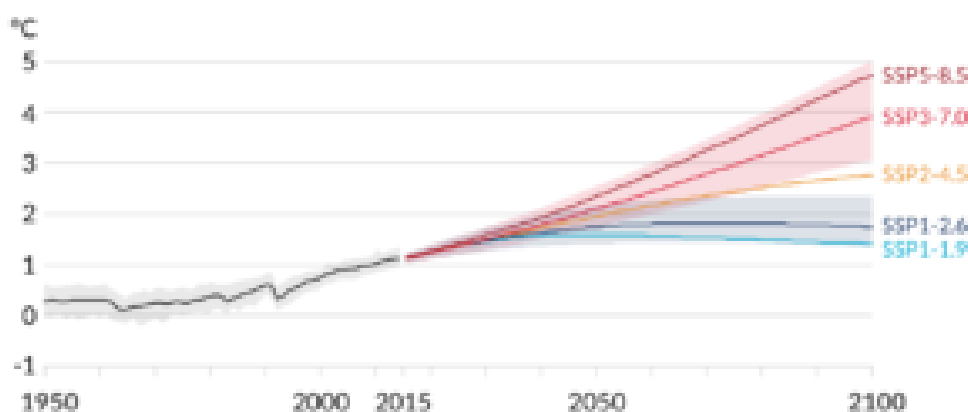
The IPCC's Sixth Assessment Report: A Green-Syndicalist Analysis

August 28, 2021



Earlier this month, the United Nations Intergovernmental Panel on Climate Change (IPCC) released the first part of its Sixth Assessment Report (AR6) of ongoing global warming. This study of the “Physical Science Basis” of climate change concludes that the situation is very alarming. As such, the AR6 may be taken as “code red for humanity.” In less than 300 years, the carbon emitted to power industrial capitalism has intensified the greenhouse effect, causing Earth’s global temperature to rise on average by 1°C, or 1.8°F (A.1.3). Overall, the AR6’s authors project the impacts of five trajectories of climate change in what remains of the twenty-first century, from courses that limit warming to a 1.5-2°C (2.7-3.6°F) average increase, to paths promising a rise of 3-5°C (5.4-9°F)—or worse. While these latter scenarios would hasten the Sixth Mass Extinction and threaten humankind’s self-destruction through precipitous global ecological collapse, even in the less destructive cases of increases of 1.5-2°C, “[m]any changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level” (B.5). Indeed, global temperatures will rise this century in *all* scenarios under consideration, and limiting this increase to 1.5-2°C is only possible with “deep reductions in CO₂ and other greenhouse gas emissions” now, and in the coming years (B.1)

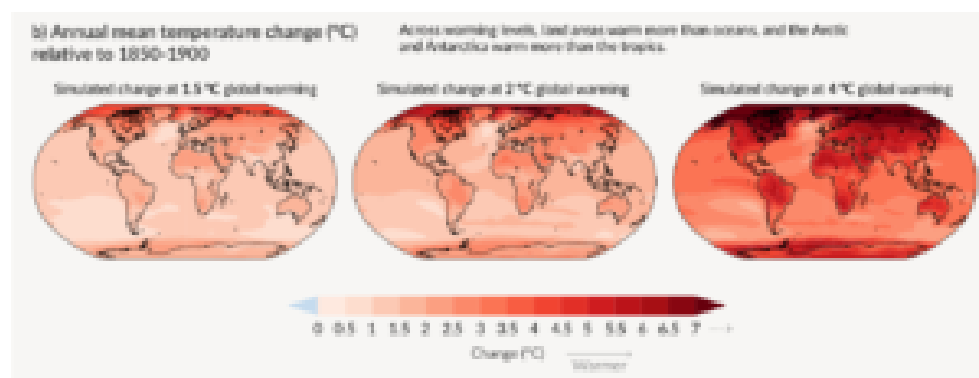
a) Global surface temperature change relative to 1850-1900



Since publication of its first assessment report in 1990, the IPCC has borne witness to the ever-worsening problem of anthropogenic climate disruption, together with what amounts to humanity’s suicidal failure to address the factors threatening collective destruction. The AR6 reflects the latest and starkest findings from the field of climatology. Given that each successive report takes 6-8 years to produce, as *Guardian* environment correspondent Fiona Harvey adds soberly, the AR6 also constitutes “the last IPCC report to be published while we still have a chance of averting the worst ravages of climate breakdown.”

In this article, we will review the IPCC's AR6 Summary for Policymakers (SPM). The SPM is a much-condensed version of the full report on the "Physical Science Basis" of global warming, which runs to nearly 4,000 pages. We encourage readers to read either or both reports for themselves. After considering the latest findings from climatology, we will conclude by considering possible remedies to the grave problems highlighted by the AR6 SPM. As summarized in the concept of green syndicalism, we will avow egalitarian and socially transformative approaches to radically reducing emissions, in the hopes of minimizing the grave risks posed by the climate crisis. All figures are taken from the SPM.

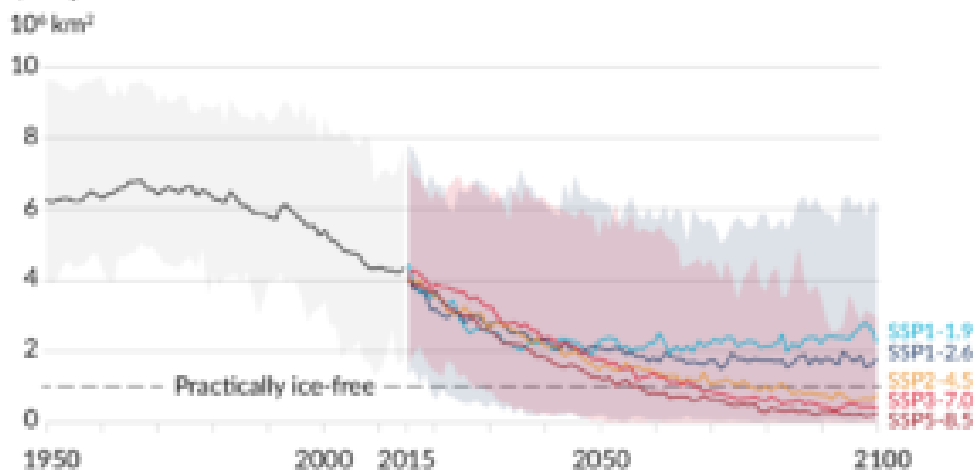
Climate Change 2021: The Physical Science Basis



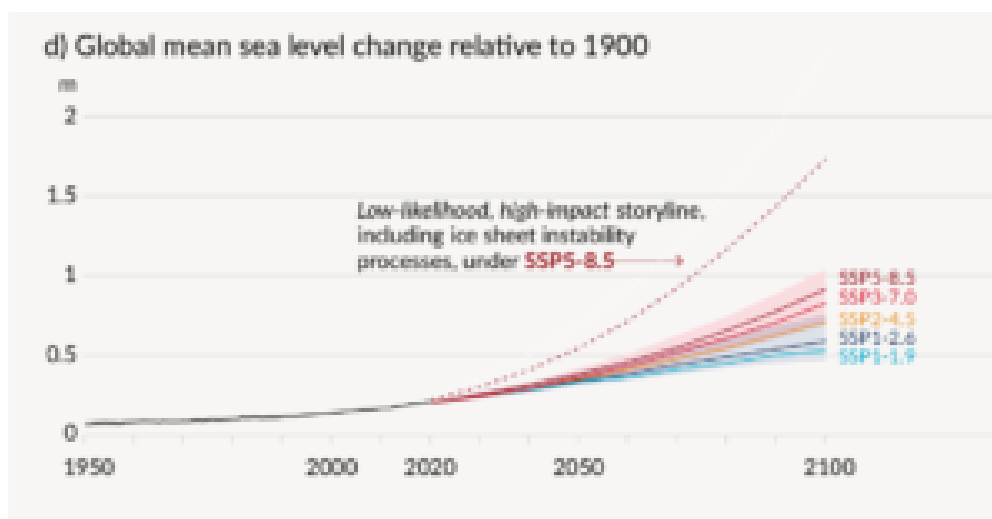
The IPCC's AR6 expands upon and updates the AR5, published in 2013. In turn, the 2007 AR4 served as the basis for the eco-journalist Mark Lynas' terrifying exposé, *Six Degrees: Our Future on a Hotter Climate* (2007; reviewed here). Although it is the first IPCC report "to assess the risk of tipping points thoroughly," the AR6 follows a similar format to its predecessors, in considering the past and current states of the climate, contemplating possible climate futures, and stressing the importance of limiting future warming. As scientists, the AR6's authors use confidence estimates to convey the certainty of their claims.

For instance, with 80-90% confidence, the IPCC finds that atmospheric carbon dioxide levels in 2019 were the highest they've been in *2 million years*, and that human activities are the "main driver" of worldwide glacial retreat since the 1990s, as of the decrease in Arctic sea ice seen in the past 40 years (A.1.5, A.2.1). Grimly, with 80% confidence, the IPCC can say that the average Arctic sea ice extent has been at its lowest over the past decade since 1850. With 50% confidence, it finds that both the existing level of late-summer Arctic sea ice and the global rate of glacial recession are unprecedented for one to two-thousand years (A.2.3). Since the onset of industrial capitalism, the oceans have borne the brunt of global warming: specifically, the AR6's authors estimate with 80% confidence that the oceans have absorbed "91% of the heating in the climate system, with land warming, ice loss and atmospheric warming accounting for about 5%, 3% and 1%, respectively" (A.4.2). By the same token, in the early twenty-first century, "ice sheet and glacier mass loss were the dominant contributors" to sea-level rise (A.4.3). Thus far over the past century, the oceans have risen an estimated 0.2 meters, or 0.7 feet (A.1.7)

b) September Arctic sea ice area



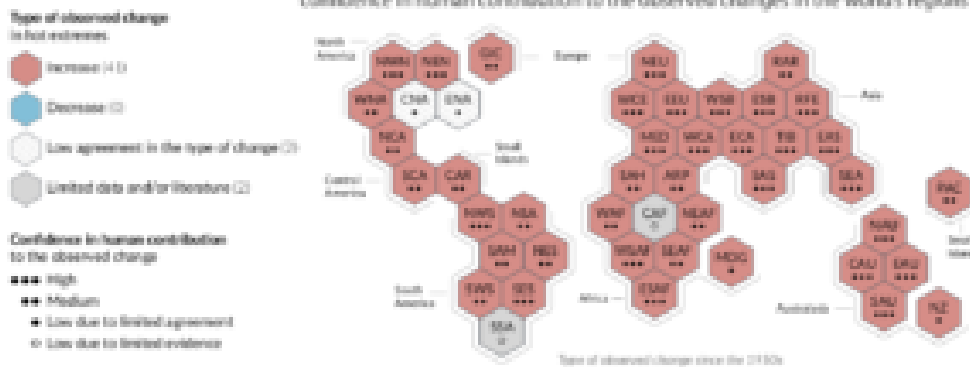
In terms of both the fate of Earth's cryosphere (icy regions) and sea levels, the IPCC's authors have no doubt either that ice loss will continue in Greenland, or that sea levels will rise, as this century progresses. Moreover, they calculate a two-thirds probability that Antarctica's ice will recede during this time, together with a lower risk that the Antarctic ice sheet will start to break up altogether, in the case of especially high emissions (B.5.2). In a similar vein, the AR6 authors warn that sea levels will continue to rise another 0.3-1 meter(s) this century, with more intensive carbon-emission trajectories translating to greater sea-level rise (B.5.3).



Regarding heat and drought, the IPCC's authors are "virtually certain that hot extremes (including heatwaves) have become more frequent and more intense across most land regions since the 1950s, while cold extremes (including cold waves) have become less frequent and less severe, with *high confidence* that human-induced climate change is the main driver of these changes" (A.3.1, A.3.5; original emphasis). This shift toward a "Hothouse Earth" pathway is bleakly illustrated in the figure below, which shows nearly all of the world's regions heating up. Whereas warming effects are expected to be most concentrated at Earth's poles, some temperate and semi-arid regions can be expected to "see the highest increase in the temperature of the hottest days, at about 1.5 to 2 times the rate of global warming (*high confidence*)" (B.2.1, B.2.3; orig. emphasis). Overall, as *Guardian* editor Damian Carrington observes in his review of the AR6, "[d]rought is increasing in more than 90% of the regions for which there is good data." Paradoxically, though, a hotter Earth can also be a wetter Earth: "The frequency and intensity of heavy precipitation events have increased since the 1950s over most land area for which observational data are sufficient for trend analysis (*high confidence*), and human-induced climate change is *likely* the main driver" (A.3.2; orig. emphasis). As

we have seen confirmed this summer from China to Germany and the U.S., global warming intensifies the risk and frequency of “heavy precipitation events” (B.2.4).

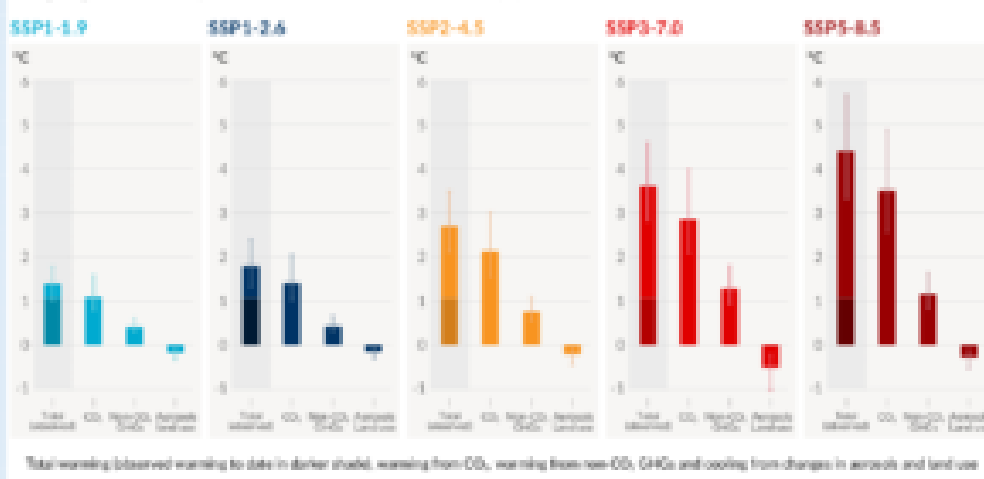
a) Synthesis of assessment of observed change in hot extremes and confidence in human contribution to the observed changes in the world's regions



Transitioning to a focus on different climate futures, the AR6 authors ominously conclude that there is effectively *no space* for any future expansion of greenhouse-gas emissions, considering that we have “blown 86% of our carbon budget already.” Therefore, as with exposure to ionizing radiation, we can conclude that there is *no safe dose* for the burning of carbon at this point, as “[c]hanges in several climatic impact-drivers would be more widespread at 2°C compared to 1.5°C global warming and even more widespread and/or pronounced for higher warming levels” (C.2). In other words, the degree of damage wrought by anthropogenic climate disruption depends on whether or not we can defy capital’s growth imperative and radically reorganize production, society, and polity in the coming years. As is clear from the bar graphs below, only the most radical of reduction trajectories considered in the AR6, the so-called SSP1-1.9, provides a good chance of limiting overall global warming to a 1.5°C average increase. Achieving this goal presupposes sustained global *net negative* carbon emissions—meaning the abolition of fossil fuels and deforestation, plus carbon sequestration (D.1.6). Even then, in the best case, temperatures could soar beyond 1.5°C later this century, before declining below the target again (B.1.3).

In reality, only the lowest and second-lowest greenhouse-gas emission trajectories modeled by the IPCC in the AR6 are likely to avoid the “threshold” of a 2°C rise, beyond which catastrophe ensues (B.1.1, B.1.2). All other courses, which are expected by the capitalist compulsions that govern the world, ensure our collective self-destruction.

b) Contribution to global surface temperature increase from different emitters, with a dominant role of CO₂ emissions
Change in global surface temperature in 2081-2100 relative to 1950-1999 (°C)



Radical Climate Politics and Green Syndicalism

As we have seen in this article, the first third of the AR6 is not dedicated to solutions, but rather, to examining the scope of the problem of global warming. However, whereas the AR6 section on strategies for mitigating global warming is not expected until next year, remedial action to shift us toward very low emissions trajectories is desperately needed *now*. Rather than perpetuate hierarchical convention or Trumpist barbarism, we need a regenerative “Great Transition” integrating a “managed decline” of fossil-fuel production, expansion, and exploration, together with a halt to deforestation, across the globe. As the AR6 demonstrates, such a program would need to achieve *negative net* carbon emissions—as through reforestation, rewilding, restoration, and other forms of sequestration—to limit global warming to a 1.5-2°C rise. In short, the longer we procrastinate, the higher our risk of self-destruction (D.2.3).

At the same time, while the gloominess of the AR6 might shock its readers, we should recall that its conclusions are necessarily conservative. Climate journalist Emily Atkin points out that every word published in the IPCC’s name must be agreed to by each UN member-country—including mass-carbon burners like the U.S., Canada, Russia, China, India, Brazil, Australia, South Africa, and Saudi Arabia. Due to this same power dynamic, the term “fossil fuels” does not appear once in the Summary for Policymakers. We hear about “activities,” “emissions,” and “influence,” but not exploitation or domination, whether of humanity or nature. Reading the AR6, Atkin notes soberly, “You’ll learn the world is ending, [but] you [might] not know who to blame.”

In closing, then, and keeping in mind our interest in egalitarian and socially transformative frameworks for radically reducing emissions to minimize our climate risk, let us consider some contemporary approaches to climate politics, both institutional and radical.

Known as the official architecture for discussing and debating global warming, the United Nations Framework Convention on Climate Change (UNFCCC) is the body that has negotiated such non-binding international agreements as the Kyoto Protocol (1997) and the Paris Accord (2015) through annual meetings of the Conference of Parties (COPs). In November 2021, after a one-year hiatus over the COVID-19 pandemic, the twenty-sixth COP will be held. Based on its track record so far, nothing meaningful can be expected to come of it. Of course, the failure of the COP to restrain the factors driving global warming is largely on the United States, the largest historical emitter by far, which refused to join Kyoto under the Clinton and Bush administrations, torpedoed the Copenhagen talks in 2009 but then championed the Paris Agreement under Obama, and withdrew from it under Trump.

Although Biden has ordered the U.S. to get back on track to meet the goals outlined in the Paris Accord, the stark reality is that very few countries have met their pledges to date. Even if they did, studies show that the outcome would mean an unacceptable 3°C rise in average global temperatures. In parallel, Biden’s brainchild, the much-touted, \$1 trillion-dollar infrastructure bill, had many of its climate provisions gutted to get it past Republican senators. In short, we are still on a high-emissions trajectory that promises hell on Earth later this century, even under centrist-reformist State management, and the necrophilic irrationalism of Trump and the GOP will only get us there sooner. In this sense, Republicans will likely capitalize on Biden’s chaotic withdrawal of troops from Afghanistan—which ironically followed Trump’s lead—thus amounting to an elegy for the Green New Deal.

With time running out, and with all this negativity in mind, seeing the powers that be so radically failing us, what alternative remedies can we possibly consider?

Certainly, with a combination of political, social, and economic changes, humanity’s energetic needs could be met by a transition to wind, water, and solar (WWS) sources, as outlined by Mark Jacobson and company’s WWS-based roadmaps for 139 countries, and David Schwartz’s concept of solar

communism. The problem of replacing fossil fuels with renewable energy is far more political and economic than technical. Humanistic and ecological proposals for degrowth, targeting both private and State capitalism, echo Richard Smith's deindustrialization imperative and a "neither Washington-nor Beijing" position that would critique both U.S.-American and Chinese Communist authoritarianism on principle. A decade ago, in *Imperiled Life: Revolution against Climate Catastrophe*, I recommended internationalism and ecological anarcho-communism as reconstructive strategies, and still do.

In *The Ministry for the Future*, the visionary writer Kim Stanley Robinson foresees the climate crisis unleashing global uprisings that force policymakers into overhauling the economy to deincentivize the burning of carbon altogether. Taking inspiration from La Via Campesina's motto that "agroecology cools the planet," Troy Vettese proposes that we induce a "second Little Ice Age" through a simultaneous transition to plant-based diets and the restoration and reforestation of the billions of hectares of land currently dedicated to pasture and agriculture. Hopefully, this would be a "bloodless" Little Ice Age, unlike the first, which took place between the 16th and 19th centuries, as European genocide and epidemiological desolation of Indigenous peoples in the Americas resulted in rapid regrowth of ecosystems, the sequestration of carbon, and a decline in atmospheric CO₂.

We believe green syndicalism to be among the most reasonable of strategies for implementing the deepest cuts to carbon emissions foreseen in the AR6's—that is, the SSP1-1.9 curve, which provides the best chance to limiting global warming to 1.5°C. In light of the historical failures of bureaucratic socialism to achieve its stated goal of classlessness, much less to provide inspiring models for eco-socialism (see the Chernobyl nuclear disaster or the Aral Sea), anarcho-syndicalism provides greater hope for workers' self-abolition *as* workers, for it aims directly to overthrow class society. To add ecology to the mix, especially in the face of looming climate catastrophe, is only logical, considering Jeff Shantz's point that the protection of nature "requires the social power, the power to stop capitalist production, distribution, and exchange, that is represented by the collective power of working people." Rather than view workers as necessarily allied with bosses in the destruction of ecosystems, as the "jobs versus environment" double-bind would have us think, green syndicalists highlight class struggle and powerlessness at work and in society at large as factors that can contest and reproduce environmental destruction, respectively. In this sense, workers must come to recognize the uselessness of their jobs, while ecologists must come to recognize that class divisions and the bureaucratic organization of work perpetuate ecocide. The ideal organizing strategy might be to revisit Judi Bari's synthesis of the syndicalist Industrial Workers of the World with the deep-green ecology of Earth First!—seen in the founding of the unique IWW/EF! Local 1 in northern California in 1989—learn from its shortcomings, and reapply similar models of "blue-green alliance[s]," community syndicalism, and autonomous unionization today, and in the future.[1]

By inverting the established decision-making hierarchies between capital and labor, green anarcho-syndicalism has the potential to meet the unprecedented challenge, posed by the authors of the IPCC's AR6, of reducing carbon emissions radically and rescuing humanity from self-destruction. Ideally, workers and environmentalists would unite to "dismantle the factory system, its work discipline, hierarchies, and regimentation," as well as ban fossil fuels, implement a transition to a WWS-based energy system, and reorganize global society by promoting participatory democracy at work, in the community, and in social life.[2] Although the success of such a program may be hard to imagine in oligarchical U.S. society (not to mention other oligarchical contexts), in light of the exceedingly low rate of unionization in the workforce and the lack of effective recourse against bosses who crush union drives, a green-syndicalist revival is nevertheless imperative.[3]

[1] Jeff Shantz, *Green Syndicalism: An Alternative Red/Green Vision* (Syracuse, NY: Syracuse University Press, 2012), xxv, xxxii, xxli, 46, 109-112.

[2] *Ibid*, 54.

[3] Alice Martin and Annie Quick, *Unions Renewed: Building Power in an Age of Finance* (Cambridge, UK: Polity, 2020).