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Why the impacts of climate change may make us less likely to reduce emissions

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Non-technical summary. A widely held belief is that once the impacts of warming are experienced more directly and substantially, especially by affluent populations, the necessary support for a politics prioritising ambitious emissions reductions will follow. But consideration of the indirect socioeconomic impacts of warming suggests this could be false hope.

Technical summary. There is some evidence to support the common intuition that, as the direct impacts of warming intensify – particularly in the affluent Global North – a politics ambitious enough to confront the climate emergency may finally find support. However, it seems at least equally likely that the opposite trend will prevail. This proposition can be understood by considering various indirect impacts of warming, including the widening of socioeconomic inequalities (within and between countries), increases in migration (intra- and inter-nationally) and heightened risk of conflict (from violence and war through to hate speech and crime). Compiling these impacts reveals a considerable and highly inconvenient overlap with key drivers of the authoritarian populism that has proliferated in the 21st century. It highlights the risk of a socio-ecological feedback loop where the consequences of warming create a political environment entirely at odds with that required to reduce emissions. Such a future is, of course, far from inevitable. Nonetheless, the risks highlight the urgent need to find public support for combined solutions to climate change and inequality, which go well beyond the status-quo. This is necessary not only for reasons of economic and climate justice, but in order to mitigate political barriers to carbon mitigation itself.

Social media summary. As the impacts of warming are experienced more directly and substantially, we may vote for precisely the wrong people.

1. Introduction

What will happen once natural disasters, heatwaves, food shortages and other direct impacts of warming begin to more substantially affect affluent countries of the Global North and elsewhere – where per-person carbon footprints are highest, and global political and economic influence most concentrated? Will those political parties and climate policies that are ambitious and globally coordinated enough to confront the challenge of anthropogenic climate change finally find support?

There is some evidence that this is how things may play out (Baccini & Leemann, 2021). However, while experiencing the *direct* impacts of warming – like natural disasters, heatwaves and food shortages – may increase public support for carbon mitigation, the *indirect* socioeconomic impacts of warming may push in precisely the opposite direction: they may turn our national political attentions inwards, disintegrating the global cooperation required for addressing climate change. This short article explains how this counterintuitive and troubling scenario could arise.

2. Mapping the indirect impacts of climate change

To understand this proposition, we must first link various direct physical impacts of warming to relevant socio-political effects, and map key interlinkages between the latter. How all this may influence the politics of climate mitigation is described in the subsequent section.

Central among these indirect effects is the widening of socioeconomic inequalities, both within and between countries, which can occur via numerous pathways. The literature on climate change and inequality is substantial and can broadly be divided into (i) that studying inequalities in *contributions* to emissions (i.e. the emissions attributable to given entities) and (ii) *vulnerability* to the negative impacts of warming (i.e. the potential to suffer from climate-driven environmental changes). Generally, more affluent populations have higher carbon and energy footprints (Bruckner et al., 2022; Chancel, 2021; Oswald et al., 2020; Piketty & Chancel, 2015) and are primary drivers of investments in high-carbon activities (Ceddia, 2020; Manych et al., 2021), while simultaneously being less exposed to climate impacts and more able to adapt to (or recover from) the impacts they do suffer (Bathiany et al., 2018; Byers et al., 2018; Levy & Patz, 2015). Current inequalities are thus reflected in both contributions and

vulnerability (IPCC, 2022). Absent political effort to the contrary, such inequalities will be further increased by warming (King & Harrington, 2018; Shiogama et al., 2019), with poorer populations trapped in a vicious cycle where current inequalities leave them suffering disproportionately from climate impacts (Cappelli et al., 2021; Islam & Winkel, 2017). In contrast, affluent populations on the coast, in the forest or the city can relocate, smoke-proof their homes from wildfires, hire private firefighters or install air conditioning. At the apex of this trend are the billionaires purchasing survival bunkers in New Zealand.

Another critical socioeconomic effect of warming relates to migration. The World Bank estimate that, without concerted mitigation action, the number of within-country climate migrants could exceed 200 million by 2050 (Clement et al., 2021) – and this estimate omits extreme weather events like cyclones. The number of international climate migrants is expected to be significantly smaller and quantitative estimates don't yet exist (IPCC, 2022), due largely to the multi-casual nature of migration (Black et al., 2011). Complicating factors include the speed of onset of climate impacts: ruptures like cyclones can leave people involuntary immobile – without the resources necessary for migration to even remain an option – while slow-onset events such as prolonged droughts induce relatively more international migration (Kaczan & Orgill-Meyer, 2020). Glossing over this complexity, academic, policy and public discourses on climate migration have tended to frame predictions of mass migration from the Global South to the Global North as the consensus view (Boas et al., 2019). Such alarmism has been cautioned against due to the potential for it to bolster securitisation discourses, xenophobia and support for harder borders (Bettini, 2013). Nonetheless, there is evidence that warming can have a significant effect on international migration to rich countries (Coniglio & Pesce, 2015) – a trend likely to continue as warming increases if border policies in wealthier countries allow (McLeman, 2019). Overall then, while the debate is highly contested – and complexity may continue to prohibit quantitative projections – there are various direct and indirect pathways through which warming could substantially increase international migration. This is made more salient given that, within fifty years, over a billion people in the Global South may find themselves in climatic conditions warmer than anywhere today (Xu et al., 2020), with a subset of these exposed to heatwaves that humans simply cannot survive (Raymond et al., 2020).

Other indirect impacts of warming are the greater risk of intergroup conflict, for example, over basic resources such as water (Hsiang et al., 2013); increased interpersonal violence and crime during high-temperature periods (Mares & Moffett, 2016; Miles-Novelo & Anderson, 2019); and increased economic instability due to economic damages caused by warming and stranded assets (Burke et al., 2018). Like migration, the relationship between warming and conflict has been fiercely debated (Barnett, 2018), in large part because pre-existing social, economic and political factors are the dominant causal factors. The influence of warming on the Syrian war is particularly contested, with some arguing that it played a negligible role (Selby et al., 2017). It has thus been argued that when these wider factors are crowded out of debates, it risks inappropriate militarised and securitised solutions being employed (Gleditsch, 2012). Nonetheless, there is a growing consensus that warming is a risk factor in armed conflict, violence, hate speech and crime (Burke et al., 2015; Mach et al., 2019; Stechemesser et al., 2022).

Finally, there are various direct and indirect interlinkages (Figure 1). Economic instability may further increase inequalities, if the political response is such that the poorest are hit hardest by financial crisis while the affluent find ways to profit. Climate-related increases in economic inequalities may further increase the number of climate-related migrants if poorer populations in poorer countries struggle to secure reasonable standards of living (Kikstra et al., 2021) while affluent countries become more attractive destinations (McLeman, 2019). Larger inequalities between countries may also add to the risk of violent conflict if the ability of poorer countries to secure access to basic resources like water and food is further compromised; conflicts which could add yet further to international migration. Finally, larger within-country inequalities are well-known to increase the prevalence of interpersonal violence and other crime (Wilkinson & Pickett, 2011).

3. Authoritarian populism and climate impacts

This seemingly disparate collection of climate impacts has been laid out due to their association with factors contributing to the rise of nationalist, authoritarian populist leaders across Europe, the USA, Brazil and elsewhere in the 21st century (Norris & Inglehart, 2019). The literature on this subject is extensive and evolving. However, it is broadly accepted that three important factors in the rise of authoritarian parties have been: discontent with levels of immigration (Edo et al., 2019) in all but the most urban areas (Dustmann et al., 2018); persistent economic inequality, insecurity and disadvantage (Inglehart & Norris, 2017; Rodríguez-Pose, 2018), which is often framed as resulting from globalisation (Rodrik, 2021); and fears about both global security (Homolar & Scholz, 2019; Wright & Esses, 2019) and local crime (Burscher et al., 2015; Dinas & van Spanje, 2011).

Potential interlinkages between climate impacts and politics can now be sketched out, and the way the former may foster authoritarian populism can be mapped (Figure 1). But various provisos must be acknowledged here. First, there are deeper interrelations, especially in discourse – for example, populist leaders often attempt to link immigrants to crime and job insecurity, and public fears are deeply connected (Dinas & van Spanje, 2011). Second, researchers have emphasised the largely separate role of *cultural backlash* in driving contemporary populism (Norris & Inglehart, 2019). Third, the strength of some interlinkages may be weak. For example, it's been suggested that crime rates in the USA may rise ~1–5% this century due to warming (Burke et al., 2015) – this may have at most a marginal effect on support for populism, not to mention that other socioeconomic factors influence crime rates far more strongly. Most importantly, this analysis should not be taken as environmental determinism, but rather as suggesting one potential future with no specified likelihood.

Nevertheless, the fundamental point is that we should take seriously the considerable overlap between key socio-political impacts of climate change – within which socioeconomic inequalities are central – and key factors underpinning the rise of nationalist, authoritarian politics. Similar concerns have been highlighted by others: some warn of the danger of a *fossil fascism* that exploits the climate crisis by feeding upon anti-immigration sentiments and promising to aggressively defend the privileges of the Global North (Malm & Collective, 2021); others of the multi-scale *fortress mentality* that environmental insecurity can provoke (White, 2014). More broadly, such nationalism is precisely the type of politics underpinning the *resurgent nationalism* that characterises the IPCC's most pessimistic SSP3 pathway

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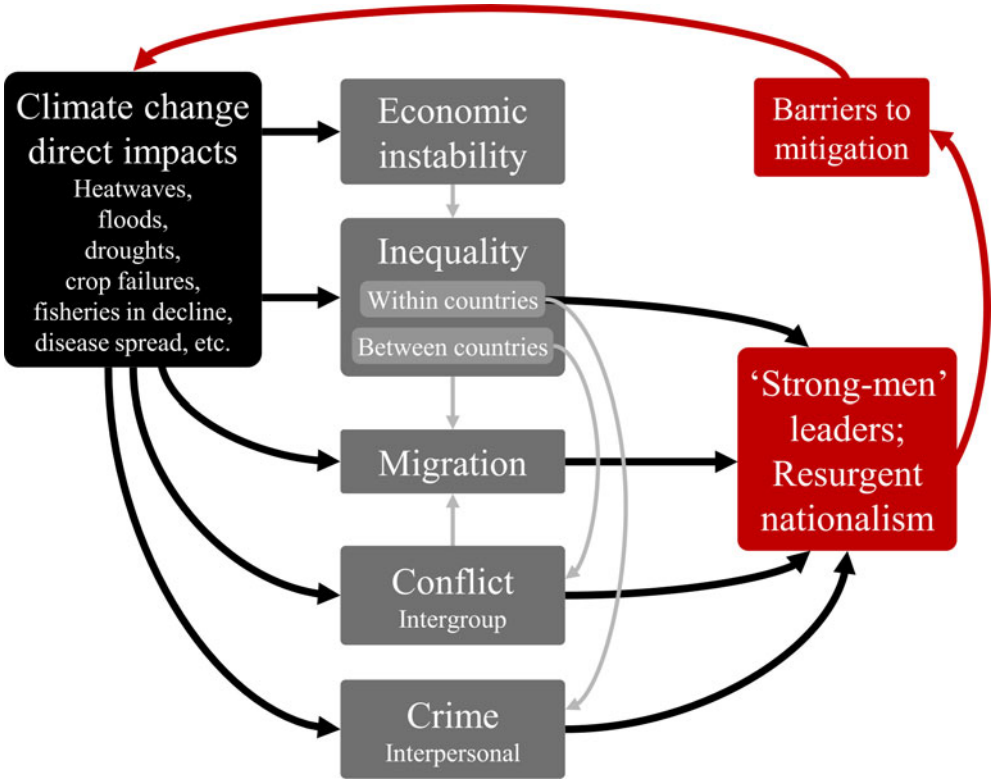

Figure 1. Illustration of the direct impacts of climate change (black box), some indirect effects of this warming (grey boxes), interlinkages between indirect effects, the politics these effects may catalyse (red boxes) and how this may present barriers to mitigation. Note, the figure illustrates the ways that climate change may influence inequality, nationalism, etc., but it's not intended to capture other influences upon these beyond warming.

(Fujimori et al., 2017), where mitigation and adaptation challenges are highest, and keeping temperature rise below 2 °C becomes almost infeasible.

3.1 Mitigating political barriers to mitigation

The scenario described above is a socio-ecological feedback loop, where the consequences of warming create a political environment at odds with the global cooperation – and internal, national cohesion – required to confront climate change. To many, this may appear counterintuitive. It is often thought that once the impacts of warming are experienced directly and substantially in more affluent regions, the necessary support for parties and policies prioritising ambitious mitigation will follow. But the current analysis argues that the *indirect* impacts of warming – migration, inequality, conflict, etc. – may push in precisely the opposite direction. These impacts may push towards a world characterised by leaders like Trump, Putin, Bolsanaro and other right-wing populists: strong men who are typically hostile to climate policies such as carbon pricing; supportive of traditional industries like coal mining; personally connected to fossil fuel companies; inclined to prioritise obstructing immigration and other national interests over global challenges; sceptical of anthropogenic climate change itself, or in outright denial; and reliant upon a narrative of dividing the world into us *vs* them (Lockwood, 2018; Malm & Collective, 2021). Their goal to return to accelerated fossil fuel extractivism, denial of the ecological catastrophes this would cause or – at least, denying the necessity of action (Lamb et al., 2020) – and frequent explicit sexism, marks them out as embodiments of what has been called *petro-masculinity* (Daggett, 2018).

This is a bleak vision, especially for the climate migrants likely to be faced with hard borders (McLeman, 2019). But we must reiterate that the future remains open. The scenario proposed above is offered as a warning, not a forecast, and the tendencies it describes could be overshadowed by other political and social factors here. Put another way, Figure 1 doesn't claim to be exhaustive of all the feedbacks between warming and politics. An obvious missing link is that experiencing the direct impacts of warming (flooding, etc.) may push people to vote for politicians that are serious about mitigating climate change – the intuitive feedback that this article challenges (but doesn't deny). Another is the way that cooperative forms of nationalism could potentially bolster climate action (Lieven, 2020). Nonetheless, the potential for warming to instead intensify authoritarian populism should be taken seriously, given the risks – given that climate change is now considered a global emergency (Ripple et al., 2019). Here, interactions between warming and socioeconomic inequalities are key.

There are already substantive moral reasons for addressing such inequalities, particularly as they relate to climate change, easily summarised by the fact that those contributing the least are likely to suffer the most harms. The linkages between redistribution and mitigation potential remain contested (Oswald et al., 2021; Rao & Min, 2018; Scherer et al., 2018). However, it's been suggested that decent living standards could be provided globally to all for well under 50% of today's energy use (Millward-Hopkins et al., 2020), provided material inequalities are dramatically reduced (Millward-Hopkins, 2022); an enormous challenge, requiring both political and ideological transformation (Millward-Hopkins, 2021). The current work adds weight to these moral

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arguments for reducing inequalities by highlighting the risks to climate action (Green & Healy, 2022). Further, reducing inequality – via inclusive economic institutions and providing social protections, etc. – is also essential for building climate-resilient peace (Barnett, 2018). Fortunately, climate policies can easily be designed with equality, justice and sustainable development in mind (Hickel et al., 2021). This requires focusing upon international climate finance, carbon taxes with redistribution of revenues, universal access to modern energy, compensation for loss and damages, among other things (Bertram et al., 2018). Implementing such policies could avoid the distributional issues that have often accompanied climate policies in the past, while facilitating ambitious emissions reductions (Soergel et al., 2021).

The key question is how such policies can find the political support. Both global and national redistribution is essential, but in wealthy countries, sufficient support for the former won't be found while national inequalities remain so high that large numbers of people feel left behind. In the USA, UK and elsewhere, political leaders on the left that endeavoured to seriously address carbon emissions and economic inequalities have lost to right-wing rivals in recent years. The major climate and anti-racist social movements that have emerged have struggled to unify class and racial interests. This is partially as the backdrop of the Culture Wars has left issues of climate and economic inequality tied up with unrelated, yet polarising political topics like abortion, gender and transsexual rights, and this divisiveness has been exploited effectively by populist movements. Achieving a broad public consensus on climate action and redistribution is thus a critical challenge – for social movements, political parties and all those in between – as combined solutions that go well beyond the status-quo are urgently needed, not only for climate justice, but in order to mitigate political barriers to carbon mitigation itself.

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