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# CLIMATE CHANGE AND INTERNATIONAL RELATIONS: A FIVE-PRONGED RESEARCH AGENDA

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Ole Jacob Sending, Indra Øverland, and Thomas  
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**Abstract:** Political leaders describe the climate crisis as the greatest challenge of our time, but it plays only a marginal role in the foreign policy of most states and in the scholarly literature on international relations. Only 0.77 percent of the articles in five top international relations (IR) journals between 2015 and 2019 were about climate change. This is a problem, for when the full impact of climate change and policy responses to climate change is felt, it will redefine international politics. We suggest five broad areas where it is necessary to better understand how climate change will reshape world politics: sovereignty, security, status and reputation, norms and coalitions, and the geopolitics of energy.

## INTRODUCTION

Climate change has moved from the margins to the center of international politics. From being one among many issues or fields alongside poverty reduction, health, trade, etc., it is now becoming a master frame that will shape foreign policy and relations between states on a par with security and economic interests. Although there is still uncertainty about future climate policy responses, scholars of world politics need to better reflect on climate change within existing theoretical frameworks, and to develop new ones.

Clearly, there is a long tradition of research on specific aspects of climate change. A significant effort has gone into studying the role of nonstate actors in international climate negotiations, regime formation and efficiency, and the link between climate change and violent conflict.<sup>1,2,3</sup> Indeed, strategic planners at the Pentagon were first movers in seeking to assess how climate change may affect the security of the United States.<sup>4</sup> However, climate change is a marginal issue for what most students of world politics deem to be the major fields of IR research,

such as systemic shifts in the international system, the status of sovereignty, the drivers of foreign policy, or the endurance of alliances and functioning of international institutions. A survey of five major IR journals indicates that climate change is not on their radar (see Table 1). Between 2015 and 2019, only 0.76 per cent of the articles in these journals were about climate change or related topics.

*Table 1.*

<b>Journal</b>	<b>Total number of articles</b>	<b>Articles about climate change</b>	<b>% of total</b>
<i>International Organization</i>	150	2	1.32
<i>International Studies Quarterly</i>	325	3	0.91
<i>International Security</i>	82	0	0.00
<i>Foreign Affairs</i>	1789	13	0.72
<i>American Political Science Review</i>	259	2	0.77
<b>Total</b>	<b>2605</b>	<b>20</b>	<b>0.76</b>

*Source: Articles about climate change 2014-2019 in five major IR journals<sup>6</sup>*

Josh Busby, Jessica Green, and Thomas Hale made similar observations in 2017.<sup>7,8</sup> The fact that the situation has not changed since then is surprising, given that two years packed with international climate politics have passed and that climate change raises a range of questions about the development of world politics. How, for example, will the United States engagement in the Middle East change as oil and gas lose their importance? Will we see a comparable geopolitical competition for renewable energy? Will poor countries that are disproportionately hit by climate change succeed in demanding compensation from rich industrialized countries? How will climate-induced migration, potentially on a large scale, affect relations between states? What will happen to the norms of sovereignty when the territories of some states become submerged or uninhabitable? By ignoring climate change, IR scholars run the risk of not being able to understand and explain what will be a defining aspect of global affairs in the coming decades. In the worst case, the indifference of the mainstream IR literature towards climate change could be interpreted as ignorance or even a form of implicit climate skepticism.

In the remainder of this article, we outline five broad areas of research that we believe deserve greater scholarly attention. Our starting point is not normative, but analytical: we are interested in better understanding of how the interests of, and relations among, states will be affected by climate change. In addition to the direct impacts of climate change, the fact that it is at the top of the international *political* agenda will affect states and relations among them in significant ways.

## SOVEREIGNTY

Climate change challenges a core principle of state sovereignty under international law, namely territorial integrity. The disappearance of the ice on Greenland would result in a 6-meter sea level rise, while the melting of the ice in Antarctica would cause the sea level to rise by around 60 meters.<sup>9</sup> Some South Pacific island states are, therefore, set to disappear entirely, while Bangladesh, China, India, Indonesia, and other countries may need to relocate millions of people. Moreover, changes in a state's territory may also affect its maritime claims, as exclusive economic zones at sea are calculated based on the shape of coastlines.

International legal scholars now debate how international law, and the concept of sovereignty, may evolve in the Anthropocene, where climate change alters territorial boundaries and where core assumptions about sovereignty based on control over a (stable) territory are being undermined by climate change.<sup>10</sup> This also extends to claims about maritime jurisdiction. The International Law Association notes, for example, that “sea level rise has the potential to impact significantly the spatial extent of national claims to maritime jurisdiction.”<sup>11</sup>

While the literature on the evolving concept of sovereignty is extensive, theorizing sovereignty in light of climate change will require new conceptual tools.<sup>12</sup> This is so because violations of sovereignty are typically thought of as the consequences of the behavior of specific actors, through invasion or other territorial infringement. But sovereign control over a territory may be equally challenged by climate change, in the form of extreme weather and rising sea levels. Moreover, geoengineering—efforts to manipulate the climate to reduce global warming, or to change the local weather—will have adverse effects, potentially forming a new area for rivalry and conflict.<sup>13</sup> More knowledge is needed about how such developments will affect defense planning in the name of sovereignty and territorial integrity.

## SECURITY

The effects of climate change on state security have been discussed extensively over the last two decades. The discussion has focused on how it may affect violent conflicts in developing countries, where scholars have different views on the causal relation between climate change and conflict.<sup>14, 15</sup> Other effects have been discussed under various headings, such as human security or food security, where a consensus of sorts has emerged that climate change works as a “threat multiplier.”<sup>15, 17, 18</sup> There is also considerable research on how climate change may affect specific cases of interstate water management, such as between India and Pakistan, or among the Central Asian states.<sup>19</sup> There has been much less attention to how climate change, and policies to mitigate climate change, may affect perceptions of threats. How, for example, will states assess and act on threats growing out

of climate change—rising sea level, drought, mass migration, or extreme weather events—compared to threats of attacks from a rival neighbor, or from a terrorist group?

Climate change as such need not affect a state's perceived interests or threats. But as climate change moves to the top of the policy agenda, it may lead to divergent perceptions among allies. If the North Atlantic Treaty Organization (NATO) forces are expected to manage new, large-scale migration flows—for example of millions of people trying to migrate from the Middle East and North Africa (MENA) region to Europe—will the United States come to the rescue? Or, for countries such as Denmark and the Netherlands, whose territorial integrity could be affected by level rise, the question is how they will prioritize this threat compared to, for example, the risk of a Russian invasion, terrorist acts, or cyberattacks?

States in the developing world will be disproportionately affected by climate change. Low-lying parts of countries such as Bangladesh, China, Indonesia, Nigeria, and Vietnam will be directly affected by sea level rise. The resulting migrant flows may destabilize these countries internally, affect their relations with neighboring states, and complicate relations among potential receiving states. These are phenomena that have been observed before without a connection to rising sea levels—for example in connection with the 2015 asylum crises that divided European Union (EU) member states over Middle East refugees and the Association of Southeast Asian Nations (ASEAN) members states over Rohingya refugees.<sup>20</sup> With large populations permanently dislocated by sea level rise, such issues may occur more frequently and on a greater scale than before, raising questions about blame and responsibility, especially of rich industrialized countries.

## GEOPOLITICS OF ENERGY

Climate change is also impacting the economic basis of geopolitics.<sup>21</sup> For over a century, oil was one of the world's main commodities and one of its main geopolitical drivers, including in the 1942 Battle of Stalingrad, the 1979 Iranian Revolution, and the 1991 Gulf War.<sup>22</sup> Reduced importance of oil and other fossil fuels should, thus, have some consequences for global affairs. The systematic transfer of wealth from a larger number of oil importers to a smaller number of oil exporters will come to an end, causing a permanent shift in the economic power balance in the world. Some countries—such as Norway, Russia, Saudi Arabia, or Venezuela—whose foreign policies, aid policies, and military stances have been propped up by vast petroleum revenues, will face new realities.<sup>23</sup> The military strategic importance of the world's oil producing countries, such as Saudi Arabia and Venezuela, will diminish.<sup>24</sup> Meanwhile, countries rich in renewable energy resources or critical materials for clean energy technologies may find their

foreign policy prowess enhanced as well as external pressure from other countries mounting, for example the Democratic Republic of the Congo (cobalt) or Bolivia (lithium).<sup>25</sup> Countries that control the most valuable cleantech patents may also come out stronger on the international arena. Europe is now reliant on gas imports from Russia. If gas is progressively phased out in Europe over the next decade or two, it would have serious negative effects on the Russian economy and affect Russia's ability to project power both in Europe and elsewhere. These issues have both been discussed in isolation and listed together before—but very rarely in IR journals.<sup>26</sup> The question for scholars of international affairs is whether the sum of such effects will transform the distribution of power in the international system, where those with nonrenewable resources and high emissions will be less powerful than previously, and those with access to renewable energy and low emissions will be more powerful than previously.

#### STATUS AND REPUTATION

In the current international system, the fungibility of economic and political capital is relatively straightforward: money can be converted to political influence. But reputational factors also affect this conversion. There are limits to how much political influence Saudi Arabia can buy, primarily because of the nature of the Saudi regime.

Oil exporters such as Canada and Norway are used to enjoying a status as international do-gooders by virtue of significant financial contributions to development aid and multilateralism.<sup>27</sup> This money comes in large measure from oil and gas production. In a paradigm where climate action becomes an imperative, the reputational status of these countries may be weakened.<sup>28</sup> There are already indications that this is happening: Norway's state-controlled energy company, Equinor, was recently reprimanded by the United Kingdom Advertising Standards Authority (ASA) for implying that gas is "low carbon." In Australia, Equinor is the object of a sustained civil society campaign against offshore oil drilling.

The effects of a potential reputational loss from having a large carbon footprint are hard to determine, but it certainly raises questions about how status competition will look in a world where the carbon footprint becomes a key parameter. This relates both to what counts as power and what accords status. How, for example, will the status of liberal internationalist powers, such as Canada and Norway, be affected by their continued oil and gas production? Could escalating concerns over climate change exacerbate the reputational loss of the United States as a hegemonic actor? If the sources of international power change at the same time as demographic and economic power shift (eastward), what does it mean for the dynamics of power transitions within countries?

## NORMS AND COALITIONS

New alliances are forming as a result of efforts to curb climate change: Some of these are in the form of coalitions of the willing, such as the Cartagena Dialogue, the Climate and Clean Air Coalition, the Renewables Club, the Power Past Coal Alliance, the Friends of Fossil Fuel Subsidy Reform, or the Carbon Neutrality Coalition. Most of these are based on a voluntary pact: Members get together to anchor their commitment in a social context, learn from each other's experiences, support each other morally, and perhaps spread the gospel outside the group too. As it is legally non-binding, it is possible that the Paris Agreement also belongs to this category. This reflects a general trend in society, whereby top-down regulatory measures are replaced by voluntary, bottom-up measures. In the extensive discussions on this topic, climate change is an area where nonstate actors and private initiatives loom large.<sup>1</sup> But it also raises questions about the role of norms in shaping state behavior: Extant research on how norms may shape state behavior deals mainly with cases where norm violation is easy to observe and, thus, to shame or regulate. Examples include human rights norms, nuclear weapons, cluster munitions, and anti-personnel landmines.<sup>28, 29, 31</sup> The norms pertaining to climate change are different, because it is much harder to ascertain what type of behavior is in conformity or not with the norm, thereby opening up for climate hypocrisy and greenwashing. Is, for example, export of lower carbon emissions gas to replace higher emissions coal in keeping with the norm to combat climate change?<sup>32</sup> Do investments in renewables mean that a state is conforming with the new climate norm when the capital comes from the production of fossil fuels?

Over time, more aggressive coalitions may emerge in the form of climate clubs. A fully fledged climate club is an alliance or trade bloc that has a hard boundary against non-member states. Non-members are subjected to trade or other sanctions to give them an incentive to join the club and adhere to its rules and climate mitigation targets. So far, the study of climate clubs has largely been left to economists, who have focused on theoretical mathematical modelling exercises.<sup>33</sup> Students of world politics urgently need to join this conversation and say something about the international political conditions under which climate clubs may or may not be formed, and what the consequences might be. Another important question is whether climate clubs will trigger counter-reactions in the form of counter-alliances to resist attempts to impose climate mitigation at the international level. Candidates for the formation of such counter-alliances include countries with vested interests in oil exports, large-scale coal consumption, or removal of rainfor-

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<sup>1</sup> For a good overview, see Abbott, K. W., J. F., Green and R. O. Keohane. 2016. "Organizational ecology and institutional change in global governance." *International Organization* 70(2): 247-277; Falkner, R. 2016. "The Paris Agreement and the new logic of international climate politics." *International Affairs* 92(5): 1107-1125.

ests for agricultural expansion. Analyses are also needed of the tools and strategies that climate clubs and their counterparts could deploy against each other, and how such a competition would play out, as it would likely have a different logic from the more conventional great power competition now on display between China and the United States, or the Cold War competition of the past between NATO and the Warsaw Pact countries.

At its most extreme, one can ask whether climate change is something that states might go to war over. Many past military interventions have had vague and sometimes weak rationales. If territories are lost, sovereignty is threatened, or citizens are killed on a greater scale and with greater certainty by climate change than by terrorists, cyberhackers, or foreign armies, why would the probability of climate driven wars be lower than for other wars? Countries could intervene militarily to stop greenhouse gas emissions, the destruction of rainforests, or to stabilize states failing under the weight of populations displaced by climate change. The concept of a responsibility to protect is well established with regard to genocide, but is it possible that it will be extended to protection of the environment?

## CONCLUSIONS

The study of world politics has, over the years, become ever more pluralist, appropriating insights from cognate fields and expanding both the historical perspective and the geographical range of research. Nonetheless, there is a core set of problems around which most theories converge: the nature of power, the concept of sovereignty, the drivers of state behavior, and the character of the international system. In search of ever more refined theories to account for these core problems, there is a tendency to assume that some basic entities—statehood, sovereignty, and security—are and will remain fixed. Climate change is set to challenge many of these assumptions, and understanding them will require the development of new conceptual and analytical tools. In other words: What have been assumed to be fixed points of reference for international affairs will, with climate change, not necessarily be so. Some territories may disappear, while vast swaths of other countries may become uninhabitable, altering the logic of state security. The value of inhabitable territory—above sea level, without extreme weather, but with access to freshwater and food—may rise. The stakes involved in geoengineering are similarly frightening, with the prospects of zero-sum logics when states seek to safeguard their own territories, food production, and citizens. The value of what today drives the world economy—non-renewable energy—will decrease, leaving many “stranded geopolitical assets.”<sup>34</sup> We are, of course, well aware of the pitfalls of theorizing about how the world may look in the future. But the risks of overlooking the configuration of factors relating to climate change that will shape—directly or

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indirectly—world politics in the years to come are significant and demand greater scholarly attention. <sup>✉</sup>

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