The Paris Agreement on Climate Change: Breakthrough or Dismal Failure?



FINAL DEGREE PROJECT

Law

2019/2020

Autonomous University of Barcelona

By: Isaac Y. Sandiumenge

Tutor: Jaume Munich Gasa

To my family and friends for their support throughout this research.

To my tutor, for all his dedication, perseverance and for going above and beyond to encourage me to strive for the best

Covenants, without the sword, are but words and of no strength to secure a man at all. (Thomas Hobbes, Leviathan, Pr. II, Ch. XVII)

ABSTRACT

The aim of this research is the Paris Agreement on climate change, adopted at the Conference of Parties 21 (COP 21) in December 2015. It is currently the one most important international treaty that tackles climate change. Given the situation of emergency throughout the world where large ice cups are melting and droughts and other natural disasters are starting to become the rule, it is very relevant to analyze at what extent can the Paris Agreement safeguard us from global warming catastrophes. It will also be analyzed the operational and most remarkable provisions that are centered around fighting global warming. Finally, it will be made reference to the ethical perspective on carbon markets and the United States withdrawal from the Paris Agreement. The thesis that will try to be sustained throughout the research is as follows: be it resolved, the Paris Agreement is insufficient to fight against climate change and, thus, a new treaty is imperative.

ABBREVIATIONS

AWG-KP Ad Hoc Working Group under the Kyoto Protocol

AWG-LCA Ad Hoc Working Group on Long-term Cooperative Action

CFC Chlorofluorocarbons

COP Conference of Parties

EU ETS European Union Emissions Trading System

EU European Union

GHG Greenhouse Gas

ICJ International Court of Justice

IPCC Intergovernmental Panel on Climate Change

ITMO Internationally Transferred Mitigation Outcomes

NDC Nationally Determined Contributions

NGO Non-governmental Organization

OECD Organisation for Economic Co-operation and Development

PCIJ Permanent Court of International Justice

SDG Sustainable Development Goal

SDM Sustainable Development Mechanism

UN United Nations

UNEP United Nations Environmental Programme

UNFCCC United Nations Framework Convention on Climate Change

VCLT Vienna Convention on the Law of Treaties

TABLE OF CONTENTS

ABSTRACT		3
ABBRI	EVIATIONS	4
INTRO	DUCTION	6
I. Ge	eneral framework on the atmospheric protection	7
1.	Prevention of transboundary atmospheric pollution	7
2.	Ozone depletion and global warming	10
i.	Vienna Convention for the Protection of the Ozone Layer	10
ii.	Montreal Protocol on the Substances that Deplete the Ozone Layer	11
3.	Outer space	12
4.	Sustainable Development Goals	13
II. Ru	ın-up to Paris Agreement	17
1.	Architecture of the climate change regime	18
2.	United Nations Framework Convention on Climate Change	20
3.	Kyoto Protocol	22
4.	Run-up to Kyoto II	28
5.	Kyoto II Protocol	31
III.	Paris Agreement on Climate Change	33
1.	Identification of a common goal for all the Parties	34
2.	Nationally Determined Contributions	35
3.	Parties prerogatives	41
IV.	The Paris Agreement in context	51
1.	The ethical case against carbon markets	51
i.	Past experiences	52
ii.	Opposing voices	56
iii.	Situation in the Paris Agreement	58
2.	Implications of the United States withdrawal	61
i.	Arguments in favor of leaving the Paris Agreement	63
ii.	Arguments against leaving the Paris Agreement	65
CONCI	LUSIONS	70
BIBLIC	OGRAPHY	74
A.	Doctrine	74
B.	Documents	82
1.	International Treaties	82
2.	International Jurisprudence	83
3.	United Nations Documents	83
4	Other documents	84

INTRODUCTION

In this research we will delve into the Paris Agreement, an international treaty adopted on 12 December 2015 at the United Nations Framework Convention on Climate Change Conference of Parties 21 (COP21) in Paris. This was considered to be the largest multilateral treaty on climate change to fight global warming at a global level. However, the driving factor that made me decide for this topic was the radically different opinions on the Paris Agreement between President Donald Trump and the environmental activist Greta Thunberg.

Chapter I starts by providing a general framework on environmental protection to better understand the scope of the environmental law. There it will be analyzed the protection of atmospheric pollution, ozone depletion and global warming as well as the Sustainable Development Goals.

Chapter II is focused on the climate change regime. In other words, we will go through the main international environmental law treaties of relevance to climate change prior to the Paris Agreement. By means of this chapter, we will learn the circumstances that lead us to the Paris Agreement.

Chapter III is centered around the Paris Agreement. This is the core of the research where most remarkable provisions of the treaty will be carefully analyzed. In this research one thing becomes apparent: it is crucial when reading the Paris Agreement to be focused on all the wording of the provisions as a single comma or the use of *should* instead of *shall* can radically change the implications for the application of a legal provision, deeming it hard or soft law.

Chapter IV is slightly different from the others. First, we will make the ethical case against carbon markets, so relevant that the main reason for the Conference of Parties 25 (COP25) failure was as a result of not being able to address them successfully. The other aspect we will delve into under this chapter is the long-awaited United States withdrawal from the Paris Agreement. The final objective of this research is to unmask the nature of the Paris Agreement by responding to the following question: is the Paris Agreement a breakthrough or a dismal failure?

I. General framework on the atmospheric protection

Before delving further into the study of climate change, it is critical to accurately circumscribe the scope of climate change within international law. To this end, this section will outline the general framework of atmospheric protection, going through areas of study such as urban and transboundary air pollution, ozone depletion, climate change regime and outer space.

1. Prevention of transboundary atmospheric pollution

There has been a long-standing jurisprudence which has developed and sustained the principle of prevention. Although the obligation conceived under this principle has different names, as we will see below, its underpinning function is to prevent transboundary atmospheric harm. To gain some insight into that, let us consider the case-law approach first.

The *Trail Smelter* decision sustained that there is an obligation on States not to cause transboundary environmental harm. In the wording of the Tribunal, «[...] under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence [...]»¹. This obligation is often known as precautionary principle or the good neighbor principle². It has been repeated over in other international instruments as in Principle 21 of the Stockholm Declaration³ and in Principle 2 of the Rio Declaration⁴ and it is customary international law, as confirmed by the ICJ in the *Pulp Mills case*:

¹ ARBITRAL TRIBUNAL, *Case concerning the Trail Smelter Case* (United States of America v. Canada), Award of 16 April 1941, III, *RIAA*, p. 1965, para. 6.

² DE SADELEER, N., *Environmental Principles: From Political Slogans to Legal Rules*, OUP, 2002, p. 91-174.

³ UNGA, Doc. A/CONF.48/14/Rev.1, Stockholm Declaration on the Human Environment, 16 June 1972.

⁴ UNGA, Doc. A/CONF.151/26 (Vol. I), Rio Declaration on Environment and Development, 12 August 1992.

«The Court points out that the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory. It is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States"⁵. A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any other area under its jurisdiction, causing significant damage to the environment of another State. This Court has established that this obligation "is now part of the corpus of international law relating to the environment"»⁶.

The underlying reason for the prevention of transboundary harm is the understanding that prevention should come before reparation. The *dicta* of the Permanent Court of International Justice in the *Chorzów Factory* case, defines it as follows: «Reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed»⁷.

At this point, it is indeed relevant to note the 1979 Convention on Long-range Transboundary Air Pollution. One of the main goals under the 1979 Convention, pursuant to article 2, is to «limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution». To this day, over fifty Northern Hemisphere Parties in Europe, including Canada and the United States, have ratified it. It sets forth a set of commitments and implements an Executive Body, which is aimed at supervising and strengthening its implementation.

However, as we delve into this Convention, we start to realize how this treaty is nothing more than a symbolic victory, typical of a soft-law content Convention. As far as the commitments are concerned, no concrete objectives to specific reductions in air pollution are contained in the treaty itself. Instead, the Parties commit themselves to broad principles and objectives for pollution-control policies. The question of State liability for

⁵ ICJ, *The Corfu Channel Case* (United Kingdom v. Albania), Judgement of 9 April 1949, *ICJ Reports* 1949, p. 22, para. 3.

⁶ ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion of 8 July 1996, *ICJ Reports* 1996, p. 242, para. 29; *Case concerning Pulp Mills on the River Uruguay* (Argentina v. Uruguay), Judgment of 20 April 2010, *ICJ Reports* 2010, p. 45-46, para. 101.

⁷ PCIJ., *Case concerning the Factory at Chorzów* (Germany v. Poland), Judgement of 13 September 1928, *Series A. Nº 17*, p. 47, para. 2.

damage resulting from such pollution is not addressed⁸. Therefore, it is not surprising that highly pollutant territories such as the United Kingdom and West Germany signed the Treaty. Fortunately, the Convention's framework and objectives will be better defined with the eight Protocols that followed, aimed at reducing the main sources of atmospheric pollution⁹:

- a) *Geneva Protocol of 28 September 1984* on the establishment of a funding mechanism for the Co-operative programme for the monitoring and evaluation of the long-range transmission of air pollutants in Europe.
- b) *Helsinki Protocol of 8 July 1985* on the reduction of sulphur emissions or their transboundary fluxes
- c) Sophia Protocol of 31 October 1988 on the control of emissions of nitrogen oxides or their transboundary fluxes.
- d) Geneva Protocol of 18 December 1991 on the control of emissions of volatile organic compounds (VOC) and their transboundary fluxes.
- e) Oslo Protocol of 14 June 1994 on Further Reduction of Sulphur Emissions
- f) Aarhus Protocol of 24 June 1998 on the Reduction of Certain Heavy Metals.
- g) Aarhus Protocol of 24 June 1998 on Persistent Organic Pollutants.
- h) *Göteborg Protocol of 30 November 1999* to Abate Acidification, Eutrophication and Ground-level Ozone.

⁸ BIRNIE, P., et al., International Law & The Environment, 3rd ed., OUP, 2009, p. 344-345. See also BODANSKY, D., et al. (Ed.), The Oxford Handbook of international environmental law, OUP, 2007; KISS, A., BEURIER, J.P., Droit international de l'environnement, 2nd ed., Pedone, 2000; and KISS, A., SHELTON, D., A guide to international environmental law, Martinus Nijhoff, 2007.

⁹ BORRAS, S., *Los regímenes internacionales de protección del medio ambiente*, Tirant lo Blanch, 2011, p. 95-109. See also UNEP, *Training manual on international environmental law*, 2006.

2. Ozone depletion and global warming

The stratospheric ozone layer works as a mirror that partly disrupts the direction of most of the short-wave ultraviolet rays coming from the sun, only letting in a small fraction to regulate the temperature of the Earth and to avoid, also, the noxious consequences that letting them in would entail for human beings and the environment alike. However, in the 70s it was demonstrated that certain chemical substances (*viz.*, the chlorofluorocarbons or CFC), just for being exposed to ultraviolet rays started to release chlorine atoms that reacted to the ozone destroying its molecules massively. The results in a few years' time have been dreadful: the ozone layer above Antarctica has been reduced by 40% since 1957.

i. Vienna Convention for the Protection of the Ozone Layer

The United Nations Environment Programme (UNEP) initiated negotiations of a treaty to protect the ozone layer in 1981. It was not an easy task. There were two fronts:

- Developing States and the United States were in favor. The former was
 concerned for the economic impact but saw it as the lesser evil, a sacrifice
 necessary to make. The latter, however, did not wish to remain at a disadvantage
 while others went on using them, strongly supporting an international control
 regime.
- 2. The European Commission, however, disagreed on a treaty with that focus, since they were skeptical on the actual harmful effects of CFCs¹⁰.

The situation was complex and yet an agreement was reached upon. As a result, the Vienna Convention on the Protection of the Ozone Layer was adopted on 22 March 1985, coming into force on 22 September 1988. This is a framework Convention that does not contain precise obligations but rather embodies cooperation mechanisms that will set the ground for their implementation. The aim of this Convention, pursuant to its Preamble, is to «protect human health and the environment against adverse effects resulting from modifications of the ozone layer». Its article 2.2 continues: «To this end the Parties shall, in accordance with the means at their disposal and their capabilities» assume certain obligations:

_

¹⁰ BIRNIE, P., et al., op. cit., p. 349.

- a) Take certain measures (v. g. legislative and administrative)
- b) Cooperate (by means of information exchange, formulating agreed measures, standards and procedures for the implementation of this Convention).

Finally, the Vienna Convention made possible the celebration of a Conference of Parties responsible for the adoption of the Protocols that would develop the Convention. As a result, the Montreal Protocol on Substances that Deplete the Ozone Layer was adopted on 16 September 1987 which came into force on 1 January 1989.

ii. Montreal Protocol on the Substances that Deplete the Ozone Layer

This Protocol is the first international instrument that recognizes that emissions of some substances can deplete the ozone layer with harmful consequences on health and the environment. It represents a much more significant agreement than the Ozone Convention because it sets firm targets for reducing and eliminating consumption and production of a range of ozone-depleting substances. This approach was strongly supported by the United States and by the Executive Director of UNEP, who made reaching a consensus possible among scientists on the prediction of the rate of ozone depletion and the regulatory measures needed to protect human health and the environment. Following scientific evidence that suggests that the standards adopted in 1987 would not be enough, additional substances were included by amendments adopted in London (1990) and in Copenhagen (1992), and the timetable for the complete elimination was revised and brought forward in 1996. All these changes made possible the development of new technologies and alternative substances¹¹. They also updated their commitments three more times: in Montreal (1997), in Beijing (1999) and in Kigali (2016).

_

¹¹ *Ibid.*, p. 351.

The 1987 Montreal Protocol is significant because:

- 1) It helped developing States to pressure on developed States to ensure that they were given the necessary means to meet the Protocol's target and achieve the elimination of ozone-depleting substances.
- 2) It banned trading of certain substances with certain countries, such as Korea, which was forced to participate in the Protocol if it wished to continue exporting cars and fridges¹².

3. Outer space

The 1967 Outer Space Treaty, formally known as treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies provides, under article 1, how the use of outer space is to be carried out, while article 9 provides which conducts are to be avoided. The 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies provides, under article 11.1, that the moon and its natural resources are the «common heritage of mankind» and, under article 3.1, «the moon shall be used by all State Parties exclusviely for peaceful purposes».

While liability for damage caused by objects launched into space is absolute, case of space debris has been addressed in the Buenos Aires International Instrument on the Protection of the Environment from Damage Caused by Space Debris, adopted by the *International Law Association* at its 1994 Conference. Its article 8 proclaims that «each State or international organization party to the instrument that launches or procures the launching of a space object is internationally liable for damage arising therefrom to another party to the instrument as a consequence of space debris produced by any such object» ¹³.

12

¹² *Ibid.*, p. 351-353. See also BORRAS, S., *los regímenes..., op. cit.*, p. 121-129; IVANOVA, M., "UNEP in global environmental governance", *Global Environmental Politics*, 10 (1), 2010, p. 30-59; JUSTE, J., *Derecho internacional del medio ambiente*, McGraw-Hill, 1999, p. 274-284; and HANDL, G., *International Environmental Law*, United Nations, 2013.

¹³ SHAW, M., et al., International Law, 6th ed., CUP, 2008, p. 881-882.

4. Sustainable Development Goals

In 2015 through *Transforming our World: The 2030 Agenda for Sustainable Development*¹⁴, the United Nations (henceforth, UN) and its Member States agreed on 17 Sustainable Development Goals (henceforth, SDGs) for the world¹⁵. The German Development Institute developed an interactive tool through which any user can see how the SDGs correlate with the nationally determined contributions (henceforth, NDCs)¹⁶. In other words, their contention is that the NDCs achieve the implementation of not only SDG 13 but also many others, sometimes, at the same time. However, we will delve specifically into the SDG 13, which refers specifically to Climate Action, to make our point. It should be mentioned that the SDGs pursuant to the 2030 Agenda for Sustainable Development were later implemented in many international agreements, among others, the Paris Agreement and the Adoption Decision¹⁷.

The Paris Agreement's Adoption Decision, it begins by welcoming UNGA Res 70/1 of 25 September 2015 on the global SDGs, particularly Goal 13, acknowledging that climate change is a common concern of humankind. It also recognizes that, when taking action on climate change States must respect, promote and consider their human rights obligations, the right to development, the rights of indigenous peoples, children, other rights that may affect people in vulnerable situations, gender equality, empowerment and inter-generational equity¹⁸.

_

¹⁴ UNGA, Doc. A/RES/70/1, Transforming our world: the 2030 Agenda for Sustainable Development, 21 October 2015. See also SOTILLO, J. A., *El reto de cambiar el mundo. La Agenda 2030 de desarrollo sostenible*, Catarata, 2015; RODRIGO, A. J., *El desafío del desarrollo sostenible*, Marcial Pons, 2015; DÍAZ, C. M., "Los objetivos de desarrollo sostenible: un principio de naturaleza incierta y varias dimensiones fragmentadas", *AEDI*, 32, 2016, p. 9-48; FERNANDEZ, C. R., "Transformaciones del derecho internacional por los objetivos de desarrollo sostenible", *AEDI*, 32, 2016, p. 49-81; SOTILLO, J. A., *El ecosistema de la cooperación. La Agenda 2030 para el desarrollo sostenible*, La Catarata, 2017; MESSENGER, G., "El rol del derecho internacional dentro del desarrollo sostenible y la Agenda 2030", *REDI*, 69 (1), 2017, p. 271-278; CARDESA-SALZMANN, A., PIGRAU, A., "La Agenda 2030 y los objetivos para el desarrollo sostenible. Una mirada crítica sobre su aportación a la gobernanza distributiva global en términos de justicia distributiva y sostenibilidad ambiental", *REDI*, 69 (1), 2017, p. 279-285; FERNÁNDEZ, C. R., MANERO, A. (Dirs.), *Análisis y comentarios de los Objetivos de Desarrollo Sostenible de las Naciones Unidas*, Aranzadi, 2017; and ALFARO, M., *et al.*, *Agenda 2030. Claves para la transformación sostenible*, Catarata, 2019.

¹⁵ CORDONIER, M., "Advancing the Paris Agreement on Climate Change for Sustainable Development", Cambridge Journal of International and Comparative Law, 5 (2), 2016, p. 218. See also BORRAS, S., et al., Medio ambiente, desarrollo y cooperación internacional. Estudios jurídicos sobre desarrollo sostenible, Aranzadi, 2010; and UNEP, Annual Report 2018.

¹⁶ BRANDI, C., *et al.*, "The Case for Connecting the Implementation of the Paris Climate Agreement and the 2030 Agenda for Sustainable Development", *German Development Institute*, 2017, available at: https://www.die-gdi.de/uploads/media/BP_21.2017.pdf accessed on [17/05/20].

¹⁷ UNGA, Doc. FCCC/CP/2015/L.9/Rev.1, Adoption of the Paris Agreement, 12 December 2015.

¹⁸ CORDONIER, M., op. cit., p. 220.

At this point, we may ask ourselves which are some of these principles of international law on sustainable development. To this end, in 2002, the *International Law Association's Committee on the Legal Aspects of Sustainable Development* identified seven principles of international law on sustainable development under the New Delhi Declaration¹⁹, which characterize treaties related to sustainable development²⁰. In this section it will be analyzed some of the most relevant principles and it will be pointed out their relationship with the Paris Agreement:

a) Sustainable use of natural resources whereby States have sovereign rights over their natural resources and corresponding duty not to cause or allow undue damage to the environment of other States in the use of these resources²¹.

It could be linked to article 2 of the Paris Agreement, since its aim is to limit the temperatures increase to well below 2° C above pre-industrial levels. Nevertheless, the Paris Agreement would have been more successful at ensuring a sustainable use of natural resources had it established a legally mandated country-specific emissions reduction targets, as the Kyoto Protocol did. All things considered, the projects undertaken pursuant to article 6 of the Paris Agreement would result in, among other outcomes, reforestation and forest preservation. This would, in turn, safeguard a sustainable use of natural resources.

b) The principle of equity and the eradication of poverty

Equity appears often in the Paris Agreement. It can be pinpointed in the Preamble but also in its operational provisions, such as articles 2 and 4. Under its article 2.2 precisely it is established that «this Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances». The Paris Agreement also stresses poverty eradication under article 2.1, in line with its main objective of remaining below 2° C. It also mentions it under article 6.8, regarding Sustainable Development Mechanisms or non-market approaches as methods to assist in the implementation of the Parties' nationally determined contributions (NDC) while pursuing sustainable development and poverty eradication.

14

¹⁹ UNGA, Doc. A/57/329 which collects the ILA New Delhi Declaration Of Principles Of International Law Relating to Sustainable Development, 6 April 2002.

²⁰ CORDONIER, M., op. cit., p. 221.

²¹ *Ibid.*, p. 222.

c) Common but differentiated responsibilities and respective capabilities

The principle of common but differentiated responsibilities and respective capabilities can be seen in the operative part of the Paris Agreement. First, under article 2 where the United States and China added the following ending to the principle: «in the light of different national circumstances». Second, under article 4.3, where it conditioned the ambition of Parties when submitting their NDC pledges to that principle. Considering the sustainable development perspective of this principle, all Parties are responsible, although not all of them have the same level of responsibility, pursuant to the principle of equity.

d) Integration and relationship of human rights and social, economic and environmental objectives

Also known as the principle of sustainable development, it holds that States must take into account the environmental and social (including human rights) aspects of economic plans or projects, integrating related measures and costs, to promote more sustainable development²². It is puzzling sometimes how theory and practice seems so far apart one from the other. According to an article, in the Conference of Parties 25 in Madrid it was being discusses article 6 and, eventually, it was removed from article 6 a requirement for Parties to «respect, promote and consider their respective obligations on human rights», which created furor among civil society groups, indigenous representatives and some Parties. Experts say that the same mistake in Kyoto Protocol's Clean Development Mechanism, a precursor to the Sustainable Development Mechanism (name under which the non-market-based mechanism is known pursuant to article 6 of the Paris Agreement), caused human rights violations when the projects were implemented²³. Although the COP 25 in Madrid ended in failure for being unable to address article 6, it is only troubling that such a main aspect for both the sustainable development principle and the Paris Agreement has been given up on so easily.

As a side note, it is curious that no mention is made in the Sustainable Development Goals to the capitalist economic system which is in part responsible for this unsatiated desire to consume and pollute. Regardless of how innovative or how much good they make for the environment, the equation gets rebalanced. Unless this savage mindset fixed under the

-

²² *Ibid*.

²³ CHANDRAMOULI, K., "Talks on carbon markets put climate future in a fix", *Mongabay*, 2019, available at: https://india.mongabay.com/2019/12/article-6-cop-25-talks-on-carbon-markets-put-climate-future-in-a-fix/ accessed on [17/05/20].

current economic system be readressed somehow, history will repeat itself. In this regard, the Club of Rome, a private organization formed of politicians, scientifics and businesspeople, commissioned in 1970 to a team of researchers from Massachussets Institute of Technology (MIT), under the supervision of professor Dennis L. Meadows, to carry out a study about the limits of consumerism and growth. The results, entitled *The Limits to Growth* were published in March 1972. The conclusion that was reached upon stated as follows:

«If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next one hundred years. The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity [...]. It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed so that the basic material needs of each person on earth are satisfied and each person has an equal opportunity to realize his individual human potential»²⁴.

A later update of the study seen *supra* carried out 30 years later concluded that:

«It is a sad fact that humanity has largely squandered the past 30 years in futile debates and well intentioned, but halfhearted, responses to the global ecological challenge. We do not have another 30 years to dither. Much will have to change if the ongoing overshoot is not to be followed by collapse during the twenty-first century»²⁵.

The takeaway from both these studies is that we need to change our economic system of relentless consumerism and try, as suggested by those studies, to reach an equilibrium and to develop our society in a sustainable manner with the environment and so that the goods can be enjoyed by everyone. Resources are limited and disregarding that fact would take us to doom. From experience, as the study suggests, the current economic system has to make a 360-degree turn to conceive development in a sustainable manner.

²⁵ MEADOWS, D., et al. (MIT SYSTEM DYNAMICS GROUP), The Limits to Growth: The 30-Year Update, A report for the Club of Rome, 2004, p. xvi.

²⁴ MEADOWS, D., *et al.* (MIT SYSTEM DYNAMICS GROUP), *The Limits to Growth*, A report for the Club of Rome, 1972, p. 23-24.

II. Run-up to Paris Agreement

We should probably start by defining climate change. As defined under article 1.2 of the 1992 United Nations Framework Convention on Climate Change (henceforth, UNFCCC), climate change is defined as: «a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods». To this end, the IPCC has come saying under its report in 2014 that:

«Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen»²⁶.

In the report seen *supra*, it also referred to the causes of climate change as in 2020 there are still some negationists that suggest that climate change is something made up. To this end, the report, which is based on very strong evidence suggested that this position cannot be upheld and claimed that anthropogenic causes play a key role in the climate change effects perceived throughout the globe during the last decades. In this sense they conclude the following:

«anthropogenic greenhouse gas emissions have increased since the pre-industrial era, driven largely by economic and population growth, and are now higher than ever. This has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years. Their effects, together with those of other anthropogenic drivers, have been detected throughout the climate system and are extremely likely to have been the dominant cause of the observed warming since the mid-20th century»²⁷.

There is no denying that the anthropogenic activity plays a significant role in the climate change, and that it has effects on a multiplicity of aspects ranging from economic to the social and political. This is what was concluded by the United States Global Change Research Program in its 2017 Climate Science Special Report, where it established that

²⁶ IPCC, Climate Change 2014. AR5 Synthesis Report. Contribution of Working Group I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Geneva, 2014, p. 2. ²⁷ Ibid., p. 4.

«based on extensive evidence [...] it is extremely likely that human activities, especially emissions of greenhouse gases, are the dominant cause of the observed warming since the mid-20th century»²⁸. It should be noted also that climate change is hardly reversible and that the catastrophes will become more frequent, having serious impacts, especially to the most vulnerable societies²⁹. Also, States have always been reluctant to sign treaties that limit their sovereignty and, as a result, the climate regime we now have is the best deal possible for a 195-nation agreement as some may put it³⁰. However, it is not enough. The first consequences are starting to be felt by many, especially developing States, and it is being suggested that unless something is done about it, by 2050, as many as 300 million environmental refugees will have to be displaced³¹. This situation needs to be tackled quickly before it is too late. Therefore, it is important to understand where the legal regime of climate change comes from to comprehend where we are headed next.

1. Architecture of the climate change regime

The interface of the international climate change regime has three successive phases: 1992 UNFCCC, 1997 Kyoto Protocol and 2015 Paris Agreement. What is especially relevant is the relationship of the Paris Agreement with these other two instruments. From the outset, one may argue that it is a Protocol. The common practice in this field consists of a framework treaty (in this case, the UNFCCC) that is broad enough to allow for further precisions by means of complementary Protocols that will define the obligations to its Parties.

However, the Paris Agreement does not fall within the definition of a Protocol or a framework treaty separated from the 1992 UNFCCC. Actually, the Paris Agreement holds some relationship with the UNFCCC treaty, as it falls under the UNFCCC. There are three reasons that support this stance:

²⁸ U.S. GLOBAL CHANGE RESEARCH PROGRAM (USGCRP), *Climate Science Special Report*, Fourth National Climate Assessment (NCA4), volume I, 2017, p. 10.

²⁹ BORRAS, S., Retos y realidades de la adaptación al cambio climático. Perspectivas técnico-jurídicas, Aranzadi, 2013.

³⁰ JACOBY, H., *et al.*, "Why the next two years are critical for the Paris climate deal's survival", *The Conversation*, 2018, available at: https://theconversation.com/why-the-next-two-years-are-critical-for-the-paris-climate-deals-survival-107931 accessed on [17/05/20].

³¹ SHAH, G., "Climate change could displace up to 300 million people by 2050", *Business Insider*, 2017, available at: ">accessed on [17/05/20].

- 1) Pursuant to article 20.1 of the Paris Agreement: «this Agreement shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations that are Parties to the Convention».
- 2) Under article 2.1 it explicitly states that: «this Agreement, in enhancing the implementation of the Convention [...]», which makes it clear that there is a relationship of dependence between the Paris Agreement and the UNFCCC. In short, one of the purposes of the Paris Agreement is to strengthen the implementation of the Convention.
- 3) The Paris Agreement uses for its effective application the same institutions of the Convention (UNFCCC). For example, the Conference of Parties (article 16), the Secretariat (article 17), both the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation (article 18) and the subsidiary bodies established by or under the Convention (UNFCCC)³².

Nevertheless, there are other examples that point out this relationship. Just by going through the Preamble of the Paris Agreement we can read «being parties to the United Nations Framework Convention on Climate Change», or «in pursuit of the objective of the Convention and being guided by its principles [...]». Having said that, a problem arises, which is that keeping up with such a tridimensional architecture is not easy to the slightest. Hence, there are three different implementation bodies that, nonetheless, celebrate meetings and sign as a single act.

Indeed, the Conference of Parties (henceforth, COP) serves as the Meeting of the Parties (CMP) to the Kyoto Protocol, as expressed under article 13 of the Kyoto Protocol. Likewise, the COP, the supreme body of the Convention, shall serve as the meeting of the Parties to this Agreement (COP serving as the meeting of the Parties to the Paris Agreement or CMA), also referred to by article 16.1 of the Paris Agreement. In brief, the COP serves as the CMP and it serves, in turn, as the CMA. Also, all three sign as a single act. It should be noted that Parties to the Convention (COP) serve as observers to the meetings of the COP dedicated to the other instruments (CMP and CMA). Besides, most of the decisions are adopted by consensus.

19

³² JUSTE, J., "El tercer pilar del régimen internacional para responder al cambio climático: el Acuerdo de París de 2015", in BORRAS, S., et al., El Acuerdo de París sobre el Cambio Climático: ¿Un acuerdo histórico o una oportunidad perdida? Análisis jurídico y perspectivas futuras, Aranzadi, 2018, p. 31.

If we put this into perspective, the United States withdrawal from the Paris Agreement could hamper the efforts made by the international community to raise awareness for the climate change and build consensus. In short, since the United States is still Party to the Convention and its Delegation would be able to participate freely and influence the COP devoted to the CMA and the CMP³³.

While it is true that observers do not hold the right to vote and, as such, the United States could not vote in the COP dedicated to the Paris Agreement or the Kyoto Protocol, he will still hold, given its geopolitical strength, an outstanding diplomatic capacity of persuasion. As such, precisely given the fact that decisions are not agreed upon majority of votes but by consensus, it could be deeply hampered. This is, with no doubt, one of the greatest challenges, both geopolitical and diplomatic, that the international community will have to face³⁴. Once this has been settled, it is also important to gain some insight into the path that led to the Paris Agreement. Without a historic background into the reasons that led to the Paris Agreement we cannot wholly comprehend the treaty itself. Let us delve into it.

2. United Nations Framework Convention on Climate Change

The UNFCCC was adopted on 9 May 1992. By March 2016, 197 parties, including the European Union (henceforth, EU), had ratified the Convention. This is a Convention with a stressed *soft law* content aimed at bringing together as many States as possible. The objective of this Convention was to achieve, by year 2000 (be it individual or collectively) the same level of emissions as in 1990, although it also recognizes in its preamble, the moral duty to «protect the climate system for present and future generations»³⁵.

From the wording of its article 2, cornerstone of the Convention, it does not seem to aim at reversing greenhouse gas emissions (henceforth, GHG emissions), but rather to *stabilize* them «at a level that would prevent dangerous anthropogenic interference with the climate system».

_

³³ *Ibid.*, p. 33.

³⁴ GILES, R. (Coord.), Desafíos de la acción jurídica internacional y europea frente al cambio climático, Atelier, 2018.

³⁵ BORRAS, S., "Movimientos para la justicia climática global: replanteando el escenario internacional del cambio climático", *Relaciones Internacionales*, 33, 2017, p. 97-119.

In other words, «the parties envisage some degree of climate change as inevitable, and that they are prepared to tolerate it provided it happens slowly enough to allow natural adaptation»³⁶. Also, it does not provide clear answers regarding what level of stabilization is optimal or when it should be achieved. In short, it is an all-out declaration of intentions, but that is all there is to it.

To achieve this objective, the Convention sets forth some basic principles that should be borne in mind when determining the measures that should be implemented to meet the objectives set forth under article 2. These are: precautionary principle, principle of common but differentiated responsibilities and principle of sustainable development. Article 4 announces the commitments adopted by the contracting States which can be divided into three different categories:

- A. In a first group, there are the Convention's contracting parties. They all have a minimum set of obligations, such as documental, informative and cooperative, among others.
- B. In a second group, we can find developed States (such as the OECD and the EU Member States) and States in transition to market economies (listed in Annex I), which have very different obligations and commitments under this Convention:
 - a. Specific obligation to limiting the anthropogenic GHG emissions, as well as the creation and preservation of dead wells and natural storage units of GHG emissions.
 - b. Obligation of the contracting Parties to notify everything related to the application of the Convention in the COP.
- C. Finally, the developed States listed in Annex II (being in most part the OECD States) endorse, among others, the commitments of:
 - a. Providing not only new and additional financial resources but also support for the transfer of technology to Developing States
 - b. Aiding Developing States especially vulnerable to adverse effects of climate change to face the costs of adaptation.

-

³⁶ BIRNIE, P., et al., op. cit., p. 358. See also BORRAS, S., Los regímenes..., op. cit., p. 131-161; JUSTE, J., CASTILLO, M., La protección del medio ambiente en el ámbito internacional y en la Unión Europea, Tirant lo Blanch, 2014, p. 121-150; and SALINAS, S., El cambio climático: entre cooperación y conflicto. Propuestas desde el derecho internacional, Aranzadi, 2014.

In short, this Convention sets forth a list of commitments carried out mostly by developed States, imposing a minimum set of obligations to Developing States, with the objective in mind to increase the participation in the Convention. However, even the few obligations imposed on Developing States are conditional on developed States complying with their own obligations.

Professor Philippe Sands hits the nail on the head when he said that «the word 'Framework' in the title is something of a misnomer, since the 1992 Convention establishes commitments and soft targets»³⁷. That is indeed what it is, an international treaty with a soft law content. Precisely because it is so imprecise and so insufficient to protect the environment, another international treaty needs to be drafted, one that tackles more specifically the objectives to be met and employs the methods necessary to achieving them. Under these circumstances, the UNFCCC laid the groundwork for the drafting and implementation of the Kyoto Protocol.

3. Kyoto Protocol

i. Entry into force

The third COP achieves a historical milestone with adoption of the Kyoto Protocol (also known as Kyoto I) on 11 December 1997, being the world's first GHG emissions reduction treaty. Any State may become a party to the Kyoto Protocol. However, for it to come into force, it requires at least 55 ratifications that amount to 55% of the total carbon emissions of the parties in Annex I (developed States and States transitioning to market-based economies) corresponding to 1990. However, the United States, under President George W. Bush, refused to ratify it and withdrew from it in March 2001. In this occasion, considered it to be an «unfair and ineffective means of addressing global climate change concerns that exempts 80 percent of the world from compliance, apart from the serious harm to the U.S. economy» 38, an argument we have already heard from President Donald Trump in 2019 before his voters and the media. However, it should be noted the main reason why the United States decided to leave the Kyoto table of negotiations.

_

³⁷ SANDS, P., et al., Principles of International Environmental Law, 3rd ed., CUP, 2012, p. 276.

³⁸ KREIENKAMP, J., "The Long Road to Paris. The History of the Global Climate Change Regime", *Global Governance Institute*, 2019, p. 6.

Under the Protocol «developed countries had targets to reduce their greenhouse gas emissions but Developing countries did not. So, if a Developing country reduced its emissions by building a solar panel plant or planting trees for example, they could sell a "credit" to a developed country, which could count that emission reduction in its own target»³⁹.

As a result, it would create an unfair and disproportionate situation against developed States. The mere idea of favoring States such as China is absurd to the core as it is the 2nd largest pollutant country after the United States and it is one of the largest economies in the world. In short, as professor Lavanya Rajamani put it, «the 1992 Framework Convention on Climate Change is unabashedly favorable to developing countries»⁴⁰.

This sudden turn of events put all the other signatory States on the ropes. Because of this, everyone was forced to rely on Russia to ratify the Kyoto Protocol if they wanted it to come to force. Although Russia was reluctant to at first, after the introduction of market-based policies in the Kyoto Protocol and the positive impression it would make internationally, seen as the savior of the Kyoto Protocol, convinced it to ratify it. Most certainly, the fact that market-based mechanisms were implemented in the Kyoto Protocol persuaded Russia to ratify it as it was a country that could be greatly profited from selling its carbon credits to other countries. As a result, the Treaty came into force on 16 February 2005. Be it as it may, it took quite some time until Russia finally ratified it making evident to the other Parties that from then on they had to make sure that a situation like that, where the adoption of an international treaty's clings onto the ratification of a single country should never be repeated again.

and underlying politics", International & Comparative Law Quarterly, 65 (2), 2016, p. 493-514.

³⁹ NUGENT, C., "What are carbon markets and could they help fight climate change?", *Time*, 2019, available at: https://time.com/5748374/carbon-markets-paris-agreement/ accessed on [17/05/20].

⁴⁰ RAJAMANI, L., "Ambition and differentiation in the 2015 Paris Agreement: interpretative possibilities

ii. Content

Going through some of the commitments under the Kyoto Protocol, it was agreed that developed States would act on a range of matters aside from those already covered by the Convention. However, article 10 hurried to emphasize that no new commitments would be applied to developing States⁴¹. It should be noted that it did better than the Convention in the sense that it clearly determined the objectives to be achieved and set a timetable to see to it that they were met. However, the text does not lack ambiguity, such as article 3.1: «[...] each Annex I party was required to 'have made demonstrable progress' in achieving its commitments under [the] Protocol»⁴². Indeed, the commitments in the Kyoto Protocol are rather symbolic. They represent a minimum set of obligations that, from the very outset, are outright insufficient to fight against climate change. There are two crucial novelties in the Kyoto Protocol:

On the one hand, there is the establishment, for the first time, of quantitative restrictions on emissions from industrialized economies. On the other hand, there are the flexibility mechanisms, a backdoor opportunity for developed States to bypass sanctions for non-compliance of their commitments to the Convention and the Kyoto Protocol. In short, an easy path to meet the objectives of the Protocol at a low cost. Had it not been for such mechanisms, the Protocol would not have been ratified in the first place for lack of signatures.

These flexibility mechanisms are three: Clean Development Mechanism (article 12), Joint Implementation (article 6) and Emissions Trading (article 17), by which parties may achieve their emissions reductions⁴³. These three flexibility mechanisms share four common elements:

⁴¹ SANDS, P., et al., op. cit., p. 292.

⁴² *Ibid.*, p. 286.

⁴³ Ibid., p. 361. See also BORRAS, S., El control internacional de los tratados multilaterales de protección del medio ambiente ¿Apariencias o realidades?, Tirant lo Blanch, 2013; and SAURA, J., El cumplimiento del Protocolo de Kioto sobre cambio climático, Universitat de Barcelona, 2003.

- 1. Economic and environmental basis (geographic flexibility). Being of little relevance where the gases are reduced given the easiness with which it migrates from one place to another as a consequence of economies of scale, it might be more cost-effective to reduce emissions in certain States.
- 2. Flexibility mechanisms are related to policies and measures of emissions reductions adopted at the national level, as stated in Decision 15/CP.7⁴⁴ adopted in the COP in the Hague from 13 to 25 November 2000⁴⁵.
- 3. The utilization of flexibility mechanisms will generate certain titles that will allow parties to introduce adjustments to the quantities attributed to GHG emissions⁴⁶.
- 4. Parties, in order to benefit from the flexibility mechanisms, must comply with a set of prerequisites. Basically, they must be party to the Protocol and have complied with the informative obligations and techniques established by this Protocol and by the decisions that develop it.

Regarding the control mechanisms, Decision 24/CP.7⁴⁷, adopted in Marrakech, develops the non-compliance proceeding under article 18 of the Protocol. It constitutes a new body, namely the Compliance Committee, integrated by 20 members. It is divided in two groups of 10 members each constituting, on one hand, the Group Facilitation and, on the other hand, the Compliance Control Group⁴⁸.

In case of non-compliance, such State must draft a compliance action plan where it analyzes what caused the non-compliance and establishes, under the Committee's supervision, the measures and the calendar for its compliance. Furthermore, the State will have to self-sanction, paying a supplementary 30% to the adopted commitments to the carbon emission reductions by after 2012. However, there is no way of overseeing the compliance of the sanction by the perpetrator⁴⁹.

⁴⁴ UNGA, Doc. FCCC/CP/2001/13/Add.2, Decision 15/CP.7 on Principles, nature and scope of the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol, 21 January 2002.

⁴⁵ SANDS, P., et al., op. cit.

⁴⁶ *Ibid*.

⁴⁷ UNGA, Doc. FCCC/CP/2001/13/Add.3, Decision 24/CP.7 on Procedures and mechanisms relating to compliance under the Kyoto Protocol, 21 January 2002.

⁴⁸ SANDS, P., et al., op. cit., p. 71.

⁴⁹ *Ibid*.

iii. Carbon markets and right to pollute

Article 17 of the Protocol opens the possibility for an emissions trading system (also known as *cap-and-trade* system), which is a market-based approach aimed at reducing GHG emissions. Instead of regulation, it fosters incentivization. To incentivize firms and other corporations to reduce their emissions, a government sets a cap on the maximum level of emissions allowed under the cap. Emitting firms must obtain and surrender a permit for each unit of their emissions. They can obtain permits from the government or through trading with other firms. The government may choose to give the permits away for free or to auction them. After this allocation, companies can either choose to reduce their emissions and sell the surplus or to increase their emissions and buy other's excess allowances. These choices are made on the basis of the market price of the allowances and the marginal costs of the emissions reductions for that source. Companies have the possibility, therefore, of acting in the most cost-effective manner.

Such trading systems have a fixed compliance period, at the end of which sources must be able to show that they have sufficient allowances to cover their actual emissions. In addition, the cap may be reduced overtime in order to improve environmental quality. Examples of current cap-and-trade systems are the schemes envisaged by the Kyoto Protocol and the EU Emissions Trading Scheme (henceforth, EU ETS). This is a way to provide economic incentives as a means to achieve carbon emissions reductions⁵⁰.

The implementation of these market-based techniques had the purpose of raising environmental awareness to countries, if not through ethical discussion, through their pockets. In brief, this method showed States that investing on *eco-friendly* technology and energy would be more cost-effective than purchasing allowances every time they needed to pollute over the limit. However, these market-based approaches could do more harm than good. Theoretically speaking, emissions trading may have positive effects on climate change, as long as the market value of units of reduction is higher than that of the reduction costs in a determined State. However, the other side of the coin is that many emission rights that have been allocated have resulted in the decline of the price of carbon dioxide (henceforth, CO2) and, as a result of that, the establishment of CO2 in the market

⁻

⁵⁰ "How do emissions trading systems work?", *London School of Economics and Political Science*, 2018, available at: http://www.lse.ac.uk/GranthamInstitute/faqs/how-do-emissions-trading-systems-work/ accessed on [18/05/20]. See also GONZÁLEZ, S., *Derechos y mercados de gases de efecto invernadero*, Tirant lo Blanch, 2014; and HINOJO, M., *et al.*, *La protección del medio ambiente en el derecho internacional y en el derecho de la Unión Europea*, Tecnos, 2016.

has made it easier for many States to bypass liability. In short, the cap-and-trade regime has not achieved talking States out of polluting, but rather has given them an escape route to bypass sanctions in the event of non-compliance of their commitments. Putting aside the fact that it did not achieve the goal it was designed for, namely developing alternative energies, amongst others, the very concept of acquiring a right to pollute implies putting the atmosphere for sale, and that is highly reprehensible, unethical and immoral.

It is one of the great ironies of environmental history that the United States, after being so insistent on establishing the cap-and-trade regime in the Kyoto to the extent making carbon trading a deal breaker in the Kyoto negotiations, would fail to ratify the Kyoto Protocol, and that the most important emissions market would become a reality in Europe, where it was opposed from the very outset⁵¹. As pointed out by Angela Merkel, then Germany's minister of environment, envisioning what would happen if the carbon markets were implemented in Europe instead of enforcing drastic GHG emissions domestically, insisted: «the aim cannot be for industrialized countries to satisfy their obligations solely through emissions trading and profit»⁵². As a result, the aim and objectives in the Kyoto Protocol quickly fade away as Parties felt tempted to use, and so did they, market-based approaches to evade their obligations.

Fundamentally, this is what headed the Kyoto Protocol to its doom. But probably the most objectionable element of all is the gain. States that need to pollute purchase other States allowances. This means that low polluting countries profit by selling their surplus of not yet used up polluting percentage to other States. However, we should precise that, while sometimes they produce little, other times, such as in the case of China, they abuse their label as Developing States to rival with some of the most polluting countries, such as the United States. By taking advantage of the label of poor country they avoid having to comply with any commitments whatsoever. Indeed, they have little to no obligations and, even if they had any, they would be conditional on the developed States meeting their own commitments. The problem arises when one country pollutes less than before but sells its polluting surplus to another so that State can pollute more in exchange for a price. As a result, the equation gets balanced again and no reduction is achieved: it is a mere pollution transfer.

⁵¹ KLEIN, N., This Changes Everything. Capitalism vs. The Climate, Alfred A. Knopf Canada, 2014, p. 165. ⁵² *Ibid*.

4. Run-up to Kyoto II

Putting aside the advantages and disadvantages of the Kyoto Protocol, Parties quickly feared that it had an expiration date and were concerned that wihtout an extension of the time period from 2013 to 2020 in time for a new treaty to be signed could create a disconnect between Parties toward protecting the environment and a lot of loopholes would form as a result during that time. That is the aim that brought about the suggestion to stretch the application of the Kyoto Protocol. This would also give time to the Parties to draft a new treaty that would be binding to all Parties, contrary to the drafted terms under the Kyoto Protocol.

i. Bali Action Plan

In December 2007, the thirteenth COP adopted the Bali Road Map, including the Bali Action Plan (Decision 1/CP.13)⁵³, charting the course for a new negotiating process to address climate change. The Plan has five main categories: shared vision, mitigation, adaptation, technology and financing. The Bali Action Plan (BAP) constituted the *Ad Hoc* Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) with the mandate of presenting their results on the aspects that the BAP suggests need to be worked on at the 2009 Copenhagen COP 15. AWG-LCA joined the *Ad Hoc* Working Group on Further Commitments for Annex I Parties that are Annex B Parties under the Kyoto Protocol (AWG-KP), this latter established in the 2005 Montreal COP 11. They tried to meet their goals together, that is, both making steps towards the strengthening of the Kyoto Protocol as well as the drafting of a new legal instrument⁵⁴.

ii. Copenhagen Protocol

In December 2009, world leaders gather for the COP 15 in Copenhagen. Developed States pledged up to 30 billion USD in fast-start finance for the period 2010-2012. In fact, it was a complete failure of a COP. What happened is that during the time they held the COP (from 7 to 19 December 2009) parties could not reach a consensus given the strict duality between developed and developing States that made many feel unsettled. As a result of that, no consensus was reached, and no COP decision was adopted either. However, Denmark decided on its own to celebrate a parallel process with the States that wanted an

⁵³ UNGA, Doc. FCCC/CP/2007/6/Add.1, Decision 1/CP.13 on Bali Action Plan, 14 March 2008.

⁵⁴ GODÍNEZ, R., "La ruta de Kioto a París: el proceso de negociación del nuevo acuerdo", in BORRAS, S., et al., "El Acuerdo de París...", op. cit., p. 59.

agreement to come out of the COP. To this end, it invited both President and Head of States where they would agree upon a text, namely the Copenhagen Accord. This meant an unprecedented backlash for the multilateral negotiations, since it was not adopted on the basis of what was discussed during the COP or according to the papers and other documents provided by the Parties on previous negotiations. The underlying issue, as it is patent, was the opacity with which Accord was reached out, which would strongly taint multilateral negotiations in the future.

In brief, since this was not a decision adopted by the COP (because they adopted this Accord behind the COP's backs), all the COP did was to take note. As such, it is, at best, binding politically to those States that chose to sign up for it. When we speak about taking notes, to quote the UNFCCC Executive Secretary Yvo de Boer, he defined it as «a way of recognizing that something is there, but not going so far as to associate yourself with it»⁵⁵. Some of the, yet voluntary, consequences of the Copenhagen Accord are⁵⁶:

- a) The establishment before 31 January 2010 of quantified economy-wide emission targets for 2020 to State parties of Annex I
- b) Nationally appropriate mitigation actions by non-State parties of Annex I
- c) Acknowledgement that the global average temperature should remain below 2° C as well as commit to the Allied of Small Island States (also known as AOSIS) proposal of not surpassing the 1.5° C cap.
- d) In the field of finance, developed States committed themselves to provide developing States with 30,000 million USD for the period 2010-2012 in addition to another 100,000 million USD annually by 2020 (Green Climate Fund).

_

⁵⁵ FAIOLA, A., *et al.*, "Copenhagen climate deal shows new world order may be led by U.S., China", *The Washington Post*, 2009, available at:

https://www.washingtonpost.com/wp-dyn/content/article/2009/12/19/AR2009121900687.html accessed on [30/03/20].

⁵⁶ GODÍNEZ, R., *op. cit.*, p. 60.

iii. Cancun

In December 2010, the COP 16 was held in Durban, South Africa, resulted in the Cancun Agreements, a comprehensive package by governments to assist developing nations to deal with climate change. The Green Climate Fund, the Technology Mechanism and the Cancun Adaptation Framework were established. Briefly, in the 16th COP in Cancun, they operated very differently from Copenhagen. From the very beginning they worked with transparency, enabling a basis of trust to underpin the negotiations⁵⁷. This allowed for the regain of trust among States in the international community, which helped to reach out an Agreement in Cancun. On this occasion, they retrieved many of the pledges made under the failed Copenhagen Accord already detailed above.

iv. Durban

In December 2011, at the COP 17, governments committed to a new universal climate change agreement by 2015 for the period beyond 2020, leading to the launch of the Ad Hoc Working Group on the Durban Platform for Enhanced Action aimed at developing «a protocol, another legal instrument or an agreed outcome with legal force for the post-2020 period»⁵⁸. The novelty of this Protocol, deeply relevant, is that the resulting protocol, legal instrument or agreed outcome with legal force would be applicable to all the Parties.

Until then, there had always been a distinction between developed and developing States, or Annex I and non-Annex I countries starting from the 1992 UNFCCC. Hence, this is a breakthrough from an era that would soon be phased out. It is indeed relevant the wording of the mandate as it allowed some contracting parties, such as the United States to sign it. In this case, it sought avoiding an instrument that had the legal status of a treaty or protocol and, as such, would require the United States Senate's approval, which would be highly difficult to obtain it. However, other countries were interested in this soft wording for other reasons, such as China and India, to avoid a language that would make them take on binding commitments⁵⁹.

⁵⁷ MORGAN, J., *et al.*, "Reflections on the Cancún Agreements", *World Resources Institute*, 2010, available at: https://www.wri.org/blog/2010/12/reflections-cancun-agreements accessed on [17/05/20]. ⁵⁸ BODANSKY, D., "The Durban Platform Negotiations: Goals and Options", *Harvard Project on Climate Agreements*, 2012, p. 1.

⁵⁹ GODÍNEZ, R., *op. cit.*, p. 62.

v. Doha

At the COP 18, held at Doha in 2012, delegates reached out Decision 1/CMP.8⁶⁰, which was coined as the Doha Amendment, an amendment that contracting parties must ratify to extend the Kyoto Protocol until 2020 and be bound by its terms (henceforth, Kyoto II). This is known as the Doha Amendment, which launches a second commitment period of the Kyoto Protocol that ranges from 2013 to 2020 to avoid the gap between the Kyoto Protocol and the Paris Agreement. Any State that wants to be part of the Kyoto II will have to ratify the Doha Amendment. They also reaffirmed their pledges from COP17, held in Durban, of creating a new, comprehensive, legally binding climate treaty by 2015 that would require greenhouse-gas-producing countries—including major carbon emitters not abiding by the Kyoto Protocol (such as China, India, and the United States)—to limit and reduce their carbon dioxide emissions and other GHG emissions. The new treaty, planned for its implementation in 2020, would fully replace the Kyoto Protocol⁶¹, and would come to be known as the Paris Agreement.

5. Kyoto II Protocol

Let us recap so that we understand where the Kyoto 2nd commitment period (2013-2020) Protocol (henceforth, Kyoto II) comes from and why it failed to be in force and the relationship with the Paris Agreement. To start with, the 31st G-8 summit on climate change took place on 8 July 2005 by G-8 countries in Scotland (United Kingdom), where it was agreed upon that the peril of climate change awaits at our doorstep. A year later, in November 2006, at the Nairobi Conference it was agreed that, regarding the regime after 2012, after the 1st period of the Kyoto Protocol (also known as Kyoto I Protocol) the future framework should seek to reduce global GHG emissions up to 50% by 2050 regarding year 2000. From then on, the following COPs tried to gather consensus to carry out this will.

However, it bumped into some rocks along the way. A big and hindersome rock was the Copenhagen Conference in December 2009, which was a dismal failure. Indeed, all that was left from that was a taking-note that proclaimed: «recognition of the scientific views

⁶⁰ UNGA, Doc. FCCC/KP/CMP/2012/13/Add.1, Decision 1/CMP.8 on the Doha Amendment, 28 February 2013.

⁶¹ TIKKANEN, A., *et al.*, "Kyoto Protocol", *Encyclopaedia Britannica*, 2020, available at: https://www.britannica.com/event/Kyoto-Protocol accessed on [17/05/20].

that the increase in global temperature should be below 2 degrees Celsius (35.6 degrees Fahrenheit), the commonly accepted threshold beyond which the planet's climate patterns could be seriously destabilized»⁶².

If we fast forward a little more, we get to the Doha Conference in November 2012 and, hence, to the accord that would allow for the rollover of the Kyoto Protocol's period of validity from 2013 to 2020 into the Kyoto II Protocol, conceding for a reduction of 20% of emissions by 2020. The underlying reason is that even though at that precise moment the drafting of a new treaty was being cooked in the COP, they needed more time, so they suggested the Doha Amendment to extend the validity period of the Kyoto Protocol. Nevertheless, they introduced some novelties to it. For example, it sets new rules on how developed States are to account for emission from land use & forestry and establishes another GHG emitter (nitrogen trifluoride or NF3). Regarding its commitments, the most relevant is the sudden change from a capped amount of carbon emissions to the famous 2° C cap, offering in a silver platter the possibility for large polluting States to keep on polluting. The most positive aspect from the Kyoto Protocol, the determined global GHG emission reductions is displaced by the 2° C cap, while the most criticized one, the capand-trade regime, remains. Parties that want to be bound by Kyoto II Protocol have to ratify the Doha amendment to the Kyoto Protocol for the Kyoto Protocol rollover to come into effect from 2013 to 2020, thus, avoiding a gap between the expiration of Kyoto I at the end of 2012 and the come into force of the Paris Agreement⁶³. Kyoto II, however, had very few contracting parties, which amounted to a mere 15% of the global GHG emissions. As a result, this rollover did not come to fruition. In other words, even though weakening the commitments in Kyoto II to foster participation it was not enough and did not reach the minimum participation requirements to come into force.

On the bright side, the EU enahnced its commitments to reduce its GHG emissions up to 20% by 2020 regarding 1990's levels and, on top of that, in the World Economic Forum in Davos (2010) the International Monetary Fund created the Green Fund with 700 million EUR to aid countries to take measures against climate change.

_

⁶² NANDA, V., et al., International Environmental Law and Policy for the 21st Century, 2nd ed., Martinus Nijhoff, 2012, p. 420.

⁶³ HOLMAN FENWICK WILLAN, "The UNFCCC's Durban Platform explained", *Energy & Climate Change*, 2012, p. 1-2.

III. Paris Agreement on Climate Change

The Paris Agreement was adopted on 12 December 2015 by the COP 21 to the UNFCCC. It is expected to be fully operative in 2020⁶⁴. It no longer requires developed States to commit themselves alone to specific reduction targets as the Kyoto Protocol did. Rather, it requires all Parties, without distinction, to «prepare, communicate and maintain successive nationally determined contributions that it intends to achieve», pursuant to article 4.2 of the Paris Agreement. This will be the focus of this chapter. It should be noted that the strategy has shifted as we are moving away from a specific GHG emission target reduction goal applicable to developed States alone to the setting of a global temperature ceiling (1.5/2° C), pursuant to article 2.1.a, objective which aims at being achieved by means of NDCs.

A wide majority of international treaties follow a top-down approach. In other words, they create legal obligations. This is a mandatory order from top (international body, for example) to down (to the Parties). This is how many treaties operate, such as the 1992 UNFCCC and the 1997 Kyoto Protocol. However, the Paris Agreement is different. It represents a radical breakthrough from that long-standing tradition. It follows, instead, a bottom-up approach. However, in a way the first draft of this new approach started in Copenhagen. As quoted *supra*, the Copenhagen Conference was a dismal failure. Some countries pushed for an agreement even if it was to be carried out at closed doors without other States' knowledge. This resulted in the drafting of the Copenhagen Accord on 18 December 2009. It was strongly encouraged by the United States as well as Brazil, Russia, India, China and South Africa. It could be said that it would become the first glimpse of what would come to be known as the bottom-up approach. Under paragraph 4 of the Copenhagen Accord it was detailed that Parties to Annex I of the Convention were to submit «quantified emission reduction goals» which were determined nationally (contrary to 1997 Kyoto Protocol), whereas pursuant to its paragraph 5, it would have non-Annex I Parties carry out «national communications»⁶⁵ concerning the mitigation measures adopted (procedural requirements similar to those under the Paris Agreement). The bottom-up approach is articulated around three main elements.

-

⁶⁴ ERBACH, G., "The Paris Agreement. A new framework for global climate action", *European Parliamentary Research Service*, 2016, p. 1.

⁶⁵ RODRIGO, A. J., "El Acuerdo de París sobre el cambio climático: un nuevo tipo de tratado de protección de intereses generales", in BORRAS, S., "*El Acuerdo de París*...", *op. cit.*, p. 76.

1. Identification of a common goal for all the Parties

One of the novelties of the Paris Agreement in stark contrast to the precedent agreements is the radical change of strategy put in place. Prior to the Paris Agreement, the strategy that had been followed consisted of acting against the causes that generate the problem (GHG emissions). Now, under the Paris Agreement, the shifted to acting on the effects of emissions instead (resulting global warming). In other words, instead of attacking the root of the problem it tackles the effects of the problem, global warming. This strategy is patently clear under article 2.1.a of the Paris Agreement which states the following:

«This Agreement [...] aims to strengthen the global response to the threat of climate change [....] by: (a) holding the increase in the global temperature to well below 2° C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5/2° C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change».

However, it should be noted that, concerning the previous provision, the global temperature ceiling «is phrased as an objective (Parties aim to) and not as a legal obligation to achieve it»⁶⁶. Also, the achievement of this objective is to be seen «in the context of equity, sustainable development and poverty eradication», pursuant to article 4.1 of the Paris Agreement, meaning it might take longer for certain developing States to achieve it. Therefore, they will probably subject their commitments of walking towards the goal to the condition that developed States fund them handsomely so they can meet their pledges. Also, aside from the possible quarrels that scientists and lawmakers may have regarding which strategy tackles climate change best, one thing is worrisome. As professor Salinas rightly pointed out, the Paris Agreement does not establish a deadline to the achievement of its goal but rather encourages Parties, pursuant to article 4.1, to «aim to reach global peaking of GHG emissions as soon as possible», in order to achieve «a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of the century»⁶⁷. Probably, had a more clear deadline been established, the Paris Agreement would have been deemed more efficient as it would have pushed Parties towards the decarbonization and would have enhanced their efforts to maintain the global average temperature well below 2° C above pre-industrial levels.

⁶⁶ BODLE, R., *et al.*, "The Paris Agreement: Analysis, Assessment and Outlook", *Carbon & Climate Law Review*, 10 (1), 2016, p. 7.

⁶⁷ JUSTE, J., "El tercer pilar...", op. cit., p. 35.

2. Nationally Determined Contributions

The backbone of the Paris Agreement, nationally determined contributions (henceforth, NDC), represents a radical breakthrough from the Kyoto Protocol. Due to this, States no longer have to face absolute reduction targets but rather make a «contribution to the global response to climate change», pursuant to article 3 of the Paris Agreement. This pledge is translated into NDCs, and they are captured in a public registry by the Secretariat instead of in the Agreement itself.

To comprehend the NDCs we must understand where they come from. It all began at the 2011 Durban Platform. There it was decided that the resulting agreement would be applicable to all Parties. Soon enough, developing States started complaining about it. Some even claimed, such as India, that setting obligations for developing States would force a reinterpretation of the 1992 UNFCCC as it would go against the principle of common but differentiated responsibilities. Then, with the aim to seek common ground, the United States and China endorsed a Joint Announcement in 2014 suggesting the amendment of the principle of common but differentiated responsibilities, by adding in the light of different national circumstances. In this sense, there is an obligation to all Parties to submit NDC (common responsibility) but every NDC is determined nationally (self-differentiation)⁶⁸. Having said that, the responsibilities are different, mostly because they are developing States. Be it as it may, the Paris Agreement refused to even mention historical responsibility to all those developed States that have been polluting ever since the Industrial Revolution. Putting that aside, pursuant to article 4.5, developing States will receive aid from developed States for the implementation of their NDCs. In short, and as we will see later on, most of them will set conditional pledges under their NDCs whereby they condition the meeting of their pledges to receiving funding from developed States.

This represented a strong flexibility of the principle, emptying it of bindingness even more. On the bright side, however, it brought about wide consensus among both the developed and developing States alike. Article 4.3 of the Paris Agreement contains the principle of common but differentiated responsibilities, with its recent amendment, and is worth quoting in full:

35

⁶⁸*Ibid.*, p. 42.

«Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances».

In short, the novelty of the Paris Agreement would imply obligations for both the developing and developed States. However, it is worth analyzing the actual obligations entailed under the NDCs under article 4 of the Paris Agreement. It is extremely important to distinguish the procedural from the substantive aspect of the NDC under article 4.2. The first half of article 4.2 says the following: «Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve». From the wording of shall, it seems to indicate a procedural obligation to all Parties. However, the second half of article 4.2 follows a different pattern: «Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions». From the outset we can see that there are two different sets of commitments under this wording. On the one hand, there is «Parties shall pursue domestic mitigation measures». By using the word shall it seems to indicate an intention to be bound. On the other hand, the other half of the sentence states «with the aim of achieving the objectives of such contributions». From that we can depict that in order for States to meet this obligation they only have to take action aimed at the objective of the NDC, irrespective of whether they meet their NDC pledges or not.

In brief, concerning the NDC, all that was achieved by establishing obligations to all Parties was to make a legally binding obligations to all Parties to submit their NDC pledges. However, the implementation, which is the reason why the NDC, conceived as a mitigation tool, was established in the first place is not legally binding to the Parties. In this regard, if we consider article 4.5 of the Paris Agreement it establishes that «support shall be provided to developing country Parties for the implementation of this article». The reality, as contrasted by a recent report in November 2019, shows that «127 pledges out of the 184 total pledges in the Paris Agreement, are either totally or partially conditional.

In other words, it means that they are dependent on funding from rich nations»⁶⁹. This means that unless they receive the necessary funding as established under article 4.5 of the Paris Agreement these pledges, which account for a rough estimate of 29,4% of the global GHG emissions, will not be met by 2030.

There is another binding principle. It is the progression principle and it is established under article 4.3 and establishes that an NDC «has to represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition». However, there is no institution in charge or with the authority to assess and review the ambition of the NDC submitted by the Parties, since this has been relegated to the national sphere, being this a sole responsibility of each individual State to determine the level of ambition they will pledge in their NDCs⁷⁰. Surprisingly enough, this situation we are now at can reminisce us of the past, where the world was nothing more than the sum of individual nation-States. By that time, wars were waged often, and all matters were centralized by each and every State individually, including environmental policies. The Paris Agreement precision in this regard makes one thing if we are really progressing towards better protecting the environment or we are rather retrograding to the situation we were in the past. At this point, some may even question whether the Paris Agreement can be considered a radical breakthrough or just the shadow of the past that is at our doorstep again.

Professor Falk, referring to the Paris Agreement, hit the nail on the head when he said that it is a treaty «weak on substance, strong on participation»⁷¹. We can see how there is a lot of participation, but commitments are either too soft or, if more ambitious, never met at all. Just consider this, out of the 13 Member States of the Organization of the Petroleum Exporting Countries (OPEC) 9 of them are Parties to the Paris Agreement. But this is not all: to this date, 189 out of the 197 Parties to the Convention have ratified the Paris Agreement. That is about every single country on the face of the planet.

_

⁶⁹ WATSON, R., *et al.*, "The Truth Behind the Climate Pledges", *Universal Ecological Fund*, 2019, p. ii. ⁷⁰ BODLE, R., *op. cit.*, p. 9.

⁷¹ FALK, R., "'Voluntary' International Law and the Paris Agreement", *Global Justice in the 21st Century*, available at: https://richardfalk.wordpress.com/2016/01/16/voluntary-international-law-and-the-parisagreement accessed on [03/04/20].

Therefore, professor Falk suggests that «we need to assess whether an agreement that consists of voluntary pledges that gained the participation of every country on the planet is workable»⁷². Given what the latest reports suggests, the answer is negative. Taking into consideration both reports from 2015 and 2019 they all point out that, out of the 184 Parties, barely a handful of them are spared from criticism, while all the rest deeply lack ambitious pledges to achieve the objective pursuant to the Paris Agreement. Indeed, considering the report by Climate Action Tracker, as early as 8 December 2015 it was pointed out that the objective of temperature reduction to 1.5/2° C would not be met even if all NDC were to be successfully implemented, in which case the temperature would remain at 2.7° C. Also, this report only rated five States to be sufficiently ambitious (Bhutan, Costa Rica, Ethiopia, Gambia and Morocco) which amounts to a mere 0,4% of the global GHG emissions⁷³.

A piece in *The Washington Post* dedicated to the previous article published in Nature leaves us with certainly chilling figures. It suggests that «the current pledges are likely to leave temperatures at 2.6 to 3.1 degrees Celsius warmer than pre-industrial levels by the year 2100, assuming that the pledges themselves are adopted and only their unconditional parts are realized»⁷⁴. From that we can depict that they disregarded whether developing State Parties would meet their pledges or not, since their pledges are what is known as conditional pledges. Additionally, Joeri Rogelj, lead author of that research, explained *The Washington Post* that «the current INDCs (now known as NDCs) still imply an almost 10 percent risk of temperatures still hitting 4 degrees»⁷⁵. Therefore, it is crucial that pledges are more ambitious and are abided by all Parties.

-

⁷² FALK, R., *et al.*, "Will Countries Follow Through on the Climate Pledges Made in Paris?", *Truthout*, 2016, available at: https://truthout.org/articles/will-countries-follow-through-on-the-climate-pledges-made-in-paris/> accessed on [03/04/20].

⁷³ JEFFERY, L., et al., "Climate Action Tracker: 2,7° C is not enough- we can get lower", Climate Action Tracker, 2015, p. 1.

⁷⁴ MOONEY, C., "The world has the right climate goals — but the wrong ambition levels to achieve them", *The Washington Post*, 2016, available at: https://www.washingtonpost.com/news/energy-environment/wp/2016/06/29/a-sweeping-new-analysis-shows-why-our-planetary-carbon-math-is-still-falling-short accessed on [06/04/20].

⁷⁵ *Ibid*.

A few years later, in November 2019, the *Universal Ecological Fund* publishes a report where it concludes that «almost 75% of 184 Paris Agreement pledges were judged insufficient to slow climate change; Only 28 EU Member States and 7 others will reduce emissions by at least 40% by 2030»⁷⁶. It also emphasizes that, excluding the EU, the other 6 countries that are in line with the need to half emissions by 2030, and therefore pass the test, are Iceland, Liechtenstein, Monaco, Norway, Switzerland and Ukraine⁷⁷.

In this study it was also pointed out that «compared to the intended commitments submitted in 2015-16, only six countries have reviewed their pledges: 4 countries increased their plan to cut emissions; 2 countries weakened their commitments»⁷⁸. While it is true that the 2 countries established more unambitious commitments did not infringe article 4.3, regarding the principle of progression, they were still on time to make modifications to their NDCs. It is puzzling to see how there are countries which have seen the damage that climate catastrophes have caused all over the globe (frequent floods, natural disasters and an ever increasing flow of environmental refugees), and yet, are reluctant to take the measures necessary to turn this situation around for the better. It seems that those countries would rather prefer putting the world and future generations at risk than to take action.

Finally, this year 2020, in the *Climate Watch* report that can be seen below shows how little countries updated their NDC pledges⁷⁹.

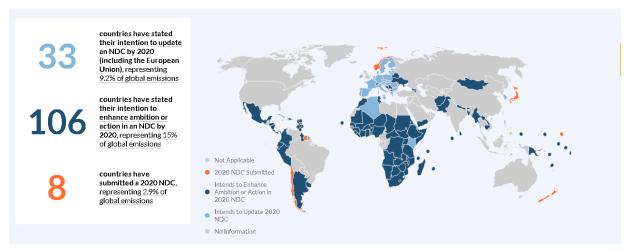


Figure 1. Source: Climate Watch

⁷⁶ WATSON, R., et al., op. cit., p. 1.

⁷⁷ *Ibid.*, p. 11.

⁷⁸ *Ibid.*, p. 3.

⁷⁹ "2020 NDC Tracker", *Climate Watch*, 2020, available at: https://www.climatewatchdata.org/2020-ndc-tracker accessed on [17/05/20].

By February 2020, all UNFCCC members have signed the Paris Agreement and 189 have become party to it. Regardless of that, from the figure below, that last report updated in 2020 shows that only 106 countries have stated their intention to enhance ambition or action in an NDC by 2020, representing a mere 15% of global GHG emissions. As can be seen from figure 1, it can hardly be seen any developed State in this group, whereas developing and small island States is the rule.

If this is concerning, the lack of progress made since the Paris Agreement is even more worrisome. *The Guardian* published an article in September 2019 entitled «countries must triple climate emission cut targets to limit global heating to 2° C»⁸⁰. This idea was later supported by a report published by the *Universal Ecological Fund* in November 2019, where it sustained that «action to half emissions within the next decade need to at least double or triple and increase by five-fold to reach net zero emissions by 2050»⁸¹. Later, on 10 March 2020 it was published in *Time* an article which said that China, albeit considered the world's second-largest economy and largest emitter, has seen a fall in emissions by 25% in mid-February in just a matter of two weeks due to the coronavirus (also known as coronavirus disease 2019 or COVID-19)⁸².

Even after the coronavirus outbreak, States did little if any to get closer to the goals they committed to in their NDCs and to the Paris Agreement. In fact, the situation it caused is expected to greatly impact the climate change regime. *Time* reminded that it already hampered the COP26 expected to have taken place in Glasgow, which had to be put off because of the virus. However, it goes even further suggesting that the international relations between countries and their ambitions and commitments towards climate change would be greatly affected as States will be tempted to look for themselves and try to refloat their economies than to commit themselves to more ambitious contributions⁸³.

_

⁸⁰ MORTON, A., "Countries must triple climate emission cut targets to limit global heating to 2 C", *The Guardian*, 2019, available at: https://www.theguardian.com/environment/2019/sep/23/countries-must-triple-climate-emissions-targets-to-limit-global-heating-to-2c accessed on [17/05/20].

WATSON, R., et al., op. cit., p. 2.
 WORLAND, J., "How Coronavirus Could Set Back the Fight Against Climate Change", Time, 2020, available at: https://time.com/5795150/coronavirus-climate-change/ accessed on [17/05/20].
 Ibid.

All things considered, frustration is understandable. The figures suggest that it is irrelevant whether we meet the NDCs or not because even so we would not reach the 1.5/2° C ceiling goal established under the Paris Agreement. If this was not enough, from some studies as seen *supra*, it is not even clear that the NDC will even be met at all. And, on top of that, many submitted NDCs are not ambitious enough, as was suggested of China's on *The New York Times*. There it was pointed out that «China crafted a Paris pledge that was relatively easy to meet» ⁸⁴, the same country which it is considered to «be on track to meet its climate change goals nine years early» ⁸⁵.

3. Parties prerogatives

Professor Falk, with a touch of humor, suggested that some sections of the Paris Agreement «are inflected with a tone of Orwellian doublespeak apparently intended to disguise any differences between agreeing to do something and not being obliged to do what was agreed upon»⁸⁶. To start with, Parties, as we have seen above, are not legally obliged to meet their NDC pledges.

At the same time, it is true that there are some Parties meeting their NDC pledges, although they are not legally obliged to. What is more, in most cases, they are not meeting them out of their great concern for the environment but rather to avoid the principle of naming and shaming⁸⁷, as suggested by professor Falk. In these cases, they can commit to any NDC pledge they desire as long as the pledge for the upcoming years is on the rise, pursuant to the principle of progression given that there is no assessment of the ambition of individual NDCs⁸⁸. Nonetheless, there is a timespan where they can modify it before becoming effective. From a study by the *Universal Ecological Fund*, «compared to the intended commitments submitted in 2015-16, only six countries have reviewed their pledges: 4 countries increased their plan to cut emissions; 2 countries weakened their commitments»⁸⁹. And even if they do not reduce their pledges, some are weak from the

Q

⁸⁴ PLUMER, B., *et al.*, "Here's How Far the World Is From Meeting Its Climate Goals", *The New York Times*, 2017, available at: https://www.nytimes.com/interactive/2017/11/06/climate/world-emissions-goals-far-off-course.html accessed on [17/05/20].

⁸⁵ VAUGHAN, A., "China is on track to meet its climate change goals nine years early", *NewScientist*, 2019, available at: https://www.newscientist.com/article/2211366-china-is-on-track-to-meet-its-climate-change-goals-nine-years-early/ accessed on [17/05/20].

⁸⁶ FALK, R., et al., op. cit.

⁸⁷ FALK, R., op. cit.

⁸⁸ BODLE, R., et al., op. cit., p. 9.

⁸⁹ WATSON, R., et al., op. cit., p. 3.

start. In this sense *The New York Times* has said so about China, considering this country's NDC to be very easy to achieve⁹⁰. In other news outlets they argued likewise, going as far as to claim that the NDC pledges submitted by China are so easy that they could achieve their commitments 9 years ahead of time⁹¹. This wide scope of action Parties have to submit their NDCs will surely come at a high price in the long run.

As a matter of fact, we are already suffering the consequences. There are already reports from 2016 suggesting that there were only five Parties to be sufficiently ambitious with their NDCs (Bhutan, Costa Rica, Ethiopia, Gambia and Morocco)⁹². In November 2019 a report by the Universal Ecological Fund was published that hinted at an increase of 1 more country to meet with the standards of sufficiently ambitious pledges (if we count countries individually as well as the EU, this makes 2 more countries in contrast to the former report)⁹³. Be it as it may, reality remains about the same. We will not meet the 2° C global emissions target, let alone the 1.5° C emission ceiling suggested by activists, indigenous groups and scientists, regardless of whether we meet the NDC pledges or not. The root of the problem is that NDCs, just as the name says, are contributions determined nationally.

This prioritization of climate change as a national concern instead of a global one is wrong from the beginning. Considering that consequences of climate change can take place just anywhere in the world, and that the place where the damage occurs is different from the place where the activity triggered the consequence (transboundary damages) it is counterproductive to be reluctant to aid the most polluting developing States, as this has a direct and positive impact on all States alike, regardless of whether they are developing or developed States. By thinking outside of the box, just about anyone can reach to the same conclusion, which is that investment on developing States is not only reasonable but also a wise decision since, by doing so, it can help everyone, and a lot of damages will be spared, and costly consequences will be avoided.

That is why it must be ensured that developing States are funded sufficiently to transition to green and alternative technologies in order to greatly reduce their global GHG emissions. By doing so we are all ensuring the safety the citizens of anywhere in the

⁹⁰ PLUMER, B., et al., op. cit.

⁹¹ VAUGHAN, A., op. cit.

⁹² JEFFERY, L., et al., op. cit., p. 2.

⁹³ WATSON, R., et al., op. cit., p. 2.

world, greatly reducing the negative consequences of climate change that have worsened since we began this era called Anthropocene (dated back from the Industrial Revolution), considered the epoch where humans started to shape the world around us affecting the geology and the environment.

For this reason, the new stance that seems to have been rooted in the COP, especially in the Paris Agreement, seems inconsistent with its objectives itself. This return to the individualism and taking measures concerning climate change back to the national sphere will represent a strong setback of what was achieved so far through international cooperation and the understanding of climate change as a global issue.

Particularly for that reason and to make steps towards environmental conservation, developed States should aid developing States undergo heavily economic transformation towards other eco-friendly energy sources. Indeed, transformation without the aid from rich countries is unworkable. Which is why we should not disregard other energy sources that do not pollute and are extremely cheap, such as nuclear power.

Indeed, the situation of not meeting the NDC is so patently clear that the IPCC issued a report in 2018 which very boldly opposed the constant *mantra by* some environmentalists groups against nuclear energy, by stating that «more nuclear power is needed to meet the Paris Agreement»⁹⁴. Under Chapter 2 of the IPCC report, it was concluded that, from its *Table 2.6*, if scenario 3 was to be followed, there would be a 501% increase of nuclear production by 2050⁹⁵. Following this report by the IPCC, a piece published by Nuclear for Climate said, as summary, that a six-fold increase in global nuclear capabilities is essential if we want to achieve our climate goals⁹⁶. Back to the IPCC, Chapter 2 of its report it was said that, regarding the 1.5° C goal, «there are also analyses that result in a large role for nuclear energy in mitigation of GHG emissions»⁹⁷. As a result, the IPCC is not disregarding nuclear energy but rather counting on it to achieve the 1.5° C climate pledges. Be it as it may, it is neither nuclear power companies nor environmentalists' fault that the IPCC arrived to support nuclear power. It is understandable since it has been the result of desperation and frustration after many failed attempts by States to get down to

⁹⁴ NUCLEAR FOR CLIMATE, "IPCC report: more nuclear power is needed to meet the Paris agreement", *Société Française d'Energie Nucléaire*, 2018, available at: https://www.sfen.org/nuclear4climate/ipcc-report-more-nuclear-power-is-needed-to-meet-the-paris-agreement accessed on [17/05/20].

⁹⁵ IPCC, Global warming of 1.5° C: chapter 2, October 2018.

⁹⁶ NUCLEAR FOR CLIMATE, op. cit.

⁹⁷ IPCC, op. cit.

business and meet the commitments. Nuclear energy, since it is the single largest source of low-carbon electricity energy, is a viable option and should not be disregarded. To this point, alternative energies require much more investment. For now, they produce insufficient energy to supply the way traditional energy sources do. To put that into perspective, according to a study, whose figure is provided below, carried out by *Our World in Data* points out that renewables together with nuclear power cluster in the bottom-left of the chart as least polluting energy sources⁹⁸.

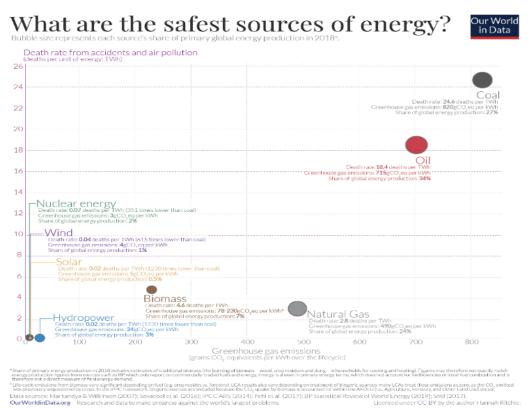


Figure 2. Source: Our World in Data

From the article seen *supra*, it puts that in context by means of an example, which say as follows: there is a town of 27,000 EU citizens, who would collectively consume around one terawatt-hour of energy a year, in order to study the death rate by source of energy. Just to take a few, with coal, 25 people would die prematurely every year. With wind and solar, using the first it would take 29 years before someone died while using the latter it would take 53 years before someone died. However, using nuclear, it would take between

⁹⁸ RITCHIE, H., "What are the safest sources of energy?", *Our World in Data*, 2020, available at: https://ourworldindata.org/safest-sources-of-energy> accessed on [18/05/20].

14 and 100 years before someone died ⁹⁹. In short, this supports the IPCC statement which says: «[...] comparative risk assessment shows health risks are low per unit of electricity production [...] 100 . Indeed, the societal danger of nuclear energy seems an over-stretched idea. Also, renewable energy is are more costly and are reliant on the atmosphere (sun, wind, among others). As a result, for its high costs and its dependence on weather, for many developing States renewable energy is not an option yet. For this reason, nuclear energy should not be disregarded so easily, since it is the single largest source of lowcarbon electricity.

Back to the NDCs, we have seen that Parties have many prerogatives. One is the freedom to comply with its commitments or not, without any sanction whatsoever. But that is not all. Another of the prerogatives Parties have can be seen, as suggested by professor Salinas, in baselines. A baseline is a year that States set in their NDC pledges to assess the level of ambition of their emission reductions. For now, whilst all the other Parties set their baseline in 1990, the two largest polluters (the United States and China) are the two only Parties that set a different baseline, this one in 2005¹⁰¹. It would be optimal that all States pledged a carbon emissions reduction according to one same baseline, especially if those that set a different baseline are the two largest polluters in the planet, which makes it deeply worrisome. Also, if all Parties used the same method to assess their emission reductions it would make it easier to assess the level of ambition and how far we are from meeting the Paris Agreement goals.

The first takeaway from that is that the baseline should be the same for all Parties, with a very few exceptions, such as cases where some Parties have very weak economies. In such cases, in order to avoid sinking their economies they could be granted a temporary concession to set a different baseline with the condition of being only temporary and submitting reports so that the progress could be monitored. Therefore, the institution which granted this concession could decide, based on the reports provided, whether to extend this temporary concession or proceed to its withdrawal.

⁹⁹ *Ibid*.

¹⁰⁰ NUCLEAR FOR CLIMATE, op. cit.

¹⁰¹ SALINAS, S., "El Acuerdo de París de diciembre de 2015: la sustitución del multilateralismo por la multipolaridad en la cooperación climática internacional", REDI, 70 (1), 2018, p. 70-71.

Having seen all the elements in which the bottom-up approach is articulated, we could say that the Paris Agreement looks as if it was taken right from a legal textbook, a clear manufactured example of what a legal soft law international treaty looks like. As closure of the chapter, it will be assessed whether the NDC as a soft law instrument, deserve this much praise by the international community or not.

Those supporting the soft law character of the NDC in the Paris Agreement argue that it allows for «rapid scaling up of commitments over time when compared to binding obligations»¹⁰² and that the Paris Agreement was the best deal that was on the table. They argue that they would rather take the Paris Agreement before returning empty handed. They uphold the decision to have drafted the Paris Agreement the way it was done and celebrate it euphorically as a major success for the international community. However, there are others more skeptical about that and conceive it as a lesser-evil or rather, as a half-done job.

Peter Lawrence and Daryl Wong strongly oppose the literature supporting soft law as a useful method of achieving goals in climate change policy. To the contrary, those in favor of a soft law NDC defend that «it allows for the rapid scaling up of commitments over time when compared to binding obligations»¹⁰³, among others, which will be discussed below. Since their arguments are deemed relevant to compare and discuss them, they will be quoted in full:

- a) «Article 4.3 imposes an obligation on States to progressively increase their mitigation commitments reflected in their NDCs
- b) The transparency mechanism in the Paris Agreement and the stocktake allow for peer pressure to raise ambition of their NDCs
- c) The delays involved in requiring ratification of amendments that would be entailed with hard law mitigation obligations can be avoided with the soft law operation of the mitigation commitments»¹⁰⁴.

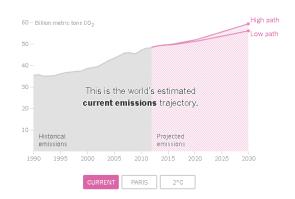
_

¹⁰² LAWRENCE, P., et al., "Soft law in the Paris Climate Agreement: Strength or weakness?", Review of European, Comparative & International Environmental Law, 26 (3), 2017, p. 282.

¹⁰³ Ibid.

¹⁰⁴ *Ibid*.

Concerning the first argument, given the imperative situation where we now live, we are already feeling the consequences of climate change. As a result, the principle of progression is not effective enough. Although progression establishes a positive trend toward setting more ambitious goals and toward decarbonization as a result, the rate at which the commitments increase is too slow to make an impact on the environment. To make a real impact GHG emissions should be plunge at the same rate that they boosted since the Industrial Revolution. Indeed, it is insufficient that they decrease if they go at such a slow pace. And the same goes for China, which wants to reach a peak of its emissions. Needless to say, even if it managed to reach a peak, it would still put the environment at risk. Reaching a peak or slowly increasing the Parties commitments are not enough. GHG emissions must, instead, plunge. This is what can clearly be seen in the figures retrieved from a piece in *The New York Times*, which are found below. It was concluded that «no major industrialized country is currently on track to fulfill its pledge»¹⁰⁵.



50 - Billion metric tons CO₂

50 - Low path

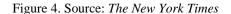
40 - 30 - Here's what the world has pledged under the Paris agreement.

10 - Historical emissions emissions

1990 1995 2000 2005 2010 2015 2020 2025 2030

CURRENT PARIS 2°C

Figure 3. Source: The New York Times



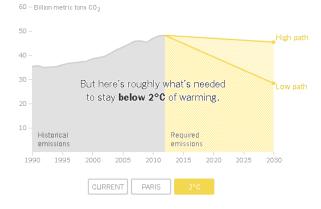


Figure 5. Source: The New York Times

_

¹⁰⁵ PLUMER, B., et al., op. cit.

According to a report in 2017 by the United States Global Change Research Program, it was concluded, referring to the Paris Agreement goal of limiting GHG emissions to 2° C, that:

«Under a scenario in which countries maintain the same pace of decarbonization past 2030 as they announced in their first actions (leading up to 2025 or 2030) there is some likelihood (less than 10%) of preventing a global mean surface temperature change of 3.6°F (2°C) relative to preindustrial levels [...], whereas there would be virtually no chance if emissions climbed to levels above those implied by country announcements»¹⁰⁶.

From both the report and the figures seen *supra* it can be depicted that there is still a long way to go to reach the Paris Agreement goals. The report seems to send a warning to Parties to the Paris Agreement to avoid, at all costs, failing to meet their NDC pledges or else the world will reach an irreversible situation. This is especially relevant considering that from the latest reports seen *supra*, NDCs projections are either too little ambitious or not met at all. That is why it is crucial to increase ambition in the following years to avoid surpassing the 2° C (3.6° F) limit. However, it ought to be borne in mind that «even if existing concentrations could be immediately stabilized, temperature would continue to increase by an estimated 1.1° F (0.6° C) over this century, relative to 1980–1999. This is because of the long timescale over which some climate feedbacks act» ¹⁰⁷.

Concerning the second point, contrary to professor Bodansky's claim that «transparency and accountability mechanisms of the Paris Agreement could achieve the same results as binding obligations in that it is more likely that poor performance will be detected and criticized» the same taken issue with that, such as professor Falk. On this occasion, while acknowledging at first that «without enforcement or even an obligation to comply, there are some circumstances where the principle of naming and shaming creates pressures which can induce a fairly high level of compliance» and that the transparency and stocktake in the Paris Agreement seems to create a friendly environment toward the fulfillment of their NDC pledges, he sees it as just an illusion. Falk concludes saying that

¹⁰⁶ U.S. GLOBAL CHANGE RESEARCH PROGRAM (USGCRP), Climate Science Special Report, Fourth National Climate Assessment (NCA4), volume I, 2017, p. 397-398.
¹⁰⁷ Ibid., p. 134.

¹⁰⁸ LAWRENCE, P., et al., op. cit., p. 284.

¹⁰⁹ FALK, R., op. cit.

«unfortunately, governments of sovereign States are normally very reluctant to criticize each other in public space»¹¹⁰. In short, as he sees it, States try their very best to avoid hostile relations between other States. This is the first reason why the principle of naming and shaming is not effective. The other reason is that there will be other States which, while not as powerful diplomatically as the United States or other developed States, will fall exempt from criticism since they have gone through extreme weather catastrophes, civil wars or economic recessions¹¹¹.

At the end of the day, the States that will receive most criticism will be those seen by other States as their adversaries. Indeed, parties use the principle of naming and shaming as a pretext to criticize their geopolitical adversaries¹¹² by pretending they care about the environment. Nothing further from the truth. This seriously undermines the principle of naming and shaming as it is not being used to strengthen the commitments to the environment, but it rather is being used as a political tool for many on far too many occasions. At the end, those with large diplomatic connections will always be exempt from criticism.

The already problematic situation between the Parties in relation to the Paris Agreement, worsens on the multilateral or global level. Professor Falk explains that the «UN also refrains except in extreme cases from voicing criticism of the behavior of its members that names and shames»¹¹³. For example: imagine an international organization, which is formed by its Member States, whose job is to carry out decision-making policies, and hardly ever voices criticism about one another. Alternatively, imagine a country, with all its economic interests in place. It will hardly ever say anything that would potentially hamper the relationship with other countries to avoid ending in a diplomatic conflict or even warfare. At the same time, a country will hardly put in place environmental policies that may challenge its geopolitical or economic strength for the benefit of its adversaries. Thus, it is indeed a very bad idea to relegate the NDCs to the national sphere.

. .

¹¹⁰ *Ibid*.

¹¹¹ FALK, R., et al., op. cit.

¹¹² Ibid

¹¹³ FALK, R., op. cit.

As for the third point, that article suggests that it is also possible to establish a rapid scaling up of commitments under hard law. It brings forward, a very creative example. That is «Montreal Protocol on Ozone Depletion, which uses an opt-out mechanism whereby parties that agree to particular COP decisions [...] are automatically bound unless they opt out within a certain time period» ¹¹⁴. Before finishing it is noteworthy to mention different alternatives to slowly set hard law obligations to the Paris Agreement without changing it substantially ¹¹⁵.

- 1) A decision by the COP. Parties suggest that a COP decision could be passed embodying an agreement by which States that vote in favor of would be legally be bound to article 4 of the Paris Agreement. This shift from soft law to hard law regarding article 4 of the Paris Agreement is technically plausible pursuant to article 41 of the Vienna Convention on the Law of Treaties (henceforth, VCLT). However, a very different thing would be its feasibility. In this sense, it is especially doubtful to reach a consensus. However, if they did, it would be a plausible possibility.
- 2) A declaration by States, with the aim of making not only to procedural aspects of the NDC (under article 4 of the Paris Agreement) but also its content and pledges legally binding. In the event that the decision by the COP was not possible for lack of consensus, it is suggested that a declaration by States could be carried out the treating of article 4 of the Paris Agreement as a hard law obligation. Clearly, it would only oblige those who joined the declaration. The way this would operate technically speaking is to try to circumscribe this declaration as a subsequent agreement falling within the scope of article 41 of the VCLT. However, the drawbacks begin to be noticeable: this option would only be endorsed by those countries that already are highly ambitious and, therefore, they will not be the most highly pollutant countries. To achieve this, the article suggests that the implication of NGO is crucial to gather more political and social support to make a Joint Declaration of such characteristics possible 116.

¹¹⁴ LAWRENCE, P., et al., op. cit., p. 282.

¹¹⁵ *Ibid.*, p. 285.

¹¹⁶ *Ibid*.

IV. The Paris Agreement in context

We could say that the Paris Agreement has, fundamentally, two components and, in order for it to successfully meet its goals, it has to satisfy both. So far, we have only delved into the first perspective on the Paris Agreement, which is the problem-solving perspective. Under this perspective, the Paris Agreement and thus the climate change threat boils down to adjusting energy policies to cutting down on GHG emissions and relying on alternative energies by investing heavily on innovation.

However, there is another aspect that also weights in. This is the ethical perspective on carbon markets. This is an equally important aspect to ponder when solving climate change issues as not always the end justifies the means. This other perspective, often muffled, is voiced by strong human rights supporters, climate activists and a variety of NGOs around the globe. Achieving the goals set forth in the Paris Agreement is key, that is true. Nonetheless, achieving them in a clumsy way, disregarding human rights, amounts to a half-done job. Therefore, it is important to solve climate change from an unbiased perspective, considering both ways of tackling this threat, on one hand from the problem solvers side and, on the other side, from the ethicists side.

Finally, the last section will be dedicated to the United States withdrawal, a turning point for the environment, for the better or the worse.

1. The ethical case against carbon markets

Under the 1997 Kyoto Protocol, it was created the Clean Development Mechanism (CDM), which in 2005 became the first global exchange for carbon offsets, allowing countries to receive credit for financing emissions-reduction activities outside their borders. Now, this mechanism will be updated to the Sustainable Development Mechanism (henceforth, SDM) under the Paris Agreement once the content of article 6 is decided, which failed to do so in the Madrid COP25. Only time will tell. In the same year, 1997, the EU created the *cap-and-trade* program, the EU ETS, which linked immediately to the CDM. This allowed companies to pay for offsets abroad through the CDM as a way of meeting their EU emission quotas¹¹⁷.

_

¹¹⁷ GREEN, J., "Don't link carbon markets", *Nature*, 543 (7646), 2017, p. 485.

During the validity of the Kyoto Protocol, it was launched the EU ETS in 2005, suggested by the United States, which would go work together with the Clean Development Mechanism (CDM), which was written in the Kyoto Protocol. Since then, huge numbers of projects around the world are generating credits.

To explain what a carbon trading scheme is and its purposes we could say the following. Carbon markets, such as the EU ETS, are systems where «the government puts a cap on the amount of GHGs that can be emitted by a given industry or sector of the economy. Businesses are then given an allowance of how many metric tons of CO2 they can emit. Those who emit less than their allotment can sell the extra to other businesses, pushing everyone to cut down emissions faster» ¹¹⁸. If the rules are structured appropriately, theoretically speaking, the result can be a *win-win* for everyone involved. Both countries meet their climate commitments, the overachiever is financially rewarded for going above and beyond, finance is provided to the country generating the emissions reductions, and the world gets a step closer to avoiding catastrophic climate change¹¹⁹. However, in practice, reality is not that simple.

i. Past experiences

It did not take long for the flaws in the plan to show, though. Prior to the Paris Agreement, far too many projects were becoming, under the UN system, dodgy industrial projects that generated tremendously lucrative credits at the expense of those who live the most sustainable, low-carbon lifestyles on the planet¹²⁰.

For example, there are companies operating in the Niger delta that practice flaring, which is an activity that consists of setting fire to the natural gas released in the oil drill process because capturing it and using the potent GHG is more expensive than burning it. Surprisingly, they have argued that they should be paid if they stop engaging in this enormously destructive practice. It is curious considering that this practice is prohibited outright under Nigerian law. Regardless, some of these companies are already registered to receive carbon credits under the UN system for no longer flaring ¹²¹.

¹¹⁸ NUGENT, C., op. cit.

¹¹⁹ KIZZER, K., *et al.*, "What You Need to Know About Article 6 of the Paris Agreement", *World Resources Institute*, 2019, available at: https://www.wri.org/blog/2019/12/article-6-paris-agreement-what-you-need-to-know accessed on [17/05/20].

¹²⁰ KLEIN, N., *This Changes Everything. Capitalism vs. The Climate, op. cit.*, p. 166. ¹²¹ *Ibid.*

But it gets worse. There are coolant factories in India and China that emit the highly pollutant GHG HFC-23 as a by-product. In this case, by installing very inexpensive equipment to destroy the gas instead of venting it into the air, these companies are generating millions of dollars in emission credits every year. As a group formed by NGOs put it, «there is evidence that manufacturers are gaming they system by producing more potent greenhouse gases just so they can get paid to destroy them»¹²². Although there have been some reforms in the UN as well as in the EU, this threat remains very plausible in the present and future. Indeed, «a 2015 report found that an estimated 80% of projects under the Kyoto carbon trading scheme were of low environmental quality and that the system had actually increased emissions by roughly 600 million metric tons»¹²³.

As some indigenous leaders put it, «it is easier to deal with big oil and mining companies, because at least people understand who these companies are and what they want; less so when the organization after your land is a virtuous-seeming NGO and the product it is trying to purchase is something that cannot be seen or touched»¹²⁴. Though «touted (the carbon markets) as a classic win-win climate solution, there are very few winners in these farms and forests. For multinational corporations to protect their freedom to pollute the atmosphere, peasants, farmers and indigenous people are losing their freedom to live and sustain themselves in peace¹²⁵. As Chris Lang, British environmentalist, smartly put it: «I hate the idea of the environmental movement fighting among itself instead of fighting the oil companies [...]. It's just that these groups don't seem to have any desire to take on the oil companies, and with some of them, I'm not sure they really are environmentalists at all» 126. As always happens, when environmentalists try to be just that, environmentalists, the same green and environmental groups blame them for not getting environmental legislation forward, blaming them for being too hard-line and for not being more humble¹²⁷, which is precisely when these legislations go wrong, by setting so many loopholes that «the environmental benefit is nonexistent» 128.

-

¹²² *Ibid*.

¹²³ NUGENT, C., op. cit.

¹²⁴ KLEIN, N., op. cit., p. 167.

¹²⁵ *Ibid.*, p. 168.

¹²⁶ *Ibid*.

¹²⁷ *Ibid.*, p. 173.

¹²⁸ *Ibid.*, p. 172.

Finally, we should look back at history to understand the threat that these market-based approaches pose in the Paris Agreement. If the EU ETS market-based mechanism were to be defined in a word that would be volatility. In mid-2008, EU ETS carbon prices plummeted from roughly 25 EUR to less than 10 EUR per ton of CO₂. After the financial crisis, the falling of industrial output together with changing environmental policies lowered emissions all over Europe¹²⁹. As a result, the carbon credits pricing fell radically. This volatility is very dangerous but, in a way, common in a market. That is why this should not be an option to rely on, even less to join different countries and economies under one same market as volatility would go on even more frequently having profound negative consequences for both the economic agents operating in the market and the environment. All things considered, although theoretically creating a central carbon bank would prevent volatility, politically it is very complex and hard to be achieved¹³⁰.

Be it as it may, this trend has not been left in the past, since as of 2020 there are news outlets around the world condemning it. Ranvir Nayar, in the *Arab News*, said: «the only way to save the environment is by forcing businesses to dramatically cut their emissions, not by allowing them to find ridiculous loopholes through which they can gamble with human lives just to earn a few extra dollars»¹³¹. As he later explained, following the polluters-pay principle, it is positive to fine them. However, it is not enough to sanction them for excessive carbon emissions of 1 ton at about 5 USD in most nations. It would be necessary, instead, to set a minimum price of 80 USD per ton for companies to start to feel the pinch for polluting¹³².

Also, it is not the end but the means this is carried out that is important. Ranvir Nayar argues that Emmanuel Macron learnt this rule the hard way from the *Yellow Vest*, a movement that began when he announced an increase to tax on fossil fuels. As Nayar put it, «he could have saved himself a lot of trouble had he tried to target the other end of the business: the top instead of the bottom» ¹³³.

100

¹²⁹ GREEN, J., "Don't link carbon markets", op. cit., p. 485.

¹³⁰ *Ibid.*, p. 486.

¹³¹ NAYÂR, R., "In the battle against climate change, carbon trading is not efficient, ethical or fair", *Arab News*, 2020, available at: https://arab.news/vm9qr accessed on [17/05/20].

¹³² *Ibid*.

¹³³ *Ibid*.

Indeed, NGOs and environmentalist groups that support the carbon trading may not be aware of it but through carbon trading, we might be setting up the perfect channels that allow businesses in rich and middle-income countries to continue to pollute with impunity, while paying a pittance for the right to do so.

As suggested by *The Economic Times* as well, we should begin questioning whether «it is ethical for richer countries to continue to contribute more than their share of global carbon emissions by buying 'cheaper' emission reduction opportunities in poorer countries» ¹³⁴. This is another, and more worrying issue also considered by Nayar, which is the fact that businesses in rich countries buy carbon credits from less wealthy nations, by taking advantage of the fact that many developing States do not have adequate industrial development or the low price of carbon credits there ¹³⁵, clearly undermining the principle of equity as the most polluting countries will carry out polluting as they can pay for all their pollution with money. In a way, we are trading the environment, turning the act of polluting it a mere commodity product that can be owned and sold, subjugating the environment to another patrimonial asset.

In support of what was previously expressed by Nayar in the previous paragraph, he states the following, which deserves to be quoted in full:

«The EU has said that such deals lack environmental integrity, but this is a particular mild way to call out something that is downright cheating, if not a crime. Attracted by the billions of dollars that can be made, the global carbon markets have become a hotbed of corruption, fueled by a complete lack of transparency. Consultants, brokers, policymakers and NGOs continue to enrich themselves in a system with very little independent or democratic oversight» ¹³⁶.

55

BANERJEE, R., *et al.*, "The ethics of carbon trading", *Economic Times*, 2007, available at: https://economictimes.indiatimes.com/the-ethics-of-carbon-trading/articleshow/2612592.cms?from=mdr accessed on [17/05/20].

¹³⁵ NAYAR, R., *op. cit.*

¹³⁶ *Ibid*.

ii. Opposing voices

Regarding the stance taken treating the right to pollute and the environment as a commodity product that can be bought and sold, Michael Sandel, ethicist and professor at Harvard, in a piece from 1997 published in *The New York Times* entitled *It's Immoral to Buy the Right to Pollute*¹³⁷, identified the following ethical problems with pricing carbon:

- «It creates loopholes that could enable wealthy countries to evade their obligations. The United States, for instance, could take advantage of developing States (such as Russia) going through economic crisis to buy their excess credits (which will be cheaper than buying them in other developed States) and count them toward meeting their obligations under the treaty.
- 2. Turning pollution into a commodity to be bought and sold removes the moral stigma that is properly associated with it. If a company is fined by a government for spewing excessive pollutants into the air, the government conveys its judgment that the polluter has done something wrong. A fee, on the other hand, makes pollution just another cost of doing business, like wages, benefits, and rent.

 The distinction between a fine and a fee for despoiling the environment is not one we should give up too easily. [...] Consider the fine for parking in a place reserved for the disabled. If a busy contractor needs to park near his building site and is willing to pay the fine, is there nothing wrong with his treating that space as an expensive parking lot? [...] In effacing the distinction between a fine and a fee, emission trading is like a recent proposal to open carpool lanes on Los Angeles freeways to drivers without passengers who are willing to pay a fee. Such drivers are now fined for slipping into carpool lanes; under the market proposal, they would enjoy a quicker commute without opprobrium.
- 3. It may undermine the sense of shared responsibility that increased global cooperation requires»¹³⁸.

¹³⁷ SANDEL, M., "It's Immoral to Buy the Right to Pollute", *The New York Times*, 1997, available at: https://www.nytimes.com/1997/12/15/opinion/it-s-immoral-to-buy-the-right-to-pollute.html accessed on [17/05/20].

¹³⁸ Ibid.

In his book, in reference to his previous article in *The New York Times*, professor Sandel argued «I worried that letting countries buy the right to pollute would be like letting people pay to litter». And he added: «we should try to strengthen, not weaken, the moral stigma attached to despoiling the environment»¹³⁹.

Similarly, Pope Francis questions whether market capitalism can effectively protect the poor. His objection seems to be based in part on the fact that a carbon pricing scheme will allow those who can afford to continue emitting GHG emissions after paying the pricing fee to do so while those that are unable to afford to pay the fee will need to reduce the activities that create GHG emissions¹⁴⁰. In passage 171 of *Laudato Si*, it said the following:

«The strategy of buying and selling "carbon credits" can lead to a new form of speculation which would not help reduce the emission of polluting gases worldwide. This system seems to provide a quick and easy solution under the guise of a certain commitment to the environment, but in no way does it allow for the radical change which present circumstances require. Rather, it may simply become a ploy which permits maintaining the excessive consumption of some countries and sectors»¹⁴¹.

To recap, carbon markets are unsustainable as they are an unreliable option for their volatility, experience in Europe with the EU ETS, where the prices of carbon dropped considerably when facing recessions. Likewise, they present highly-reprehensible concerns ethically speaking, as suggested by professor Sandel and Pope Francis. As a result, other alternatives should be looked into, some that are more coherent with ethics and are more reliable and effective.

 ¹³⁹ SANDEL, M., What money can't buy: The Moral Limits of Markets, Allen Lane, 2012, p. 73.
 140 BROWN, D., "Ethical Issues with Relying on Pricing Carbon as a Policy Response to Climate Change",

Ethics and Climate, 2018, available at: https://ethicsandclimate.org/2018/03/03/ethical-issues-with-relying-on-pricing-carbon-as-a-policy-response-to-climate-change/ accessed on [17/05/20].

¹⁴¹ FRANCIS POPE, "Laudato Si", Encyclical Letter, 2015, p. 126, para. 171.

iii. Situation in the Paris Agreement

At the international climate summit at COP25 in Madrid, in December 2019, climate negotiators failed again to finalize the article 6 rulebook. With parties falling just short of reaching a deal, it will be taken up again at an intersessional meeting in June and at COP26 in November 2020. Article 6 of the Paris is so relevant that, depending on how it is interpreted at the COP26 in November 2020, it can either make or break the Paris Agreement¹⁴². In simple terms, the first mechanism under article 6.2 would allow a country that has beaten its Paris climate pledge to sell any overachievement to a nation that has fallen short against its own goals. For example, if a country has committed to reducing its emissions by 10% but actually reduces 15%, it would be able to sell the extra 5% reduced to another country, which has not managed to meet its own target in the NDC. These credits are called Internationally Transferred Mitigation Outcomes or ITMOs. One risk of this article is that it led «to the adoption of lower emission reduction targets. This is because the ability to sell credits will push seller countries to adopt lower domestic targets and sell the emission reductions instead of using them towards their own objectives. This is particularly true if countries are allowed to sell emission reductions from sectors (or gases) which are not covered by their nationally determined contributions. For example, a country might have excluded its waste sector from its NDC target. If it is allowed to sell emission reductions from this sector, it would have an incentive not to set an emission reduction target for it, because doing so would force it to use the emission reductions towards its own target, or to make corresponding adjustments to avoid double counting» 143.

The second mechanism under article 6.4 is also known as the SDM. Under this market, parties, which can be both public and private entities pursuant to the aforementioned article, participate in sustainable development projects. By carrying out these projects it is expected that they reduce emissions in that country. Just to name a few, some of these projects could be the restoration of a degraded forest, an upgrade to a factory or the construction of a wind mill instead of a coal plant. Under this market, a new international carbon market governed by a UN body is created that would supervise the trading of

_

¹⁴² GABBATISS, J., EVANS, S., "In-depth Q&A: How 'Article 6' carbon markets could 'make or break' the Paris Agreement", *Carbon Brief*, 2019, available at: https://www.carbonbrief.org/in-depth-q-and-a-how-article-6-carbon-markets-could-make-or-break-the-paris-agreement accessed on [17/05/20].

¹⁴³ DUFRASNE, G., "Markets 101. The ultimate guide to global offsetting mechanisms", *Carbon Market*

emissions reductions. Gilles Dufrasne, policy officer on carbon pricing at *Carbon Market Watch* addressed the perverse incentive that the Clean Development Mechanism generated for buyers of carbon excess during the Kyoto Protocol. Referring to that mechanism, he said that it «was supposed to be a system to allow countries to set more ambitious targets, but what it actually did is just make it cheaper to reach existing targets and you can even argue that it weakened the targets because instead of really reducing emissions, countries bought credits that don't really represent much» Article 6.4 says the market mechanism must deliver an overall mitigation in global emissions. In other words, it is saying that mitigation should go beyond what would have happened if the trading scheme had not been in place 145. For example, if country A was already going to build a wind farm instead of a coal plant, country B will not be rewarded for that, as this transformation was going to take place even if the trading scheme had not been in place.

The third mechanism, pursuant to article 6.8, is different from the rest. It follows a non-market approach and it provides a formal framework for climate cooperation between countries insofar as trade is not involved. For example, this could be development aid to developing States or other activities, such as support for a new wind farm. Other examples could be the applying of taxes to discourage emissions. The logic is that if one country pays for carbon emissions to be reduced in a second country, the first country can count those reductions towards its own national targets. However, this is a double-edged sword:

On the one hand, if done right, according to an analyst at the Environmental Defence Fund (EDF), this international emissions trading could almost double global emission reductions between 2020 and 2035 as well as cut the financial cost of meeting the Paris Agreement emission pledges by 59% to 79%.

On the other hand, if done wrong, according to Gilles Dufrasne, policy officer at *Carbon Market Watch*, it could become a «massive loophole for emitters, allowing them to continue polluting at home without taking serious action»¹⁴⁶. Both viewpoints will be pondered below.

59

OSBORNE, L., "COP25: Controversial carbon markets take center stage", *Deutsche Welle*, 2019, available at: https://www.dw.com/en/cop25-controversial-carbon-markets-take-center-stage/a-51455559> accessed on [17/05/20].

¹⁴⁵ GABBATISS, J., EVANS, S., op. cit.

¹⁴⁶ NUGENT, C., op. cit.

a. Benefits of carbon markets pursuant to article 6 of the Paris Agreement

Under article 6, countries that exceed their emissions reduction targets would be able to sell their excess reduction as credits to other countries who failed to meet their targets. This will foster incentives both for States and businesses alike. States will feel incentivized to cut their emissions faster and invest in projects to reduce its emissions. Likewise, companies will start seeing environmental mitigation strategies as cost-effective since, by helping mitigate climate change, they will be able to sell the emissions reductions to countries. For example, following this approach many forests, such as the Amazon rainforest, could be saved as «carbon markets could make those threes worth more alive than they are dead»¹⁴⁷.

b. Drawbacks of using carbon market approaches to cut emissions

There are two main concerns: first, there is the fear of double-counting (prohibited under article 6.2 of the Paris Agreement) if article 6 is not written clearly. If so, it could happen that India, for instance, reduced its carbon emissions by 1 metric ton through a solar-power scheme and might be tempted to both sell a reduction credit to Australia and count the reduction in its own target. This would, therefore, amount to cheating the atmosphere because half as much CO₂ would be reduced than countries claim.

Second, some countries want to carry over old credits from the Kyoto Protocol era to the Paris Agreement. At some point during the Kyoto Protocol there was such a huge demand of carbon credits that the system collapsed, and many credits went unsold. However, the emissions reductions projects that generated them continued. As a result, these States that hosted these projects want to be able to use or sell those credits under the new system. For example, Australia already proclaimed that it plans to use those old credits to meet its new emissions targets. However, if the up to 5.4 billion credits that the UN estimates exist are allowed into the Paris Agreement, they will, as some climate campaigners suggest, water down ambition. As a result, global emission reduction targets could be cut by more than the total amount of CO₂ emitted by the entire EU in 2017. Be it as it may, environmentalists, such as Dufrasne argue that «there isn't extra mitigation anywhere that you can buy or sell». As a result, this cap-and-trade logic is not compatible with the Paris Agreement and the net zero as the goal ahead¹⁴⁸.

¹⁴⁷ *Ibid*.

¹⁴⁸ *Ibid*.

2. Implications of the United States withdrawal

The United States withdrawal from the Paris Accord turned the world upside down. However, was the feeling of despair and the distressed voices However, were these alarmed voices that followed justified? Is the world heading to the dismal destruction as a result of the United States leaving the Paris Accord? To answer this question, it is crucial to gain some insight into the withdrawal process and its possible implications. In June 2017, President Trump announced the United States withdrawal from the Paris Climate Accord. This triggered article 28 of the Paris Agreement which establishes under section 1 that at any time after three years from the date on which this Agreement has entered into force for a Party (4 November 2016), that Party may withdraw from this Agreement by giving written notification to the Depositary. In short, the United States withdrawal process would take effect one day after the next presidential elections in 2020¹⁴⁹.

It should be noted that after the United States pulls out of the Paris Agreement, then it will still be rendered a valid international agreement although the requirements of at least 55 Parties to the Convention accounting in total for at least an estimated 55 per cent of the total global GHG emissions under article 21.1 are not met. The reason being that, pursuant to article 55 of the 1969 VCLT a multilateral treaty does not terminate by reason only of the fact that the number of the parties falls below the number necessary for its entry into force.

It is important to highlight as well that although article 28.3 of the Paris Agreement points out that any Party that withdraws from the Convention shall be considered as also having withdrawn from the Agreement, the same cannot implied *vice versa*. Until the decision to pull out of the agreement goes into effect, the United States will still be a full-fledged participant of the Paris Agreement and could weaken the consensus from the inside. Even after the United States effective withdrawal from the Paris Agreement, as Party to the UNFCCC, the United States can fully participate in all the negotiations that Parties to the UNFCCC participate in, as well as in the work of the auxiliary bodies of the UNFCCC tasked with developing implementation solutions for the Paris Agreement 150. In short, it

¹⁴⁹ TOLLEFSON, J., "It's official: Trump begins process to exit Paris climate agreement", *Nature*, 2019, available at: https://www.nature.com/articles/d41586-019-03230-y accessed on [19/05/20]. See also FAJARDO, T., "El Acuerdo de París sobre el cambio climático: sus aportaciones al desarrollo progresivo del derecho internacional y las consecuencias de la retirada de los Estados Unidos", *REDI*, 70 (1), 2018, p. 23-51.

¹⁵⁰ CHESTNOY, S., et al., "USA Withdrawal from Paris Agreement – What Next?", International Organisations Research Journal, 12 (4), 2017, p. 222.

will still be able to affect international consensus on climate change from the inside. Indeed, it will be a hard endeavor since, on the one hand, there are no formal grounds for expelling the United States and, on the other hand, there is no formal mechanism for forcing the United States to abide by the Paris Agreement resolutions either.

Although the United States withdrawal process will be effective on 4 November 2020, there are some opposing groups that continue having issues with the process. For example, among others, there is the *United States Climate Alliance*, whose goal is to uphold the United States commitments to the Paris Agreement of reducing GHG emissions 26-28% from 2005 levels by 2025 by taking aggressive action against climate change. Indeed, this is not a marginal force as it represents a conglomerate of States that represent over 35% of the United States population and more than the 30% of US GDP¹⁵¹. Although these initiatives do not create any legal ground for joining the Paris Agreement, they are very much welcomed¹⁵². Even in the event that the United States were to re-join the Paris Agreement later on, the impacts of climate change to the lives of many americans will be severe. As suggested from a report in 2018 by the United States Global Change Research Program, «in the absence of more significant global mitigation efforts, climate change is projected to impose substantial damages on the U.S. economy, human health, and the environment. Under scenarios with high emissions and limited or no adaptation, annual losses in some sectors are estimated to grow to hundreds of billions of dollars by the end of the century. It is very likely that some physical and ecological impacts will be irreversible for thousands of years, while others will be permanent» 153.

Now the question we should ask ourselves is to which extent was the pulling out from the Paris Agreement an informed decision. At the same time, it should be pondered that, in the event that leaving the Paris Agreement, it was a good idea at all to instead remain in the Paris Agreement the way it is now being confectioned.

_

¹⁵¹ ROBINSON, D., "The Significance of the US Withdrawal from the Paris Agreement on Climate Change", *The Oxford Institute for Energy Studies*, 2017, p. 5-6.

¹⁵² CHESTNOY, S., et al., op. cit., p. 220.

¹⁵³ U.S. GLOBAL CHANGE RESEARCH PROGRAM (USGCRP), *Impacts, risks, and adaptation in the United States*, Fourth National Climate Assessment (NCA4), volume II, 2018, p. 1357.

i. Arguments in favor of leaving the Paris Agreement

1) The Paris Agreement is a treaty and thus needed to obtain the advice and consent of the Senate. However, President Obama joined the Paris Agreement with an executive order. This creates a dangerous precedent and an unconstitutional one under United States law, where any treaty can be adopted by the president by deeming it not a treaty¹⁵⁴.

The Paris Agreement is indeed a treaty within the definition of article 2.1.a of the VCLT, but not every provision of the agreement creates a legal obligation¹⁵⁵. Likewise, it is true that President Obama signed instead of ratified the Paris Agreement by means of an executive order because it did not have the approval of the United States Congress. However, this does not imply a contravention of United States law.

To shed some light into the matter, former White House legal advisor Melvis Purvis noted that, «the main guiding principle in situations like this is whether or not joining an international agreement would require amendments to national legislation. If the answer to that is no, then it's more than enough for the President to sign the agreement without getting ratified by the Senate» ¹⁵⁶. In conclusion, President Obama was acting well within his authority and in accordance with United States law.

2) By leaving the Paris Agreement the United States is in a better position to renegotiate another Paris Agreement from scratch, one that would be more favorable to the United States.

However, this situation seems hardly plausible. Besides the fact that the Paris Agreement was signed after 10 years of negotiations, the response by the UNFCCC Secretariat was crystal clear: «The Paris Agreement is a historic document signed by 195 parties and ratified by 146 countries and the EU, so it cannot be revised at the request of a single country» 157, although it is open to dialogue with the United States.

¹⁵⁴ HORNER, C., *et al.*, "The Legal and Economic Case Against the Paris Climate Treaty. Canceling U.S. Participation Protects Competitiveness and the Constitution", *Competitive Enterprise Institute*, 2017, p. 1. ¹⁵⁵ BODANSKY, D., "The Legal Character of the Paris Agreement", *Review of European, Comparative and International Environmental Law*, 25 (2), 2016, p. 142.

¹⁵⁶ CHESTNOY, S., et al., op. cit., p. 222.

¹⁵⁷ *Ibid*.

3) It is dangerous for the economy to keep up with the NDC commitments provided that they have to be not only ambitious but also ratchet-up over time.

First, the United States and China are the only two countries that, instead of having 1990 as the baseline as all the other Parties, they chose 2005 as their baseline. Second, in the short run there surely is a substantial investment that may affect the economy greatly. However, by means of economies of scale, as the investment flows in, the cost plunges, making alternative energies more cost-efficient. Third, while it is true that NDCs have to be ambitious and ratchet-up over time, it is up to the United States to determine what this contribution will be. As long as the contribution is higher than that from the previous NDCs it will be understood that it is more ambitious, regardless of by which margin.

It should be specially analyzed the need of actually having to pull out of the Paris Agreement. As cannily suggested by President Putin, if the United States, under the leadership of President Trump, was unhappy about the NDCs his predecessors had committed to in the Paris Agreement, the United States «didn't have to pull out of the Paris Accords, as they are essentially a framework agreement; what they should have done instead was change the USA's commitments under these Paris accords »¹⁵⁸. At the end of the day, ironically, the content of the NDCs are not even legally binding so, as long as the United States complied with the obligations to prepare, communicate and maintain NDCs, it should be on the right track. This is precisely the biggest handicap with the Paris Agreement. However, both sides will be considered in this study of the withdrawal of the Paris Agreement which will result, in the end, in an assessment of whether the Paris Agreement is a valid treaty to fight climate change.

¹⁵⁸ Ibid., p. 220.

ii. Arguments against leaving the Paris Agreement

1) The Paris Agreement will have a domino effect onto other Parties to leave the Agreement as well¹⁵⁹.

This does not seem to be the trend. However, it cannot be ruled out the possibility that some countries that are not yet members, given the turn of events, feel discouraged to join the Paris Agreement. For instance, Turkey, which in one occasion, after the United States announced its withdrawal from the Paris Agreement said that: «the Turkish parliament was unlikely to ratify the Paris Agreement because of the United States decision to pull out of it»¹⁶⁰. Whereas this is the case for Turkey, other countries such as Nicaragua have never had the intention to sign the Paris Agreement from the beginning since they foresaw that it would be useless to combat climate change and would be, indeed, a waste of money and time. This seems to sustain professor Falk's suspicions when he said that one of the biggest vulnerabilities under the Paris Agreement is that «the United States is unable to play the role of being a credible enforcer, and this means that there is no robust informal extra-legal pressure to comply»¹⁶¹.

This is not only affecting the level of ambition by the Parties to the Paris Agreement but also having an effect of talking other States (not Parties to the Paris Agreement) out of joining the Paris Agreement as a result of the United States withdrawal. Also, there is no actual compliance mechanism and, as a result, Parties are not legally obliged to meet their pledges (NDCs), being absolutely up to them to do so. As a result, this principle of naming and shaming should be totally dismissed as an outright failure as, due to the United States declaration to withdraw from the Paris Agreement, many Parties did not exactly condemn it but rather expressed dismay¹⁶². As professor Falk suggested, «governments of sovereign States are normally very reluctant to criticize each other in public space [...] Even the UN also refrains except in extreme cases»¹⁶³. We can see now how the extent of the criticism given shifted to mere dismay. As proven, according to his point, 2020 has continued this pattern and the latest reports highlight the negative course for the future.

¹⁵⁹ ROBINSON, D., op. cit., p. 3-4.

¹⁶⁰ CHESTNOY, S., et al., op. cit., p. 222.

¹⁶¹ FALK, R., op. cit.

¹⁶² CHESTNOY, S., et al., op. cit., p. 220.

¹⁶³ FALK, R., op. cit.

2) The Paris Agreement was a customized treaty for the United States to join in

Some scholars claim that «The Paris Agreement was crafted to meet US demands and make it possible for the US to join»¹⁶⁴. And this is how they justify the clearly non-binding and soft law treaty that is the Paris Agreement. Indeed, since we wanted the United States to join and it would only join if China and India did the same and vice versa (to avoid the failure that was the discrimination between labelled countries under the Kyoto Protocol), as a result, we turned the Paris Agreement into a clear soft law instrument where commitments are not followed and goals are not achieved just so the United States could join. Now, in June 2017, even before the 1st anniversary of the Paris Agreement's ratification, the United States wants to pull out of the Accord.

However, if we follow their line of argumentation, from a first glance this should be encouraging news. Some scholars, such as professor Kemp, ventured to say that «continued US membership in the Paris Agreement on climate would be symbolic and have no effect on US emissions. Instead, it would reveal the weaknesses of the agreement, prevent new opportunities from emerging, and gift greater leverage to a recalcitrant administration» ¹⁶⁵. This is shocking as his quoted words demonstrate, crystal clear, the nature of this soft law treaty that is the Paris Agreement and the object of this research project: uncover the truth behind the Paris Agreement. After reading his quoted words, although it may not have been his intention, the hypothesis that the Paris Agreement is nothing more than a façade and a political tool starts taking shape.

Indeed, being a Party member does not guarantee having a direct effect on GHG emissions reductions since the actions taken would be symbolic and, ultimately, Parties are not compelled to meet their climate pledges. This is the true nature behind the Paris Agreement. The United States participation, as Kemp put it (as well as that of any other State), would be «symbolic» and «have no effect on [...] emissions». Here lies, as he himself accepted, «the weakness of the agreement» ¹⁶⁶.

For this reason, the presence of the United States in the Paris Agreement could, as professor Kemp put it, «prevent new opportunities from emerging and gift greater leverage to a recalcitrant administration» ¹⁶⁷. However, if the takeaway is that we would

¹⁶⁴ ROBINSON, D., op. cit., p. 5.

¹⁶⁵ KEMP, L., "Commentary: Better out than in", Nature Climate Change, 7 (7), 2017, p. 458.

¹⁶⁶ *Ibid*.

¹⁶⁷ *Ibid*.

be better off without the United States because all it has done is slow down the Paris Agreement effectiveness, being responsible for turning it into a soft law treaty, now that the United States will soon have withdrawn from it, there is no excuse to deny the transformation of the Paris Agreement to a more hard-law treaty. Indeed, it is alleged that the drafting of the Paris Agreement as a soft law instrument was the only way around it, as had not they done that the Paris Agreement would have died off in the Senate of the United States.

Indeed, for the United States to join the Paris Agreement it had to be a treaty with no additional binding commitments. That is why it was designed as a clear soft law instrument. All things considered, now that the United States, responsible for all of that is out of the game (or will rather soon be) anyone should agree that now the Paris Agreement can be reborn without more restraints now, starting to be redefined more like a hard-law treaty such as Kyoto, including more binding aspects in the treaty. Or that is at least what should have happened following their line of argument.

However, it is not so easy. At this point, though, it sounds more like an excuse than anything else. It is not interesting for Parties to get back to hard law now that they are so comfortable in such a soft law instrument as the Paris Agreement. This is what was meant when it was expressed that it could create a dangerous precedent. Since Parties deny any possible change in the Paris Agreement after the United States withdrawal, this seems to suggest that they are not interested in making it hard law, even after the United States is out. In Kyoto, developing States, such as China, could pollute relentlessly without being held accountable. However, this all changed in the Paris Agreement, or so it should have, as all Parties are obliged to comply with procedural obligations. Nevertheless, the substantive aspect of their obligations (NDCs) is another story. In short, it cannot be sustained that the Paris Agreement was designed to favor exclusively the United States. It has been observed how the Paris Agreement, away from being the panacea for the planet is a façade that masks an unworkable treaty with a lot of appearance and void of substance inside.

3) Although studies suggest that the Paris Agreement will not manage to flatten the curve of GHG emissions, all countries agree to undertake ambitious nationally determined contributions (NDCs) which will ratchet up overtime (every 5 years). They also agree to undertake a global stocktake to review the impact of their climate change actions in five-yearly cycles.

It must be taken issue with that assertion as its effectiveness is not guaranteed:

- a) Regardless of whether Parties meet their NDC pledges or not, they won't be sanctioned.
- b) The term ambitious is certainly ambiguous. According to what the wording of the article suggests, as long as the NDC are progressive no other country or institution can force a Party to the Paris Agreement to review and increase its pledges for, while considering it progressive, not being it ambitious enough.
- c) Given the situation we are in, the ratcheting-up principle is useless. According to some articles, it is suggested that the commitments, even if ratcheting-up overtime are not increasing enough as to prevent the catastrophic and relentless consequences that are yet to come soon. In short, this principle is not enough, and it should either be determined the scope of ambition by international institutions with the authority to deny NDC are not they ambitious enough.

What should be done instead is, in order to prevent the free-rider problem (which the Paris Agreement fails to address successfully) is to set restrictions on Trade with the United States under the Paris Agreement as they did in the 1987 Montreal Protocol on the Substances that Deplete the Ozone Layer with Korea regarding the sale of fridges.

4) Developed States agree to support developing States through financing, among others

The financial obligations (objective which was adopted in 2009 at the Copenhagen conference) involved a sum of 100 billion USD to help developing States by 2020. Regardless of the fact that by February 2020 195 signed the Treaty and 189 of which ratified it, when it comes down to providing financial assistance, this is lacking.

In 2017 contributions were announced merely by 43 countries (9 of which were developing ones) and their total was a little over 10 billion USD out of which 3 billion USD was provided by the United States alone¹⁶⁸. In other words, there is a tenfold gap between the target amount of the funds and its actual amount, but since there is no mechanism for ensuring that obligations are met, there is no other way around it.

5) It is an important multilateral agreement because it has very broad support (to this date, 189 Parties out of the 197 Parties to the UNFCCC have ratified it).

It goes without saying that the Paris Agreement is nowhere close to the Kyoto Protocol which, although its commitments were insufficient, they were enforceable at least. The Paris Agreement represents an outright backlash in the climate change regime. Some defendants of the Paris Agreement excuse it by claiming that had the Paris Agreement been slightly more *hard law*, it would never have gone into effect in less than one year as it actually did. However, there was a misunderstanding with the end goal. The end under the Paris Agreement is not to achieve the largest participation possible, but rather to meet its goals. Rushing to sign a treaty that focuses on the participants by voiding it of enforceable content does not guarantee the end objective set forth in the treaty and can only be deemed a failure of a treaty and a pointless one. As worded by law professor Richard Falk from Princeton University, «in exchange for getting all States to participate, the content of what was agreed upon was seriously compromised» ¹⁶⁹.

¹⁶⁸ CHESTNOY, S., et al., op. cit., p. 217-218.

¹⁶⁹ FALK, R., op. cit.

CONCLUSIONS

FIRST. Whereas everybody's takeaway from the Paris Agreement is that it is clearly calling toward the decarbonization, it is mentioned nowhere in the Paris Agreement that fossil fuels, coal and oil are going to be phased out. Likewise, whereas everyone seems to believe that this treaty is headed to renewable energy, no reference at all is made to the nuclear energy. In fact, from the latest IPCC reports it seems to suggest that it is counted on to successfully meet the Paris Agreement goals.

SECOND. The failure to address historic responsibilities in the Paris Agreement seems to suggest how little seriously Parties took this treaty as they made sure it was a lot of politics and a lot of wording and little substance. Indeed, they managed not to include the two aspects that would subject them to some sort of liability by removing from the treaty any mention to historic responsibilities and the establishment of a contentious court with the authority to sanction Parties for non-compliance of their pledges.

THIRD. It cannot be sustained that the Paris Agreement, precisely for its little binding content, is capable of achieving far more than a treaty with more binding and ambitious provisions would. In fact, the way the Paris Agreement has been drafted resembles more to a framework treaty than to a specific treaty aimed at tackling climate change, as it should have been. It cannot be upheld, therefore, that the pledge and review system is effective enough to justify its soft law content or that the principle of naming and shaming provides such incredible outcomes that would match the effectiveness of a treaty with more binding and hard law provisions. Therefore, as pointed out in the research, all these perks and more could also come from a binding and more ambitious provisions under the Paris Agreement.

FOURTH. The Paris Agreement failed to address the right of future generations to a healthy environment together with the right of indigenous groups in the operational part of the treaty and, instead, left a quick acknowledgement of their existence and the need to protect them in the preamble. Notwithstanding its recognition therein, however, it is discouraging that no mention about them is found anywhere at all within the operational provisions of the treaty.

FIFTH. It should be acknowledged that, from an economic perspective, carbon market approaches are very innovative as they manage to achieve the highest possible outcomes

with the smallest economic effort. Nonetheless, it also has its dark sides. For instance, the devastating results caused by the high volatility in the markets as could be seen from the high fluctuations of the price of carbon credits in the EU ETS during strong economic recessions in Europe. Another of the concerns is the conception that pollution is tradable removes the moral stigma that is associated with it, which is highly reprehensible. As professor Sandel put it, «what's next, tradable credits for littering and other asocial acts?»¹⁷⁰.

SIXTH. The biggest mistake when drafting the Paris Agreement was failing to ponder the environmentalists and human rights supporters perspective on the matter. By doing so, it managed to repeat the same mistakes as the Kyoto Protocol did where many companies circunvented human rights or profited from the perverse incentives offered by carbon credits. For example, by creating highly polluting by-products *ex profeso*, they received massive carbon credits for destroying them or stopping their highly pollutant activities which they started in the first place to be awarded with carbon credits. As a result, applying article 6 market-based mechanisms would not solve the problem, all to the contrary, as it would create more problems. Climate change has to be addressed from both perspectives (the problem-solving perspective and the human rights perspective). Doing otherwise is only going to do more harm than good.

SEVENTH. Although the world is better off with a treaty such as the Paris Agreement than with none at all, it could have been drafted in a way that made it far more effective. In fact, given the latest reports it can only be concluded that the Paris Agreement is a dismal failure. That is because it did not only fail to meet its goals but also Parties are not meeting their own pledges and, in spite of that, they will not be sanctioned for their undoing. That is why the Paris Agreement should be updated to reflect this reality. Needless to say, without enforcement or a little of hard law content, the goals are just declarations of intentions. For now, many Parties simply see the Paris Agreement as an opportunity to make politics out of the climate, and this is highly reprehensible and wrong.

EIGHTH. The United States withdrawal process is indeed a setback against the faction in the international community which endorses more ambitious commitments to fight

-

¹⁷⁰ SANDEL, M., "It's Immoral to Buy the Right to Pollute", op. cit.

against climate change. However, the reaction received is not proportional to the threat the United States withdrawal from the Paris Agreement poses on the world since Parties are making little if any effort at all to meet their pledges anyway. Actually, by staying in they could have done more harm than good, as pointed out by some experts. Indeed, the furious furious reaction by some United States companies at President Trump's decision to withdraw from the Paris Agreement seems to support that claim as, by doing so, they no longer could influence and slow down the decisions adopted at the COP in matters relating to climate change. Nonetheless, had it remained, reality would not have changed as many Parties would not have met their pledges. For those who would have, however, they would not even be ambitious enough to have a relevant impact. On top of that, most developing States condition the compliance with their commitments to the receival of funding from developed States. As a result, we have a treaty which, while joined by nearly all the countries in the world, just a handful of them meet their pledges which, in most part, are insufficient at best.

NINTH: This year 2020 the trending topic was coronavirus. According to a recent study by the Yale School of Public Health, there seems to be a correlation in China between strict quarantine measures and improvement of air quality and prevention of premature deaths as a result of a reduction of NO2 particles. The author argues optimistically that «if we were to address the climate crisis as aggressively as we are combating the COVID-19 pandemic with strong political will and urgent action, we could prevent the enormous health burdens associated with climate change» 171. Nonetheless, other experts suggest that the trend is not headed toward international cooperation, but rather the opposite. According to a piece in *Time* 172, the coronavirus crisis will be bad for the international consensus on climate. The reasoning is that the economies of the world will be very weak and, as a result, will be reluctant to increase their ambition for quite some time until they recover. Be it as it may, it is ironic how the highest decrease in the GHG emissions has neither come from market-based mechanisms nor from NDC pledges, but rather from an *outsider*, the coronavirus. In this sense, the article on *Time* referred to *supra*, sustained that «China, albeit considered the world's second-largest economy and largest emitter,

-

¹⁷¹ GREENWOOD, M., "In China, strict quarantine improves air quality and prevents thousands of premature deaths", *Yale School of Public Health*, 2020, available at: https://publichealth.yale.edu/news-article/24721/ accessed on [20/05/20].

¹⁷² WORLAND, J., op. cit.

has seen a fall in emissions by 25% in mid-February in just a matter of two weeks due to the coronavirus»¹⁷³. While not reaching completely their pledges, many countries felt forced to reduce CO2 emissions and, as a result, got closer to meeting their pledges than ever before.

There is a lesson to be learnt from the coronavirus. As suggested by *Economist*, «Covid-19 has demonstrated that the foundations of prosperity are precarious. Disasters long talked about, and long ignored, can come upon you with no warning, turning life inside out and shaking all that seemed stable. The harm from climate change will be slower than the pandemic but more massive and longer-lasting. If there is a moment for leaders to show bravery in heading off that disaster, this is it. They will never have a more attentive audience» ¹⁷⁴.

TENTH. Considering the reports provided so far, the Paris Agreement seems it will fail to meet its goals and the NDC will either not be met or be insufficient to slow down climate catastrophe. Indeed, a treaty joined by almost all countries in the world could not solve the climate change crisis. That is because it sacrificed a great deal of its content to allow for the highest participation possible. Nonetheless, at this point, of what use is a treaty that lacks content? Without substance, a treaty lacks effectiveness and its goals fade away. This is precisely what happened to the Paris Agreement, achieving little if nothing at all. To conclude, the Paris Agreement has performed so insufficiently that it can only be called a dismal failure. Hopefully in the years that are to come it will be updates or a new treaty will be drafted that better tackles climate change.

¹⁷³ *Ibid*.

[&]quot;The covid and climate crises are connected", *Economist*, 2020, available at: https://www.economist.com/leaders/2020/05/21/the-covid-and-climate-crises-are-connected accessed on [21/05/20].

BIBLIOGRAPHY

A. Doctrine

- ALFARO, M., et al., Agenda 2030. Claves para la transformación sostenible, Catarata, 2019.
- BANERJEE, R., et al., "The ethics of carbon trading", Economic Times, 2007, available at: https://economictimes.indiatimes.com/the-ethics-of-carbon-trading/articleshow/2612592.cms?from=mdr> accessed on [17/05/20].
- BIRNIE, P., et al., International Law & The Environment, 3rd ed., OUP, 2009.
- BODANSKY, D., "The Durban Platform Negotiations: Goals and Options",
 Harvard Project on Climate Agreements, 2012, p. 1-12.
- BODANSKY, D., "The Legal Character of the Paris Agreement", Review of European, Comparative and International Environmental Law, 25 (2), 2016, p. 142-150.
- BODANSKY, D., et al. (Ed.), The Oxford Handbook of international environmental law, OUP, 2007.
- BODLE, R., et al., "The Paris Agreement: Analysis, Assessment and Outlook",
 Carbon & Climate Law Review, 10 (1), 2016, p. 5-22.
- BORRAS, S., et al., Medio ambiente, desarrollo y cooperación internacional.
 Estudios jurídicos sobre desarrollo sostenible, Aranzadi, 2010.
- BORRAS, S., Los regímenes internacionales de protección del medio ambiente,
 Tirant lo Blanch, 2011.
- BORRAS, S., El control internacional de los tratados multilaterales de protección del medio ambiente ¿Apariencias o realidades?, Tirant lo Blanch, 2013.
- BORRAS, S., Retos y realidades de la adaptación al cambio climático.
 Perspectivas técnico-jurídicas, Aranzadi, 2013.
- BORRAS, S., "Movimientos para la justicia climática global: replanteando el escenario internacional del cambio climático", *Relaciones Internacionales*, 33, 2017, p. 97-119.

- BORRAS, S., et al., El Acuerdo de París sobre el Cambio Climático: ¿Un acuerdo histórico o una oportunidad perdida? Análisis jurídico y perspectivas futuras, Aranzadi, 2018.
- BRANDI, C., *et al.*, "The Case for Connecting the Implementation of the Paris Climate Agreement and the 2030 Agenda for Sustainable Development", *German Development Institute*, 2017, available at: https://www.die-gdi.de/uploads/media/BP_21.2017.pdf accessed on [17/05/20].
- BROWN, D., "Ethical Issues with Relying on Pricing Carbon as a Policy Response to Climate Change", *Ethics and Climate*, 2018, available at: https://ethicsandclimate.org/2018/03/03/ethical-issues-with-relying-on-pricing-carbon-as-a-policy-response-to-climate-change/ accessed on [17/05/20].
- CARDESA-SALZMANN, A., PIGRAU, A., "La Agenda 2030 y los objetivos para el desarrollo sostenible. Una mirada crítica sobre su aportación a la gobernanza distributiva global en términos de justicia distributiva y sostenibilidad ambiental", REDI, 69 (1), 2017, p. 279-285.
- CHANDRAMOULI, K., "Talks on carbon markets put climate future in a fix",
 Mongabay, 2019, available at: https://india.mongabay.com/2019/12/article-6-cop-25-talks-on-carbon-markets-put-climate-future-in-a-fix/ accessed on [17/05/20].
- CHESTNOY, S., et al., "USA Withdrawal from Paris Agreement What Next?",
 International Organisations Research Journal, 12 (4), 2017, p. 215-225.
- CORDONIER, M., "Advancing the Paris Agreement on Climate Change for Sustainable Development", Cambridge Journal of International and Comparative Law, 5 (2), 2016, p. 202-237.
- DE SADELEER, N., Environmental Principles: From Political Slogans to Legal Rules, OUP, 2002.
- DÍAZ, C. M., "Los objetivos de desarrollo sostenible: un principio de naturaleza incierta y varias dimensiones fragmentadas", AEDI, 32, 2016, p. 9-48.
- DUFRASNE, G., "Markets 101. The ultimate guide to global offsetting mechanisms", Carbon Market Watch, 2019, p. 1-12.
- ERBACH, G., "The Paris Agreement. A new framework for global climate action", *European Parliamentary Research Service*, 2016, p. 1-10.

- FAIOLA, A., *et al.*, "Copenhagen climate deal shows new world order may be led by U.S., China", *The Washington Post*, 2009, available at: https://www.washingtonpost.com/wp-dyn/content/article/2009/12/19/AR2009121900687.html accessed on [30/03/20].
- FAJARDO, T., "El Acuerdo de París sobre el cambio climático: sus aportaciones al desarrollo progresivo del derecho internacional y las consecuencias de la retirada de los Estados Unidos", *REDI*, 70 (1), 2018, p. 23-51.
- FALK, R., "'Voluntary' International Law and the Paris Agreement", *Global Justice* in the 21st Century, available at: https://richardfalk.wordpress.com/2016/01/16/voluntary-international-law-and-the-paris-agreement accessed on [03/04/20].
- FALK, R., et al., "Will Countries Follow Through on the Climate Pledges Made in Paris?", Truthout, 2016, available at: https://truthout.org/articles/will-countries-follow-through-on-the-climate-pledges-made-in-paris/ accessed on [03/04/20].
- FERNANDEZ, C. R., "Transformaciones del derecho internacional por los objetivos de desarrollo sostenible", AEDI, 32, 2016, p. 49-81.
- FERNÁNDEZ, C. R., MANERO, A. (Dirs.), Análisis y comentarios de los Objetivos de Desarrollo Sostenible de las Naciones Unidas, Aranzadi, 2017.
- FRANCIS POPE, "Laudato Si", Encyclical Letter, 2015, p. 3-182.
- GABBATISS, J., EVANS, S., "In-depth Q&A: How 'Article 6' carbon markets could 'make or break' the Paris Agreement', *Carbon Brief*, 2019, available at: https://www.carbonbrief.org/in-depth-q-and-a-how-article-6-carbon-markets-could-make-or-break-the-paris-agreement accessed on [17/05/20].
- GILES, R. (Dir.), Desafíos de la acción jurídica internacional y europea frente al cambio climático, Atelier, 2018.
- GODÍNEZ, R., "La ruta de Kioto a París: el proceso de negociación del nuevo acuerdo", in BORRAS, S., et al., El Acuerdo de París sobre el Cambio Climático: ¿Un acuerdo histórico o una oportunidad perdida? Análisis jurídico y perspectivas futuras, Aranzadi, 2018, p. 53-68.
- GONZÁLEZ, S., Derechos y mercados de gases de efecto invernadero, Tirant lo Blanch, 2014.

- GREEN, J., "Don't link carbon markets", *Nature*, 543 (7646), 2017, p. 484-486.
- GREENWOOD, M., "In China, strict quarantine improves air quality and prevents thousands of premature deaths", *Yale School of Public Health*, 2020, available at: https://publichealth.yale.edu/news-article/24721/ accessed on [20/05/20].
- HANDL, G., *International Environmental Law*, United Nations, 2013.
- HINOJO, M., et al., La protección del medio ambiente en el derecho internacional y en el derecho de la Unión Europea, Tecnos, 2016.
- HOLMAN FENWICK WILLAN, "The UNFCCC's Durban Platform explained",
 Energy & Climate Change, 2012, p. 1-4.
- HORNER, C., et al., "The Legal and Economic Case Against the Paris Climate Treaty. Canceling U.S. Participation Protects Competitiveness and the Constitution", Competitive Enterprise Institute, 2017, p. 1-46.
- IVANOVA, M., "UNEP in global environmental governance", *Global Environmental Politics*, 10 (1), 2010, p. 30-59.
- JACOBY, H., et al., "Why the next two years are critical for the Paris climate deal's survival", The Conversation, 2018, available at: https://theconversation.com/why-the-next-two-years-are-critical-for-the-paris-climate-deals-survival-107931 accessed on [17/05/20].
- JEFFERY, L., et al., "Climate Action Tracker: 2,7° C is not enough- we can get lower", Climate Action Tracker, 2015, p. 1-9.
- JUSTE, J., "Los Tratados en el Derecho internacional ambiental: tradición e innovación", in *El derecho internacional en el mundo multipolar del siglo XXI*,
 Obra homenaje al profesor Luis Ignacio Sánchez Rodríguez, Iprolex, 2013, p. 103-120.
- JUSTE, J., Derecho internacional del medio ambiente, McGraw-Hill, 1999.
- JUSTE, J., CASTILLO, M., La protección del medio ambiente en el ámbito internacional y en la Unión Europea, Tirant lo Blanch, 2014.
- JUSTE, J., "El tercer pilar del régimen internacional para responder al cambio climático: el Acuerdo de París de 2015", in BORRAS, S., "El Acuerdo de Paris...", op. cit., p. 29-52.
- KEMP, L., "Commentary: Better out than in", *Nature Climate Change*, 7 (7), 2017, p. 458-460.

- KISS, A., BEURIER, J.P., Droit international de l'environnement, 2nd ed., Pedone, 2000.
- KISS, A., SHELTON, D., A guide to international environmental law, Martinus Nijhoff, 2007.
- KIZZER, K., et al., "What You Need to Know About Article 6 of the Paris Agreement", World Resources Institute, 2019, available at: https://www.wri.org/blog/2019/12/article-6-paris-agreement-what-you-need-to-know> accessed on [17/05/20].
- KLEIN, N., This Changes Everything. Capitalism vs. The Climate, Alfred A.
 Knopf Canada, 2014.
- KREIENKAMP, J., "The Long Road to Paris. The History of the Global Climate Change Regime", *Global Governance Institute*, 2019, p. 1-24.
- LAWRENCE, P., et al., "Soft law in the Paris Climate Agreement: Strength or weakness?", Review of European, Comparative & International Environmental Law, 26 (3), 2017, p. 276-286.
- LAZARO, T., Derecho internacional del medio ambiente, Atelier, 2005.
- MEADOWS, D., et al. (MIT SYSTEM DYNAMICS GROUP), The Limits to Growth, A report for the Club of Rome, 1972.
- MEADOWS, D., et al. (MIT SYSTEM DYNAMICS GROUP), The Limits to Growth: The 30-Year Update, A report for the Club of Rome, 2004.
- MESSENGER, G., "El rol del derecho internacional dentro del desarrollo sostenible y la Agenda 2030", *REDI*, 69 (1), 2017, p. 271-278.
- MOONEY, C., "The world has the right climate goals but the wrong ambition levels to achieve them", *The Washington Post*, 2016, available at: https://www.washingtonpost.com/news/energy-environment/wp/2016/06/29/a-sweeping-new-analysis-shows-why-our-planetary-carbon-math-is-still-falling-short> accessed on [06/04/20].
- MORGAN, J., et al., "Reflections on the Cancún Agreements", World Resources
 Institute, 2010, available at: https://www.wri.org/blog/2010/12/reflections-cancun-agreements accessed on [17/05/20].
- MORTON, A., "Countries must triple climate emission cut targets to limit global heating to 2C", The Guardian, 2019, available at:

- https://www.theguardian.com/environment/2019/sep/23/countries-must-triple-climate-emissions-targets-to-limit-global-heating-to-2c> accessed on [17/05/20].
- NANDA, V., et al., International Environmental Law and Policy for the 21st Century, 2nd ed., Martinus Nijhoff, 2012.
- NAYAR, R., "In the battle against climate change, carbon trading is not efficient, ethical or fair", *Arab News*, 2020, available at: https://arab.news/vm9qr accessed on [17/05/20].
- NUCLEAR FOR CLIMATE, "IPCC report: more nuclear power is needed to meet the Paris agreement", Société Française d'Energie Nucléaire, 2018, available at: https://www.sfen.org/nuclear4climate/ipcc-report-more-nuclear-power-is-needed-to-meet-the-paris-agreement accessed on [17/05/20].
- NUGENT, C., "What are carbon markets and could they help fight climate change?", *Time*, 2019, available at: https://time.com/5748374/carbon-markets-paris-agreement/ accessed on [17/05/20].
- OSBORNE, L., "COP25: Controversial carbon markets take center stage",
 Deutsche Welle, 2019, available at: https://www.dw.com/en/cop25-controversial-carbon-markets-take-center-stage/a-51455559 accessed on [17/05/20].
- PIGRAU, A., BORRAS, S., (Dirs.), Derecho Internacional y comparado del medio ambiente: temas actuales, Huygens, 2014.
- PLUMER, B., et al., "Here's How Far the World Is From Meeting Its Climate Goals", The New York Times, 2017, available at: https://www.nytimes.com/interactive/2017/11/06/climate/world-emissions-goals-far-off-course.html accessed on [17/05/20].
- RAJAMANI, L., "Ambition and differentiation in the 2015 Paris Agreement: interpretative possibilities and underlying politics", *International & Comparative Law Quarterly*, 65 (2), 2016, p. 493-514.
- RITCHIE, H., "What are the safest sources of energy?", *Our World in Data*, 2020, available at: https://ourworldindata.org/safest-sources-of-energy accessed on [17/05/20].
- ROBINSON, D., "The Significance of the US Withdrawal from the Paris Agreement on Climate Change", *The Oxford Institute for Energy Studies*, 2017, p. 1-12.

- RODRIGO, A. J., El desafío del desarrollo sostenible, Marcial Pons, 2015.
- RODRIGO, A. J., "El Acuerdo de París sobre el cambio climático: un nuevo tipo de tratado de protección de intereses generales", in BORRAS, S., "El Acuerdo de París...", op. cit., p. 69-98.
- SALINAS, S., El cambio climático: entre cooperación y conflicto. Propuestas desde el Derecho Internacional, Aranzadi, 2014.
- SALINAS, S., "El Acuerdo de París de diciembre de 2015: la sustitución del multilateralismo por la multipolaridad en la cooperación climática internacional", *REDI*, 70 (1), 2018, p. 53-76.
- SANDEL, M., "It's Immoral to Buy the Right to Pollute", *The New York Times*,
 1997, available at: https://www.nytimes.com/1997/12/15/opinion/it-s-immoral-to-buy-the-right-to-pollute.html accessed on [17/05/20].
- SANDEL, M., What money can't buy: The Moral Limits of Markets, Allen Lane, 2012.
- SANDS, P., et al., Principles of International Environmental Law, 3rd ed., CUP, 2012.
- SAURA, J., El cumplimiento del Protocolo de Kioto sobre cambio climático,
 Universitat de Barcelona, 2003.
- SHAH, G., "Climate change could displace up to 300 million people by 2050",
 Business Insider, 2017, available at: https://www.businessinsider.com/300-million-climate-refugees-by-2050-2017-12?IR=T accessed on [17/05/20].
- SHAW, M., et al., International Law, 6th ed., CUP, 2008.
- SOTILLO, J. A., El reto de cambiar el mundo. La Agenda 2030 de desarrollo sostenible, Catarata, 2015.
- SOTILLO, J. A., El ecosistema de la cooperación. La Agenda 2030 para el desarrollo sostenible, La Catarata, 2017.
- TIKKANEN, A., et al., "Kyoto Protocol", Encyclopaedia Britannica, 2020, available at: https://www.britannica.com/event/Kyoto-Protocol accessed on [17/05/20].
- TOLLEFSON, J., "It's official: Trump begins process to exit Paris climate agreement", Nature, 2019, available at: https://www.nature.com/articles/d41586-019-03230-y accessed on [19/05/20].

- VAUGHAN, A., "China is on track to meet its climate change goals nine years early", *NewScientist*, 2019, available at: https://www.newscientist.com/article/2211366-china-is-on-track-to-meet-its-climate-change-goals-nine-years-early/ accessed on [17/05/20].
- WATSON, R., et al., "The Truth Behind the Climate Pledges", Universal Ecological Fund, 2019, p. i-25.
- WORLAND, J., "How Coronavirus Could Set Back the Fight Against Climate Change", *Time*, 2020, available at: https://time.com/5795150/coronavirus-climate-change/ accessed on [17/05/20].
- "2020 NDC Tracker", *Climate Watch*, 2020, available at: https://www.climatewatchdata.org/2020-ndc-tracker accessed on [17/05/20].
- "How do emissions trading systems work?", *The London School of Economics and Political Science*, 2018, available at: http://www.lse.ac.uk/GranthamInstitute/faqs/how-do-emissions-trading-systems-work/ accessed on [17/05/20].
- "The covid and climate crises are connected", *Economist*, 2020, available at: https://www.economist.com/leaders/2020/05/21/the-covid-and-climate-crises-are-connected accessed on [21/05/20].

B. Documents

1. International Treaties

- Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 27 January 1967.
- Vienna Convention on the Law of Treaties of 23 May 1969.
- Convention on Long Range Transboundary Air Pollution of 13 November 1979, later developed by Geneva Protocol of 28 September 1984 on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe, Helsinki Protocol of 8 July 1985 on the Reduction of Sulphur Emissions, Sophia Protocol of 31 October 1988 on the control of emissions of nitrogen oxides or their transboundary fluxes, Geneva Protocol of 18 December 1991 on the control of emissions of volatile organic compounds and their transboundary fluxes, Oslo Protocol of 14 June 1994 on Further Reduction of Sulphur Emissions, Aarhus Protocol of 24 June 1998 on Persistent Organic Pollutants and Göteborg Protocol of 30 November 1999 to Abate Acidification, Eutrophication and Ground-level Ozone.
- Agreement Governing the Activities of States on the Moon and Other Celestial Bodies of 18 December 1979.
- Vienna Convention for the Protection of the Ozone Layer of 22 March 1985, later developed by Montreal Protocol of 16 September 1987 on the Substances that Deplete the Ozone Layer.
- United Nations Framework Convention on Climate Change of 9 May 1992.
- Kyoto Protocol of 11 December 1997.
- Paris Agreement under the United Nations Framework Convention on Climate Change of 12 December 2015.

2. International Jurisprudence

- PCIJ, Case concerning the Factory at Chorzów (Germany v. Poland), Merits of
 13 September 1928, Series A. Nº 17, p. 47.
- ARBITRAL TRIBUNAL, Case concerning the Trail Smelter Case (United States of America v. Canada), Award of 16 April 1941, III, RIAA, p. 1965.
- ICJ, The Corfu Channel Case (United Kingdom v. Albania), Judgement of 9 April 1949, ICJ Reports 1949, p. 22.
- ICJ, Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion of 8
 July 1996, ICJ Reports 1996, p. 242.
- ICJ, Case concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay),
 Judgment of 20 April 2010, ICJ Reports 2010, p. 45-46.

3. United Nations Documents

- UNGA, Doc. A/CONF.48/14/Rev.1, Stockholm Declaration on the Human Environment, 16 June 1972.
- UNGA, Doc. A/CONF.151/26 (Vol. I), Rio Declaration on Environment and Development, 12 August 1992.
- UNGA, Doc. FCCC/CP/2001/13/Add.2, Decision 15/CP.7 on Principles, nature and scope of the mechanisms pursuant to Articles 6, 12 and 17 of the Kyoto Protocol, 21 January 2002.
- UNGA, Doc. FCCC/CP/2001/13/Add.3, Decision 24/CP.7 on Procedures and mechanisms relating to compliance under the Kyoto Protocol, 21 January 2002.
- UNGA, Doc. A/57/329 which collects the ILA New Delhi Declaration Of Principles Of International Law Relating to Sustainable Development, 6 April 2002.
- UNEP, Training manual on international environmental law, 2006.
- UNGA, Doc. FCCC/CP/2007/6/Add.1, Decision 1/CP.13 on Bali Action Plan, 14
 March 2008.
- UNGA, Doc. FCCC/KP/CMP/2012/13/Add.1, Decision 1/CMP.8 on the Doha Amendment, 28 February 2013.

- IPCC, Climate Change 2014. AR5 Synthesis Report. Contribution of Working Group I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Geneva, 2014.
- UNGA, Doc. A/RES/70/1, Transforming our world: the 2030 Agenda for Sustainable Development, 21 October 2015.
- UNGA, Doc. FCCC/CP/2015/L.9/Rev.1, Adoption of the Paris Agreement, 12
 December 2015.
- IPCC, Global warming of 1.5° C: chapter 2, October 2018.
- UNEP, Annual Report 2018.

4. Other documents

- U.S. GLOBAL CHANGE RESEARCH PROGRAM (USGCRP), Climate Science Special Report, Fourth National Climate Assessment (NCA4), volume I, 2017.
- U.S. GLOBAL CHANGE RESEARCH PROGRAM (USGCRP), *Impacts, risks, and adaptation in the United States*, Fourth National Climate Assessment (NCA4), volume II, 2018.