

The ClimeNous Project. The geopolitics of climate change: an introduction

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Main points:

- This publication marks the launch of a new project at the Institute of New Europe, devoted to the geopolitics of climate change.
- The ambition of the ClimeNous project is to undertake a broad analytical effort in order to identify the phenomenon of the geopolistics of climate change, the processes and mechanisms that constitute it, the consequences, dependencies and feedbacks which it entails, all of which affect the distribution of power in the international system.
- The individual thematic areas will be discussed in analyses published once a month and dedicated to selected issues from two research areas: (i) the geopolitics of climate change adaptation, which encompasses the issues related to the states' accommodation of the effects of climate change and its impact on the evolution of their power potentials and position in the international realm, and (ii) the geopolitics of climate change mitigation, which, in turn, comprises the questions of how energy transition and decarbonization processes will impact the the international balance of power.

The enormity of climate change defies human intelligence. Ubiquitous and characterized by a practically unlimited spatial and temporal range as well as unevenness of occurrence, it constitutes an example of a "hyperobject": an intangible entity, whose size and fluidity of form make it a phenomenon difficult to imagine and apprehend. This fundamental observation is crucial for any attempt to situate climate change in geopolitical analysis given the breadth of the very notion of climate change which generates definitional challenges. The most widely accepted definition of the term climate change, which defines it as a "change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer"², may be sufficient climatologists; for political scientists, however, the

¹ See Morton, Timothy. 2013. "Hyperobjects: Philosophy and Ecology after the End of the World", Univ. of Minnesota Press.

² IPCC Glossary, "Climate change". Access: https://www.ipcc.ch/sr15/chapter/glossary/



same definition proves to be deficient as it only includes those phenomena that have been confirmed after having been studied for a period of at least 2-3 decades. For experts in climate science operating on such a time scale, the notion of climate change therefore refers primarily to the difference in statistical description before and after each such period, and the adoption of such a time scale in studies contributes to guaranteeing the quality of their research; for political scientists, however, relying on such time lengths for research purposes constitutes an entry barrier for carrying out analysis. As a consequence, contemporary political and geopolitical analyses cannot effectively anticipate the future evolution of climate change over time other than through interpretation of scenarios whose chances of realization are confirmed or ruled out by reality as time goes by. Such scenarios, the most authoritative of which are formulated by the Intergovernmental Panel on Climate Change (IPCC), are based on models whose sophistication grows as scientific understanding of climate and computational capabilities increases. While the continuous improvement of these models allows for a better understanding of the systems that underpin the functioning of the Earth, the increasingly accurate quantitative and statistical information produces ever more accurate projections of the evolving trajectories of the ongoing changes to climate parameters.

Since most of the effects of climate change in the political sphere will only be felt in the future, essentially all predictions and assumptions as to their course and impact on international political and security systems may only be based on data on short-term climate variability and historical analogies. Thus, an **analysis of the political or geopolitical consequences of climate change is only to a very limited extent able to accommodate those consequences and feedbacks that are distant or distributed over time.** On the other hand, climatologists and political scientists usually operate on similar spatial scales, since in the case of climate there is a natural length scale of the order of 1000 km, which is the size corresponding to synoptic weather patterns. It is crucial to bear in mind, however, that a climatic change can materialize at some level of given temporal and spatial scales, but be then experienced at scales and levels of a different order. As such, processes at one scale can influence processes at another scale, and these interactions themselves are more complex than simple aggregation to a large scale or scaling down to a smaller scale. This interdependent



relationship has been particularly evident in the results of studies of the delayed effects of greenhouse gas emissions and the ensuing particular consequences. For example, sea surface warming is estimated to lag behind the level of global carbon dioxide emissions by about 25 to 50 years, during which time about 60% of global warming will have occurred³; at the same time, the nonlinearity of the effects of sea warming and their interdependence with other ongoing climatic changes means that their consequences of adverse impacts on marine resources and coral reefs are not remote, but rather spread out over time and vary geographically.

Climate change in the context of the function of the geopolitical analysis

The place of climate change in geopolitical analysis is determined by the function of geopolitics itself. The fundamental function of the science of geopolitics is to study the impact of geographical factors upon the mechanics of distribution of state power across space and the evolving balances and political behaviors resulting from this distribution. The realization of this function requires to identify the factors and elements determinative of state power in primarily (or at least originally) terrestrial space. In a simplified scheme, these factors and elements can be distinguished, in the first place, according to fundamental and direct criteria, based on objectively measurable values such as demographic potential, size and quality of the armed forces, position of the national economy in the global division of labor, etc. The second axis of measurability of the state's strength are factors and elements determined according to external subjective criteria, i.e. those whose value at a particular point in time results from the perception that a given state enjoys among other actors on the international scene. Such factors include broadly understood soft power of the state or its pursuit of a deliberate policy of ambiguity regarding its nuclear capacities. Finally, the third major group of factors and elements determining the power of the state is encompasses objective external phenomena on the occurrence of which the state either has no influence or its influence is limited, often by other external factors. The state's ability to

³ See Hansen James, Nazarenko Larissa, Ruedy Reto, Sato Makiko, Willis Josh, Del Genio Anthony, Koch Dorothy, Lacis Andrew, Lo Ken, Menon Surabi, Novakov Tica, Perlwitz Judith, Russell Gary, Schmidt Gavin A., Tausnev Nicholas. 3 June 2005. "Earth's Energy Imbalance: Confirmation and Implications" *Science*, 3, pp.: 1431-1435. Access: https://science.sciencemag.org/content/308/5727/1431.full



deal with such factors is primarily expressed through adaptation, aimed at reducing the negative effects of such factors on the state's power potential and its international position, and, where possible, at using them to maximize individual gains. An example of such a factor, par excellence, is the progressing climate change.

Classic definitions of geopolitics versus the geopolitics of climate change

The considerations outlined above are important for drawing the definitional boundaries of the concept of the geopolitics of climate change. In broadest terms, the concept can be defined as a subfield of geopolitics that aims to study the impact of direct and indirect effects of climate change on the evolution of physical and human geography and the resulting changes in power potentials in international relations. Such a definition thus borrows from the classic definitions of the very notion of geopolitics. Geopolitics has primarily been thought of as the study of the effects of geographic and historical factors and elements on the development of state power centers; as such, its core definition was thus building on the understanding of geography as a set of relatively static spatial values whose periodic variability is recognized and predictable insofar as it renders possible to assume a fixed spatial arrangement as permanent in political planning. Based on these premises, the concept of geographical determinism thus became the foundation of modern geopolitical thinking.

Geographic determinism, according to which human activity is determined by physical environment, has for centuries provided a sufficient theory for understanding physical space in which changing political forces interacted. Most of the development of human civilization occurred during a period of relative uniformity of the climatic system in human-populated geographic areas, thus making it possible to base the idea of state sovereignty on arbitrarily drawn boundaries whose variability resulted almost exclusively from interstate political rivalry. Natural phenomena that could affect the course of national borders or their geopolitical potential, such as droughts, floods, or the attendant crop failures – whose occurrence and intensity were recognized by unrelated human communities on different continents – tapped into the idea of how the world works. Knowledge of how climate change



has historically affected the spatial geography within which states developed, competed, and succeeded one another remains residual, although contemporary research seems to point to historical examples where institutional failure to confront the regional impacts of climate change may have contributed to the collapse of some civilizations or to politically momentous crises⁴. Other studies suggest that climate change has played a role in shaping the direction of the evolutionary trajectory of the human species, although science is still struggling to identify the causal relationships that may have resulted from this influence⁵.

Weather phenomena influenced the course of political events more often than climatic changes, and among their numerous examples one can mention the downpours over Waterloo that preceded Napoleon's last battle and his ultimate defeat (interestingly, it remains a matter of debate whether - and if so, to what extent - weather extremes in the first half of the nineteenth century such as the rain preceding the Battle of Waterloo resulted from documented climatic changes that ensued following the eruption of the Tambora volcano in Indonesia in 18156). At the same time, the risk of a natural disaster or at least unfavorable weather that an army setting out to conquer another country might encounter has for centuries been included in the pool of irreducible random risks, the impact of which kings and emperors tried to mitigate at most by implementing circumstantial adaptation measures or by raising prayers to the gods. For all these reasons, the development of geopolitics as a research field did not require to consider climate change as a factor per se shaping geography which forms the space of interaction between different state (and less often **non-state**) centers of power. Thus, the appeal of the concept of geographical determinism, which to various extents underpinned the dominant geopolitical theories, has persisted to the present day.

⁴ For example, the collapse of the Southeast Asian Khmer empire in the 15th century is associated with the prolonged drought it suffered. The collapse of the South American Anasazi, Akkadian, Classic Maya, Mochica and Tiwanaku empires coincided with periods of widespread, parallel changes in weather patterns. In Europe, by contrast, a debate continues on the question of whether impact the changes in weather patterns I n the 1640s and 1650s, which resulted in longer and harsher winters and cooler and wetter summers, contributed to the worsening of the multidimensional political crisis that enveloped the continent in the 17th century.

⁵ See National Research Council. 2010. "Understanding Climate's Influence on Human Evolution". Washington, DC: *The National Academies Press*. Access: https://doi.org/10.17226/12825

⁶ See Petraeus David, McAleenan Benedict. 13 April 2021. "Climate Change as a Growing Force in Geopolitics". Environmental Politics, Policy Exchange. Access: https://policyexchange.org.uk/climate-change-as-a-growing-force-in-geopolitics/



Climate change in public discourse and geopolitics

The currently progressing parallel changes in climate that have been observed for several decades on local, regional and global scales are attributed by most of the scientific community to the increased concentration of greenhouse gases in the atmosphere. The recognition of the causal relationship in the correlation between the increase of greenhouse gas concentrations in the atmosphere, the rise of average temperatures and the surge in number and intensity of extreme weather events arouses nowadays less scientific controversy than the predictions as to how the trajectory of this correlation will evolve, or as to how effective a tool in climate change mitigation will the reduction of anthropogenic greenhouse gas emissions turn out to be. Still, the primary bone of contention in the public discussion, not least in countries whose governments are implementing large-scale programs to decarbonize their economies, essentially boils down to two questions: (1) whether – and if so, then to what extent – human activity is contributing to the occurrence of changes in the Earth's climate system that are not due to natural planetary processes; and (2) whether reductions in anthropogenic GHG emissions can effectively slow or halt these changes. While questions about these two issues are central to the discussion at hand, focusing on them has also led to its instrumentalization and impoverishment. It is particularly striking how little attention has the public discourse in the countries of the Global North paid in the past years to the changes in socio-economic geography resulting from changes in spatial geography under the influence of the increasingly intensive effects of climate change. These topics have thus become the domain almost exclusively of think tanks and academics whose work informs policy decisions. Only recently has this theme begun to attract the attention of a wider global audience as the frequency of extreme weather events increases and their effects are felt.

Recognizing the impact of climate change on international order and security

The debate on climate change as an issue affecting international security and foreign policy dates back at least to the writings of the 1970s and 1980s, when well-known and respected



authors such as George Kennan⁷ and Richard Falk⁸ began to discuss the impacts of environmental degradation risks on international security. Environmental degradation is not identical to climate change, but the attention given to it helped initiate discussion on the need for international cooperation in climate policy-making and, consequently, led to proliferation of international treaties as a way for states to commit to informing each other about actions which they take that may generate negative and transboundary environmental impacts. It was not until the early 1990s and the end of the Cold War, however, that this debate began to take on real significance for security thinkers. The new environmental security agenda, developed under the aegis of the UN and entrenched in the conclusions of the early IPCC reports indicated that the next decades would bring an growing number of conflicts over natural resources. Breakthroughs in the process of recognizing the threat of climate change to international security include the 2003 Pentagon Office of Net Assessment report, the first major study to come out of U.S. military circles that pointed to the challenges to international security posed by climate change⁹.

Numerous publications over the past two decades by analysts from intelligence agencies, think tanks and academia have brought the subject of the consequences of climate change for the international security system into the thinking space of a relatively wider audience. **Most of these publications, however, are characterized by an analytical effort focused on a selected thematic section, on the basis of which broader conclusions are drawn about the dangers to the international order posed by changes in planetary climate parameters. These analyses aim to convince decision-makers and the public of the scale of the threat which the progression of climate change caries for international order and security, although the majority of assumptions made therein as to the enormity of the threat is based principally on conclusions resulting from extrapolations of findings from the IPCC reports. It**

⁷ Kennan, George F. 1970. "To Prevent a World Wasteland". *Foreign Affairs* vol. 48, no 3. Access: https://www.foreignaffairs.com/articles/1970-04-01/prevent-world-wasteland

⁸ Falk, Richard A. 1973. "Environmental Warfare and Ecocide – Facts, Appraisal and Proposals". *Bulletins of Peace Proposals* vol 4, no 1, pp. 80-96. Access: https://www.jstor.org/stable/44480206

⁹ Office of Net Assessment. Październik 2003. "An Abrupt Climate Change Scenario and Its Implications for United States National Security". Access: https://www.iatp.org/documents/abrupt-climate-change-scenario-and-its-implications-united-states-national-security



is important to note, however, that the function of the IPCC reports is to inform governments of the predicted risks of climate change and to inform them of the emission targets that, according to science, must be met in order to halt or slow down climate change; it is not the role of the IPCC to advise governments on the choice of measures to achieve such targets. The IPCC's projections are based on probabilistic scientific models that determine possible trajectories of change and point to different possible rates of increase in global average temperatures, the pursuit of which depends on the amount of greenhouse gases released into the atmosphere. All this allows to understand the following paradox: despite the fact that the Paris Agreement was signed by essentially all countries of the world, national or regional efforts to reduce greenhouse gas emissions are characterized by unevenness of measures adapted and indicate significant discrepancies in the level of ambition of mitigation efforts.

The above-described situation epitomizes the inherent dichotomy of the climate crisis: on the one hand, the success of the Paris Agreement indicates that virtually all countries today formally agree that there exists a causal link between the progressing intensification of climate change and the growth of anthropogenic greenhouse gas emissions; on the other hand, these same countries have not agreed that the ambitions set in the Paris Agreement take the form of treaty obligations. This outcome stems directly from geopolitical considerations, which require states to manage their own priorities in a way that reconciles its pursuits of different strategic interests. Still, as climate change is widely recognized as a source of serious threats to security, demographics and economic growth, mitigation and adaptation efforts to combat it have quickly moved to the top of the list of strategic priorities, especially among advanced high-carbon economies, i.e. those whose economic success has primarily been made possible by high dependence on fossil fuels. Yet, while the goal of decarbonizing the global economy may often appear as the only common denominator between countries with distinct geopolitical objectives, with both the United States and China seeking to reduce their own greenhouse gas emissions and to green their own economies, their mutual desire to decarbonize the global economy does not overshadow their particular interests resulting from ongoing and ever intensifying competition between them to secure global hegemony. It would be implausible to assume that the worsening of the climate crisis will structurally change this paradigm.



Moreover, the conviction among carbon-intensive economies that future economic growth will only be possible in a decarbonized world promotes and rewards their efforts to achieve decarbonization through those technologies and know-how that their governments have at disposal and are able to export. As a result, the community of interest in combating climate change requires taking into account divergent geopolitical interests stemming from the pursuit of what nominally is the same goal. The German-French dispute over the place of nuclear energy in the process of achieving climate neutrality in the European Union provides a perfect example of such divergence.

Basing the effort to convince public opinion of the need to reduce greenhouse gas emissions on the authority of the IPCC undoubtedly allowed climate change to enter mainstream media and gave legitimacy to the argument for the need to decarbonize the global economy. However, the resulting legitimacy and growing public acceptance for the "green transition", which is a collective term for government action to reduce anthropogenic GHGs by decarbonizing the economy, has not yet been accompanied by the promotion of awareness of the practical implications of its implementation, especially in the sphere of international relations. Not much different is the question of the public's understanding of the cascading and/or non-linear effects of direct climate change, only some of which take the form of extreme weather events. There are still far too few analytical studies that approach these issues in a comprehensive geopolitical analysis and address them in a holistic manner, so as to take into account all of the relevant interdependencies and feedback loops.

The geopolitics of climate change adaptation

The considerations offered above call for distinguishing between two interdependent subareas in the research domain of climate change geopolitics.

The first sub-area of research would be the study of the direct effects of climate change on the evolution of the international balance of power, including their implications for changes in the geopolitical potential of states and groups of states which make up the international system. The strength of a state is primarily determined by the already mentioned factors and objectively measurable values, whose quantity and quality depend directly on the economic parameters of the modern state. The establishment, maintenance and improvement of the



latter, on the other hand, is possible only in a biological environment which enables large-scale agricultural and industrial production and distribution. The intensification of transboundary effects of climate change in the form of rising temperatures, water levels, floods, droughts or loss of biodiversity will directly affect countries' production and distribution capacities, exacerbate economic, social and migratory pressures; as such, it will be a factor shaping the power potential of the states. While it is uncertain whether climate change will become a direct cause of national or international disputes and conflicts in the future, the extreme weather events through which it manifests itself have already started to reveal their potential to fuel crises around resource scarcity, production or cross-border migration. As such, climate change is rightly referred to as a *threat multiplier* a phenomenon that can exacerbate the crises that preceded it and systemic vulnerabilities.

In an economically interconnected world, where the global division of labor production is based on the principle of comparative advantage, the effects of climate change on one country may also affect the geopolitical potential of other countries, especially through changes in the relationships resulting from international import-export relations and disruptions in global supply chains. This relationship exposes the non-functionality in today's reality of geopolitical reasoning hitherto based on the paradigm of territoriality. Impeccably formulated in Robert David Sack's classic work¹⁰, the concept of territoriality refers – in terms of political geography – to the idea of delineation and control of physical land and sea borders as a tool for perpetuating and legitimizing state power. The obsolescence of thinking solely on the basis of this paradigm, rooted in the notion of political power understood as a phenomenon unfolding horizontally, one that occurs within and along national borders, has to some extent already been laid bare by advancements in aviation, intercontinental ballistic missiles, and early conquests of space. Most likely, however, it is climate change that will ultimately expose the inadequacy of strategic planning and geopolitical thinking based on the premise of two-dimensional territoriality. The assumption which has long underpinned global politics, that the world is necessarily a competitive arrangement of flat territorial states, fails to account for some of the most important

¹⁰ See Sack, Robert David. 1986. "Human Territoriality: Its Theory and History", Cambridge Studies in Historical Geography, Cambridge University Press.



volumetric dimensions of state power. While the boundaries of states are relatively fixed, the values that constitute the geophysical state of their territory are not. In addition to cyberspace, the bulk of the volumetric dimensions currently most relevant to the realization of state interests are the geometries of the atmosphere and the waters, especially those of seas and oceans. Worth pondering in this context is the idea of the British philosopher Stuart Elden to replace the concept of territoriality with that of "volumetric geopolitics", which would take into account the three-dimensional physical values relevant today for the institutions of political power, such as levels of greenhouse gas concentrations in the atmosphere or of sulfates in ocean waters, changes in the volume of Arctic ice, etc. 11 Elden's proposal is attractive in the sense that it allows to break with the two-dimensional cartographic imagination that has thus far dominated geopolitical thinking in order to include three-dimensional geometric values. Interstate competition to secure national interests in new areas opens the next chapter in geopolitical thinking, which must now take into account the changing relationship between civilization and nature in the new era of the Anthropocene, where humans have a decisive influence on the earth's geological system and the condition of its ecosystems.

It is realistic and common sense to assume that the progressing climate change, notwithstanding the immensity of suffering and hopelessness which it will likely bring upon humanity and the new groundswell of international cooperation resulting from the drive to reduce greenhouse gas emissions, will not inhibit interstate rivalries. More likely, shifts in the geopolitical power potentials of individual states and regions and the resulting cascading effects such as increased migration or competition for natural resources and food will intensify such rivalries. It is important to note that despite the mostly negative changes that a rapidly evolving climate will imply for national economies and the global economy, from a geopolitical perspective climate change will also bring relative benefits, albeit perhaps temporary, for certain countries, some of their regions or particular stakeholders. The various potential economic and political benefits of climate change, such as longer growing seasons in hitherto crop-poor areas, additional rainfall and transport routes

¹¹ Elden, Stuart. 2020. "Terrain, politics, history", *Dialogues in Human Geography* vol. 11 no 2, pp. 170-189.



opening up due to lack of ice cover in some areas will represent punctuated shifts, albeit perhaps temporary, in the international balance of power that are only marginally taken into account in strategic planning today.

The geopolitics of climate change mitigation

Regardless of the narrative which underlies it and the function it plays in the context of combating climate change, the gradual process of moving away from fossil fuels in favor of renewable energy constitutes another civilizational process of systemic transformation, in this case energy transformation. In the past, energy transformations have had a decisive impact on both the direction of civilizational development and the evolution of the balance of power in the international system, as well as on the very structure of the latter. The previous great energy transformations were staggered historical processes whose initiation resulted from technological progress and competition for geopolitical primacy. The formation and final culmination of these processes was each time fraught with geopolitical consequences (in the past centuries this was notably the case with the spread of coal, the steam engine and eventually with oil and gas, each of which successively assumed the role of a driving forces of the world economy). From this perspective, the ongoing revolution in the energy sector, which is the most far-reaching and systematized energy transformation process in the history of mankind, should first of all be understood as a historical process. At the same time, for a strictly geopolitical analysis, adherence to the assumption underlying this process, that the growing intensity of changes in the climate system is of anthropogenic origin, is relevant only insofar as the adoption of such an assumption directs the internal and external policy of the state subject to analysis. In other words, and by way of example, in order to analyze the geopolitical effects of the New Green Deal implemented in the EU, it is not indispensable to assume that the climatic changes observable today are anthropogenically induced, but only that the EU climate policy is based upon such an assumption.

The geopolitical analysis of the currently accelerating green transition should be guided by the goal of identifying the direct and indirect impacts, as well as the new relationships and interdependencies that are or will be created by the process of mitigating the effects of climate change through decarbonization. The same should apply to the geopolitical analysis of other direct and indirect impacts of climate change that require broad adaptation actions by governments, which are implemented under the guise of the green transition. Each of the underlying phenomena that are driven by the requirements of the energy transformation, such as the gradual reduction in demand for fossil fuels, the spread of renewable energy technologies or the electrification of transportation will contribute to stimulating competition between countries: for rare earth resources, for neocolonial control over other countries that possess them, for primacy in the area of carbon-free and low-carbon technologies, for a better place in the changing global division of labor, increasingly shaped by the decarbonization process.

At the same time, the competition resulting from the intensification of decarbonization efforts is only part of the issue at hand. While climate change is the current focus of attention, other human-initiated environmental transformations are occurring in parallel, interacting with each other in ways that are not yet understood, or about which scientific knowledge remains limited. Processes such as the decline of biodiversity, the depletion of ocean fish stocks, the extinction of bird and mammal species or the eutrophication resulting from the overuse of nitrogen-phosphorus fertilizers – all of these and other human-driven processes affect the functioning of ecosystems and their interactions with one another. The non-linearity of these effects makes it difficult to identify critical thresholds the exceeding of which could entail the collapse of particular systems that drive human civilization, such as agricultural production. To quote Donald Rumsfeld, this constitutes an example of a known unknown of the kind that the systemic management of risk by states will require taking it into account in policy calculations by seeking to recognize its scope, consequences and realization of mitigating actions. The last of these steps may in some cases be more difficult to implement; for example, it is hard to imagine reducing the use of artificial fertilizers to increase food production at a time when human population growth is projected to increase substantially in the coming decades¹², unless a reliable substitute solution sees the day. By contrast, in cases such as overfishing and tropical deforestation,

¹² See Suzuki, Emi. 8 July 2019. "World's population will continue to grow and will reach nearly 10 billion by 2050". World Bank Blogs. Access: https://blogs.worldbank.org/opendata/worlds-population-will-continue-grow-and-will-reach-nearly-10-billion-2050



mitigation solutions are now well identified but their implementation is often considered impossible or excessively difficult, often for political reasons. Although in the future some of these environmental changes may be able to be partially reversed by negative feedbacks, from a risk management point of view it would be wrong to assume that these changes, non-linear, cascading and interrelated, will be harmless to human civilization¹³. As such, they must be included in geopolitical calculations.

The purpose of the ClimeNous project

Climate change is a phenomenon whose understanding and shape is characterized by a long list of uncertainties, unknowns and only partially recognized challenges. As such, it represents a significant risk factor, the management of which will have a growing impact on the shape of power shifts in international political and security systems. In this context, one can hardly disagree that geopolitics is in effect no longer "just about playing the great game of state rivalry; it is also about literally remaking the playing field" ¹⁴. This new reality requires decision-makers to shift from linear thinking about the political and geopolitical impacts of climate change to thinking in a multifaceted manner which takes into account the interlocking systemic changes that result from climate change or actions taken in response to it. This kind of transformation of the mental maps that dominate thinking about the impacts of climate change today is necessary to effectively manage climate risks in the sphere of international relations and geopolitical rivalries.

The exact impact of climate change on the geopolitics of tomorrow is yet to be identified; its presence is certain, however, as manifested through the effects of climate change that have already begun affecting directly and indirectly the economic, social, military and demographic parameters that determine political choices which governments make. At the same time, situating the consequences of climate change in geopolitical analysis is

¹³ See German Advisory Council on Global Change. 2008. Report "World in Transition: Future Bioenergy and Sustainable Land Use". Access: https://www.wbgu.de/en/publications/publication/welt-im-wandel-zukunftsfaehige-bioenergie-und-nachhaltige-landnutzung#section-downloads

¹⁴ Dalby, Simon. 2013. "Rethinking Geopolitics: Climate Security in the Anthropocene". *Global Policy* vol. 5 no 1, p. 3.



complicated by the many uncertainties on both sides of the equation: for example, presenting its effects in broad geopolitical terms may downplay the importance of phenomena such as local environmental impacts and adaptation strategies on the geopolitical significance of a changing climate at global, regional or local scales. The ambition of the ClimeNous project is to undertake a broad analytical effort with the goal of identifying the different components of the phenomenon of climate change geopolitics, the processes and mechanisms that constitute it, its impacts, dependencies and feedback loops. Its authors wish to develop a taxonomy of the effects of climate change that will contribute to changes in power potentials in the international system. The project title, "ClimeNous". combines the ancient Greek terms *climes*, used to describe the division of the inhabited part of the spherical Earth according to latitude, and nous, which refers to the capacity of the human mind to understand what is real or true. It reflects the project's premise of a desire to explore the evolving relationships resulting from climate-induced changes in spatial arrangements and the implications which this phenomenon will have for geopolitics. As part of the project, our team will publish articles on specific topics and produce reports that aim to place the issues discussed in the articles in a broader geopolitical context. In between publications, we will also provide valuable background material to help our readers gain the best possible understanding of the fascinating and fraught issue that is the geopolitics of climate change.



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