THE RELEVANCE OF CLIMATE CHANGE TO CONTRACT LAW

Gonzalo Vial Fourcade*

ABSTRACT: Climate change is a problem with an extremely wide scope, both in its consequences and in the solutions required to tackle it. In this context, this article reflects on whether climate change is a matter of legal significance to the field of contract law. As a conclusion, it is argued that the phenomenon is relevant for contract law for at least three reasons, namely: that such a legal field provides tools that are useful to address the climate problem; that the climate crisis raises several legal challenges for the field, and that climate change has altered the legal landscape of contract law and will continue to do so.

KEYWORDS: Climate Change, Contract Law, Relevance.

RESUMEN: El cambio climático es un problema de alcance sumamente amplio, tanto en sus consecuencias como en las soluciones requeridas para enfrentarlo. En este contexto, este artículo analiza si la crisis climática es una materia de relevancia para el derecho de contratos, y concluyendo que dicho fenómeno reviste importancia para dicho campo por al menos tres razones, a saber: que el derecho de contratos proporciona herramientas que son de utilidad para enfrentar la emergencia climática; que la crisis climática implica diversos desafíos para el mencionado campo del derecho, y que el cambio climático ha modificado el paisaje del derecho de contratos y continuará haciéndolo.

PALABRAS CLAVE: Cambio climático, derecho de contratos, relevancia.

* PhD in Law student at the University of Cambridge. He is a lawyer from Pontificia Universidad Católica and holds a master’s in environmental law and policy (Energy Track) from Stanford Law School, obtained under a Fulbright scholarship and a scholarship from the Chilean Government. Mr. Vial was partner at Bulnes, Urrutia & Bustamante, firm of litigation and arbitration, for ten years. He taught Civil Procedure at Universidad Adolfo Ibáñez and Universidad Católica and has more than eleven publications on dispute resolution. Email address: vialfourcade@gmail.com.
I. INTRODUCTION

International public law and international environmental law are the legal fields that have been predominantly used to deal with the challenges arising from climate change. However, the impacts from the phenomenon are extremely wide in scope, as it has the potential to affect nearly all human and natural systems on our planet. As explained by Richardson, Steffen, and Liverman, the alterations that have been observed due to the climate tragedy “influence the conditions for all life on earth”.

In the context of such a wide-ranging problem, it should not come as a surprise that other legal fields, besides international public law, and international environmental law, have been considered relevant in the fight against the climate crisis. For instance, different authors have referred to the need of addressing the matter under the lens of human rights law, constitutional law, and administrative law, among other legal disciplines. Therefore, it seems...
that dealing with the climate emergency is a task for which all possible hands are needed.\(^5\)

This article brings into the discussion a field that has been less associated with climate challenges, namely: the law of contracts.\(^6\) Particularly, the work aims to develop an explanation of why climate change is a relevant issue for contract law. By illustrating the importance of the relationship between the former and the latter, this piece expects to justify the need to conduct research at the intersection between the climate emergency and the mentioned legal field. To achieve its objective, as is evident, the article starts with this introductory section, where its purpose and structure are expounded (Chapter I).

The work then describes the general context in which the analysis takes place (Chapter II). This is done by explaining the science behind the climate crisis and the most relevant global legal efforts that have been conducted to address the matter.\(^7\) In this regard, it must be noted that there is no intention of bringing a new perspective to those topics or to treat them comprehensively, as they are already well-developed in the literature and that would go beyond the scope of this article. As mentioned, they are addressed just to provide the necessary background to properly understand the reflections of this work.\(^8\)

Subsequently, the article proceeds to develop its core argument, that is, to explain why climate change is a matter of legal significance for contract law (Chapter III). This stance is based on three main reasons, namely: that said legal field provides tools that are useful to address the climate problem; that the mentioned crisis raises several legal challenges in the mentioned field, and that climate change has altered the legal landscape of contract law and will continue to do so.

Finally, the last section of the article exposes the conclusions reached by this work (Chapter IV).

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\(^6\) With the expression “the law of contracts” this work refers to the different bodies of laws and customs related to the concept of contract, despite the differences that it presents in some jurisdictions. Regarding different definitions of the concept “contract”, see Hernán Corral, *La Definición de Contrato en el Código Civil Chileno y su Recepción Doctrinal. Comparación con el Sistema Francés*, in **Derecho de los Contratos: Estudios Sobre Temas de Actualidad** (Hernán Corral & Guillermo Acuña eds., 2004).

\(^7\) In other words, the background of this piece is provided by explaining what climate change is, and what has been done about it from a global legal perspective.

\(^8\) Such background knowledge might be familiar to those with experience in climate issues, but not to all the readers that might be interested in this article, like contract lawyers or disputes resolution practitioners without previous knowledge on the subject.
II. PROVIDING A BACKGROUND FOR THE ANALYSIS

In order to provide the adequate context for an analysis that is focused on the relationship between climate change and a specific legal field, as it is the law of contracts, it seems appropriate to develop a general overview of two matters: (1) what the climate crisis is, and (2) what kind of global legal efforts have been conducted in order to tackle it. This will offer to the reader lacking a background on climate issues a general understanding of climate change and its relationship with the legal arena (broadly conceived).

Furthermore, as it will be observed below, the description of those circumstances illustrates two situations that are functional to the argument made in this article. In the first place, that climate change involves challenges that are notoriously wide in scope, so it should come as no surprise that different legal fields, including the law of contracts, have a role to play in finding a solution to the problem, or can be affected by the situation. And secondly, that the paradigmatic work conducted under international frameworks in order to tackle the climate crisis currently recognizes the importance of private actors in that quest. This makes more credible, at least in principle, a statement that climate change is a relevant matter for the law of contracts: a legal field in which private agents usually take center stage.

1. The Science Behind Climate Change

Climate change refers to “long-term shifts in temperatures and weather patterns”. These alterations can be caused by natural reasons, but since the beginning of the 19th century, human activity has been their main driver, es-

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9 This was anticipated in the previous chapter of this article. See Chapter I.
10 As explained before, such background might be familiar to those with experience in climate issues, but not to all the readers that might be interested in this article.
11 That is that climate change is a relevant issue for the law of contracts.
12 In this regard, it must be noted that this work will not deepen into those two situations that are functional its argument, as doing so would exceed the scope of this work. Those situations are just observations that are reached while providing the general background for the core argument of this article, and that help, in a way, to support it.
13 United Nations, Climate Action: What is Climate Change available at: https://www.un.org/en/climatechange/what-is-climate-change. The Glossary of Annex II of the Synthesis Report, produced in the context of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), states the following regarding climate change “Climate change refers to 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”. IPCC, 2014 SYNTHESIS REPORT, supra note 2.
14 For example, due to “variations in the solar cycle”. United Nations, supra note 13.
pecially due to the emission of greenhouse gases from the combustion of fossil fuels.\textsuperscript{15} Those gases trap the heat of the sun — more precisely the terrestrial radiation flowing from the earth’s surface — producing a raise in temperatures: the famous greenhouse effect.\textsuperscript{16}

The current concentration of greenhouse gas emissions is the highest in the last two million years.\textsuperscript{17} Among the main gases that produce the greenhouse effect are carbon dioxide (CO_2), nitrous oxide and methane.\textsuperscript{18} CO_2 has traditionally been the target of measures aiming to mitigate climate change because, once added to the atmosphere, it can stay around for a long period of time: between 300 and 1000 years.\textsuperscript{19} Thus, the changes in the atmosphere produced by CO_2 emissions will remain there for generations.\textsuperscript{20} Also, this gas has been an issue of concern due to the increase of its concentration during the last centuries, and because it is the main greenhouse gas emitted by human activities.\textsuperscript{21} Other reasons also explain the worries about this element.\textsuperscript{22}

Greenhouse emissions have an impact on the climate regardless of the jurisdiction where they are produced. In other words, the causes and effects of climate change are global.\textsuperscript{23} That is why measures to mitigate the climate crisis


\textsuperscript{16} Margaret Rosso Grossman, Climate Change and the Individual, 66 The American Journal of Comparative Law (Issue suppl 1) 345, 346 (2018); United Nations, supra note 13.

\textsuperscript{17} United Nations, supra note 13.

\textsuperscript{18} CEPAL, Acerca del Cambio Climático available at: https://www.cepal.org/es/temas/cambio-climatico/acerca-cambio-climatico; Charles D. Keeling, Climate Change and Carbon Dioxide: An Introduction, 94 Proc. Natl. Acad. Sci. 8273, 8275 (1997). Regarding the mentioned gases, the following was stated already in 1997: “Broadly speaking, climatic change is caused by… These processes are mainly natural, but some, at least, are susceptible to human influence. Processes that involve the so-called greenhouse gases are probably the most critical candidates. These greenhouse gases, mainly carbon dioxide but including others such as methane, nitrous oxide, and halocarbons, enter the air mainly as by-products of the combustion of coal, natural gas, and petroleum, and to a lesser degree through other industrial and agricultural activities… As they build up, these gases trap radiation upwelling from the Earth’s surface. The expected consequence is rising temperature at the Earth’s surface unless some compensating process cancels out this tendency”.


\textsuperscript{20} Id.

\textsuperscript{21} Keeling, supra note 18; Andrew Dessler, Introduction to Modern Climate Change, 67 (2nd ed., Cambridge University Press, 2017).

\textsuperscript{22} Those other reasons are not developed in this article because that would go beyond the scope of this work. This also explains why this article does not refer further to other greenhouse gases. As mentioned in the introductory chapter, this chapter, A. The science behind climate change, only aims to provide the necessary background to understand the argument that is developed in chapter III of this work (Climate change: A relevant issue for contract law).

\textsuperscript{23} Bodansky, supra note 1.
require a world-wide policy. In this regard, Smil has stated that “[s]ubstantial decline of carbon emissions, even an instant decarbonization of energy supply in a major advanced economy, makes little difference as long as the greenhouse gas emissions from other sources and from other countries keep on rising”. In 2017, the warming induced by human activity reached approximately 1 degree Celsius (°C) above the preindustrial level, and it is likely to reach 1.5°C between 2030 and 2052 at the current increase rate. In the meantime, relevant changes have been observed: the atmosphere and oceans are warmer, the sea level has risen, and lower amounts of ice and snow are present. The year 2019 was the second hottest of all time, and the decade that started in 2010 was the hottest ever recorded.

Climate change is a global problem that has the potential to affect nearly all systems of our planet, both human and natural. Indeed, besides involving changes to weather systems and temperatures, the climate crisis includes risks to health, livelihoods, food security, water supply, human security, economic growth, biodiversity, and ecosystems, among other hazards. So far, Climate change is par excellence a global problem —the «common concern» of humanity, to use the language of the UNFCCC— potentially affecting all States, and for which global solutions are essential. Alan Boyle & Navraj Singh Ghaleigh, Climate Change and International Law Beyond the UNFCCC, in THE OXFORD HANDBOOK OF INTERNATIONAL CLIMATE CHANGE LAW 27 (Cinnamon P. Carlarne, Kevin R. Gray & Richard G. Tarasofsky eds., 2016). Vaclav Smil, What we need to know about the pace of decarbonization, 3 (2) SUBSTANTIA (Suppl. 2) 69, 73 (2019). The “Glossary” of the Special Report by the Intergovernmental Panel on Climate Change titled “Global Warming of 1.5°C” defines “Pre-industrial” in the following terms: “The multi-century period prior to the onset of largescale industrial activity around 1750. The reference period 1850-1900 is used to approximate pre-industrial global mean surface temperature (GMST)”. IPCC, Glossary, in GLOBAL WARMING OF 1.5°C (2018) available at: https://www.ipcc.ch/sr15/.


IPCC, 2014 SYNTHESIS REPORT, supra note 2.


IPCC, 2014 SYNTHESIS REPORT, supra note 2; IPCC, 2022 SUMMARY FOR POLICY MAKERS, supra note 2.

Id.

The impacts flowing from the climate crisis have been categorized in different ways in the academic literature. In this regard, it is common to distinguish between the physical changes in the climate system and the ways in which those changes affect human and natural systems. The first group of impacts includes an increase in the average global temperature, changes in the amounts, forms, and patterns of precipitations, a rise in the sea level, the acidification of the oceans, and more extreme weather events. The second group of consequences encompasses the most varied effects. For instance, climate alterations have affected human health, food security, water availability, and several types of ecosystems. Even geopolitical consequences,
human-induced climate change has caused extensive negative impacts, losses and damages to nature and humans. In this regard, Gardiner states that “[h]umanity stands on a precipice. Mainstream science tells us that climate change is real, accelerating, and might credibly result in global catastrophe”. The higher the temperature increases, the greater the problems and challenges arising from climate change become. That is why common efforts to tackle the problem have emphasized the need to restrain the increase of temperature. As explained by the Intergovernmental Panel on Climate Change (IPCC), perhaps the most relevant scientific body in charge of studying and explaining the climate crisis, there is high confidence in that the risks derived from climate change are higher for global warming of 1.5°C than at present, but lower than if the increase of temperatures reaches 2°C.

There is little contention on the scientific basis of the climate crisis. This can be attributed substantially to the IPCC, the United Nations body in charge

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34 IPCC, 2022 Summary for Policy Makers, supra note 2, at 7.
36 IPCC, Summary for Policy Makers, supra note 17, at 5.
37 Regarding the importance of the Intergovernmental Panel on Climate Change and some factors that have contributed to it, see Navraj Singh Ghaleigh, Science and Climate Change Law – The Role of the IPCC in International Decision-Making, in The Oxford Handbook of International Climate Change Law 56 (Cinnamon P. Carlarne, Kevin R. Gray and Richard G. Tarasofsky eds., 2016).
38 IPCC, Summary for Policy Makers, supra note 17, at 5.
39 Navraj, supra note 37, at 56.
of assessing the science related to climate change. The organization, formed by diverse and prominent members, produces reports related to the scientific grounds of climate change, its impacts, and the possible roads to handle it. These reports have shaped the key milestones of the climate regime by articulating the scientific concerns regarding the climate crisis. The science of climate change shows that the world is facing a severe problem, perhaps “the defining issue of our time”.

In sum, the science behind climate change illustrates the wide scope of the climate crisis. The phenomenon is an extensive problem because it has the potential to affect nearly all systems of our planet. Also, its wideness comes from the solutions that must be adopted to tackle it, as addressing the problem requires global and coordinated efforts.

2. Global Efforts to Build a Legal Framework to the Crisis

Several multinational forums address the climate crisis. The United Nations Framework Convention on Climate Change (UNFCCC) is perhaps the most relevant. It provides a governance structure for international laws on climate change and a platform to negotiate multilateral solutions to the problem. The goal of the UNFCCC is to stabilize “greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.

Since 1994 the UNFCCC has led several global initiatives, among which the Kyoto Protocol (1997), the Copenhagen Accord (2009) and the Paris

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40 IPCC, The Intergovernmental Panel on Climate Change, available at: https://www.ipcc.ch/.
41 As explained by Navraj, “[t]he core of the IPCC’s work is its Assessment Reports, produced at the end of five-year (approximate) cycles of collation, drafting, and peer review, and divided into three working groups, dealing respectively with the «Physical Science Basis of Climate Change», «Climate Change Impact, Adaptation and Vulnerability», and «Mitigation of Climate Change». The volumes are substantial, technical reports, running to thousands of pages”. Navraj, supra note 37, at 61-63.
42 Id at 56.
44 David Held & Charles Roger, Three Models of Global Climate Governance: From Kyoto to Paris and Beyond, 9 (4) GLOBAL POLICY 527, 533 (2018).
46 Boyle & Singh, supra note 24, at 29; Bodansky, Brunnée & Rajamani, supra note 1, at 118.
47 UNFCCC, adopted May 9, 1992, entered into force March 21, 1994, 1771 UNTS 107 (UNFCCC).
Agreement (2015) are perhaps the most notable because they symbolize the evolution of international climate change law. Indeed, the Kyoto Protocol has been considered “the thesis, the Copenhagen Accord the antithesis, and the Paris Agreement the syntheses”. They outline the three main models of global climate governance that have been applied.

The Kyoto Protocol followed the traditional approach at the time: a mandatory top-down architecture, establishing an overall greenhouse gas reduction of 5% below 1990 during a first commitment period (2008-2012), for which targets, a timetable, and compliances rules were agreed upon. It followed a regulatory approach, according to which negotiated individual targets were mandatory. However, it was criticized, among other reasons, for being ecologically ineffective and for including reduction targets that were not based on science.

The Copenhagen Accord shifted global governance on climate change to a more voluntary approach, according to which each State would commit freely to adopt particular actions. Even though the accord was criticized for its lack of enforceability, it set a long-term target in order to limit the increase in global temperatures to 2°C above pre-industrial levels with a more scientific background than the Kyoto Protocol. Also, it made all major emitters of greenhouse gases to engage in negotiations related to climate change. The Copenhagen Accord has been described as the complete opposite of the Kyoto Protocol, “a political agreement built around bottom-up pledges giving states tremendous flexibility”.

The Paris Agreement, which is an international treaty, ratified the 2°C target established in the Copenhagen Accord, adding an aspirational goal of a
1.5°C limit in the rise of global temperatures.\textsuperscript{59} This international treaty mixes voluntary and regulatory elements: States inform their \emph{nationally determined contributions} (NDC),\textsuperscript{60} which despite being voluntary targets regarding emission reductions come with procedural obligations, like updating them and publishing reports tracking emissions.\textsuperscript{61} The Paris Agreement is a hybrid between the Kyoto Protocol and the Copenhagen Accord, “a legally binding instrument with some non-binding elements, and combines bottom-up, nationally determined contributions (NDCs) with internationally negotiated rules to promote ambition and accountability”\textsuperscript{62}.

It must be noted that the Paris Agreement highlights the importance of non-state and sub-state actors in the fight against climate change.\textsuperscript{63} As explained by Streck, such a treaty encourages “sub-national governments, corporations and civil society to contribute to reaching ambitious climate goals”.\textsuperscript{64} This constitutes a transition from the design of the Kyoto Protocol,\textsuperscript{65} in which private actors have gone from opponents to partners.\textsuperscript{66} In other words, the evolution of global climate governance shows that private actors are expected to play a crucial role in dealing with the climate emergency.\textsuperscript{67} Therefore, it is logical that the law of contracts has a role to play in such task, as agreements have been commonly used by private parties to regulate their conducts on certain matters.

That said, the following section of this work reflects on the relevance of climate change to the field of contract law, developing three reasons that allow

\textsuperscript{59} Id.
\textsuperscript{60} In the lead up to the Paris Agreement, states developed their intended nationally determined contributions (INDC), which convert into a NDC when they formally join the mentioned international treaty.
\textsuperscript{61} Ibid. at 532-33. Held and Roger, within the cited text, explain the hybrid structure of the Paris Agreement in the following words: “At the heart of the Paris Agreement are the nationally determined contributions (NDCs), which are the «pledges» that parties aim to achieve… they are not up for negotiation… The agreement does not obligate parties to meet their pledges… At the same time, however, the Paris Agreement… setting states’ pledges within a legally binding framework that builds around them a range of important procedural obligations. For instance, each party must prepare, communicate and maintain an NDC that reflects their…”.
\textsuperscript{62} Bodansky, Brunnée & Rajamani, \textit{supra} note 1, at 351.
\textsuperscript{63} Held & Roger, \textit{supra} note 44.
\textsuperscript{64} Charlotte Streck, \textit{Filling in for Governments? The Role of the Private Actors in the International Climate Regime}, 17 (1) \textit{JOURNAL FOR EUROPEAN ENVIRONMENTAL AND PLANNING LAW} 5 (2020).
\textsuperscript{65} Id.
\textsuperscript{66} Ibid. at 16.
\textsuperscript{67} It has been pointed out that during the negotiations of the Paris Agreement the private sector assumed a visible role. For instance, by organizing events in parallel to the negotiations of the treaty. In fact, it is a necessity that private actors play a role in the fight against climate change. That is in line with the importance and influence that they have gained in the global context within the last decades. By way of example, on many occasions, the access to technologies and investments needed to tackle the climate crisis will rest on private parties. Regarding the role of private actors in addressing climate change, see Streck, \textit{supra} note 64.
to sustain, at the same time, that the climate crisis is an important issue for the law in general and specifically for the law of contracts.

III. CLIMATE CHANGE: A RELEVANT LEGAL ISSUE FOR CONTRACT LAW

Climate change is not only a scientific concern, but also a relevant matter for the law in general. Indeed, the phenomenon can be considered an issue of legal significance for at least three reasons. First, because reaching a solution to the problem requires the use of legal tools. Second, because it raises several legal challenges. And finally, because it has altered the legal landscape and will continue to do so.

In this regard, it must be noted that contract law has something to say in each of the mentioned situations. In other words, the same reasons that explain why the climate crisis is a relevant concern for the law in general allow us to sustain that climate change is an important matter for the law of contracts.

The foregoing argument is developed in this chapter under a suitable structure. Indeed, the chapter is divided into three subchapters, each of them devoted to one of the reasons mentioned above. Thus, the first subchapter refers to the law as a tool to address the climate crisis; the second analyses climate change as a source of legal challenges; and the third describes how the climate emergency has altered the legal landscape and will continue to do so.

The ideas exposed in those subchapters follow the same order. First, they refer to indistinct legal fields (different from the law of contracts) in order to illustrate how climate change interacts in a meaningful way with the law in general. Then, they give examples portraying how those relationships also occur specifically within the law of contracts. Finally, they subsume those contract

68 That could partially explain the considerable number of legal works on the matter, the significant number of lawyers dedicated to the subject, and the large number of courses in this regard taught by law schools. Regarding some of the legal challenges that climate change involves, see Elizabeth Fisher, Eloise Scotford & Emily Barritt, *The Legally Disruptive Nature of Climate Change*, 80 (2) THE MODERN LAW REVIEW 173-201 (2017).

69 Regarding the above, it must be noted that many people might consider as something rather natural for the legal field in general, to play a role in solving the climate crisis, and to be challenged and impacted by such phenomenon, in other words; to have a significant relationship with the climate emergency. Indeed, addressing climate change requires global and coordinated action, and legal systems have been traditionally used to regulate conduct. Also, the phenomenon has the potential to affect nearly all human and natural systems of our planet, so it is no wonder it has impacted several disciplines, including the legal science. However, it is less obvious that exactly the same can be said of the law of contracts in specific. In regard to the statement that legal systems have been used to regulate the conduct of individuals involved in them, see Yuval Shany, *The Competing Jurisdictions of International Courts and Tribunals*, 1-2 (Oxford University Press 2005).

70 Accordingly, the chapter *The solution requires legal efforts*, chapter *Source of Legal Challenges*, and chapter *Changing the Legal Landscape*. 
law examples within broader conceptual categories, that pretend to reflect the general ways in which such legal fields and climate change interact.\textsuperscript{71}

Now, the reasons explaining why climate change is an issue of legal significance, for the law in general and specifically to the field of contract law, are developed below.

1. The Solution Requires Legal Efforts

A solution to the climate crisis requires global efforts,\textsuperscript{72} but coordinating different states towards a same goal is not an easy task.\textsuperscript{73} Moreover, addressing climate change faces additional complications, like divergent political agendas,\textsuperscript{74} economic concerns,\textsuperscript{75} or the temptation to leave the solution to others.\textsuperscript{76} In this context, a solution demands a system to organize, bind, and enforce different responsibilities in a cooperative manner on a global scale.\textsuperscript{77} This must be done, and has been done, using legal instruments.

In this regard, it has been stated that the problem of climate change “dictate[s] robust international cooperation within a structured framework”,\textsuperscript{78} and that international law delivers “a framework for structured cooperation among states on key global challenges”.\textsuperscript{79} Accordingly, climate change has been traditionally the subject of international public law and international environmental law.\textsuperscript{80} This is logical considering that the solution requires global cooperation by different countries under a suitable framework,\textsuperscript{81} and also, that the evolution of climate change law “stem[s] from the basic tenets of international environmental law”.\textsuperscript{82}

\textsuperscript{71} As a tool, as a challenge, and as an alteration. In other words, the idea is not to list all the particular situations that can portray an interaction between climate change and contract law (which could be countless), but to use some of them to identify categories that can illustrate such relationship in a broader way.

\textsuperscript{72} Regarding the need of global and coordinated action to tackle climate change, see Francisca Aguayo, El cambio climático como problema global: herramientas jurídicas para conciliar ambición y eficacia y el rol del Acuerdo de París, 34 (1) DESAFíOS 1 (2022).

\textsuperscript{73} Bodansky, Brunnée & Rajamani, supra note 1, at 2-4.

\textsuperscript{74} Aguayo, supra note 72.

\textsuperscript{75} Ibid. at 5.

\textsuperscript{76} Bodansky, Brunnée & Rajamani, supra note 1, at 2-3.

\textsuperscript{77} As stated by Bondi, “[t]he need for an effective international framework for cooperation was recognized quite early in the diplomatic discourse on responses to climate change”. Dan Bondi, Foreword, in THE OXFORD HANDBOOK OF INTERNATIONAL CLIMATE CHANGE LAW (Cinnamon P. Carlarne, Kevin R. Gray & Richard G. Tarasofsky eds., 2016).

\textsuperscript{78} Ibid. at VI.

\textsuperscript{79} Id.

\textsuperscript{80} Bodansky, Brunnée & Rajamani, supra note 1.

\textsuperscript{81} Bondi, supra note 77.

Examples of the legal field trying to address the issue of climate change by coordinating global efforts are varied. Perhaps the most paradigmatic are those briefly described before in this work, namely: the Kyoto Protocol, the Copenhagen Accord, and the Paris Agreement. They indeed portray how participants of a global community can intend, by the use of legal instruments, to coordinate the efforts to tackle the climate crisis on a global scale.83

However, climate change is not merely a challenge of international law, as it involves different aspects of domestic policies.84 Even the implementation of norms agreed under international frameworks “remains a constant point of consternation for States, because the drivers of implementation operate firmly in the realm of national interests and realpolitik”.85 Globalized events usually operate on a sub-global level, expressing themselves locally despite their wide scope.86 Thus, unsurprisingly, diverse areas of the law—besides international law—have a role to play in addressing the climate crisis. In this task, all hands are needed,87 including the assistance from the law of contracts.

In this regard, some associations promote the fight against climate change using contractual instruments. This is the case of The Chancery Lane Project, which has developed climate-friendly clauses to be incorporated into contracts in a way that can help to reach net-zero goals.88 By way of example, some clauses promote the cooperation between landlords and tenants regarding the environmental performance of buildings,89 while others allow the incorporation of circular economy and sustainability principles into certain contractual relations,90 or aim to enhance the possibility of transporting goods in the greenest possible way.91

More generally, it is possible to argue, following Howarth in examining the relationship between environmental and private law,92 that contract law can

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83 See A Global Efforts to Build a Legal Framework to the Crisis.
84 Bodansky, Brunnée & Rajamani, supra note 1, at 3.
85 Carlarne, Gray & Tarasofsky, supra note 82, at 14.
87 Bouwer, supra note 5.
88 The referred project made available “a net zero toolkit to provide lawyers and businesses with climate clauses so they can take action and achieve their net zero targets”. The Law Society, The Chancery Lane Project (2021) available at: https://www.lawsociety.org.uk/topics/climate-change/contracts-clauses-and-climate-change-the-net-zero-toolkit.
91 The Law Society, The Chancery Lane Project – Climate Clauses. Available at: https://chancerylaneproject.org/climate-clauses/green-fuel-requirement-and-termination-for-greener-carrier-or-shipper-maritime/.
act as climate change law in two different ways: developing contracts or clauses in pursuit of climate goals—as the examples given before—and refusing to facilitate contracts that aggravate climate change.93

Regarding the foregoing, it is worth stating that the possibility of private actors driving climate action should not be surprising because civil society has been playing a key role in different aspects of that quest, shaping debates and strategies on the matter.94 This was recognized in the Paris Agreement, which enhanced the role of non-state actors in solving climate challenges, like civil society groups, multinational corporations, cities, and others.95 Furthermore, authors have reflected on the relationship between climate change and private law,96 highlighting the role that corporations97 and private litigation can play in the solution to the problem.98 In fact, it seems that more research should be devoted to the relationship between climate change and private law, because the potential contributions of the field to solve the climate crisis have been overlooked.99

Finally, in relation to the role of the law in the solution to climate change, it must be noted that some suggest that the current legal structure is one of the causes of the climate crisis, therefore a solution to the problem will not result from reproducing the traditional legal doctrines.100 However, even in that scenario, the law needs to be part of the solution to climate change because legal frameworks would still be essential to coordinate and enforce the global and domestic efforts required to tackle the issue. In other words, an eventual necessity to modify the legal landscape does not mean that a legal framework is not required to address the climate problem. Perhaps that explains why some scholars suggest that, when it comes to climate change and private law, it is important to “rethink and reassess private law concepts like private property, not to abolish them but to find new ways to conceive, think about, and invoke them”.101

93 This affirmation follows the reasons exposed by Howarth in the article mentioned in the previous footnote. Id.
94 See Hanna Reid et al., Executive Summary: Southern Voices on Climate Policy Choices: Analysis of and Lessons Learned from Civil Society Advocacy on Climate Change (2012) available at: https://pubs.iied.org/g09360; Melanie Murcott & Emily Webster, Litigation and Regulatory Governance in the Age of the Anthropocene: the Case of Fracking in the Karoo, 11 (1-2) Transnational Legal Theory 144, 145 (2020).
95 Held & Roger, supra note 44.
97 Allen & Craig, supra note 96.
98 Bouwer, supra note 5, at 499.
99 Bouwer, supra note 5, at 484.
100 Graham, supra note 96, at 407.
101 Babie, supra note 86, at 557.
In sum, one reason to consider climate change as an issue of legal significance for the law in general and specifically for the field of contract law is that reaching a solution to the problem requires and is assisted by the use of legal tools.

2. Source of Legal Challenges

Climate change is an abundant source of challenges in the most varied legal fields. The crisis has forced societies to deal with complex questions of justice, especially in relation to intergenerational responsibility and social inequality, since the biggest costs of the problem are expected to fall on the poorest people of future generations. In fact, even the chance of implementing new technologies to address the climate crisis—climate engineering—comes with legal questions, particularly about the responsibility and liability of those behind such solutions in case they turn out to be disastrous.

Other legal challenges derived from climate change flow from the need to provide a legal framework to address the problem. This entails several practical concerns, such as deciding on the regulatory approach that is most suitable to attract the global commitments that are required to tackle the climate crisis, establishing how climate laws should relate with norms of other legal fields, or discussing whether climate change law should be even considered as a legal field by itself.

Questions related to justice resurface at the time of crafting a legal framework to deal with the climate crisis, especially when it comes to the distribution between several countries of the burden of the measures that must be adopted. As noted by Carlarne, “[a] particular point of normative controversy concerns the implementation of the principle of common but differentiated

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102 Boyle & Singh, supra note 24, at 53.
103 Gardiner, supra note 35, at 16.
104 See Jay Michaelson, Geoengineering and Climate Management: From Marginality to Inevitability, in CLIMATE CHANGE GEOENGINEERING: PHILOSOPHICAL PERSPECTIVES, LEGAL ISSUES, AND GOVERNANCE FRAMEWORKS (Wil C.G. Burns & Andrew L. Strauss eds., 2013).
105 A regulatory one, like the one of the Kyoto Protocol, one that trust more on voluntarily commitments, like the Copenhagen Accord, or another one with mixed characteristics, like the Paris Agreement.
106 For instance, it is possible to raise legal questions on the relationship between climate change law and private law on issues like the possibility of invoking climate infractions as the basis for legal actions, or the chance to build a defense on having followed climate standards. See Howarth, supra note 92, at 1113.
107 Carlarne, Gray & Tarasofsky, supra note 82, at 6.
108 This is a matter of intra-generational equity, rather than inter-generational. See Catherine Redgwell, Principles and Emerging Norms in International Law: Intra- and Inter-generational Equity, in THE OXFORD HANDBOOK OF INTERNATIONAL CLIMATE CHANGE LAW (Cinnamon P. Carlarne, Kevin R. Gray & Richard G. Tarasofsky eds., 2016).
responsibilities”, since the UNFCCC provides that the parties to the treaty are expected to protect the climate system for current and future generations “in accordance with their common but differentiated responsibilities and respective capabilities”.

Moreover, climate change is a source of legal challenges due to the physical and transitional risks that derive from the phenomenon. Indeed, rains, draughts, floods, technological breakthroughs, policies, and other events related to the climate crisis will generate problems requiring responses from different legal fields.

Regarding the foregoing, it must be stated that several cases submitted to the courts portray the climate crisis as a disruptive situation for the legal field and a constant source of legal dilemmas. Indeed, courts have been forced to consider whether law can acknowledge the climate crisis as a legal problem and to develop responses accordingly. In this task, they have identified innumerable problems, including issues of procedure, state responsibility, statutory interpretation, or liability, among other matters.

The law of contracts also faces challenges brought about by the climate crisis. For instance, on some occasions, the risks derived from climate change will affect contractual relations and result in unexpected costs for one or more of the parties of an agreement. In those situations, the pertinent rules of contract law will have to determine how to allocate such risks between the parties. In fact, even if the parties decide to allocate those risks by an explicit reference in the agreement—for instance, by drafting a force majeure clause—that decision will present its own particular challenges, like how to define the climate crisis, or when it can be assumed that a certain event is a consequence of such phenomenon. Thus, one type of challenge that the climate emergency presents to the law of contracts is the need to understand how such a phenomenon interplays with the current legal rules.

Also, challenges to contract law arise from the need to answer questions like whether to facilitate or refuse contracts that aggravate the climate crisis. A similar question has been examined in an analysis regarding the relationship between environmental and private law. See Howarth, supra note 92.

109 Carlarne, Gray & Tarasofsky, supra note 82, at 14.
110 Article 3 of UNFCCC.
112 These problems reach the field of private law, whose logic and operation will be challenged. Graham, supra note 96.
113 Fisher, Scotford and Barritt, supra note 68.
114 Ibid. at 188.
115 Diaz et al., supra note 111; Farmer, Foote and Morawetz, supra note 111.
116 A similar question has been examined in an analysis regarding the relationship between environmental and private law. See Howarth, supra note 92.
those situations, the answers required seem to be related to the problem of how far contract law can go in dealing with climate concerns.

One last type of challenge in the context of contract law relates to the outcomes derived from the traditional understanding of how the pertinent doctrines should be applied. In this regard, it must be taken into account that normally those doctrines were not crafted with climate concerns in mind, so their traditional application can result in negative impacts on efforts to tackle the climate crisis. For instance, it is possible to mention a situation that took place at the beginning of the century in the Chilean electricity system. On that occasion, a generator of electricity was forced, according to the application of the pertinent contract law rules, to comply with a set of power purchase agreements that it had subscribed. This occurred even though the circumstances of the electricity market had changed dramatically, making the fulfillment of those agreements more expensive than expected and thus resulting in enormous losses for the mentioned firm. What is relevant to this article is that, in order to comply with the mentioned contracts, the energy producer had to resort to less green means for the generation of electricity. Particularly, it had to switch from natural gas, which was the original fuel, to diesel, a resource that has a bigger footprint than the gas. As it can be noted, the situation described was the result of the traditional application of contract law rules and had negative impacts on the efforts to tackle climate change.

In sum, the examples given illustrate that the phenomenon of climate change is an issue of legal relevance, among other reasons, because it is a source of varied legal challenges.

3. Changing the Legal Landscape

The climate change has modified the legal landscape in two different ways. Firstly, new laws have been enacted to deal with the climate crisis. Secondly, traditional legal fields have been affected by external factors related to the phenomenon (different from new legislation), like the needs imposed by the climate emergency or a better understanding of its consequences, among other situations.

The climate crisis has implied the crafting of novel norms that have evolved swiftly, being now possible to speak of climate change law as a particular legal field with its own principles. Moreover, new regulations are expected to

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117 With regard to the mentioned situation that affected the Chilean electricity market, see Felipe Bahamondez, Fallo Gasatacama: El Cambio de Circunstancias en los Contratos, Qyo Vadis?, in SENTENCIAS DESTACADAS 2008, 351 (Arturo Fernandino and Rodrigo Delaveau eds., Libertad y Desarrollo, 2009); Karl Conrads & Carlos Berner, Una Mirada Contemporánea a la Revisión del Contrato de Suministro Eléctrico ante Eventos Imprevistos, 34 REVISTA CHILENA DE DERECHO PRIVADO 9 (2020).

118 More precisely, in what is currently the biggest and most important of the power systems that provide electricity in the Chilean electricity market.

119 Raphael J. Heffron et al., A Treatise for Energy Law, 11 (1) JOURNAL OF WORLD ENERGY LAW AND BUSINESS 34, 37 (2018). It must be pointed out that there is controversy on whether climate
appear in the future, because the current regime has not yet produced the changes required to “effectively address the contemporary challenges of climate change”. Indeed, the success of current laws to deal with the crisis has been described as “modest”. However, despite the humble results, the effects caused by the regulations created to address climate change have been categorized as legal disruptions.

There are many examples of legal fields that have seen additions, restrictions, or modifications due to climate concerns. This is more evident in the international law arena, where well-known global treaties like the Kyoto Protocol or the Paris Agreement have been forged to address the issue of climate change. At the domestic level, different laws in several countries have been enacted to deal with the climate crisis, like regimes promoting cleaner electricity or regulations seeking energy efficiency, which is understandable considering that the problem involves almost every aspect of domestic policies. According to the Grantham Research Institute on Climate Change and the Environment, it is possible to register 2,637 “Climate laws and policies”.

The field of contract law has also been impacted by climate change. For instance, it is possible to observe some restrictions, impositions and measures that affect the freedom of contract, a traditional principle of the mentioned field. By way of example, in the Chilean electricity market a recently enacted legal mandate prescribes that a percentage of the electricity obtained from the grid by some energy traders must belong to non-conventional renewable energy sources. It can force traders to contract with specific producers to achieve the required minimums, instead of contracting with who they want, and to the extent that they want.

Regarding the foregoing, it must be noted that new constraints on the freedom of contract will probably appear in the future, due to the serious consequences of climate change, on the one side, and the modest success that current laws have shown in dealing with that challenge, on the other side.

change law can be considered as a field of law by itself. For instance, other authors consider it, at least in the case of international climate change law, to be imbedded within the fields of public international law and international environmental law. Bodansky, Brunnée & Rajamani, supra note 1, at 2.

120 Carlarne, Gray & Tarasofsky, supra note 82, at 4-5.
121 Bodansky, Brunnée & Rajamani, supra note 1, at 2.
122 Fisher, Scotford and Barritt, supra note 68, at 192.
123 Held & Roger, supra note 44.
124 Ibid. at 592.
125 Bodansky, Brunnée & Rajamani, supra note 1, at 3.
127 Notwithstanding the different critiques that have been made to such principle, Joaquín Emilio Acosta Rodríguez & José Manuel Gual Acosta, La Delimitación de la Libertad Contractual en Virtud de Exigencias Sociales, 55 REVISTA IUSTA (2021).
128 Conrads & Berner, supra note 117, at 23-25.
Modifications to the landscape of contract law can also flow from external factors related to climate change, they do not result from the enactment of new legislation. For example, it is possible to imagine a situation in which a specific consequence of the climate emergency appears as extremely profound, undisputed, worrying, evident, and well-known. A scenario like that could change the ways in which the parties are allowed to allocate the risks flowing from the mentioned situation, by impeding, for instance, a contractual clause to exclude such type of events from frustrating a contract due to considerations of public policy. In other words, matters that are subject to the possibility of being regulated in a contract by the parties could completely or partially lose that feature. That would amount to a modification in the current landscape of the field of contract law.¹²⁹

Thus, in addition to the reasons given in the previous sections, it is possible to sustain that climate change is an issue of legal significance, for the law in general and specifically to the field of contract law, because it has modified the legal landscape and will continue to do so.¹³⁰

IV. Conclusions

Climate change is a wide-reaching problem, both in its consequences and in the solutions required to tackle it. Indeed, the crisis has the potential to affect nearly all systems on our planet, and in order to be properly addressed, it requires an international framework for cooperation on a global scale, but also, all sorts of local measures, regulations, and initiatives from the public and private sectors. Thus, unsurprisingly, it is an issue with implications in many, if not most, academic fields.

The legal arena is not an exception. The climate crisis can be considered an issue of legal significance for at least three reasons. First, because reaching a solution to the problem requires the use of legal tools. Second, because it raises several legal challenges. And finally, because it has altered the legal landscape, and will continue to do so.

In this regard, contract law has something to say in each of the mentioned situations. In other words, the same reasons that explain why the climate crisis is a relevant concern for the law in general allow us to sustain that climate change is an important matter for the law of contracts.

Indeed, contract law provides tools that are useful to address the climate problem, like clauses that can be incorporated into agreements to achieve cli-

¹²⁹ The example is given considering the contracts law in England and Wales. For a better understanding of it, see what is explained regarding frustration of contract due to supervening illegality see Edwin Peel, TREITEL ON THE LAW OF CONTRACT (15th ed., Sweet & Maxwell Thomson Reuters 2020).

¹³⁰ The examples given do not intend to include every single way in which that has occurred or could occur, but just to support the mentioned statement.
mate goals. In overall terms, such legal field can be used to tackle the climate emergency in two different ways: developing contracts or clauses in pursuit of climate goals, and refusing to facilitate contracts that aggravate climate change.

Also, the climate crisis poses different challenges for the law of contracts. Some of them are related to how climate events interplay with the current legal structures and doctrines, for instance, how to define climate change to incorporate related events into a force majeure clause. Other challenges refer to the limits of the mentioned legal field, i.e., to the extent to which contracts can freely deal with circumstances with climate implications. A last set of new questions also requiring an answer emerges when the traditional understanding of how contract law rules should be applied results in negative impacts on efforts to tackle the climate crisis.

Finally, it is also true that the climate emergency has affected the contractual landscape, and that it will keep doing so. For instance, in certain contexts, laws enacted to target the crisis have reduced the freedom that the parties used to have to agree on the terms of an agreement. Also, alterations to the mentioned landscape can come from external factors, like needs or situations that can be caused by the phenomenon.

All the foregoing allows us to state that climate change is an issue of legal significance for the law of contracts.