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Shaping Plastics Through Human Rights

Applying a human rights framework to future plastic cycle litigation

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Summary

“The 20th and 21st centuries have justifiably been dubbed the Plastics Age, such as the influence and ubiquity of this family of materials”¹. While it is true that this material has several advantages, having significantly contributed to increasing societal development, we now use and abuse it. In fact, this problem has reached unprecedented levels as the plastic crisis is currently considered one of the biggest environmental threats in the 21st century, to the point that we “are eating, drinking and breathing plastics”². This global environmental phenomenon is a human rights issue, as plastics have been linked with several environmental and health problems.^{3 and 4}

This crisis cannot be regarded as simply a problem of how we dispose of this material, in other words, a plastic pollution problem. Rather, if we really want to address it as a human rights problem, it is necessary to adopt a broader picture which considers the whole plastic cycle, as all its stages threaten the enjoyment of several human rights. Meaning, one must regard the whole process, from the beginning of the plastic cycle, with the extraction of the raw materials that are used for plastic production, all the way until the disposal phase, with which the cycle ends.

However, there is still no international instrument that regulates the plastic cycle as whole establishing targets to limit plastic production and how states should mitigate its negative impacts to prevent human rights violations inherent to it. In the absence of such an instrument and inspired by the recent climate change litigation, this thesis proposes the application of a human rights framework as the legal basis for future plastic cycle litigation to hold states accountable for the human rights violations that can be associated with the current way in which states are dealing with this cycle. The author will also identify issues that can be raised regarding the application of this framework and suggest how to overcome them, based on case law from international and regional human rights courts, as well as through the application of other international law principles, particularly environmental law principles, which have not yet been recognised by these Courts.

¹ Science Museum UK, The age of plastics: from Parkesine to Pollution, <<https://www.sciencemuseum.org.uk/objects-and-stories/chemistry/age-plastic-parkesine-pollution>>, accessed 23 May 2022.

² Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 1.

³ Cook C. R and Halden R.U. (2020), “Ecological and health issues of plastic waste”, Letcher TM (ed.), *Plastic Waste and Recycling*, Elsevier Inc., 513–527.

⁴ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

Abbreviations

ACHR	American Convention on Human Rights
CRC	Convention on the Rights of the Child
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
ESCR	Committee on Social Economic and Cultural Rights
ICJ	International Court of Justice
IACtHR	Inter-American Court of Human Rights
IACmHR	Inter-American Commission of Human Rights
NGO	Non-Governmental Organisation
UN	United Nations

Introduction

1. Plastic: both a blessing and a curse

Plastics have become an essential material in today's society, being indispensable to many important sectors such as construction, transport, medicine, electronics, agriculture, textile, and packaging, among others. As Plastics are used in numerous industries and serve multiple purposes, we have become completely dependent on them. It is precisely its abnormal capacity of being extremely versatile alongside its "low cost, formability, lightweight, and bioinertness [that] have made it the material of choice in a broad range of applications"⁵ explaining why it grew to become essential.

Plastic usage has many advantages and has been an important component in making society evolve, making life safer and productivity rise in many important areas which led to a significant overall increase in development. For instance, plastic is used in the fabrication of most medical equipment allowing for a more sterile environment and with that helping to prevent potential infections caused by contaminated instruments. Furthermore, it is also used to save lives in other sectors such as transport, where it permits the production of lighter, more resistant, and overall safer vehicles. For example, plastics are used to produce safer airbags, dashboards, and seat belts. Additionally, this material also plays an important role in enhancing vehicles' efficiency by helping to reduce carbon emissions. Moreover, plastics have also been responsible for a remarkable increase in agricultural productivity, being used for the creation of machines and other agricultural instruments which allowed for a significant rise in crops' production. This growth in food production led to a rise in access to food which overall permitted a significant improvement in quality of life.

Then, if plastic is such a useful material for so many sectors, why is it that its production and usage are viewed as a problem today? The answer is quite simple, despite its many clear benefits, the scientific community has linked plastics with several environmental and health problems.⁶ Essentially, plastics "generate significant negative externalities in three major areas: degradation of natural systems as a result of leakage, especially in the ocean, greenhouse gas emissions as a consequence of production and incineration at disposal, and health and environmental impacts from any additive chemicals such as plasticizer, stabilizers, colorants, and fire retardants that might be released from plastics".⁷ Nevertheless, despite these clear established negative impacts, society continues to choose to disregard

⁵ Nielsen TD, Hasselbalch J, Holmberg K, Strippel J. Politics and the plastic crisis: A review throughout the plastic life cycle. WIREs Energy Environment. 2020.

⁶ Cook C. R and Halden R.U. (2020), "Ecological and health issues of plastic waste", Letcher TM (ed.), *Plastic Waste and Recycling*, Elsevier Inc., 513–527.

⁷ Kosior E. and Crescenzi I., "Solutions to the plastic waste problem on land and in the oceans", in Letcher TM (ed.), *Plastic Waste and Recycling*, Elsevier Inc., (2020), 415-446.

these findings and remains to use and abuse this material. The trivialization of plastic usage has become a severe problem as plastic production rapid and uncontrollably raised and continues to increase today at an alarming rate.⁸

2. From where we came to where we are now, an overview of the history of plastic production

Plastic production started in the 1950s and until the 70s it was small and manageable. In the 90s that changed as its production more than tripled in two decades, which led to substantial problems with plastic waste management. If society was not ready to deal with this significant plastic increase, then that became dramatically worse in the early 2000s when plastic production drastically increased.⁹ That leads us to today, where, despite all the information available about the negative impacts of plastic pollution, plastic production continues to rise at an unprecedented level. The numbers do not lie and illustrate the dimension of the problem: about 415 million tonnes of plastic are produced per year¹⁰ and the projections are not encouraging as this number is expected to more than quadruple by 2050 if we do not take appropriate action.¹¹ We reached the absurdity that half of the plastic produced is designed to be used only once¹², the so-called single-use plastic items. Just think about your day-to-day life, how many plastic items do you use that are designed just to be used once? And how many plastic items are involved in layers and layers of unnecessary plastic? Too many.

After being used, mostly only once, plastic items become waste. Worldwide “insufficient waste management is framed as the key issue behind plastic pollution”¹³, the global problem that refers to the accumulation of plastic in the environment. Overall, from early 1950s until now more than 8,3 million tonnes of plastic were produced¹⁴: 79% of that waste ended up in either the natural environment or was accumulated in landfills, dumps, or the natural environment, 12% was incinerated, while astonishingly only 9% of all plastic ever produced was recycled.¹⁵

⁸ UN Environment Programme, Our planet is drowning in plastic pollution: This World Environment Day, it's time for a change, Unep.org <<https://www.unep.org/interactive/beat-plastic-pollution/>> accessed 18 February 2022.

⁹ *ibid.*

¹⁰ Diana Barrowclough, Carolyn Deere Birkbeck and Julien Christen, *Global Trade in Plastics: Insights from the First Life-Cycle Trade Database*, United Nations Conference on Trade and Development Research Paper, No. 53 (2020).

¹¹ Patricia Parkinson, “Plastics: mitigating their environmental, health and human rights impacts”, International Union for Conservation of Nature, 11 February 2021.

¹² UN Environment Programme, Our planet is drowning in plastic pollution: This World Environment Day, it's time for a change, Unep.org <<https://www.unep.org/interactive/beat-plastic-pollution/>> accessed 18 February 2022.

¹³ Nielsen TD, Hasselbalch J, Holmberg K, Strippel J., *Politics and the plastic crisis: A review throughout the plastic life cycle*, WIREs Energy Environ. 2020, p. 3.

¹⁴ Geyer, R., Jambeck, J. R., and Law, K. L. *Production, use, and fate of all plastics ever made*. Science Advances, 3(7), 2017, e1700782.

¹⁵ *ibid.*

Although recycling was once seen as the solution to the plastic crisis, the scientific community now defends that recycling cannot be viewed as the only solution to the plastic pollution crisis for mainly two reasons. First, not all recycling methods are environmentally friendly. Second and more importantly, the problem is bigger than just the way in which plastic is disposed of plastics, as the whole cycle, from the extraction of its raw material until it becomes plastic waste, has negative consequences for the environment as well as for human health.¹⁶

3. The plastic cycle and its impacts on the environment and human health

From the beginning to the end of the plastic cycle the enjoyment of several human rights are compromised. The link between the plastic cycle and human rights violations was highlighted in the recent report of the Special Rapporteur on hazardous and wastes¹⁷, further referred to as the UN Plastic Cycle Report. This report is pioneer in establishing the link between human rights and the plastic cycle, being the first to emphasise the impacts of the whole plastic cycle on human rights. It aims to address “the negative consequences of plastics on human rights and integrating a human rights-based approach in the transition to a chemically safe circular economy”.¹⁸ Due to the lack of other sources on this subject, I will resort to the interpretation of international human rights law comprised in this report as a base for the arguments and interpretations developed throughout the thesis.

The plastic cycle contains five stages: extraction and refining¹⁹, production²⁰, transport²¹, use²² and waste²³. The beginning of the plastic cycle starts with the extraction and refining of fossil fuels as these constitute more than 99% of the raw materials for plastic production. Since plastic production is so intense nowadays, the extraction of fossil fuels for plastic production amounts to roughly 9% of the total global oil and gas consumption²⁴, which involves several negative consequences, such as greenhouse gas emissions, deforestation, ecosystem fragmentation, and chemical contamination of land, water, and soil²⁵. Additionally, research indicates that fossil fuel extraction can be responsible for

¹⁶ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 2.

¹⁷ *ibid.*

¹⁸ *ibid.*, summary of the Report.

¹⁹ *ibid.*, paras 15-17.

²⁰ *ibid.*, para 18.

²¹ *ibid.*, para 19.

²² *ibid.*, para 20.

²³ *ibid.*, paras 21 to 26.

²⁴ Hopewell, J., Dvorak, R., & Kosior, E. (2009), Plastics recycling: Challenges and opportunities, *Philosophical Transactions of the Royal Society, B: Biological Sciences*, 364(1526), 2115–2126.

²⁵ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 16.

causing several kinds of cancer.²⁶ Therefore, it is evident from the analysis of just the very beginning of the cycle, that it interferes with the enjoyment of several human rights as it negatively affects the environment and human health.²⁷

The second stage of the cycle, the manufacturing of plastic, also causes negative impacts on both the environment and human health. On the one hand, plastic manufacturing involves the emission of several pollutants into the air, water and soil, compromising the environment and human health.²⁸ On the other hand, at this stage several chemicals are often added to plastics “additives that are carcinogenic and hormone-disrupting”²⁹, this way compromising human health. This is especially concerning considering that plastic items are used for food packaging, many of which contain harmful chemicals leading people to ingest dangerous additives daily.³⁰

Finally, after being used, in most cases only once, plastics become waste. As mentioned above, from all the waste created only 9% of plastic is recycled worldwide, an incredibly and unacceptably low percentage, which rises to 30% at the European level³¹. Adding to this issue of an alarming low recycling percentage, several of the recycling methods are also harming the environment and human health as it involves practices of concentration of toxic additives, which further contributes to the proliferation of more contaminated items. The remaining 91% of plastic waste, is either incinerated - 12%, or dumped in the environment - 79%.³²

From all the plastic produced, 12% of the plastic waste is incinerated which causes the release of gases which are highly toxic substances and ash³³, this way harming the environment and human health. Even though in some forms of incineration the burning of plastic is also used for energy production, opting for a form of waste management that creates energy might sound reasonable, but the negative impacts of incineration will never trump the advantages obtained with energy production as this is neither the most affordable, efficient nor environmentally friendly solutions.³⁴

²⁶ *ibid*, para 15.

²⁷ For more on the connection between the environment and human rights see: Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, January 2018, UN Doc. A/HRC/37/59.

²⁸ Human Rights Council. Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 18.

²⁹ *ibid*, para 25.

³⁰ *ibid*, para 20.

³¹ Elizabeth Royte, Is burning plastic a good idea? (National Geographic, 12 March 2009) <<https://www.nationalgeographic.com/environment/article/should-we-burn-plastic-waste>> accessed: 21 February 2022.

³² *ibid*, paras 22 to 24.

³³ *ibid*, para 95.

³⁴ Elizabeth Royte, Is burning plastic a good idea? (National Geographic, 12 March 2009) <<https://www.nationalgeographic.com/environment/article/should-we-burn-plastic-waste>> accessed: 21 February 2022.

The remaining 79% of plastic waste is dumped in the environment either on land or in the ocean³⁵. Dumping also causes terrible consequences for human health and the environment, where it can persist for centuries.³⁶ When waste is dumped on land, the practice of burying large amounts of waste is called landfilling. Landfilling is associated with significant health risks for the local communities nearby as it involves the emissions of methane, carbon dioxide and heavy metals.³⁷ Besides, landfilling also leads to the leakage into the nature of toxic chemicals that were added to plastics, which also damages the environment.

Plastic waste is also dumped in the ocean, either intentionally dumped by ships that dispose of waste, or flowing into the ocean from coastal areas. Plastic dumping into the ocean constitutes the main source of marine litter nowadays where about 8 million tonnes of plastic end up every year.³⁸ This litter can remain in the ocean for hundreds of years from its original form to smaller pieces up until the size of microplastics, greatly interfering with marine life.³⁹ As National Geographic has vividly illustrated, “for animals, plastic is turning the ocean into a minefield”.⁴⁰

In larger sizes, plastic debris has severe negative impacts on wildlife as it is responsible for the death of many marine animals by suffocation, ingestion, and entanglement. This way, plastic pollution in the ocean has drastically changed marine life, being responsible for a significant loss in biodiversity in the oceans. In smaller sizes, microplastics, which are the “result from the gradual tearing of plastic waste”⁴¹, are a particularly problematic aspect of plastic pollution for being extremely small and light and therefore easily transported in water and land. For instance, this can be demonstrated by the fact that microplastics have even been found in the most remote places on earth, such as near Everest’s peak.⁴²

³⁵ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, paras 22 to 24.

³⁶ UN Environment Programme, Our planet is drowning in plastic pollution: This World Environment Day, it’s time for a change, Unep.org <<https://www.unep.org/interactive/beat-plastic-pollution/>> accessed 18 February 2022.

³⁷ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 24.

³⁸ Kosior E. and Crescenzi I., Solutions to the plastic waste problem on land and in the oceans, Letcher TM (ed.), *Plastic Waste and Recycling*, Elsevier Inc., (2020), 415-446.

³⁹ *ibid.*

⁴⁰ Natacha Daly, For Animals, Plastic Is Turning the Ocean Into a Minefield, (National Geographic) <<https://www.nationalgeographic.com/magazine/article/plastic-planet-animals-wildlife-impact-waste-pollution/>> accessed 21 February 2022.

⁴¹ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 29.

⁴² Freddie Wilkinson, Microplastics found near Everest’s peak, highest ever detected in the world, (National Geographic, 20 November 2020), <<https://www.nationalgeographic.com/environment/article/microplastics-found-near-everests-peak-highest-ever-detected-world-perpetual-planet/>>, accessed 21 February 2022.

Additionally, due to their small dimension, microplastics are easily ingested by many animals and studies show that their consumption is linked with terrible health problems.⁴³ They are even consumed by extremely small organisms, such as zooplankton, creating “a risk of contaminating aquatic food chains that in turn has the potential for increasing public exposure to harmful chemicals through seafood”.⁴⁴

Studies also suggested that they can threaten larger organisms⁴⁵ but scientific research is still very limited when it comes to the specific impacts of microplastics on the human body. Nevertheless, there is a clear indication that “alarmingly these tiny plastics can penetrate cells and move into tissues and organs”.⁴⁶ In fact, for the first time, a scientific study conducted recently by the University of Amsterdam proved the presence of plastic in the bloodstream. This research also stressed the dangers that plastic poses in the human body as this material can “latch on to the outer membranes of red blood cells and may limit their ability to transport oxygen”.⁴⁷

All in all, “plastics absorb (ex: polycyclic aromatic hydrocarbons cause health problems especially respiratory system and liver), carry (ex: flame-retardant plasticizers, heavy metals) and release pollutants”⁴⁸, which compromise both human health and the environment. Moreover, “harmful chemicals are added to plastic at every stage in the plastic cycle”⁴⁹, compromising even further the environment and human health.

Plastic pollution has reached unprecedented levels. We came to the point that we are now “breathing, eating and drinking plastics”.⁵⁰ Considering the extremely significant benefits that plastic has in many sectors, mainly how it contributes to human safety and higher efficiency in detrimental sectors, the reasonable solution for the negative impacts of the plastic cycle cannot be a blind ban on plastic production. Likewise, just ignoring the negative effects inherent to the plastic cycle, which endangers

⁴³ Natacha Daly, For Animals, Plastic Is Turning the Ocean Into a Minefield, (National Geographic, June 2018) <<https://www.nationalgeographic.com/magazine/article/plastic-planet-animals-wildlife-impact-waste-pollution>> accessed 21 February 2022.

⁴⁴ Kosior E. and Crescenzi I. (2020), *Solutions to the plastic waste problem on land and in the oceans*, Letcher TM (ed.), *Plastic Waste and Recycling*, Elsevier Inc., 415-446.

⁴⁵ UNEP, Year Book: Emerging issues updates: Plastic Debris in the Ocean 2014, United Nations Environmental Programme.

⁴⁶ Elizabeth Royte, We Know Plastic Is Harming Marine Life. What About Us?, (National Geographic, June 2018) <<https://www.nationalgeographic.com/magazine/article/plastic-planet-health-pollution-waste-microplastics>> accessed 21 February 2022).

⁴⁷ Damian Carrington, Microplastics found in human blood for first time, (The Guardian, 24 March 2022) <<https://www.theguardian.com/environment/2022/mar/24/microplastics-found-in-human-blood-for-first-time>> accessed 7 May 2022.

⁴⁸ *ibid.*

⁴⁹ *ibid.*

⁵⁰ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 1.

the environment and threatens human rights is also not an option. A sustainable solution which balances these two aspects needs to be set in place soon or the consequences might be irreversible.

4. The problem: states' lack of accountability for the effects of the plastic cycle, and a possible solution: plastic cycle litigation

We are living in a world dominated by plastic, which has terrible consequences for both the environment and human life, but no one is taking a stand to change that since there is virtually no accountability for the human rights violations inherent to the plastic cycle. One of the possible explanations for that is the lack of a legally binding international framework focused on all stages of the cycle and how states should act within it to prevent and mitigate human rights violations. The instruments that regulate plastics are either focused on a specific part of the plastic cycle or have a limited scope.⁵¹ As the UN Plastic Cycle Report concludes, a “global instrument addressing all stages of the plastics cycle with a human rights-based approach is sorely lacking”.⁵²

This lack of legislation concerning the plastic cycle can explain why, up until now, despite the clear link between plastic pollution and human rights violations, states are not being held accountable for failing to control its production and circulation, as well as overall mitigation of the negative effects of the cycle. Nonetheless, are there any other frameworks which one can resort to ensure states' accountability? Inspired by the recent developments in climate change litigation, the author will analyse the possibility of using international law and more specifically, a human rights framework as a legal base for making states responsible for their inability to adequately restrict and regulate the plastic cycle, as well as failure to mitigate its negative impacts.

Like plastic pollution, climate change is also one of the most pressing global issues nowadays, being responsible for terrible environmental alterations which interfere with the full enjoyment of several human rights.⁵³ Climate change litigation has emerged as an expression of the rising concern regarding the effects that a changing environment poses and aims to hold states accountable for the lack of action to mitigate and prevent it. Ultimately, it has also been used to pressure states into taking action to mitigate climate change.

⁵¹ See: Wienrich N., Weiland L., and Unger S., *Stronger Together: The Role of Regional Instruments in Strengthening Global Governance of Marine Plastic Pollution*, Institute for Advanced Sustainability Studies, 2021.

⁵² Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 55.

⁵³ See: Human Rights Council, Resolution Human Rights and Climate Change (UNHRC 7/23), 28 March 2008.

This form of litigation is still in its very early stages. Nationally, there have been some cases where courts were asked to interpret national law as well as the European Convention on Human Rights (ECHR)⁵⁴, to determine states' obligations regarding climate change mitigation. Most notably, this issue was discussed by the Supreme court of The Netherlands⁵⁵, the French Conseil d' Etat⁵⁶ and the German Federal Constitutional Court⁵⁷. On the regional level, however, there is no judgement regarding climate change yet. Recently, however, several applications were lodged before the ECtHR where the Court is called to do so⁵⁸. Therefore, hopefully soon, the ECtHR will rule the first decisions regarding the application of the European Convention on Human Rights (ECHR) to climate change, which will be of the utmost importance to assess the likeliness of success for future plastic cycle litigation within this court.

5. Research question

This thesis aims to answer the research question of whether international law and, more specifically a human rights law framework, could be used for plastic cycle litigation. Considering that this is a legal thesis, the method used will be the legal interpretation of the law, which will mostly consist of analogic interpretation of international and human rights law, which has been decided in other contexts, to the context of the plastic cycle.⁵⁹

The inspiration for the idea of using a human rights framework for the plastic cycle litigation was based on similarities between the plastic cycle and climate change, which has recently been brought to national and regional courts for the first time. Particularly, it is of relevance the fact that in both cases a state's action has transboundary impacts on other states; both are a global environmental phenomenon which is the result of multiple states' action; both involve several causal links to connect states' conduct to the harm caused to the environment and human health; both phenomena can potentially affect countless individuals, which can then challenge the concept of the victim. This way, due to the many similarities between these two, some of the questions raised about the possibility of using a human rights framework

⁵⁴ Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended) (ECHR).

⁵⁵ *Urgenda v The Netherlands* (2019), Supreme Court of the Netherlands, ECLI:NL:HR:2019;2007; *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, (29 April 2021); *Consail d' Etat*, Judgement of 19 November 2020, no.427301.

⁵⁶ *Consail d' Etat*, Judgement of 19 November 2020, no.427301.

⁵⁷ ECLI:NL:HR:2019;2007; *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, (29 April 2021).

⁵⁸ See: *Duarte Agostinho and Others v. Portugal and 32 Other States Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*. These cases were the first climate change cases lodge before the ECtHR where the Court was asked to interpret the ECHR in the context of climate change hence, it is the first time the Court is interpreting it in the context of a global environmental phenomenon.

⁵⁹ See: Brems, E., *Methods in Legal Human Rights Research*, in F. Coomans, F. Grünfeld, M. Kamminga, (eds.), *Methods of Human Rights Research*, Antwerp, Oxford, Intersentia, 2009.

in climate change litigation raised by scholars⁶⁰ and now also raised in the recent climate change litigation, are also likely to be raised in future plastic cycle litigation⁶¹.

This thesis will address some of those questions and suggest how to overcome these issues. The author's analysis will rely on identifying the applicable law in several advisory opinions, decisions and judgements from different international and regional courts. Particularly, it will rely on the identification of principles which have already been applied by international and regional courts, such as the International Court of Justice (ICJ), Inter-American Court of Human Rights (IACtHR) and European Court of Human Rights (ECtHR). The choice of these particular regional systems is related to the fact that its regional human rights bodies have produced more advisory opinions, decisions and judgements, which will be used as the core of this thesis to determine the existence of legal principles and states' obligations which will then be applied to the context of the plastic cycle. Additionally, the author will also resort to other materials such as international and human rights law literature to further identify potentially applicable law. Mainly, it will propose the application of other principles not yet used by these courts, which illustrate the evolution of international law, and more specifically environmental law.⁶²

6. Structure

The second chapter, *The path to a right to a human right to a healthy environment and its connection with the plastic cycle*, focuses on the relationship between the environment and human rights, which has been widely recognised internationally. This chapter also touches on the advantages of resorting to a human rights framework in cases of plastic cycle litigation. Moreover, it provides for an overview of the historical path that led to the international and regional recognition of a Right to a healthy environment, as well as the determination of the procedural and substantive obligation its recognition encompasses.

The third chapter, *The absence of the recognition of an autonomous human right to a healthy environment: a deal-breaker for a potential future plastic cycle litigation?*, considers whether, the lack of a recognition of a human right to a healthy environment, it is still possible to resort to a human rights framework. Specifically, the author focuses on the European regional system as the Council of Europe is the only regional human rights system that has not yet recognised this autonomous human right.

⁶⁰ See: K. Yoshida and J. Setzer, *The Trends and Challenges of Climate Change Litigation and Human Rights*, European Human Rights Law Review 140, 2020.

⁶¹ See: *Urgenda v The Netherlands* (2019), Supreme Court of the Netherlands, ECLI:NL:HR:2019;2007; *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, (29 April 2021); *Consail d'Etat*, Judgement of 19 November 2020, no.427301.

⁶² See: D. Bodansky, *The Art and Craft of International Environmental Law*, Harvard University Press, 200.

Emphasis is given to two very well-established doctrines within the ECtHR case law: interpretation of the convention as a living instrument and the European consensus. Meaning, this chapter determines whether it is possible to interpret the human rights enshrined in the convention and additional protocols as applying to plastic cycle cases. Particularly, the author assesses the possibility of applying Article 2 - right to life, Article 8 - right to private and family life and Article 14 - prohibition of discrimination to the plastic cycle context.

The fourth chapter, *Overcoming the issue of the transboundary nature of the plastic cycle and establishing the causal link between states' actions and the harm caused by the plastic cycle*, address the questions of transboundary harm caused by the plastic cycle and causal link. These are two of the most significant problems that can be expected to be raised by those that don't consider that the impacts of a global environmental phenomenon, such as the consequences of this cycle, can be assessed by courts. Therefore, this chapter analyses whether the ICJ, IACtHR and the ECtHR have jurisdiction to decide on a global transboundary issue to which all states contribute. The author starts by defining the concept of transboundary harm and then applies it to the context of the plastic cycle. Subsequently, it resorts to principles established in the jurisprudence of these courts to argue that states are obliged to prevent significant transboundary harm. Namely, the principles of prevention and due diligence will be further developed and applied to the context of the plastic cycle. Moreover, this chapter also tackles the question of how to establish a causal link between the harm caused by the plastic cycle and states' conduct within this cycle. Once again, that will also be achieved through the application of principles already established in the case-law of these courts.

The fifth chapter, *Going beyond: applying principles not yet recognised by the International Court of Justice, Inter-American Court of Human Rights and the European Court of Human Rights to strengthen the legal basis for states' obligations*, aims to take a step further what is already established in the jurisprudence of these courts and suggests the application of other principles that have not yet been applied, this way strengthening the arguments raised in the previous chapter. Particularly, the author proposes the application of the polluter pays principle and the intergenerational equity principle. Additionally, this chapter also addresses the very controversial question of how much can states be expected to mitigate the negative effects of the plastic cycle. To answer this question, the author once again relies on the application of principles not yet applied by these courts: the fair share and the proportionality principles.

The sixth chapter, *Overcoming the victim status questions in plastic cycle litigation when the applicants are individuals*, tackles the problem of victim status in the context of plastic cycle litigation, which by its nature, can potentially entail human rights violations of countless victims as well as present and future generations. This has also been named one of the most significant admissibility issues in

cases that concern global environmental phenomena. Particularly, considering that the ICJ only deals with states as respondents and not individuals that are affected by human rights violations, this chapter will solely focus on how the IACtHR and the ECtHR can address this question in the context of plastic cycle litigation.

7. Negative delimitations

The author acknowledges that another important feature of the plastic cycle is that it disproportionately affects people who already belong to vulnerable groups, such as workers, children, women, persons of African descent, indigenous peoples and coastal communities and people living in poverty and future generations, as also highlighted by a UN Plastic Cycle Report.⁶³ Although the author recognises that this cycle further enhances the vulnerabilities experienced by these vulnerable groups and that is mentioned throughout the thesis, it is outside the scope of this thesis to further develop this topic.

Moreover, the fact that one can question whether international courts and human rights regional courts are the best fora to address them, mainly due to the weak compliance mechanisms associated, it is also beyond the ambit of this thesis to make any analyses in this regard. Hence, the author will not address the efficiency of future plastic cycle judgments. Additionally, the author will also not develop the expected advantages and disadvantages of this form of litigation as a method of strategic litigation, nor what the remedies and solutions of such litigation could be able to reach. Nor it is in the scope of this thesis to analyse the capacity of international and regional systems to guarantee compliance with future plastic cycle judgments, which can compromise its effectiveness.

Although the author recognises that all these topics are relevant to the subject in the study and that its analysis would definitely enrich this thesis, as it would provide for a broader understanding of the connected issues regarding an environmental case focused on a global environmental phenomenon, these issues will not be developed in this thesis due to time and space constraints. Thus, this thesis will only focus on analysing whether there are legal grounds for plastic cases to be brought to international and regional human rights courts, namely the ICJ, the ECtHR and the IACtHR.

⁶³ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 9.

II. The path to a human right to a healthy environment and its connection with the plastic cycle

After having illustrated in the introduction, based on the UN Plastic Cycle Report, how the several stages of the plastic cycle lead to the degradation of the environment and human health, this chapter aims to establish a link between human rights and the environment. Particularly, it critically analyses how the negative effects of the plastic cycle lead to human rights violations. For that, this chapter starts by establishing the connection between the environment and human rights. Then, the author analyses some of the advantages and disadvantages of resorting to a human rights framework for environmental cases, as well as the specific advantages of applying this framework to plastic cycle litigation cases.

Additionally, this chapter provides an overview of the historical legal developments that culminated with the regional recognition of the right to a healthy environment by some regional human rights systems, and more recently its international recognition. Moreover, this chapter establishes the specific protection that the right to a healthy environment entails, determining both the procedural and substantive obligations this right encompasses. Lastly, these obligations will further be applied to the specific context of plastic cycle litigation.

1. Grounding environmental concerns in a human rights framework

This section addresses the possibility of grounding environmental concerns in a human rights framework. For that, the author first establishes the connection between human rights and the environment based on international instruments and judgements from regional human rights courts. Subsequently, this chapter assesses the benefits of resorting to this type of framework for global environmental phenomena and, more specifically, in the context of the plastic cycle.

1.1. The connection between human rights and the environment

The connection between the environment and human rights has been widely recognised internationally. In the Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, the former Special Rapporteur John H. Knox, goes as far as stating that “human rights and environment protection are interdependent”⁶⁴,

⁶⁴ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations related to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2012, UN Doc. A/HRC/22/43, para 10.

On the one hand, the enjoyment of human rights depends on the environment as “environmental degradation can and does adversely affect the enjoyment of a broad range of human rights”⁶⁵. Namely, the former Special Rapporteur identifies the rights to life, health, food, water housing and self-determination as the rights that are more susceptible to being directly and indirectly affected. Nonetheless, he acknowledges that “in a real sense, all human rights are vulnerable to environmental degradation, in that the full enjoyment of all human rights depends on a supportive environment”.⁶⁶

On the other hand, the “exercise of certain rights can and does benefit environmental policymaking, resulting in a better environmental protection”⁶⁷ leading to overall better protection of human rights. Yet, the pursuit to fulfil human rights must also consider the need to reconcile economic development with environmental protection.⁶⁸ Several other UN instruments also recognise this connection.⁶⁹

The interdependence between human rights and the environment is perfectly expressed in the first two principles of the UN Framework Principles on Human Rights and the environment:

Principle 1

States should ensure a safe, clean, healthy and sustainable environment in order to respect, protect and fulfil human rights.

Principle 2

States should respect, protect and fulfil human rights in order to ensure a safe, clean, healthy and sustainable environment.

Ultimately, this clear link between human rights and the environment culminated in the recent international recognition of the existence of an autonomous human right to a clean, healthy, and sustainable environment in October 2021 by the UN.⁷⁰ Until now, at a regional level, all the regional systems, but the European one, had already recognised the existence of an autonomous human right to a healthy environment.

Regarding the connection between human rights and the environment, the ECtHR has acknowledged that environmental degradation can interfere with the enjoyment of several human rights, stating that

⁶⁵ *ibid*, para 34.

⁶⁶ *ibid*, para 19.

⁶⁷ *ibid*, para 34.

⁶⁸ Alan Boyle, *Climate Change, the Paris Agreement and Human Rights*, Cambridge University Press, *International and Comparative Law Quarterly* 67(4), 2018, 759-777, p. 766.

⁶⁹ See: Commission on Human Rights, *Human Rights Resolution 2005/60: Human Rights and the Environment as Part of Sustainable Development*, April 2005, E/CN.4/RES/2005/60 and Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, January 2018, UN Doc. A/HRC/37/59.

⁷⁰ Human Rights Council, Resolution The human right to a safe, clean, healthy and sustainable environment, October 2021, UN Doc. A/HRC/RES/48/13.

“severe environmental pollution may affect individuals’ well-being”.⁷¹ The Inter-American Court has also emphasised that “there is extensive recognition of the interdependent relationship between protection of the environment, sustainable development and human rights”⁷², recognising that a minimum environmental quality is necessary to the enjoyment of several fundamental rights. The African Commission on Human and Peoples Rights has also acknowledged this connection stating that “the right to “satisfactory living conditions and development” is “closely related to economic and social rights insofar as the environment affects the quality of life and the safety of the individual”.⁷³ Additionally, these regional systems have established that environmental harm can lead to human rights violations as it affects the enjoyment of several human rights particularly, namely the right to life, health⁷⁴, private and family life⁷⁵ and property⁷⁶. Moreover, other international bodies such as the Economic Social and Cultural Rights Committee and the Commission on Human Rights⁷⁷, have identify other human rights particularly susceptible of being affected by environmental impacts, such as the rights to water⁷⁸, food⁷⁹, housing⁸⁰, participation in cultural life⁸¹, not to be forcibly displaced⁸² and self-determination⁸³.

⁷¹ *López Ostra v. Spain*, App. No. 16798/90, (ECtHR, 09 Dec1994), para 51.

⁷² *Advisory Opinion Inter-American Court of Human Rights OC-23/17 The Environment and Human Rights*, Requested by the Republic of Colombia, (IACtHR, 15 November 2017), Series A No. 23.

⁷³ See: African Commission on Human and Peoples’ Rights communication No. 155/96, *Social and Economic Rights Action Center v. Nigeria (Ogoniland Case)*, decision, para 67; *Öneryildiz v. Turkey* [GS], App. No. 48939/99, (ECtHR, 30 November 2004), para 118; and Inter-American Commission on Human Rights, Report on the Situation of Human Rights in Ecuador, document OEA/Ser.L/V/II.96 doc. 10 rev. 1.

⁷⁴ See: European Committee of Social Rights, complaint No. 30/2005, *Marangopoulos Foundation for Human Rights v. Greece*, para 221.

⁷⁵ See: *López Ostra v. Spain*, App. No. 16798/90, (ECtHR, 09 Dec1994) paras 51, 55 and 58; *Guerra and Others v. Italy* [GC], App. No. 116/1996/735/932, (ECtHR 18 February 1998), paras. 57, 58 and 60; *Fadeyeva v. Russia*, App. No. 55723/00, (ECtHR, 30 November 2005), paras 68-70, 89 and 92-134; *Tătar v Romania*, App. No. 67021/0, (ECtHR, 27 January 2009), paras 85-88, 97, 107, 113 and 125.

⁷⁶ See: *Case of Saramaka People v. Suriname*, *Saramaka People v Suriname*, Preliminary objections, merits and costs, IACHR Series C No. 172, IHRL 3046 (IACHR 2007), 28th November 2007, Inter American Court of Human Rights [IACtHR], paras 95 and 158; *Case of Indigenous Community of Yakye Axa v. Paraguay*, IACHR Series C No. 125, IHRL 1509 (IACH 2005), 17th June 2005, Inter American Court of Human Rights [IACtHR], paras 143 and 156; *Maya Indigenous Community of the Toledo District v. Belize*, Inter American Commission on Human Rights, case 12.053, report No. 40/04, document OEA/Ser.L/V/II.122, doc. 5 rev. 1, para 153; *Papastavrou and Others v. Greece*, App. No. 46372/99, (ECtHR, 18 February 2005), paras 33 and 36-39; *Öneryildiz v. Turkey* [GS], paras 124-129, 134-136 and 138, and *Turgut and Others v. Turkey*, App. No. 1411/03, (ECtHR, 26 January 2009), paras 86 and 90-93.

⁷⁷ Commission on Human Rights, Human Rights Resolution 2005/60: Human Rights and the Environment, April 2011, A/HRC/RES/16/11 preamble; and Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, February 1, 2016, UN Doc. A/HRC/31/52, para 81.

⁷⁸ Committee on Economic Social and Cultural Rights (ESCR Committee), General Comment No. 15: The right to water (Articles 11 and 12 of the International Covenant on Economic, Social and Cultural Rights), UN Doc. E/C.12/2002/11, January 20, 2003, paras 8 and 10.

⁷⁹ ESCR Committee, concluding observations: Russian Federation, May 20, 1997, UN Doc. E/C.12/Add.13, paras 24 and 38.

⁸⁰ ESCR Committee, General Comment No. 4: The right to adequate housing (article 11(1) of the International Covenant on Economic, Social and Cultural Rights), UN Doc. E/1992/23, December 13, 1991, para. 8.f.

⁸¹ ESCR Committee, concluding observations: Madagascar, December 16, 2009, UN Doc. E/C.12/MDG/CO/2, para 33, and ESCR Committee, General Comment No. 21: Right of everyone to take part in cultural life (Article 15(1)(a), of the International Covenant on Economic, Social and Cultural Rights) May 17, 2010, UN Doc. E/C.12/GC/21/Rev.1, para 36.

⁸² Commission on Human Rights, Report of the Representative of the Secretary-General, Mr. Francis M. Deng, submitted pursuant to Commission resolution 1997/39, addendum: Guiding Principles on Internal Displacement, UN Doc. E/CN.4/1998/53/Add.2, February 11, 1998, Principle 6.

⁸³ Human Rights Council, Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights, January 2009, UN Doc. A/HRC/10/61, para 40.

Furthermore, several human rights bodies such as the Human Rights Council, also recognised that interferences with the environment are also more susceptible to affecting already vulnerable people, further enhancing their vulnerability. Namely, indigenous peoples⁸⁴, children⁸⁵, women⁸⁶, people living in extreme poverty⁸⁷ and minorities⁸⁸ were identified as special vulnerable groups of environmental degradation in general. Particularly, when it comes to the plastic cycle, the UN Report on the Plastic Cycle identifies workers in certain activities within the cycle, children, women, persons of African descent, indigenous peoples, people living in coastal communities, people living in poverty and future generations as groups that are in an especially vulnerable situation of being affected by its negative effects.⁸⁹

1.2. The benefits of resorting to the human rights framework for environmental issues

Even though there is a clear connection between human rights and the environment, one can wonder whether it is necessary to resort to a human rights framework since there already exists a specific international field of law that deals with the environment, environmental law. In other words, wouldn't international environmental law, aligned with already existent environmental policies, be enough to deal with environmental issues? The answer is simple: these fields have proven to have dealt with environmental issues in an insufficient and inefficient way.⁹⁰ Additionally, there are still many gaps in environmental law, for example, there is still no international legally binding framework regarding current critical environmental concerns, for instance, climate change mitigation or how plastic production, consumption and waste treatment should be restricted and mitigated. This way, human rights law can potentially fill in those gaps by extracting from already established and legally binding instruments positive obligations which oblige states to deal with these issues.

Buchanan proposes several other benefits of conceptualising environmental issues through a human rights framework.⁹¹ First, resorting to legally binding international and regional human rights

⁸⁴ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, paras 76-78.

⁸⁵ *ibid*, paras 73-75.

⁸⁶ *ibid*, paras 70-72.

⁸⁷ General Assembly, Human rights and extreme poverty, Note by the Secretary-General, August 2010, UN Doc. A/65/259, para 37.

⁸⁸ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2012, UN Doc. A/HRC/22/43, Footnote 68.

⁸⁹ General Assembly, Implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Note by the Secretary-General, UN Doc. A/76/207 paras 33-54.

⁹⁰ Leib, L. H., "Human Rights and the Environment: Philosophical, Theoretical and Legal Perspectives", Queen Mary Studies in International Law, Volume 3, Brill, 2011.

⁹¹ Buchanan A. E., *The heart of human rights* (Oxford University Press 2013), pp. 107-121.

obligations can contribute to encouraging states to better respect, protect and fulfil human rights which are endangered by all the plastic cycle stages. It also leads to a better understanding of domestic constitutional rights⁹², namely the amply recognised constitutional right to a healthy environment, which is present in most of the national constitutions. Additionally, in some cases, it can even lead to the adoption of stricter national legislation that aims to promote those rights, as well as their compliance. Applying this framework to the plastic cycle could potentially translate into the enactment of new and strict legislation to control plastic production, usage and waste management, as well as better control of the chemicals added throughout the cycle.

Moreover, using a human rights framework for environmental problems promotes states' normative and sociological legitimacy.⁹³ On the one hand, it promotes states' normative legitimacy through the recognition of the existence of human rights violations concerning the environment. This is very important to guarantee the existence of an external form of enforcement mechanism, which provides an extra level of protection in case states fail to comply with their obligations regarding the environment.⁹⁴ When states violate human rights obligations and national courts fail to acknowledge it or provide for the adequate remedy that such violations require, there is another international or regional instance which can assess that violation.⁹⁵ Therefore, this additional level of protection is crucial to promote human rights compliance and enforcement, as it has in place independent bodies which guarantee that states are held accountable for their human rights violations also being an extra source of pressure for them to comply with their human rights obligations. On the other hand, it promotes sociological legitimacy as it provides for a forum where they can invoke human rights violations in environmental cases and have the assurance that those cases will be judged by an independent human rights body rather than by the state itself.

Furthermore, adopting a human rights framework for environmental issues permits the application of a unified legal framework that can be applied to environmental problems many of which constitute global problems. This is precisely the case of the biggest environmental issues that affect the 21st century, such as climate change and plastic pollution which are global environmental phenomena and by their nature know no borders, this way affecting the whole world.⁹⁶ Therefore, these cases demand a concerted action as states cannot effectively deal with them alone, thus a unified legal framework is essential to deal with these problems. In the absence of a legally binding framework that addresses these problems, a human rights framework can be used to hold states accountable for contributing to global

⁹² *ibid*, pp. 110 and 111.

⁹³ *ibid*, pp. 112 and 113.

⁹⁴ *ibid*, p. 110.

⁹⁵ *ibid*, p. 111.

⁹⁶ See: K. Yoshida and J. Setzer, *The Trends and Challenges of Climate Change Litigation and Human Rights*, European Human Rights Law Review 140, 2020.

environmental degradation. Besides, this approach would also permit to tackle one big problem connected with plastic pollution, the outsourcing of plastic waste to less developed countries where the waste management is less strictly regulated and dumping of waste is not as controlled. If plastic pollution is analysed through a human rights framework, there is a legal base for considering this outsourcing as forbidden since it leads to human rights violations, even if in other states.

Likewise, establishing international legally binding human rights obligations provides for greater legal weight, as they are considered one of the most serious international violations⁹⁷ also involving the political and legal resources associated with the international human rights movement.⁹⁸ This way, approaching global environmental problems such as plastic pollution, through a human rights framework by invoking human rights violations associated with these global issues, would entail that its mitigation would be more efficient.⁹⁹

Lastly, Buchanan suggests that using a human rights framework for environmental concerns can be a form of correcting inherent flaws in democracy at the national level, as it makes states consider their citizens and their interests.¹⁰⁰ Therefore, the application of this framework also pressures states to contemplate the rights of non-citizens.

All in all, although there are several benefits of framing environmental problems in a human rights framework, as it was developed above, one also needs to know the application of this framework to the plastic cycle does not come without limitations. First, this framework is only able to promote states' accountability, failing to hold other actors, such as business and private actors like corporations, which largely contribute to environmental issues, directly accountable for the human rights violations that emerge from plastic pollution. Yet, one can argue that such responsibility can be achieved in an indirect way as states themselves ought to regulate their activities and ensure that those who violate them are held accountable. Second, another limitation of the application of this framework is the fact that the human rights law framework does not provide the necessary mechanisms to ensure states' compliance with decisions from human rights bodies. The further development of these two limitations is outside the scope of this thesis.

⁹⁷ For instance, when compared to other international fields which are more policy or bureaucratic focused.

⁹⁸ Buchanan A. E., (n 85), p. 118.

⁹⁹ Cf, Paris Agreement, 2015, UN DOC FCCC/CP/2015/10/Add.1.

¹⁰⁰ *ibid*, p. 144.

2. The right to a clean, healthy and sustainable environment

This sub-section will provide a historical overview of international instruments with an environmental component, addressing their development over time which ultimately culminated in the recognition of an autonomous human right to a healthy environment, first at the regional level and then at the international level.¹⁰¹

2.1 Historical overview of the path to the international recognition of a right to a clean, healthy and sustainable environment

When the first human rights instruments were produced, that is the Universal Declaration of Human Rights¹⁰² and the legally binding International Covenants on Civil and Political Rights¹⁰³, and Social, Economic and Cultural Rights¹⁰⁴ were developed, the international community, scared by the traumas of the Second World War, was not yet focused on environmental concerns. Besides, the scientific evidence of the impacts of human activity on the environment available at that time was also limited. These factors help understand why an autonomous right to a healthy environment was not enshrined in any of these instruments, despite the clear connection between human rights and the environment.

Public awareness of environmental concerns began to rise in the 1960s and 70s with the development of scientific knowledge on the impacts of human activity on the environment. It led to the adoption of the Stockholm Declaration in 1972¹⁰⁵, which marked the starting point to deal with environmental challenges at the international level. Principle 1 of this declaration recognises the importance of an “environment of a quality that permits life with dignity and well-being”, as well as established the responsibility to “protect and improve the environment for present and future generations”¹⁰⁶. However, the protection that this principle provides is very limited as the declaration does not have a legally binding nature.

Later, between the 1970s and 80s, the first legally binding instruments focused on special vulnerable groups imposed positive obligations on states regarding environmental requirements. For instance,

¹⁰¹ Human Rights Council, Resolution The human right to a safe, clean, healthy and sustainable environment, October 2021, UN Doc. A/HRC/RES/48/13.

¹⁰² Universal Declaration of Human Rights (adopted 10 December 1948), UNGA Res 217 A(III) (UDHR).

¹⁰³ International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR).

¹⁰⁴ International Covenant on Social, Economic and Cultural Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICESC).

¹⁰⁵ Stockholm Declaration on the Human Environment, Report of the United Nations Conference on the Human Environment, UN Doc. A/CONF. 48/14, at 2 and Corr. 1 (1972).

¹⁰⁶ *ibid*, Principle 1.

Article 14 of the Convention Against all Forms of Discrimination Against Women¹⁰⁷ determines that states must ensure that rural women have access to adequate living conditions which include sanitation and water supply. Moreover, the Convention on the Rights of the Child¹⁰⁸ also establishes certain environmental requirements. Particularly, Article 24 compels states to “take into consideration the dangers and risk of environmental pollution”¹⁰⁹ and Article 29 determines states’ obligation to educate children about the need to respect the natural environment¹¹⁰.

Later, in 1992, the United Nations Conference on Environmental development produced the Rio Declaration¹¹¹ which builds upon the 1972 Stockholm declaration¹¹². Principle 2 enshrines states’ responsibility not to damage the environment in the activities within their jurisdiction or over their control. Additionally, Principle 3 determines the need to balance equitably the right to development with the developmental and environmental needs of present and future generations. Furthermore, Principle 10 established procedural environmental rights, such as the right to information concerning the environment, the right to participation in the decision-making process concerning the environment, and the right to access to justice, administration proceeding, redress and remedy. However, the Stockholm declaration, this declaration is also not a legally binding document.

The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, also known as Aarhus Convention¹¹³, was adopted in 1998. This convention solely focuses on the establishment of procedural environmental human rights, being an important mark in the determination of such obligations. It mainly focuses on three procedural obligations: access to environmental information held by public authorities, public participation in the decision-making process¹¹⁴, as well as access to justice when the previous rights are violated.

In 2007 another instrument focusing on a particularly vulnerable group established legally binding human rights obligations regarding the environment, the UN Declaration on the Rights of Indigenous People.¹¹⁵ This declaration recognises that indigenous communities are a vulnerable group to interferences with the environment and ascertains in Article 29 the right of indigenous communities to

¹⁰⁷ General Assembly, Convention on the Elimination of All Forms of Discrimination Against Women, 18 December 1979, UN Doc A/RES/34/180.

¹⁰⁸ General Assembly, Convention on the Rights of the Child, 20 November 1989, United Nations, UN Doc Treaty Series, vol. 1577, p. 3.

¹⁰⁹ *ibid*, Article 24.

¹¹⁰ *ibid*, Article 29.

¹¹¹ Rio Declaration on Environment and Development, Jun 13, 1992, 31 ILM 874 (1992).

¹¹² Stockholm Declaration on the Human Environment, Report of the United Nations Conference on the Human Environment, UN Doc. A/CONF. 48/14, at 2 and Corr. 1 (1972).

¹¹³ Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, Denmark, 25 July 1998 (Aarhus Convention) [1999] 2161 UNTS 447; 38 ILM 517.

¹¹⁴ For example, in legislation and policies that might affect the environment.

¹¹⁵ General Assembly, United Nations Declaration on the Rights of Indigenous Peoples: Resolution adopted by the General Assembly, 2 October 2007, UN Doc A/RES/61/295.

the “conservation and protection of the environment and the productive capacity of their lands or territories and resources”.¹¹⁶

All these progressive steps culminated in the recent international recognition of an autonomous human right to a clean, healthy, and sustainable environment in a UN Resolution adopted by the Human Rights Council on 8 October 2021.¹¹⁷

2.2. The regional recognition of a human right to a healthy environment

The recognition of an autonomous right concerning the environment started regionally with human rights systems enshrining this right in their constitutive instruments or additional protocols to those instruments. Only recently, was this right recognised at the international level, when the UN recognised an autonomous right to a safe, clean, healthy and sustainable environment.¹¹⁸

The African Charter on Human and People’s Rights of 1981¹¹⁹ was the pioneer in the recognition of an autonomous human right to a satisfactory environment, being the first regional and international human rights treaty to do so in its Article 24.

Article 24

All peoples shall have the *right to a general satisfactory environment favourable to their development*.¹²⁰

Subsequently, other regional systems also recognised the right to a healthy environment as an autonomous human right. In the Inter-American system, this right is enshrined in Article 11 of the San Salvador protocol¹²¹, the additional protocol to the American Convention on Human Rights¹²² (ACHR or American Convention):

¹¹⁶ *ibid*, Article 29.

¹¹⁷ Human Rights Council, Resolution The human right to a safe, clean, healthy and sustainable environment, October 2021, UN Doc. A/HRC/RES/48/13.

¹¹⁸ *ibid*.

¹¹⁹ African Charter on Human Rights and Peoples’ Rights (adopted 27 June 1981, entered into force 21 October 1986) (1982) 21 ILM 58 (African Charter).

¹²⁰ Italics by the author.

¹²¹ Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador) (entered into force 16 November 1999) OAS Treaty Series No 69 (1988) reprinted in Basic Documents Pertaining to Human Rights in the Inter-American System OEA/Ser L V/II.82 Doc 6 Rev 1 at 67 (1992).

¹²² American Convention on Human Rights (Pact of San José), Costa Rica, 18 July 1978, Treaty Series No. 36

Article 11 - Right to a healthy environment

1. Everyone shall have the *right to live in a healthy environment*¹²³ and to have access to basic public services.
2. The States Parties shall promote the protection, preservation, and improvement of the environment.

The Arab Charter of Human Rights¹²⁴ of 2004 also acknowledges the autonomous existence of the right to a healthy environment in Article 38.

Article 38

Everyone shall have the right to an adequate standard of living for himself and his family, ensuring the well-being and a decent life, including adequate food, clothing, housing, services and a *right to a safe environment*.¹²⁵ The State Parties shall take appropriate measures within their available resources to ensure the realization of this right.

The Association of Southeast Asian Nations Human Rights Declaration¹²⁶ enshrined an autonomous right to a safe, clean and sustainable environment in Article 28 (f).

Article 28 (f)

Every person has the right to an adequate standard of living for himself or herself and his or her family including: [...] f) *The right to a safe, clean and sustainable environment*".¹²⁷

An additional question regarding the recognition of an autonomous environmental human right might also be posed concerning the word choice, meaning the adjectives used to characterise the right itself, as different international and regional systems, adopted different formulations. This way, while some simply recognise an autonomous right to a *healthy* environment, others recognise a human right to an environment with more characteristics, such as *clean* environment or *clean and sustainable* environment. One can argue that the entailed protection of these rights also necessarily differs. However, both international and regional systems seem to disregard this potential issue, giving the impression that those rights are synonyms.¹²⁸ Considering the lack of literature on the subject and the

¹²³ Italics by the author.

¹²⁴ League of Arab States, Arab Charter on Human Rights, 15 September 1994.

¹²⁵ Italics by the author.

¹²⁶ Association of Southeast Asian Nations (ASEAN), ASEAN Human Rights Declaration, 18 November 2012.

¹²⁷ Italics by the author.

¹²⁸ For instance:

In the international system: "a human right to a safe, clean, healthy and sustainable environment — or, more simply, a human right to a healthy environment" - Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Note by the Secretariat, January 2018, UN Doc. A/HRC/37/59, para 11;

In the regional system: the African Commission also stated that the right to a sustainable environment is "widely known as right to a healthy environment", giving the impression that they are synonyms – in African Commission on Human and Peoples

fact that for some regional human rights bodies the different naming does not even appear to be an issue, being understood as a synonym for a right to a healthy environment, the author will not further develop on this topic and will consider all these rights offer the same protection.

On the international level, in the UN Resolution 48/13, the Human Rights Council expressively acknowledges the existence of a right to clean, healthy and sustainable environment determining that this right is “important for the enjoyment of human rights”¹²⁹, clearly illustrating the continuously rising of environmental concerns over the last decades. The resolution does not stop there and goes beyond “just” a mere recognition of an autonomous right to a clean, healthy and sustainable environment. It also states that this right is “related to other rights and existing international law”.¹³⁰ Such affirmation leaves room for other international and regional bodies, which have not yet taken the step of recognising this autonomous right, especial through the interpretation of case law of the ECtHR, to still rely on the human rights framework for environmental issues. The author will further develop this topic in the next section and chapters.

If before the recognition of this right the discussion was focused on whether a right to a healthy environment should or not be recognised as an autonomous human right, now that this autonomous human right was already amply recognised internationally and regionally, the discussion has shifted. The most pressing question nowadays is: what protection does this right entail? This is definitely not an easy one.

As emphasised in the UN Resolution 19/10, “certain aspects of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment require further study and clarification”¹³¹, and more recently in another resolution “much remains to be done to clarify and implement the human rights obligations relating to a safe, clean, healthy and sustainable environment”¹³². The most relevant work regarding an attempt to shape the scope of an autonomous human right to the environment by a human rights body are UN Reports A/HRC/22/43¹³³ and A/HRC/25/53¹³⁴. Both consist of Reports of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H.

Rights *Case of the Social and Economic Rights Centre (SERAC) and Centre for Economic and Social Rights (CESR) v. Nigeria*. Communication 155/96, Decision of October 27, 2001, para 52.

¹²⁹ *ibid*, point 1.

¹³⁰ *ibid*, point 2.

¹³¹ Human Rights Council, Resolution adopted by the Human Rights Council, Human rights and the environment, April 2012, UN Doc. A/HRC/RES/19/10.

¹³² Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Note by the Secretariat, January 2018, UN Doc. A/HRC/37/59, para 17.

¹³³ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations related to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2012, UN Doc. A/HRC/22/43.

¹³⁴ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53.

Knox. The former was developed prior and aims to “provide [for] its study and clarification”¹³⁵ compiling several regional bodies’ interpretations of the scope of this right. The latter intends to continue to develop the former, being the result of “extensive research”¹³⁶ as well as regional consultations which addressed “procedural rights and duties, substantive rights and duties, members of groups in vulnerable situations, and the integration of human rights and the environment into international institutions”¹³⁷. The author will mainly resort to the later (the most recent) report, alongside the advisory opinion OC-23/17 of the IACtHR¹³⁸ to better understand what obligations the recognition of an autonomous right to a healthy environment entails. This advisory opinion is of extreme relevance for this analysis as it extensively develops the scope of this right, providing a detailed explanation of the obligations it entails.

From the analysis of the said documents, it is possible to group the obligations inherent to the right to a healthy environment into two major categories: substantive rights and procedural rights. Regarding substantive rights, these comprise two main obligations: to adopt and implement legal frameworks to protect against environmental harm that may hinder the enjoyment of human rights and to regulate private actors to protect against environmental harm. Moreover, these obligations involve making environmental assessments and monitoring all stages of the cycle, to determine the exact risks posed by each stage and how to best mitigate them this way having a very strong preventive component¹³⁹.

Concerning the procedural rights, these documents focus namely on the right to information, participation, and access to remedies. In the context of the plastic cycle, this would entail the adoption and implementation of legal frameworks that regulate the plastic cycle as a whole, establishing targets to limit plastic production and how states should mitigate its negative impacts to prevent human rights violations inherent to it.

Regarding procedural obligations, the UN A/HRC/25/53 Report identifies three obligations: “(a) to assess environmental impacts and make environmental information public; (b) to facilitate public participation in environmental decision-making, including by protecting the rights of expression and

¹³⁵ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations related to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2012, UN Doc. A/HRC/22/43, summary.

¹³⁶ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 2.

¹³⁷ *ibid.*

¹³⁸ Advisory Opinion Inter-American Court of Human Rights OC-23/17 The Environment and Human Rights, Requested by the Republic of Colombia, (IACtHR, 15 November 2017), Series A No. 23.

¹³⁹ See: Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53 and Advisory Opinion Inter-American Court of Human Rights OC-23/17 The Environment and Human Rights, Requested by the Republic of Colombia, (IACtHR, 15 November 2017), Series A No. 23

association; and (c) to provide access to remedies for harm”¹⁴⁰ and constructs the obligations those entail in close connection with Principle 10 of the Rio Declaration¹⁴¹. The analyses of the plastic cycle through the application of a right to a healthy environment entails that all these obligations must also apply to the plastic cycle.

The right to information is then constructed in close connection with the right to freedom of expression as it includes the right to “seek, receive and impart information”¹⁴² in this case regarding environmental degradation, which causes or might cause interferences with the enjoyment of human rights. Hence, considering the consequences of the plastic cycle there is a right to receive information regarding the plastic cycle and its implications for the environment and human health. Additionally, the UN A/HRC/25/53 Report also emphasises the close connection between this right and the right to public participation, the first being fundamental for the exercise of the second. The right to information is also further developed by Principle 7 of the Framework Principles on the Environment and Human Rights which divides this obligation into two: the collection and monitoring of information and the subsequent spreading of such information.¹⁴³ Furthermore, Principle 8 of the Framework Principles on Environment and Human Rights establishes and develops states’ obligations to provide for prior risk assessments of policies and projects that might interfere with the environment and with the enjoyment of human rights.¹⁴⁴

The right to public participation in the decision-making process aims to “safeguard a wide spectrum of rights from environmental harm”.¹⁴⁵ This obligation is closely related to the rights of freedom of expression and association, as a necessary precondition for the realisation of this right. In this regard, the UN A/HRC/25/53 Report does not only establish negative obligations of non-interference with the rights of freedom of expression and association but also the “right to protect the life, liberty and security of individuals exercising those rights”¹⁴⁶ obligation which also applies when these rights are exercised in the context of environmental issues, being therefore also applicable in the context of plastic cycle

¹⁴⁰ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 29.

¹⁴¹ Principle 10 of the Rio Declaration: Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

¹⁴² International Covenant on Civil and Political Rights, Article 19(2).

¹⁴³ Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Note by the Secretariat, January 2018, UN Doc. A/HRC/37/59, paras 17 a 19.

¹⁴⁴ *ibid*, paras 20-22.

¹⁴⁵ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 36.

¹⁴⁶ *ibid*, para 40.

litigation. This obligation is further developed by Principles 5 and 9 of the Framework Principles on Environment and Human Rights.¹⁴⁷

Likewise, these two procedural rights of access to information and the right to participation in the decision-making process are identified by the African Commission which determines that this right also entails procedural obligations, such as “providing information to those communities exposed to hazardous materials and activities and providing meaningful opportunities for individuals to be heard and to communities”.¹⁴⁸ This way, the right to a sustainable environment also involves the right to information regarding the environment to communities susceptible to being affected by particular environmental risks, as well as their right to participation in the decision-making process.

Finally, the Report identifies the right to provide “access to remedies for harm”¹⁴⁹ as a procedural right inherent to an autonomous human right to a healthy environment which is also developed by Principle 10 of the Framework Principles on the Environment and Human Rights. The report emphasises that the principle of an “effective remedy for the violations of protected rights”¹⁵⁰ also applies in cases where these violations are connected to environmental cases, this way applying to the context of the plastic cycle. This was also recognised by several human rights bodies and courts¹⁵¹. Namely, the ECtHR has gone as far as to state that individuals ought to “be able to appeal to the courts against any decision, act or omission where they consider that their interests or their communities have not been given sufficient weight in the decision-making process”.¹⁵²

This way, the Report clearly demonstrates that the procedural rights inherent to the right to a healthy environment depend on compliance with other autonomous recognised rights, such as the above-mentioned right to freedom of expression and association. Then, it moves on to the substantive rights inherent to the right to a healthy environment making it very evident that these obligations deeply rely on the obligations inherent to other human rights affected by environmental damages. The wording used in the Report - “the content of States’ specific obligations to protect against environmental harm, therefore, depends on the content of their duties with respect to the particular rights threatened by the

¹⁴⁷ Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Note by the Secretariat, January 2018, UN Doc. A/HRC/37/59, paras 12-14.

¹⁴⁸ *Case of the Social and Economic Rights Centre (SERAC) and Centre for Economic and Social Rights (CESR) v. Nigeria*, para 53.

¹⁴⁹ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 29.

¹⁵⁰ *ibid*, para 41.

¹⁵¹ See: Individual Report on the Inter-American Human Rights Agreement, sect. III.A.3; and *Case of the Social and Economic Rights Center (SERAC) and Center for Economic and Social Rights (CESR) v. Nigeria*, para 97.

¹⁵² *Taşkın and Others v. Turkey*, App. No. 46117/99, (ECtHR, 10 November 2004), para 119.

harm”¹⁵³ – unequivocally reveals that substantive obligations regarding the right to a healthy environment rely so profoundly on other human right violations that its obligations must be understood in the context of the other human rights violated and its respective obligations. Considering that environmental damages are responsible for interfering with the enjoyment of several other human rights. Such an anthropocentric statement does not come as a surprise. This is understandable as its recognition is still recent. However, it also reveals how this right is still very anthropocentrically interpreted within the international system and clearly demonstrates that there is still a long way to go in developing it and understanding its precise scope as an autonomous right.

Nonetheless, it is evident that this is not the approach taken by regional bodies. These systems develop more extensively the substantive obligations inherent to an autonomous right to a healthy environment without just relying on the protection offered by other human rights affected by environmental degradation. For instance, the Inter-American Court provides for an important feature of the level of protection that a recognised autonomous right to a healthy environment entails and which cannot be reached in the absence of such recognition.¹⁵⁴ An autonomous right to a healthy environment allows for a bigger scope of protection than other human rights that are affected by environmental degradation cannot provide: it protects the environment itself without the need to invoke and prove that it directly impacted individuals’ human rights. Thus, such an approach moves towards a non-anthropocentric vision of human rights, where “components of the environment such as forests, rivers and seas (...) [have] legal interests themselves”¹⁵⁵ hence being protected, regardless of the demonstration of a human impact caused by the degradation of the environment.

It is also noteworthy the fact that the Inter-American Court constructs the right to a healthy environment on a different basis than how the said UN Reports. It determines that this right is composed of two dimensions: a collective dimension and an individual dimension¹⁵⁶. Considering its collective dimension, the right to a healthy environment determines that a healthy environment does not only protect the environment for only present generations but also includes the protection of the environment for future generations¹⁵⁷, as the ones who will inherit the planet in the condition we leave it in. Regarding its private dimension, this right aims to protect the individual that is affected either directly or indirectly by the degradation of the environment as it might entail the violation of other human rights, such as the right to health, life, and personal integrity.¹⁵⁸ This way, though this system has already recognised an autonomous human right to a healthy environment when developing the protection it entails at the

¹⁵³ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 44.

¹⁵⁴ *Advisory Opinion Inter-American Court of Human Rights OC-23/17*, paras 62 and 63.

¹⁵⁵ *ibid*, para 62.

¹⁵⁶ *ibid*, para 48.

¹⁵⁷ *ibid*, para 59.

¹⁵⁸ *ibid*.

individual dimension, it does not seem to add more than a link between the violation of this right and the violation of other human rights. As the author will have the opportunity to develop in the next subsection, this is precisely what the ECtHR does, as this European system has not yet recognised such an autonomous right.

The *OC-23/17* Advisory Opinion refers to the five state obligations concerning the right to a healthy environment, pointed out by the Working Group on the San Salvador Protocol¹⁵⁹, which provides for further guidance on the positive obligations states need to comply with in order to respect, protect and fulfil the right to a healthy environment. Namely, it identifies the obligations of:

1. guaranteeing everyone, without any discrimination, a healthy environment in which to live;
2. guaranteeing everyone, without any discrimination, basic public services;
3. promoting environmental protection;
4. promoting environmental conservation, and
5. promoting improvement of the environment.

It is also significant that the said UN Reports and the *OC-37/17* Advisory Opinion explicitly acknowledge the prohibition of discrimination when realising the right to a healthy environment. This is particularly relevant considering that, as it is largely acknowledged by international bodies and existing literature on the subject, violations on the right to a healthy environment are closely linked to violations of the prohibition of discrimination since vulnerable groups are more affected by environmental degradation¹⁶⁰. As mentioned before, this is also relevant in the context of plastic cycle litigation. Additionally, this Working Group provided further assistance on how to interpret this right, determining that when complying with it, states must be governed by availability, accessibility, sustainability, acceptability, and adaptability.¹⁶¹

The Inter-American Court also proposes progress indicators¹⁶² to assess whether this right is being complied with, namely:

- a) atmospheric conditions
- b) quality and sufficiency of water resources
- c) air quality

¹⁵⁹ Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador) (entered into force 16 November 1999) OAS Treaty Series No 69 (1988) reprinted in Basic Documents Pertaining to Human Rights in the Inter-American System OEA/Ser L V/II.82 Doc 6 Rev 1 at 67 (1992).

¹⁶⁰ See regarding the environment in general: Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53; And see concerning the plastic cycle in particular: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 9.

¹⁶¹ *ibid*, para 60.

¹⁶² *ibid*.

- d) soil quality
- e) biodiversity
- f) production of pollutant waste and its management
- g) energy resources
- h) status of forestry resources

Concerning the plastic cycle, it is foreseeable that this cycle will directly affect most of these indicators with air atmospheric conditions, air quality, soil quality, biodiversity and production of pollutant waste¹⁶³, which as has been mentioned before, is in its large majority mismanaged. This demonstrates how relevant it is to address this problem that interferes so profoundly with the environment, triggering negative impacts in almost all the indicators that this Court established to monitor the status of the environment.

The African Commission on Human Rights determined that the right to a satisfactory environment enshrined in the African Charter ought to comprise preventive obligations for environmental protection in general, without associating them with other human rights obligations, stating that it “requires states to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources”¹⁶⁴. The Commission also provided for examples of precautionary measures that states need to adopt when realising the right to a healthy environment, such as “ordering or at least permitting independent scientific monitoring of threatened environments, requiring and publicising environmental and social impact studies prior to any major industrial development, undertaking appropriate monitoring”¹⁶⁵.

3. Concluding remarks

The previous chapter determined how the multiple stages of the plastic cycle cause environmental degradation, which then leads to the violation of several human rights. This chapter demonstrated that the connection between the environment and human rights is very well established, as environmental alterations caused or enhanced by human activities in the plastic cycle interfere with the enjoyment of several human rights.

¹⁶³ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

¹⁶⁴ *Case of the Social and Economic Rights Centre (SERAC) and Centre for Economic and Social Rights (CESR) v. Nigeria*, para 52.

¹⁶⁵ *ibid.*

Moreover, the existence of this clear link between human rights and the environment leads to the possibility of the application of this framework to global environmental cases, such as plastic cycle litigation. As demonstrated in this chapter, resorting to a human rights framework for plastic cycle cases has many benefits. Namely, in the particular case of the plastic cycle, it can result in the enactment of new and stricter legislation to control plastic production, usage, and waste management, as well as the chemicals added throughout the cycle. Additionally, in the absence of a legally binding framework regarding the plastic cycle, a human rights framework can be used to hold states accountable for contributing to environmental degradation. Considering that there are indeed several benefits of applying a human rights framework for climate-related cases, and after determining them in the concrete case of plastic cycle litigation, it follows that the application of the levels of protection that this framework can offer needs to be carefully assessed.

The historical overview of the evolution of the legal approach to a human right to a healthy environment leads to the conclusion that resorting to this framework has now a legal base both international and in most regional human rights systems, entailing substantive and procedural obligations. In the context of the plastic cycle, these substantive obligations require the adoption and implementation of legal frameworks to limit plastic production and mitigate the negative impacts of the plastic cycle as a whole, as well as to conduct environmental impact assessments and monitor all stages of the plastic cycle to determine the exact risks posed by each stage to best mitigate them. The procedure obligations require states to inform the public regarding the environmental and health dangers posed by all the stages of the plastic cycle, to facilitate public participation in environmental decision-making regarding all the stages of the cycle, including by protecting the rights of expression and association and, lastly, to provide access to remedies in cases of human rights violations caused by this cycle.

Nevertheless, there is still one regional system that has not yet recognised the right to a healthy environment as an autonomous human right, the European regional system, as this right is not yet enshrined in the ECHR nor in any of its additional protocols. Therefore, the question arises: is the absence of the recognition of an autonomous human right to a healthy environment a deal-breaker to applying the convention to cases of global environmental phenomena, such as the plastic cycle? Or is it possible to determine the existence of a legal base for these cases through the “greening” of other already recognised human rights? This possibility is analysed in the next chapter.

III. The absence of the recognition of an autonomous human right to a healthy environment: a deal-breaker for future plastic cycle litigation?

As established in the previous chapter, there is a clear link between the environment and human rights.¹⁶⁶ However, even though this relationship is evident, there are still regional systems, namely the European regional system that still has not acknowledged the existence of an autonomous human right to a healthy environment which could provide a legal base for plastic cycle litigation.

In this chapter, the author seeks to answer the sub-research question of whether the absence of such recognition is a legal barrier for plastic cycle litigation within systems that have not yet recognised the existence of an autonomous human right to a healthy environment. To answer this question, the author resorts to several sources, namely UN Reports of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, case law from two regional human rights courts, the IACtHR and the ECtHR, as well as relevant literature on the subject.

Special emphasis is given to the European context, considering that this is the only regional human rights system that has not yet recognised the existence of an autonomous human right to a healthy environment. Therefore, the author focuses on the analysis of the ECtHR's jurisprudence to determine whether the greening of already recognised human rights can allow the application of the convention to cases of global environmental phenomena such as plastic cycle litigation.

1. Is the absence of a recognition of an autonomous right to a healthy environment a legal obstacle to invoking human rights violations in plastic cycle litigation?

As states will try to portray themselves as respecting, protecting, and promoting human rights and disassociate from alleged human rights violations, it is only expectable that in systems that have not yet recognised an autonomous right to a healthy environment, member states will invoke it to justify the court's lack of jurisdiction. Particularly, when it comes to plastic cycle-related litigation, it is foreseeable that Council of Europe member states will argue that complaints regarding environmental

¹⁶⁶ See: Human Rights Council, Resolution adopted by the Human Rights Council, Human rights and the environment, April 2012, UN Doc. A/HRC/RES/19/10.

degradation caused by the plastic cycle do not engage states' positive obligations as there is no specific right established in the Convention nor its Additional Protocols, from which such obligations can arise.

However, as recognised by the Special Rapporteur on the issue of the right to a safe, clean, healthy and sustainable environment, "an unusual aspect of the development of human rights norms relating to the environment is that they have not relied primarily on the explicit recognition of a human right to a safe, clean, healthy and sustainable environment"¹⁶⁷. Instead, regional and national courts have built jurisprudence based on the "greening" of already recognised human rights. This way, by invoking interferences with the enjoyment of other human rights that are already established in the constitutional treaties or additional protocols, courts determined the existence of states' positive obligations in environmental cases, even in the absence of an autonomous right to a healthy environment.

Several arguments support the "greening" of human rights. The absence of an autonomous recognition of a human right to a healthy environment in human rights treaties cannot be justified by a lack of connection between environmental degradation and human rights violations. When these instruments were drafted, environmental concerns were not yet on the political agenda, however, that should not limit the "subsequential recognition of their [international human rights treaties] environmental dimension".¹⁶⁸ On the contrary. Since environmental concerns are nowadays on the top of the international community's agenda and environment related problems such as needs to encompass an environmental dimension.¹⁶⁹ Additionally, the formulation of the right to a healthy environment already recognised in some non-legally binding regional and international instruments is quite similar to the environmental constitutional rights to a healthy environment recognised in the member states' constitutions.¹⁷⁰

Moreover, as mentioned above, the Report builds the obligations of a right to a healthy environment from the interpretation of several international and regional instruments, mainly case law. It concludes that from the analyses of the application of that right to a healthy environment and other human rights to the context of environmental cases there are "remarkable similar interpretations when applied (general obligations) to environmental issues".¹⁷¹ Then it moves on to summarise States' obligations regarding the right to a healthy environment in two obligations that it deeply connects to other human rights obligations. These two obligations are:

¹⁶⁷ Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Note by the Secretariat, January 2018, UN Doc. A/HRC/37/59, para 11.

¹⁶⁸ Buchanan A. E., (n 85), p. 130.

¹⁶⁹ World Future Council, Solutions for our common future (ed.). 2016. Climate change – the greatest threat to human rights in the 21st century. <https://www.worldfuturecouncil.org/climate-change-greatest-threat-human-rights-21st-century/>, last accessed 13 January 2022.

¹⁷⁰ Buchanan A. E., (n 85), p. 130.

¹⁷¹ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 46.

- a) “to adopt and implement legal frameworks to protect against environmental harm that may infringe on the enjoyment of human rights; and
- b) to regulate private actors to protect against such environmental harm”.¹⁷²

Regarding the first obligation, the UN A/HRC/25/53 Report determines that it arises from several other human rights, namely the rights to life and health. Regional courts have also adopted this vision. For instance, the European Court of Human rights has established jurisprudence acknowledging that such positive obligation arises from the right to life¹⁷³ as well as private and family life¹⁷⁴, while the Inter-American Court has recognised it as deriving from the rights to life and health.¹⁷⁵ Other human rights bodies, for example, the International Covenant on Economic, Social and Cultural Rights, have also linked the right to a healthy environment to the right to health, determining in its General Comment No.14 that this right is enshrined in Article 12 of the Covenant “embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as (...) a healthy environment”.¹⁷⁶ Additionally, this human rights body also recognised the obligation to adopt and implement legal frameworks to protect from environmental harm also involves the obligation of “prevention and reduction of the population’s exposure to harmful substances such as radiation and harmful chemicals or other detrimental environmental conditions that directly or indirectly impact upon human health”¹⁷⁷. Therefore, once again demonstrates the close connection between the obligations that arise from the recognition of the existence of a right to a healthy environment and the right to health.

Moreover, the said obligation to adopt and implement legal frameworks to protect against environmental harm that may infringe on the enjoyment of human rights need to strike “a fair balance between environmental protection and other interests”¹⁷⁸. States have a certain discretion when doing so but the “balance cannot be unreasonable”¹⁷⁹. Applying it to the future plastic cycle legislation, it becomes clear that such legislation also ought to strike a balance between plastic production, usage and waste management which has several benefits for society; and the negative consequences of the plastic cycle, which interfere with the enjoyment of several human rights. Therefore, the solution cannot be just to abolish plastic production, since that would clearly not attain a fair balance. This topic will be

¹⁷² Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 46.

¹⁷³ See: *Örmeriyıldız v. Turkey*, App. No. 48939/99, (ECtHR, 30 November 2004), and *Budayeva and Others v. Russia*, Apps. Nos. 15339/02, 21166/02, 20058/02, 11673/02 and 15343/02, (ECtHR, 20 March 2008).

¹⁷⁴ *Tatar v. Romania*, App. No. 67021/01, (ECtHR, 27 January 2009), para 88.

¹⁷⁵ Individual Report on the Inter-American Human Rights Agreement, sect. III.A.3.

¹⁷⁶ Committee on Economic, Social and Cultural Rights (GCESCR), *General comment No. 14: The Right to the Highest Attainable Standard of Health* (Art. 12 of the Covenant), August 2000, UN Doc. E/C.12/2000/4, para 4.

¹⁷⁷ *ibid*, para 15.

¹⁷⁸ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 54.

¹⁷⁹ *ibid*, para 80.

further developed in the fifth chapter. Additionally, there is a “strong presumption against retrogressive measures”¹⁸⁰, therefore if such measures are adopted, states bear the burden of proof¹⁸¹.

Finally, the UN A/HRC/25/53 Report makes a last and important point regarding the obligation to adopt and implement legal frameworks to protect against environmental harm noting that it is not enough just to have these policies and frameworks in place to comply with it. Instead, States need to actually follow them and have regulators who monitor the respect for it and carry out on-site inspections to ensure those are being complied with.¹⁸² This seems obvious, however, the author believes that it is an relevant reminder of the importance of states’ implementation of environmental legislation in a field where there is a clear tendency for non-compliance and for these obligations to be only considered as theory and disregarded in practice.

The second substantive obligation to arise from the right to a healthy environment determined by the UN A/HRC/25/53 Report is the obligation to protect against environmental harm from private actors within their territory and/or jurisdiction. Considering that one-third of the complaints made to the Special Representative of the Secretary-General on the issues of human rights and transnational corporations and other business enterprises invoked human rights violations that alleged environmental harm as its cause¹⁸³, it is easy to understand the relevance of this obligation. This considerably high percentage is a clear indicator that private actors are recurrently causing environmental degradation which then interferes with the enjoyment of several human rights. Therefore, there are activities and practices conducted by non-state actors which are responsible for environmental degradation. Those also clearly need to be regulated and monitored by states to prevent private actors’ interference with the enjoyment of human rights, as well as making sure they are held accountable when failing to comply and provide for appropriate redress in those situations.¹⁸⁴ This obligation of protecting individuals from environmental degradation caused by non-state actors’ environmental has also been recognised by regional human rights bodies such as the African Commission¹⁸⁵, the Inter-American Commission on Human Rights¹⁸⁶ and the ECtHR¹⁸⁷.

¹⁸⁰ *ibid.*

¹⁸¹ *ibid.*

¹⁸² Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 57.

¹⁸³ Human Rights Council, Report of the Special Representative of the Secretary General on the issues of human rights and transnational corporations and other business enterprises, John Ruggie, April 2008, UN Doc. A/HRC/8/5/Add.2, para 67.

¹⁸⁴ Human Rights Council, Report of the Special Representative of the Secretary General on the issues of human rights and transnational corporations and other business enterprises, John Ruggie, Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework, March 2011, UN Doc. A/HRC/17/31, in particular Principle 1.

¹⁸⁵ *Case of the Social and Economic Rights Centre (SERAC) and Centre for Economic and Social Rights (CESR) v. Nigeria*, paras 57 and 58.

¹⁸⁶ Inter-American Commission on Human Rights, Second report on the situation of human rights defenders in the Americas, 2011, para 315.

¹⁸⁷ *López Ostra v. Spain*, para 51; and *Hatton v. United Kingdom*, App. No. 36022/97, (ECtHR, 08 July 2003), para 98.

Lastly, within the substantive obligations regarding a healthy environment, the Report includes a general obligation of non-discrimination as some vulnerable groups are more affected by environmental damages¹⁸⁸. Principle 3 of the Framework on human rights and the environment further develops this obligation and provides examples of direct and indirect discrimination that can arise in connection with the right to a healthy environment. The Report specifically establishes concrete obligations regarding women, children and indigenous people, which are then developed under Principles 14 and 15¹⁸⁹ of the Framework on Human Rights and the Environment.

Particularly, when it comes to children as a vulnerable group, the application of the principle of best interests of the child enshrined in Article 2 para 1 of the Convention on the Rights of the Child obliges states to take into consideration children's specific risks that arise to children when adopting environmental regulation.¹⁹⁰ Besides, the application of Article 3(2) to the plastic cycle creates positive obligations for states to develop legislative and administrative effective measures to control the plastic cycle and mitigate its effects to guarantee the overall well-being of the child, which includes access to a healthy environment. Such interpretation is also in line with Article 24.2(c) of this Convention which implies that when pursuing the highest attainable standard of health for children, states ought to "take into consideration the dangers and risks of environmental pollution" which entails regulating and monitoring of activities pursued by both state and private actors that threaten to damage the environment as well as mitigating its consequences.¹⁹¹

Additionally, the UN Committee on the Rights of the Child stated that "countries should establish and implement policies to prevent dumping of hazardous materials and other means of polluting the environment".¹⁹² Bearing in mind that plastic pollution is one of the gravest forms of pollution nowadays, it is clear that states ought to have in place policies to prevent plastic dumping, which as previously demonstrated has terrible environmental and health consequences, affecting especially children as a vulnerable group.¹⁹³ The particular reference to children as a vulnerable group is also present in the fifth chapter where the author suggests the application of the intergeneration equity

¹⁸⁸ Human Rights Council, Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, December 2013, UN Doc. A/HRC/25/53, para 69.

¹⁸⁹ Human Rights Council, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Note by the Secretariat, January 2018, UN Doc. A/HRC/37/59, paras 40-53.

¹⁹⁰ Committee on the Rights of the Child, General comment No. 14 (2013) on the right of the child to have his or her best interests taken as a primary consideration (art. 3, para. 1), May 2013, UN Doc. CRC/C/GC/14, paras 19 and 20.

¹⁹¹ Committee on the Rights of the Child, *General comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health (Art. 24)*, April 2013, UN Doc. CRC/C/GC/15, paras 49 and 50.

¹⁹² *ibid*, para 54.

¹⁹³ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 41.

principle to plastic cycle litigation and argues that present-day children also fall within the scope of this principle.

2. The particular case of the European system as the only regional human rights system which has not yet recognised an autonomous right to a healthy environment

The European system is the only regional human rights system that does not yet have recognised an autonomous human right to a healthy environment. However, in recent resolutions¹⁹⁴ and recommendations¹⁹⁵, the Council of Europe's Parliamentary Assembly has repeatedly urged the need to explicitly recognise this right through the adoption of an additional protocol. These instruments highlight the relationship between environmental-related impacts and human rights, namely impacts on human health, dignity, and life. Ultimately, these recommendations and resolutions reflect the idea that it is fundamental to use human rights law as a tool to promote states' change towards a more serious path of environmental protection since they are the ones that have the power to change things on a big scale.

One can foresee that this lack recognition will be argued by Council of Europe's member states to invoke the ECtHR's lack of jurisdiction to judge plastic cycle cases on the grounds of *ratione materiae*. However, as developed above, even without such recognition is possible to extract states' obligations in environmental cases through the "greening" of other recognised rights in the convention and additional protocols. This subsection aims to specifically analyse how the ECtHR has done so in the past and suggest a way in which other human rights that are also violated throughout the plastic cycle can be invoked in litigation concerning the plastic cycle.

Apart from the reasons already generally provided above for the "greening" of human rights, in the context of the Council of Europe there are two well-established doctrines developed by the Court which also support the "greening" of human rights established in the ECHR: the doctrine of the European consensus and the doctrine of interpreting the convention as a living instrument. The application of these two doctrines in a plastic cycle litigation case can lead the ECtHR to conclude that the absence of the recognition of a right to a healthy environment is not an obstacle to the Court's jurisdiction.

¹⁹⁴ Resolution 2396 (2021), Assembly debate on 29 September 2021 (27th sitting); see Report of the Committee on Social Affairs, Health and Sustainable Development, Special Rapporteur Mr Simon Moutquin, Doc. 15367.

¹⁹⁵ *ibid.*

The European consensus doctrine allows for the interpretation of the Convention considering states' practice where there is a clear level of uniformity within the member states' legal frameworks.¹⁹⁶ The ECtHR can resort to the application of the European consensus doctrine invoking that the vast majority of the Council of Europe's member states have recognised the right to a healthy environment, mainly at the constitutional level. For those states, a healthy environment is so relevant that it has determined the need for it to be protected under the existence of a constitutional right. Therefore, the Court can identify that there are relevant factors to determine the existence of an emerging European consensus on the recognition of this right. An interpretation of the Convention that applies this doctrine requires that the rights there enshrined, namely the rights mentioned in this section, should be considered as also applicable to global environmental phenomena cases, namely plastic cycle litigation cases.

The Court can also invoke the principle of interpreting the Convention as a living instrument. This principle determines that the Convention must be interpreted in light of present-day conditions.¹⁹⁷ Considering that plastic pollution and the plastic cycle as a whole is one of the most pressing environmental issues today, as it entails significantly threats to the enjoyment of several human rights, such as the right to life, and the right to private and family life, interpreting the convention as a living instrument according to present-day conditions requires for Article 2 and 8 ECHR to be applicable to cases concerning the plastic cycle.

Article 2 of the Convention entails a general obligation for states to take the appropriate steps to protect the lives of people within their jurisdiction.¹⁹⁸ The Court has acknowledged that the positive obligation to take the appropriate steps to protect the right to life applies to a range of hazards.¹⁹⁹ As previously demonstrated, it is evident that the plastic cycle threatens the right to life as plastic production and waste management, as well as all the dangerous chemicals which are added throughout the plastics cycle, have serious negative impacts on the environment and human health. This way, having established that climate change is life-threatening, it is clear that effective measures to protect the right to life ought to be taken in this context.

The positive obligations under Article 2 of the Convention are engaged whenever the relevant authorities were aware or should have been aware, that a dangerous activity posed a real and immediate

¹⁹⁶ *Lee v United Kingdom* [GC], App. No. 25289/94, (ECtHR, 18 January 2001), para 95; *Evans v. United Kingdom* [GC], App. No. 6339/05, (ECtHR, 10 April 2007), para 45; *T. v United Kingdom* [GC], App. No. 24724/94, (ECtHR, 16 December 1999), para 72; *X, Y and Z v. United Kingdom* [GC], App. No. 21830/93, (ECtHR, 22 April 1997), para 44; *Ünal Tekeli v. Turkey*, App. No. 29865/96, (ECtHR, 16 November 2004), para 61.

¹⁹⁷ *Tyrer v. United Kingdom*, App. no. 5856/72, (ECtHR, 25 April 1978), para 31.

¹⁹⁸ *Öneryıldız v. Turkey* [GC], para 71; *L.C.B. v. the United Kingdom*, App. No. 23413/94, (ECtHR, 09 June 1998), para 36; *Paul and Audrey Edwards v. the United Kingdom*, App. No. 46477/99, (ECtHR, 14 June 2002), para 54; and *Budayeva and Others v. Russia*, para 128.

¹⁹⁹ *Centre for Legal Resources on behalf of Valentin Câmpeanu v. Romania* [GC] App. No. 47848/08, (ECtHR, 17 July 2014), para 130.

risk to the lives of individuals.²⁰⁰ The ECtHR must acknowledge that with the scientific information available nowadays states know or ought to know about the negative effects of the plastic cycle on the enjoyment of this human right. Hence, to comply with the obligations that arise from those rights, states ought to consider the several stages of the plastic cycle as dangerous activities and regulate and monitor them accordingly. Therefore, if the Council of Europe's member states invoke any kind of uncertainty regarding the present or long-term impacts of the plastic cycle on human health or the environment, as many did in climate change litigation cases, those arguments must be disregarded.

From the Court's jurisprudence it is possible to identify two positive obligations that arise from the application of Article 2: have in place legal frameworks to protect the right to life in the context of a foreseeable harm caused by dangerous activities and to take precautionary measures to protect the right to life from foreseeable harm.²⁰¹ As the plastic cycle is composed of several dangerous activities which are responsible for the degradation of the environment and human health, the cycle as a whole can be regarded as a dangerous activity. Thus, the application of Article 2 to the plastic cycle context triggers two obligations. First, the obligation to have in place an effective legislative and administrative framework to regulate the whole plastic cycle, with a focus on limitation of plastic production and mitigation of the negative effects of the cycle. Second, the obligation to then comply with it in order to limit and mitigate the negative effects of this cycle.

Besides, as it has been previously developed by the Court, "in the context of dangerous activities the scope of the positive obligations under Articles 2 and 8 of the Convention largely overlap"²⁰². Considering that the plastic cycle can be regarded as a dangerous activity, accordingly, it is possible to invoke that the obligations under Articles 2 and 8 largely overlap in this context.

When it comes to Article 8, this Article establishes the respect for the quality of private life as well as the peaceful enjoyment of one's home.²⁰³ Though the Court has determined that it is not designed to provide general protection to the environment as such²⁰⁴, the ECtHR has also recognised that the issue may still arise under Article 8 if the environmental factors directly and seriously affect the private and family life or the domicile of an individual²⁰⁵. Therefore, the Court's case-law provides for a broad scope of Article 8, which includes cases where an individual's well-being may be negatively impacted by unsafe or disruptive environmental conditions.²⁰⁶ Specifically, the ECtHR has found violations of

²⁰⁰ *Öneryıldız v. Turkey*, para 101.

²⁰¹ *Öneryıldız v. Turkey*, para 71; *Koleadenko and Others v Russia*, Apps. Nos. 17423/05, 20534/05, 206778/05, 23263/05, 24283/05 and 35673/05, (ECtHR, 09 July, 2012), para 151.

²⁰² *Koleadenko and Others v. Russia*, para 212.

²⁰³ *Powell & Rayner v. The United Kingdom*, App. No. 9310/81, (ECtHR, 21 February 1990), para 40.

²⁰⁴ *Kyrtatos v. Greece*, App. No. 41666/98, (ECtHR, 22 August, 2003), para 52.

²⁰⁵ *Fadeyeva v. Russia*, para 68 and *Hatton a.o. v. the United Kingdom [GC]*, para 96.

²⁰⁶ *Cordella and Others. v. Italy*, Apps. Nos. 54414/13 and 54264/15, paras 157-160.

Article 8 in cases concerning industrial pollution²⁰⁷, waste collection, management, treatment and disposal²⁰⁸ and water supply contamination²⁰⁹. Considering the plastic cycle's negative impacts on the environment and human health, it is beyond doubt that this cycle can be responsible for damages which directly and seriously affect the private and family life or the domicile of individuals, this way triggering the application of Article 8.

Additionally, as already mentioned, the plastic cycle is more likely to impact some already vulnerable groups. Hence, the rights to life and private and family life might also need to be interpreted in the context of Article 14 when, in a particular situation, the enjoyment of the rights to life and or private and family life is/are interfered with and the applicant that belongs to a group which is already more vulnerable to be affected by the plastic cycle.

The Dutch Supreme Court adopted this reasoning of “greening” the right to life and the right to private and family life in the context of climate change litigation, in the landmark case of *Urgenda*.²¹⁰ It determined that Article 2 and Article 8 entail a positive obligation “to take suitable measures if a real and immediate risk to people's lives or welfare exists and the state is aware of that risk”.²¹¹ The Court then recalled that this obligation also “applies when it comes to environmental hazards that threaten large groups of the population as a whole, even if the hazards will only materialise over the long term”.²¹² Therefore, this reasoning can also be applied to plastic cycle litigation cases. Moreover, this line of argumentation was also adopted in two other recent national judgements by the German Federal Constitutional Court and the French Conseil d'Etat, where national courts were also called to determine states' obligations in the context of climate change.²¹³

Lastly, only the conclusion that there is a legal base to apply the ECHR to global environmental phenomena, and more specifically to cases of the plastic cycle, guarantees that the rights enshrined in the convention are practical and effective and not illusory, as the Court has repeatedly emphasised should be the case when applying the Convention mechanism.²¹⁴

All in all, following these doctrines and reasonings as well as the Court's own jurisprudence and recent jurisprudence from high national courts, it is possible to conclude that there is room for the ECtHR to

²⁰⁷ See: *López Ostra v. Spain*; *Giacomelli v. Italy*, App. No. 59909/00, (ECtHR, 02 November 2006); *Cordella and Others v. Italy*.

²⁰⁸ See: *Brânduse v. Romania*, App. No. 6586/03, (ECtHR, 07 July 2009); *Di Sarno and Others v. Italy*, App. No. 30765/08, (ECtHR, 10 January 2012).

²⁰⁹ See: *Dzemyuk v. Ukraine*, App. No. 42488/02, (ECtHR, 04 September 2014).

²¹⁰ *Urgenda v The Netherlands* (2019), Supreme Court of the Netherlands, ECLI:NL:HR:2019; 2007.

²¹¹ *Urgenda v The Netherlands* (2019), Supreme Court of The Netherlands, ECLI:NL:HR:2019:2007, paras 5.2.1-5.5.3.

²¹² *ibid*, paragra 5.2.1-5.5.3.

²¹³ *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, (29 April 2021); *Consail d' Etat*, Judgement of 19 November 2020, no.427301.

²¹⁴ *Sabri Günes v Turkey [GC]*, App. No. 27396/06, (ECtHR, 29 June 2012), para 56.

apply Articles 2 - right to life, 8 - right to private and family life and 14 - prohibition of discrimination, to the context of plastic cycle litigation, this way triggering the protection that those rights entail. Hence, these articles should be interpreted to entail the positive obligation of controlling the production of plastic, its circulation, usage, and the way its waste is disposed of, as well as promote the overall mitigation of the negative effects of the whole plastic cycle.

3. Concluding remarks

This chapter concludes that the absence of the recognition of an autonomous human right to a healthy environment should not justify the application of a human rights framework to environmental cases, not even in cases of a global environmental phenomenon, such as the plastic cycle. Instead, there is jurisprudence and literature that has established that already recognised human rights can be applied to environmental cases through the greening of those rights. Therefore, it is possible to argue that plastic cycle litigation has a legal basis for its action even in regions where an autonomous human right to a healthy environment is not yet recognised.

Particularly, the author focuses on the European regional system, the only regional human rights system which has not yet recognised an autonomous human right to a healthy environment. Following the case-law of the ECtHR, this chapter argues that through the greening of already recognised human rights such as Article 2 - right to life, Article 8 - right to private and family life and Article 14 - prohibition of discrimination, one can apply the human rights law framework of this regional system to global environmental phenomena, such as plastic cycle litigation.

Specifically, the author argues that the combination of the application of two well-established doctrines of interpreting the convention as a living instrument and European consensus is at the core of this conclusion. Regarding the doctrine of the European consensus, this doctrine can be applied to determine the existence of a consensus in the recognition of the right to a healthy environment, as the vast majority of the Council of Europe Member States has recognised this right in its national legislation (mostly even constitutional), therefore recognising its importance at the domestic level. Besides, interpreting the convention as a living instrument requires that the Court interprets the ECHR in light of present-day conditions also leads to this conclusion. Given the urgency of the climate crisis and the scientific evidence available of the dangers that the plastic cycle poses to the environment and human health, the application of this principle also demands the applicability of the convention to plastic cycle cases.

Nevertheless, the research question of whether plastic cycle litigation can resort to a human rights framework is not answered solely by the possibility of establishing that these cases fall within the scope

either of an autonomous human right to a healthy environment or other already recognised human rights. In fact, in a similar context to plastic cycle cases, climate change litigation has demonstrated that several questions can be raised concerning the application of a human rights framework to global environmental phenomena, also being raised regarding the plastic cycle. Some of these problems are addressed in the following chapters.

In the next chapter, the author answers the sub research question of how to overcome the issue of transboundary harm caused by the plastic cycle and suggests the application of some international law principles that have already been applied by international and regional courts to answer this question. Additionally, it will also address the question of the causal link between a state's conduct within the cycle and human rights violations, which has also been frequently raised in the context of global environmental phenomena.

IV. Overcoming the issue of the transboundary nature of the plastic cycle and establishing the causal link between states' actions and the harm caused by the plastic cycle

In the previous chapter, the author answered the sub-research question of whether the lack of a recognition of an autonomous human right to a healthy environment is an impediment to the existence of a legal basis for the application of a human rights framework to a global environmental phenomenon, such as plastic litigation. The conclusion was that this absence is not an obstacle since it is possible to achieve similar protection through the greening of already recognised human rights, such as the rights to life, private and family life and prohibition of discrimination. This is particularly relevant in the European regional context, considering that this is the only human rights system which has not yet recognised the existence of a right to a healthy environment as an autonomous human right.

Nevertheless, despite these conclusions which support the possibility of the application of a human rights framework to global environmental phenomena, legal scholars²¹⁵ and high courts²¹⁶ have identified several issues with the application of this framework in that context. This chapter seeks to answer the sub-research question of whether the jurisprudence of international and regional human rights courts can be used to overcome one of these major issues: the transboundary nature of the harm caused by the plastic cycle. First, the author tackles the concept of transboundary harm and explains how the plastic cycle being a global environmental phenomenon leads to significant transboundary harm. Then, it analyses the issue of the transboundary nature of the plastic cycle, resorting to the jurisprudence of international courts, the ICJ, and regional courts to determine whether there are principles that have been applied by these courts which lead to an obligation to prevent this kind of harm and what the threshold for this harm should be.

Moreover, this chapter also analyses the issue of the causal link. As a global environmental phenomenon, the plastic cycle involves a long and complex causal chain to link between: the harm suffered by the applicants in the form of human rights violations; the environmental effects of the plastic cycle; and states' action, the ineffective way with which they are dealing with this problem, meaning excessive plastic production and usage; and how plastic waste is treated.²¹⁷ To overcome this difficult

²¹⁵ See: K. Yoshida and J. Setzer, *The Trends and Challenges of Climate Change Litigation and Human Rights*, European Human Rights Law Review 140, 2020.

²¹⁶ See: *Urgenda v The Netherlands* (2019), Supreme Court of the Netherlands, ECLI:NL:HR:2019;2007; *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, (29 April 2021); *Consail d'Etat*, Judgement of 19 November 2020, no.427301.

²¹⁷ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

issue, the author demonstrates how the jurisprudence of these international and regional human rights courts can be used to establish a causal link in these cases, specifically in the context of the plastic cycle.

1. What is transboundary harm?

Transboundary harm has been described as “an environmental damage which is caused by or originates in one state and affects the territory of another”.²¹⁸ This transboundary nature of environmental harm is “one of the fundamental features which distinguish environmental harm from other harms”.²¹⁹

Several international instruments recognise the principle of prevention of environmental harm namely, the Stockholm Declaration on Principle 21 and the Rio Declaration on Principle 2 both of which recognise this principle. The latter determines that this principle is not confined to states’ territory, on the contrary, it establishes that states have the “responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”.²²⁰

Additionally, there are other non-binding instruments which determine states' obligation to prevent transboundary harm, such as the Draft Articles on Prevention of Transboundary Harm from Hazardous Activities²²¹ to which the ICJ has already referred to²²². These articles provide a better understanding of how an activity can cause transboundary harm, providing for the recognised international principles and rules which apply to this context.

The International Law Commission further elaborates on the requirements that these activities must comply with to be within the scope of these articles, namely: the activities in question must “not prohibited by international law”²²³; “the activities to which preventive measures are applicable “are planned or are carried out” in the territory or otherwise under the jurisdiction or control of a State”²²⁴;

²¹⁸ Tarun Jain, Transboundary Harm: An Environmental Principle in International Context, The ICFAI University Journal of Environmental Law, Vol. VII, No. 4, 2008.

²¹⁹ *ibid.*

²²⁰ Stockholm Declaration on the Human Environment, Report of the United Nations Conference on the Human Environment, UN Doc. A/CONF. 48/14, at 2 and Corr. 1 (1972).

²²¹ Adopted by the International Law Commission at its fifty-third session, in 2001, and submitted to the General Assembly as a part of the Commission’s report covering the work of that session (A/56/10). The report, which also contains commentaries on the draft articles, appears in the *Yearbook of the International Law Commission, 2001*, vol. II, Part Two.

²²² See: *Pulp Mills on the River Uruguay, Argentina v. Uruguay*, Judgment on the merits, ICGJ 425 (ICJ 2010) 20th April 2010, United Nations [UN], International Court of Justice [ICJ], paras 167 and 215.

²²³ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Article. 1.

²²⁴ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 7 of Article 1.

“the activities covered in these articles must involve a “risk of causing significant transboundary harm”²²⁵ and “the significant transboundary harm must have been caused by the “physical consequences” of such activities”²²⁶, meaning a “physical link must connect the activity with its transboundary effects”²²⁷.

The commentaries on the Articles further develop the concept of “significant harm” as a threshold for transboundary harm to be relevant, thus determining that not all forms of interference fall within this scope. Rather, the harm caused by an activity needs to attain a certain threshold, establishing that it includes “any hazardous and by inference any ultrahazardous activity”²²⁸ which involves a risk of significant transboundary harm is covered”²²⁹, hence requiring a case-by-case analyses. Other international instruments also resort to “significant”, “serious” or “substantial” has the threshold of harm²³⁰.

The International Law Commission recognises the “ambiguity”²³¹ of the term “significant” further emphasising the need to interpret it on a case-by-case basis. Despite acknowledging this ambiguity, the Commission attempts to develop on the concept determining in a somewhat vague manner: “is to be understood that “significant” is something more than “detectable” but need not be at the level of “serious” or “substantial (...) must lead to a real detrimental effect on matters such as for example human health, industry, property, environment or agriculture in other States. Such detrimental effects must be susceptible to being measured by factual and objective standards.””²³² The Commission

²²⁵ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 13 of Article 1.

²²⁶ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 16 of Article 1.

²²⁷ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 17 of Article 1.

²²⁸ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc - Definition of ultrahazardous activity in the Comment 2 of Article 1: “An ultrahazardous activity is perceived to be an activity with a danger that is rarely expected to materialize but might assume, on that rare occasion, grave (more than significant, serious or substantial) proportions”.

²²⁹ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, art. 1.

²³⁰ See, for example, article 4, paragraph 2, of the Convention on the Regulation of Antarctic Mineral Resource Activities; articles 2, paragraphs 1 and 2, of the Convention on Environmental Impact Assessment in a Transboundary Context; section I, subparagraph (b), of the Code of Conduct on Accidental Pollution of Transboundary Inland Waters (footnote 871 above); and article 7 of the Convention on the Law of the Non-navigational Uses of International Watercourses.

²³¹ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 4 of Article 2.

²³² *ibid.*

determines that every harm that does not attain this threshold must be considered as “tolerable”²³³, hence not constituting a violation of states’ obligations to prevent transboundary harm.

Lastly, the International Law Commission denotes that for a State to be responsible for transboundary harm the risk of harm caused by an activity needs to be foreseeable. Nevertheless, the Commission also emphasised that states have a “the obligation extends to taking appropriate measures to identify activities which involve such a risk, and this obligation is of a continuing character”.²³⁴

2. The transboundary nature of the plastic cycle

As demonstrated in the first chapter, all stages of the plastic cycle have significant negative environmental impacts which interfere with the enjoyment of several human rights as throughout the cycle significant amounts of emissions and chemicals are released into the environment.²³⁵ These environmental damages are not confined to the particular state that is responsible for them. Instead, they affect the environment as a whole, thus having implications beyond their borders. Therefore, environmental damages caused by the plastic cycle have a transboundary nature affecting more than the state that is responsible at a national level for its plastic cycle. For that harm to be relevant, applicants ought to prove that the harm caused by the plastic cycle was of a “significant” nature, potentially resorting to the referred draft articles to develop how, in that particular case, the harm in question attained this threshold.²³⁶

The transboundary nature of plastic cycle effects will most likely be invoked by states to argue against courts’ jurisdiction to tackle this global issue. This way, states will most likely invoke the cross-border nature of this issue to prevent accountability for their contribution to this global problem as it is scientifically not possible to trace the precise contribution of each of the member states to this problem that all states are responsible for.²³⁷

²³³ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 5 of Article 2.

²³⁴ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, comment 5 of Article 3.

²³⁵ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

²³⁶ Articles on prevention of transboundary harm from hazardous activities, prepared by the International Law Commission and annexed to United Nations General Assembly Resolution 62/68 of December 6, 2007, UN Doc. A/RES/62/68, Comment 4 of Article 2.

²³⁷ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

Furthermore, in this context, states will likely argue that an individual state's policies concerning the plastic cycle must be considered insignificant to a problem that is caused by global action with arguments such as the ones that have already been raised when it comes to climate change litigation. Namely, the argument already raised that a particular state's action is irrelevant "especially if other states fail to reduce their emissions".²³⁸

Even if none of the courts in analyses have yet had the opportunity to address the transboundary nature of a global environmental phenomenon, such as the plastic cycle, there is jurisprudence on foreseeable harm and transboundary harm. Those judgements refer to international principles and provide reasonings that can analogically be applied to future plastic cycle litigation.

3. Transboundary harm in the jurisprudence of international and regional human rights systems and how to apply it to cases of plastic cycle litigation.

This subsection will analyse the case-law of the ICJ, IACtHR and ECtHR to determine whether there is legal ground to overcome the issue of the transboundary nature of this global environmental phenomenon and establish the jurisdiction of these Courts in the cases of plastic cycle litigation.

3.1 International Court of Justice

The ICJ has had the opportunity to judge several environmental cases where it has repeatedly determined that States have the obligation not to allow their territory to be used for acts contrary to the rights of other States.²³⁹ In several of these cases, the Court has built jurisprudence on the concept of transboundary harm acknowledging in one of its judgements the existence of "customary international law not to cause significant transboundary harm".²⁴⁰ Alike the ICL and Inter-American Court, the ICJ determined that for transboundary harm to be relevant it must attain a certain threshold of harm, which the Court determined to be "significant damage".²⁴¹ To determine whether certain damage meets the

²³⁸ Human Rights Centre of Ghent University, third-party intervention to the Verein KlimaSeniorinnen Schweiz and Others v. Switzerland App. no. 53600/20, 1.2.2.

²³⁹ Cf. *Corfu Channel Case*, The United Kingdom v. Albania, Judgment, Merits, ICJ GL No1, [1949] ICJ Rep 4, ICGJ 199 (ICJ 1949), 9th April 1949; United Nations [UN], International Court of Justice [ICJ], p. 22; See: *Trail Smelter Case* in which that Court indicated that "under the principles of international law, no State has the right to use or permit the use of its territory in such a manner as to cause injury in or to the territory of another State.", Cf. Court of Arbitration, *Trail Smelter Case (United States v. Canada)*. Decision of April 16, 1938, and March 11, 1941, p. 1965.

²⁴⁰ *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*, Costa Rica v Nicaragua, Merits, [2015] ICJ Rep 665, ICGJ 519 (ICJ 2015), 16th December 2015, United Nations [UN], International Court of Justice [ICJ], para 174.

²⁴¹ Cf.: *Pulp Mills Case*, para 101, and ICJ, *Certain activities carried out by Nicaragua and Construction of a road in Costa Rica along the San Juan River Case*, para 153.

threshold, the Court also emphasises the importance of case-by-case analysis. It established that the “nature and magnitude of the project and the context in which it was to be carried out”²⁴² are relevant and need to be analysed through the scientific evidence available regarding the invoked harm. Additionally, the ICJ accepts that the damage invoked does not need to be determined as an absolute amount, rather it accepts approximations of amounts for damages. Furthermore, it also notes that a causal link must be established between the significant harm and the activity in question.²⁴³

In the Pulp Mills case, the Court acknowledge the customary law nature of the principle of prevention originating from the due diligence principle, which requires that “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 area under its jurisdiction, causing significant damage to the environment of another State”.²⁴⁴ Furthermore, it has established that this obligation “is now part of the corpus of international law relating to the environment”.²⁴⁵ Moreover, the Court confers a broad the ambit of application to the principle of prevention when stating that “although the Court’s statement in the Pulp Mills case refers to industrial activities, the underlying principle applies generally to proposed activities which may have a significant adverse impact in a transboundary context”.²⁴⁶

Furthermore, in a clear way, the Court states that “it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context”.²⁴⁷ Therefore, before undertaking any new activity which poses significant environmental risks, the obligation to exercise due diligence to prevent environmental harm requires states to conduct an environmental risk assessment of that activity.²⁴⁸ Additionally, the Court notes that such obligation extends in time, not exhausting before the creation of a certain activity but being of a continuous nature throughout the whole development of the project.²⁴⁹ In case the environmental impact assessment identifies significant environmental risks, three obligations arise: “notification and consult in good faith with the potentially affected state, where it is necessary to determine the appropriate measures to prevent and mitigate the risk”.²⁵⁰

²⁴² *ibid*, para 155.

²⁴³ *ibid*, para 119.

²⁴⁴ *Pulp Mills Case*, para 101.

²⁴⁵ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ GL No 95, [1996] ICJ Rep 226, ICGJ 205 (ICJ 1996), 8th July 1996, United Nations [UN], International Court of Justice [ICJ], para 29.

²⁴⁶ *ibid*, para 104.

²⁴⁷ *Pulp Mills Case*, para 204.

²⁴⁸ *Certain activities carried out by Nicaragua in the border area (Costa Rica v. Nicaragua)* and *Construction of a road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*. Judgment of December 16, 2015, para 104.

²⁴⁹ *Pulp Mills Case*, para 205.

²⁵⁰ *Certain Activities Carried out by Nicaragua in the Border Area and Construction of a Road in Costa Rica Along the San Juan River Case*, para 105

Therefore, applying the said jurisprudence to the plastic cycle, it follows that states ought to act in accordance with the principle of prevention of significant transboundary harm in all stages of the cycle to control and mitigate its negative effects, including conducting environmental impact assessments and continuous monitoring the several activities throughout the cycle. Hence, from the extraction of raw materials to the disposal of plastic, states ought to prevent significant transboundary environmental harm.

Regarding the burden of proof required to establish the causal link between the damage suffered and states' conduct, the Court states that "in accordance with the well-established principle of *onus probandi incumbit actori*, it is the duty of the party which asserts certain facts to establish the existence of such facts"²⁵¹. This way, in the plastic cycle context, the State that invokes the damages caused by the cycle bears the burden of proof. Considering the evidence that might be used to do so, the Court has systematically resorted to scientific expert evidence presented by the parties.²⁵²

All in all, from the Court's case law, it is possible to conclude the fact that the negative impacts of the plastic cycle have a transboundary effect, does not exempt states from their obligations to prevent significant harm caused by this cycle. On the contrary, States are bound by international law to act with due diligence to prevent such harm.²⁵³ Moreover, "the Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage".²⁵⁴ Hence, states' obligations to prevent transboundary environmental harm are especially important in cases such as this one, where there is a real risk of the damage caused to the environment being irreversible.

²⁵¹ *Maritime Delimitation in the Black Sea, Romania v. Ukraine*, Judgment, ICJ GL No 132, [2009] ICJ Rep 61, ICGJ 6 (ICJ 2009), 3rd February 2009, United Nations [UN], International Court of Justice [ICJ], para 68; *Sovereignty over Pedra Branca/Pulau Batu Puteh, Middle Rocks and South Ledge, Malaysia v. Singapore*, Judgement, Merits, ICJ GL nO 130, icgj 9 (ICJ 2008), 23rd May 2008, Reports 2008, United Nations [UN], International Court of Justice [ICJ], p. 31, para 45; *Application of the Convention on the Prevention and Punishment of the Crime of Genocide, Bosnia and Herzegovina v. Serbia and Montenegro*, Judgement, Merits, ICJ GL No 91, ICGJ 70 (ICJ 2007), 26th February 2007, United Nations [UN], International Court of Justice [ICJ], para 204; *Military and Paramilitary Activities in and against Nicaragua, Nicaragua v. United States of America*, Judgement on Jurisdiction and Admissibility, ICJ GL No 70, [1984] ICJ Report 392, (ICGJ 1984), 26th November 1984, United Nations [UN], International Court of Justice [ICJ], para. 101.

²⁵² *Pulp Mills Case*, para 167.

²⁵³ *Certain Activities Carried out by Nicaragua in the Border Area and Construction of a Road in Costa Rica Along the San Juan River Case*, para 104.

²⁵⁴ *Gabcikovo-Nagymaros Project, Hungary v Slovakia*, Judgement on the merits, ICJ GL No 92 [1997] ICL Rep 88, (1998) 37 ILM 162, ICGJ 55 (icj 1997), 25th September 1997, International Court of Justice [ICJ], para 140.

3.2 Inter-American Court of Human Rights

Article 1 of the American Convention on Human Rights establishes states' obligation to respect the rights enshrined in the convention within their jurisdiction. The IACtHR has interpreted the concept of jurisdiction in a broad manner, clarifying in the *Advisory Opinion OC-18/03* that the scope of states' jurisdiction is not limited to its territory, rather "the word "jurisdiction" in Article 1(1) of the American Convention signifies that the State obligation to respect and to ensure human rights applies to every person who is within the State's territory or who is in any way subject to its authority, responsibility or control".²⁵⁵ Hence, "is not limited to the concept of national territory but covers a broader concept that includes certain ways of exercising jurisdiction beyond the territory of the State in question".²⁵⁶

Additionally, the Court notes that to assess if a state has jurisdiction over a certain extraterritorial conduct, a case-by-case analysis of the particular circumstances must be made to determine whether the state had effective control over that conduct. Besides, the Court also considers that, when such control is established, the interpretation of the Court's jurisdiction which encompasses cases of significant transboundary harm, is required by the principle of equality and non-discrimination. The application of these principles demands the jurisdiction over non-national victims of their significant transboundary harm²⁵⁷ which "constitutes part of general international law"²⁵⁸.

The Court goes on to determine that from the interpretation of jurisdiction to include not only national jurisdiction, but also, in some circumstances, extraterritorial jurisdiction, arises the "obligation to prevent transboundary environmental damage that can affect human rights outside of their territory."²⁵⁹ Thus, "it can be concluded that the obligation to prevent transboundary environmental damage or harm is an obligation recognized by international environmental law, under which States may be held responsible for any significant damage caused to persons outside their borders by activities originating in their territory or under their effective control or authority".²⁶⁰ This way, a causal link must be established between the transboundary harm, an activity which is under the effective control or authority of the state, and the human rights violations it caused.

The Inter-American Court links transboundary harm with the obligation of prevention, acknowledging that "there is consensus in international environmental provisions that the obligation of prevention

²⁵⁵ *Advisory Opinion OC-18/03 Juridical Condition and Rights of the Undocumented Migrants*, (IACtHR, 17 September 2003), Ser. A, No. 18 (2003), para 73.

²⁵⁶ *ibid*, para 74.

²⁵⁷ *ibid*, paras 239 and 240.

²⁵⁸ *ibid*, para 83.

²⁵⁹ *ibid*, para 101.

²⁶⁰ *ibid*, para 103.

requires that the harm or damage attain a certain level”.²⁶¹ Therefore, this Court concludes, in the same line as the International Law Commission and the ICJ, that a threshold of “significant harm”²⁶² must be attained for it to be relevant for the purposes of a violation of rights enshrined in the Convention. It then moves to develop, in a significantly clearer way than other Courts and even the ILC, what must be considered as significant.²⁶³ It determines that “any harm to the environment that may involve a violation of the rights to life and to personal integrity, in accordance with the meaning and scope of those rights as previously defined must be considered significant harm”.²⁶⁴ Additionally, for that harm to be relevant, states need to know or should have known about it.²⁶⁵

All in all, the Court concludes that the application of the principle of prevention determines that states ought to prevent significant transboundary harm or damage to the environment to prevent human rights violations²⁶⁶. The Court then determines that to comply with the principle of prevention, states must keep “with the standard of due diligence, which must be appropriate and proportionate to the level of risk of environmental harm”.²⁶⁷ Additionally, the Court notes that the adequate measures that must be taken to act with due diligence when following the principle of prevention are not static, they vary overtime “for example, in light of new scientific evidence or technological knowledge”.²⁶⁸ Moreover, the Court determines that according to environmental law, the obligation of prevention is an obligation of means and not of results.²⁶⁹

Besides, it also established that this obligation of prevention is independent of the level of development of the state in question equally applying to developed and developing states.²⁷⁰ Nevertheless, when determining the impossibility of enumerating all the appropriate measures a state needs to follow to comply with this obligation, the Court recognises that the measures in question will depend not only on the particular circumstances of the case but also on the “conditions within each State Party”.²⁷¹ However, it establishes that “certain minimum measures can be defined that States must take within

²⁶¹ *ibid*, para 137.

²⁶² *ibid*, para 140.

²⁶³ *ibid*.

²⁶⁴ *ibid*, para 140.

²⁶⁵ Cf. in the context of the right to life: *Case of the Pueblo Bello Massacre v Colombia*, del Carmen Álvarez Blanco ors v Colombia, Interpretation of the Judgement of merits, reparations and costs, IACHT Series C no 159, IHRL 1543 (IACHR 2006), 25th November 2006, Inter-American Court of Human Rights [IACtHR], paras 123 and 124; and *Case of the Sawhoyamaya Indigenous Community v Paraguay*, Sawhoyamaya Indigenous Community of the Enxet-Lengua people v Paraguay, Merits, Reparations and costs, IACHR Series C No 146, IHRL 1530 (IACHR 2006), 29th March 2006, Inter-American Court of Human Rights [IACtHR], 155.

²⁶⁶ *Advisory Opinion OC-18/03 Juridical Condition and Rights of the Undocumented Migrants*, (IACtHR, 17 September 2003), Ser. A, No. 18 (2003), paras 133 and 140.

²⁶⁷ *ibid*, para 141.

²⁶⁸ *ibid*.

²⁶⁹ *ibid*, para 142.

²⁷⁰ *ibid*, para 141.

²⁷¹ *ibid*, para 142.

their general obligation to take appropriate measures to prevent human rights violations as a result of damage to the environment”.²⁷²

Applying the reasoning followed in the Court’s jurisprudence to the plastic cycle, it is possible to conclude that its transboundary nature is to be regarded as significant as it threatens the enjoyment of several human rights, including the right to life and personal integrity which the authorities knew or ought to have known about. Accordingly, the determination of the harm caused by the plastic cycle as a form of foreseen and significant transboundary harm requires the application of the principle of precaution, which obliges states to act with due diligence to prevent such harm. The precise measures to be taken in order to comply with this obligation vary according to the specific plastic cycle case and the resources of the respondent states in question. Yet, a minimum of appropriate measures must be endorsed by those states. In the case of the plastic cycle, it can be argued that could be the existence of appropriate legislation to restrict and control plastic production and the chemicals added throughout the whole cycle, as well as regulate the forms of its disposal. Moreover, some mitigation measures to the negative impacts of the plastic cycle need to be endorsed by states, even if the adequacy of such measures might posteriorly be assessed on a case-by-case analysis.

3.3 European Court of Human Rights

The ECtHR has not yet had the opportunity to judge a case of environmental transboundary harm, however, it is expected to deal with this question in the two climate change cases now lodged before the Court²⁷³. Nonetheless, the jurisprudence of the Court demonstrates that there are cases where the Court has considered the existence of extraterritorial jurisdiction. Thus, Article 1 cannot be interpreted as prohibiting States’ violations of the convention in its territory but allowing them in the territory of another State.

However, it is important to note that the Court interprets this concept in a considerably restrictive way. There are several cumulative requirements that need to be fulfilled for a state to be considered to have extraterritorial jurisdiction: exceptional circumstances that require extraterritorial jurisdiction under Article 1 of the Convention²⁷⁴; the acts in question occur inside or outside national boundaries²⁷⁵; the

²⁷² *ibid.*

²⁷³ See ECtHR applications regarding climate change litigation: *Duarte Agostinho and Others v. Portugal and 32 Other States*, and *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*.

²⁷⁴ *Al-Skeini v. United Kingdom*, App. No. 6289/73, (ECtHR, 09 October 1979), paras 134-36.

²⁷⁵ *Soering v. United Kingdom*, App. No. 14038/88, (ECtHR, 07 July 1989), para 88; and *Vilvarajah v. United Kingdom*, App. Nos. 13163/87, 13164/87, 13165/87, 13447/87, and 13448/87, (ECtHR, 30 October 1991), paras 107-27.

act causes negative effects outside the territory of the state responsible for it²⁷⁶ and the state exercise effective control or authority²⁷⁷ over a person²⁷⁸ or territory²⁷⁹.

Applying this doctrine to the plastic cycle is definitely challenging, considering that the Court has never done so in cases of environmental transboundary harm. One can invoke that the first requirement of being an exceptional circumstance that requires extraterritorial jurisdiction is fulfilled since the plastic cycle is a specific global environmental phenomenon where states' actions in a country have negative impacts on the environment as a whole system, hence also affecting other states. This way, it can be concluded that the particular circumstances of the plastic cycle demand the application of Article 1 of the Convention.

Particularly, one situation where the Court has recognised to be an exceptional circumstance is when the State exercises public powers in the territory of another state.²⁸⁰ This is especially relevant for the last stage of the cycle, the disposal of plastic, as one can invoke this reasoning to argue States' jurisdiction over cases of forum shopping of plastic waste. Meaning, the Court has grounds to find jurisdiction in cases where states with stricter disposal legislations resort to other states with fewer restrictions to dispose of their waste in ways which lead to human rights violations. By establishing states' jurisdiction in these cases, it is possible to hold states accountable for all plastic disposal, that is not only in their territory but also abroad and with that combating forum shopping of waste disposal, which is an enormous problem that causes plastic pollution, especially in less developed countries, which have less restrictive legislation.

The second and third requirements are more easily fulfilled, the extraterritorial jurisdiction of a state in the context of plastic pollution will apply to actions within the cycle that take place either within a state territory or outside its territory and which cause negative impacts to other states. Once again, the negative impacts of the plastic cycle have been demonstrated in the previous chapter as well as the transboundary nature of those effects.²⁸¹

Lastly, the Applicants must demonstrate that the activity of the plastic cycle in question was within the state's effective control²⁸². Hence, the applicant needs to establish the link between the harm caused by the activity and an action that can be attributable to the state where a "state is effectively linked to a

²⁷⁶ *Loizidou v. Turkey*, App. No. 15318/89, (ECtHR, 18 December 1996), paras 61-62.

²⁷⁷ *Issa v. Turkey*, App. No. 31821/96, (ECtHR, 16 November 2004), paras 69-71.

²⁷⁸ *Öcalan v. Turkey*, App. No. 46221/99, (ECtHR, 12 May 2005), para 91.

²⁷⁹ *Loizidou v Turkey*, App. No. 15318/89, (ECHR preliminary objections Mar. 23, 1995), para 61.

²⁸⁰ *ibid*, para 61.

²⁸¹ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

²⁸² See: *Loizidou v. Turkey*, App. No.15318/89.

situation necessitating diligence, it shall have a legal obligation to be proactive and protective, that is to demonstrate due diligence”.²⁸³ As it will be demonstrated shortly, the plastic cycle can be considered as one of those cases, where states have positive obligations to prevent foreseeable harm caused by the cycle and must act with due diligence when doing so.

Considering the extremely restrictive way in which the Court has interpreted the application of Article 1 to cases of extraterritorial jurisdiction, many authors point out that this concept should be interpreted in a broader way.²⁸⁴ Particularly, they focus on environmental law and the application of human rights law to a transboundary phenomenon like climate change, emphasising this need for a more flexible interpretation of jurisdiction in these cases. Such interpretation would also contribute to guaranteeing that the rights enshrined in the convention are practical and effective and not illusory, as the Court has repeatedly emphasised should be the case when applying the Convention mechanism.²⁸⁵ Besides, ideas for the expansion of states’ jurisdiction are put forward by some scholars, for instance, some defend that “International developments, such as the Maastricht Principles on Extraterritorial Obligations by the International Commission of Jurists, could provide inspiration for an extension of the current doctrine on extraterritoriality, also keeping in mind the doctrines of cross-fertilization of rights and of the Convention as a living instrument”.²⁸⁶

After establishing the possibility of states’ jurisdiction over the whole plastic cycle within the European regional system, it is necessary to analyse whether a state is responsible for all the actions within the cycle that cause transboundary harm. The Court has established that not all violations of the convention give rise to these positive obligations of prevention of harm, only those where a certain threshold of harm is met and where “the authorities knew or ought to have known”²⁸⁷ about the existence of real and imminent risks posed to human life or health. Thus, the ECtHR has determined that states’ have a duty to prevent foreseeable harm, meaning harm that states know or ought to have known.

Moreover, in *Tatar v Romania*, the Court applied this doctrine in the context of an environmental case and for the first time extensively resorted to international environmental treaties referring to Principle 21 of the Stockholm Declaration and Principle 14 of the Rio Declaration, as well as the Aarhus Convention and the Maastricht Treaty. In this reasoning, the ECtHR explicitly recognised the existence of the precautionary principle which entails the obligation to prevent transboundary harm that the court

²⁸³ Vassilis P. Tzevelekos, *Reconstructing the Effective Control Criterion in Extraterritorial Human Rights Breaches: Direct Attribution of Wrongfulness, Due Diligence, and Concurrent Responsibility*, 36 MICH. J. INT’L L. 129 (2014).

²⁸⁴ *ibid.*

²⁸⁵ *Micallef v. Malta* [GC], App. No. 17056/06, para 45; *Karner v. Austria*, App. No. 40016/98, para25; *Aksu v. Turkey* [GC], App. No. 4149/04, para 51.

²⁸⁶ Katharina Franziska Braig and Stoyan Panov, “The doctrine of positive obligations as a starting point for climate litigation in Strasbourg: The European Court of Human Rights as a *Hilfssheriff* in Combating Climate Change?”, *Journal of Environmental Law and Litigation*, April 2020, p. 292.

²⁸⁷ *Osman v. United Kingdom*, App. No. 23452/94, (ECtHR, 08 December 2009), para 116.

classified as being an obligation of international law.²⁸⁸ Furthermore, the Court also referred to judgements of other Courts' such as judgements of the European Court of Justice, where it considered the precautionary principle as "one of the foundations of the EU policy favouring a high level of environmental protection"²⁸⁹ and the ICJ judgment of the *Gabcikovo-Nagymaros Project* where the ICJ established the obligation to take precautionary measures to protect the environment²⁹⁰.

States knew or ought to know of the existence of a real and immediate risk to the right to life of an identified individual or individuals posed by the activity in question, when they have "reasonable grounds to anticipate that a violation of human rights would occur"²⁹¹. In the case of *Brincat v. Malta*, the Court resorted to the consensus doctrine to determine that the scientific information available to date was enough to establish that Malta knew, or ought to have known, the health risks posed by asbestos²⁹².

Applying this doctrine to the plastic cycle, one can argue that as extensive scientific evidence is available regarding the impacts of the plastic cycle on the environment and human life and health, as demonstrated in the first Chapter, follows that there is a European consensus on it. Therefore, states know or ought to know about the life-threatening risks posed by the plastic cycle and, accordingly, are required to significant harm caused by this cycle. The concrete determination of such measures depends on the specific circumstances of the cases. Special attention should be paid to the severity and length of the impermeant²⁹³ as well as the physical and psychological effects²⁹⁴ caused by the harm of the several stages of this cycle.

Regarding the threshold of harm, for the interference to be relevant, a minimum level of severity must be verified in the concrete case. Hence, as established in the case-law of the Court, this threshold "is relative and depends on all the circumstances of the case, such as the intensity and duration of nuisance, and its physical or mental effects".²⁹⁵ As demonstrated in the first chapter, the damages posed by the plastic cycle can be severe²⁹⁶, hence it is possible to anticipate that in many plastic cycle litigation cases this threshold of harm will be attained.

²⁸⁸ *Tatar v Romania*, para 111.

²⁸⁹ *Tatar v Romania*, para 129.

²⁹⁰ *Gabcikovo-Nagymaros Project*, para. 140.

²⁹¹ Katharina Franziska Braig and Stoyan Panov, "The doctrine of positive obligations as a starting point for climate litigation in Strasbourg: The European Court of Human Rights as a Hilfssheriff in Combating Climate Change?", *Journal of Environmental Law and Litigation*, April 2020, p. 289.

²⁹² *Brincat and Others v. Malta*, Apps. Nos. 60908/11, 62110/11, 62129/11, 62312/11 and 623338/11, (ECtHR, 24 July 2014), para 105.

²⁹³ *Moreno Gómez v. Spain*, App. 4143/02, (ECtHR, 16 November 2004), paras 61-62.

²⁹⁴ *Mileva v. Bulgaria*, Apps. Nos. 43449/02 and 21475/04, (ECtHR, 25 February 2011), para 90.

²⁹⁵ *Dubetska and Others v. Ukraine*, App. No. 30499/03, (ECtHR, 10 February 2011), para 105.

²⁹⁶ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

Besides, the court has also determined that if there is a lack of concrete scientific data to establish that threshold of harm in plastic cycle litigation is attained, based on this jurisprudence, evidence of approximations can prove the establish that the plastic cycle poses a serious and material risk for human health and well-being, as long as they are considered by the Court to be sufficient and convincing²⁹⁷.

After establishing that the Court's jurisprudence supports the conclusion that the transboundary nature of the plastic cycle does not impede determining states' liability for significant transboundary harm, it is time to establish a causal link between a state's conduct within the plastic cycle and the harm it causes. The establishment of this link has also been pointed out as a potential problem that needs to be addressed in cases of environmental transboundary harm such as in the case of the plastic cycle.

From the analyses of the legal scholarship regarding climate change, it is possible to identify a three-step process necessary to establish a causal link between states' conduct and environmental degradation responsible for human rights violations.²⁹⁸ As frequently noted throughout the previous and current chapter, considering the similarities between climate change and the plastic cycle, the author will analogically apply these three steps analyse to the plastic cycle. The three steps that need to verify are: "First, a State interferes with the climate system; second, such interference causes or results in an extreme weather phenomenon (heat wave, hurricane) or slow onset event (ice cap melting, sea-level rise); and third, the extreme or slow onset event affects the protected human right in a serious, significant, and specific manner".²⁹⁹ In plastic cycle cases, the link that needs to be established is states' action, the ineffective way with which they are dealing with this problem, meaning excessive plastic production and usage and the way in which plastic waste is treated; the environmental effects of the plastic cycle; and the harm suffered by the applicants in the form of human rights violations.

The Court recognised in *Cordella* that scientific studies can prove the existence of a causal link between emissions from steel production and the negative consequences on the applicants' health.³⁰⁰ Considering that even though this causal link is long and complex, there is ground to invoke before the Court that has been proven scientifically that the activities within the plastic cycle lead to human rights violations.³⁰¹ Hence, even though this causal link is long and complex, applying this principle established in *Cordella* to the context of plastic cycle litigation, it is possible to conclude that this causal link can be proven through scientific studies.

²⁹⁷ *Tatar v Romania*, para 105.

²⁹⁸ Katharina Franziska Braig and Stoyan Panov, "The doctrine of positive obligations as a starting point for climate litigation in Strasbourg: The European Court of Human Rights as a Hilfssheriff in Combating Climate Change?", *Journal of Environmental Law and Litigation*, April 2020, p.289.

²⁹⁹ *ibid*, pp. 28-29.

³⁰⁰ *Cordella v Italy*, para 106.

³⁰¹ See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

Regarding the first step to establishing the causal link, there is vast scientific evidence available which establishes with a high level of probability a correlation between the plastic cycle stages and environmental degradation which lead to impacts on human life and health.³⁰² The second causal link is harder to prove as it is more difficult to explain. Although scientific information available can determine with a high level of probability that certain activities within the plastic cycle are responsible for those alterations and consequently the human rights violations that they originate, it is extremely difficult, if not impossible to prove that a certain activity in a specific state of the cycle was responsible for a specific environmental event on a precise day and time. Hence, as put forward by some scholars, “the attribution of a specific weather-related event to climate change is scientifically measured in probability”³⁰³ and the same should be applied to the plastic cycle. The court has resorted to this method of relying on probabilities in the context of other circumstances which, as is the case of plastic cycle litigation, could not resort to concrete numbers.³⁰⁴

Additionally, apart from the very progressive explicitly recognition of the precautionary principle in the *Tatar v Romania* judgement³⁰⁵, the Court goes further in this judgement by establishing that even in cases where it is not possible to establish a probabilistic causal link, if there is a serious substantial risk to the health and well-being of the applicants, States have a positive obligations to adopt reasonable and adequate measures capable of protecting the rights of the interested parties to respect for their private life and their home and, more generally, to the enjoyment of a healthy and protected environment.³⁰⁶ Therefore, this case law still leaves the door open for, even if the Court considers that the scientific evidence provided does not sufficiently establishes the existence of a probabilistic causal link between the plastic cycle and the consequent human rights violations, since this cycle poses real and substantial risks to the environment and human health, States still have positive obligations to adopt reasonable and adequate measures to protect their rights to life and private and family life.

Nonetheless, several authors³⁰⁷ have also noted the surprisingly broad scope given by the court to the principle of prevention in this case, which was significantly shrunk in the subsequent

³⁰² See: Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

³⁰³ Katharina Franziska Braig and Stoyan Panov, “The doctrine of positive obligations as a starting point for climate litigation in Strasbourg: The European Court of Human Rights as a *Hilfssheriff* in Combating Climate Change?”, *Journal of Environmental Law and Litigation*, April 2020, p. 288.

³⁰⁴ For instance it did so in cases of extradition where it had to consider the likelihood of an individual being subject to torture or any form of ill treatment if extradited.

³⁰⁵ *Tatar v. Romania*, App. No. 67021/01, (ECtHR, 27 January 2009).

³⁰⁶ *ibid*, para 107.

³⁰⁷ Dinah L. Shelton, “*Tatar c. Roumanie* App. No. 67021/01”, *The American Journal of International Law*, Vol. 104, No. 2 (April 2010), pp. 247- 253, p. 251.

jurisprudence³⁰⁸. If the Court once again adopts this broad interpretation of the precautionary principle, it would be certainly easier to argue that its application to global environmental phenomena, such as plastic cycle litigation, requires states to take preventive measures to mitigate significant harm caused by this cycle.

Besides, the Court has determined that in cases where the State is in a better place to provide for that particular evidence required for the Applicant to meet the burden of proof, the onus of proof should shift to the State.³⁰⁹ The Court has considered factors such as the seriousness of the case³¹⁰, accessibility of the evidence³¹¹, “compelling reasons for different treatment known exclusively to the authorities”³¹², “the coexistence of sufficiently strong, clear, and concordant inferences or similar unrebutted presumptions of fact”³¹³. Therefore, the Court does not necessarily have to consider that the applicant has the burden of proof in plastic cycle litigation cases. Considering, the application of the precautionary principle could justify the shift in the burden of proof since, as states knew or ought to have known of the possibility of the harm, they should be the ones that need to prove the activities they can control do not generate such harm. Nevertheless, one must bear in mind that “there has been criticism that the ECtHR may require an unnecessarily high threshold before transferring the burden of proof from an individual to the State”.³¹⁴

Additionally, as established by the Court’s jurisprudence, this obligation of prevention of significant foreseeable harm applies even if a state individually considered does not have the power to eliminate that harm on its own. On the contrary, the Court has ruled that in these cases, states are still required to mitigate the harm to fulfil their preventive obligations.³¹⁵ Therefore, the fact that one state alone cannot prevent the harm caused by the plastic cycle does not exempt states from complying with their positive obligations of taking precautionary measures to prevent significant harm caused in the multiple stages of this cycle.

³⁰⁸ *ibid.*

³⁰⁹ *Aksoy v. Turkey*, App. No. 21987/93, para 61; *Abdulaziz v. United Kingdom*, App. Nos. 9214/80, 9473/81, and 9474/81, (ECtHR, 28 May 1985), para 78; *Creanga v. Romania*, App. No. 29226/03, (ECtHR 23 February 2012), para 88.

³¹⁰ *Salman v. Turkey*, App. No. 21986793, (ECtHR, 27 June 2000), para 100.

³¹¹ *Varnava and Others v. Turkey*, Apps. Nos. 16064/90, 16065/90, 16066/90, 16068/90, 16069/90, 16070/90, 16071/90, 16072/90 and 16073/90, (ECtHR, 181 September 2009), para 80 and *Tagayeva and Others v. Russia*, Apps. Nos. 26562/07 and others, (ECtHR, 18 August 2017), para 587 and *Lapshin v Azerbaijan*, App. No. 13527/18, (ECtHR, 20 May 2021), para 95.

³¹² *Abdulaziz, Cabales and Balkandali v The United Kingdom*, App. Nos. 9214/80, 9473/81, and 9474/81, (ECtHR, 28 May 1985); para 78.

³¹³ *El-Masri v. Former Yugoslav Republic of Macedonia*, App. No.39630/09, (ECtHR, 13 December 2012), para 151.

³¹⁴ Katharina Franziska Braig and Stoyan Panov, “The doctrine of positive obligations as a starting point for climate litigation in Strasbourg: The European Court of Human Rights as a *Hilfssheriff* in Combating Climate Change?”, *Journal of Environmental Law and Litigation*, April 2020, p. 286.

³¹⁵ *Opuz v Turkey*, App. No. 33401/02, (ECtHR, 09 June 2009); para 136; *E. and Others v. The United Kingdom*, App. No. 33218/96, (ECtHR, 26 November 2002), para 99; *O’Keefe v. Ireland*, App. No. 35810/09, (ECtHR, 31 July 2003), para 149.

Furthermore, the ECtHR has established before that in some circumstances there might be a duty for member states to act jointly to comply with the obligations that derive from the convention.³¹⁶ Considering that the plastic cycle is responsible for negative impacts at a global scale and member states have positive obligations to prevent and mitigate, it is only natural that this falls within the scope of the circumstances which demand jointly action from member states. Thus, the plastic cycle must be viewed as a “cross-border problem [which] requires a cross-border solution”³¹⁷ as without this jointly action there will be no effective protection of human rights. National courts have also rejected this argument that the transboundary nature of the negative effects of climate change should determine the lack of states’ responsibility³¹⁸.

Moreover, the Council of Europe Commissioner for Human Rights notes that “there are precedents for holding states responsible for their emission levels in an international, cross-border context, especially when combined with breaches of international treaties”.³¹⁹ One such example is the European Committee of Social Rights which has concluded that states are required to implement suitable pollution-controlling policies to contribute to efforts toward decreasing global emissions³²⁰. Given the similar characteristics of the plastic cycle and climate change considering that the impacts of both do not circumscribe to the state who is responsible for the harm, instead have implications in other states as well given the global nature of these phenomena, the same reasoning must be followed in future plastic cycle litigation.

All in all, the jurisprudence of the ECtHR supports the idea that human rights violations that arise from plastic cycle consequences, to which all member states heavily contribute, are within their jurisdiction. States cannot continue to permit the dangerous amount of chemicals and emissions that are released into the environment during the plastic cycle to continue at the same rate, knowing that leads to foreseeable, continuable and long-term environmental harm that interferes with the enjoyment of several human rights. Hence, states must mitigate plastic cycle interference with human rights for instance through the establishment of legal and administrative frameworks that considerably restrict plastic production, better regulate the added chemicals in the different stages of the plastic cycle, and more strictly control plastic disposal to protect human rights of people within their jurisdiction as well as others affected by the cross-border nature of their effects.³²¹

³¹⁶ *Gorraiz Lizarraga and Others v. Spain*, App. No. 62543/00, para 38.

³¹⁷ Council of Europe Commissioner for Human Rights’ third-party intervention to *Agostinho and Others v Portugal and 32 Other States* App. no. 39371/20, para 44.

³¹⁸ *Urgenda v The Netherlands* (2019), Supreme Court of The Netherlands, ECL:NL:HR:2019:2007, paras 5.6.1 – 5.8.

³¹⁹ Council of Europe Commissioner for Human Rights’ third-party intervention to *Agostinho and Others v Portugal and 32 Other States* App. no. 39371/20, para 41.

³²⁰ European Committee of Social Rights, *Marangopoulos Foundation for Human Rights (MFHR) v Greece*, decision of 6 December 2006, para 23; as well as *Conscious XV-2* (2001) Italy, Article 11 para 3.

³²¹ Special Rapporteurs on Rights and the Environment and on Toxics and Human Rights’s, third-party intervention to the *Agostinho and Others v Portugal and 32 Other Member States* App. no. 39371/20, para 33; *Inter-American Court of Human Rights’ Advisory Opinion on the Environment and Human Rights*, OC 23717, para 101; Human Rights Committee, General

All in all, the jurisprudence of the said Courts supports the possibility of states' jurisdiction over all the stages of the plastic cycle, namely the jurisdiction over significant transboundary effects of the plastic cycle. Additionally, in the author's view, the analysed jurisprudence also supports the argument the fact that a state alone is not responsible for the negative effects of the plastic cycle as this is a global phenomenon to which all states contribute, cannot be invoked to exempt states for their responsibility. Thus, states' international wrongful acts don't cease by the mere fact that more than one state is responsible for it.³²²

4. Concluding remarks

This chapter answered the sub-research question of whether the jurisprudence of international and regional human rights courts can be used to overcome the issue of the transboundary nature of the significant harm caused by the plastic cycle. The author responds affirmatively, by identifying in the case-law of these three courts the well-established precautionary principle and subsequently applying it to the plastic cycle context.

The transboundary nature of the plastic cycle can be easily explained: being a global environmental phenomenon, its negative effects affect the environment as a whole, hence also having negative impacts on other states. This characteristic of the plastic cycle has been identified as one of the major issues that can prevent international and regional courts from establishing their jurisdiction over these types of cases.

Through the analyses of the jurisprudence of the ICJ, the IACtHR and the ECtHR, the author concluded that there are international law principles and obligations that can be invoked to overcome this important question of jurisdiction. Namely, the precautionary principle has been applied by all the three courts in the context of environmental cases, leading to the conclusion that states must prevent significant transboundary environmental harm through the mitigation of the negative consequences of the plastic cycle. Additionally, these obligations still apply regardless of the possibility of being able to mitigate this phenomenon by themselves, thus also applying in plastic cycle litigation cases.

Comment No. 36 of the Article 6 right to life of the International Covenant on Civil and Political Rights, 30 October 2018, UN Doc. CCPR/C/GC/36, para 63; African Commission on Human and Peoples' Rights, General Comment No. 3 in relation to the right to life, November 2015.

³²² Also acknowledged in the General Assembly, Responsibility of States for international wrongful acts, annex art 47(1), UN Doc A/RES/56/83; *M.S.S v. Belgium and Greece*, App. No. 30696/09, (ECtHR, 21 January 2011), para 338; see also *Bundesverfassungsgerichtshof* (BVerfG), para 149.

Moreover, the present chapter also addressed another difficult question, the causal link between states' activities and human rights obligations that arise in the different stages of the plastic cycle. In this context, one can identify a long and complex causal chain to link: the harm suffered by the applicants in the form of human rights violations; the environmental effects of the plastic cycle; and states' action, the ineffective how they are dealing with this problem, meaning excessive plastic production and usage and the way in which plastic waste is treated. However, even though this causal link is long and complex, it has been proven scientifically³²³ and the jurisprudence of all the three courts in analyses has proven to accept this reasoning to establish causal links.

Nonetheless, overcoming the issue of the transboundary nature of plastic cycle litigation and the establishment of a causal link does not answer all questions raised in the context of global environmental phenomena. There is still the issue of how much states must mitigate this foreseeable significant transboundary harm to comply with their obligations. In the next chapter, the author also suggests some criteria to approach this very difficult question. Namely, it resorts to the application of the polluter pays principle and intergenerational equity principles to develop the reasoning adopted in the present chapter that states have obligations to prevent significant transboundary harm with due diligence. Furthermore, the application of the fair share and proportionality principles will be the criteria to assess whether the required due diligence was complied with.

³²³ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207.

V. Going beyond: applying principles not yet recognised by the ICJ, IACtHR and ECtHR to strengthen the legal bases for states' obligations in the context of the plastic cycle

In the previous chapter, the author addressed two of the questions frequently raised regarding the application of a human rights framework to a global environmental phenomenon, such as the case of plastic cycle litigation: the transboundary nature of the plastic cycle and the causal link between states' action and the harm suffered by plastic cycle victims. To answer these questions, it resorted to principles that have already been recognised by all the three courts in analyses, the ICJ, the IACtHR and the ECtHR, namely the precautionary principle which when applied to the plastic cycle entails the obligation to exercise due diligence to prevent significant foreseeable transboundary harm caused by the plastic cycle even if states alone cannot prevent this harm.

In this chapter, the author first builds on the legal basis established in the previous chapters by applying international environmental principles, not yet recognised by these courts, to strengthen the argument that a human rights framework can be applied to plastic cycle litigation. Namely, the polluter pays principle³²⁴ will be applied to further argue that states must be held accountable for the human rights violations inherent to the plastic cycle. Additionally, the intergenerational equity principle³²⁵ will be invoked to reinforce the argument that states also have obligations to prevent future harm to young present and future generations, which will be disproportionately affected by this global environmental phenomenon.

Second, this chapter also addresses the issue that has been invoked concerning the determination of the human rights obligation to mitigate global environmental phenomena, which is also considered as one of the major issues to the application of the human rights framework to plastic cycle litigation. Thus, it also analyses the question of how much can states be expected to do to be in compliance with their human rights obligations regarding the plastic cycle which is the third sub-research question of the thesis. This question is also answered through the application of one principle that has not yet been

³²⁴ See: Mizan R. Khan, "Polluter-Pays-Principle: The Cardinal Instrument for Addressing Climate Change" (2015) 4 *Laws* 638; and Kettlewell, Ursula, (1992) "The Answer to Global Pollution? A Critical Examination of the Problems and Potential of the Polluter-Pays Principle", *Colorado Journal of Environmental Law & Policy* 3, pp. 429-78.

³²⁵ See: Isabelle Michallet, "Equity and Interests of future generations", in Malgosia Fitzmaurice, M. David, Panos Merkouris (eds), *Research Handbook on International Environmental Law*, (Edward Elgar Publishing, 2010); Hadjiargyroy, (2016), "A Conceptual and Practical Evaluation of Intergenerational Equity in International Environmental Law", *International Community Law Review* 18 248–277, p. 249; Edith Brown Weiss, Intergenerational equity: A legal framework for global environmental change", in Edith Brown Weiss (ed.), *Environmental change and International law*, 1992.

applied by these courts: the fair share principle³²⁶, which is subsequently developed through the proportionality principle³²⁷.

1. The polluter pays principle and intergenerational equity principle

In this section, the author will resort to international law principles, more specifically environmental law principles, that have not yet been recognised as such by international and regional courts, namely by the courts whose jurisprudence has been in analysis (ICJ, IACtHR, ECtHR). In particular, in this subsection, the Author will apply the polluter pays principle and the intergenerational equity principles of international environmental law to plastic cycle cases.

The application of these principles will add to the arguments raised in the previous chapter to support the conclusion that there are legal grounds for the possibility of applying a human rights framework to plastic cycle litigation cases. First, the polluter pays principle will be applied to support the idea that states, as the ones that have the competence to regulate and control plastic production, are polluters, hence they need to be held responsible for the human rights violations inherent to this cycle. Second, the intergenerational equity principle will be used to strengthen the argument made in the previous chapters that the obligations to mitigate the negative consequences of the plastic cycle are also owed to future generations as the ones that will inherit the planet in the condition that we leave it.

1.1. The polluter pays principle:

The polluter pays principle, or simply PPP, was developed “to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment”.³²⁸ The PPP acknowledges that “environmental pollution is a result of non-internalization of environmental costs by polluters, which then becomes a public concern”.³²⁹ Several rationales for this principle have been suggested by scholars, including equity, pedagogical reasonings and legal which will be developed subsequently.³³⁰ The PPP has a stable

³²⁶ See: McBee, Joshua D. (2017), “Distributive Justice in the Paris Climate Agreement: Response to Peters et al.,” *Contemporary Readings in Law and Social Justice* 9(1): 120–131; Gerry Liston, “Enhancing the efficacy of climate change litigation: how to resolve the “fair share question” in the context of international human rights law”, *Cambridge International Law Journal*, Vol. 9 No. 2, pp. 241–263.

³²⁷ See: Trykhlil, K. (2020), “The Principle of Proportionality in the Jurisprudence of the ECtHR”, *EU and Comparative Law Issues and Challenges Series (ECLIC)*, 4, pp. 128–154.

³²⁸ OECD The Polluter-Pays Principle: OECD Analyses and Recommendations. Paris: OECD, 1992, Recommendation 16.

³²⁹ Khan, Mizan R. 2015. “Polluter-Pays-Principle: The Cardinal Instrument for Addressing Climate Change” *Laws* 4, no. 3, pp. 638–653, 642.

³³⁰ *ibid*, 640.

legal base in several international and regional instruments as well as national legislations. Thus, it is applied in several laws and policies for example regarding landfills and packaging of waste. Additionally, the PPP has been considered by some scholars as customary law, particularly in Europe.³³¹

The application of this principle requires the identification of the components involved, namely “who is the *polluter*, the pollution obligation, the *costs* for polluting and the ascription of such cost”.³³² After the identification of these elements, it is then possible to make polluters internalize the costs of the pollution caused by the activities from which they profit according to the environmental damages that they cost.³³³ This way, the application of this principle requires a case-by-case analysis which considers the concrete damage to the environment caused by a specific polluter to determine the fair distribution of its costs, hence encompassing an equity reasoning behind its application.

Additionally, since it provides for economic sanctions to polluters according to the damage created to the environment, it functions as an incentive to decrease the pollution generated through their activities thus also having a pedagogical incentive. Moreover, this reasoning also applies to the consumer as in some cases the goods or services that emerge from those activities are also subject to an economic incentive to reduce their consumption. Therefore, “both these groups are instilled with a sense of responsibility about the pollution load that they generate either through production or consumption of the goods and services”.³³⁴

Traditionally, this principle has been applied by states in the national context, meaning it was enshrined in national legislation as an economic discouragement applied to private actors and individuals as a tool to mitigate several kinds of pollution.³³⁵ Nowadays, “the judicial/legal interpretation of the PPP holds that states and local governments are jointly and severally liable for environmental damage caused by parties, either private or public”.³³⁶ Additionally, the application of this principle to climate change litigation has been developed by scholars who have defended that it can be inferred from Article 3.1 of the UNFCCC.³³⁷

Applying this principle to the plastic cycle, polluters should be accountable for the damages caused to the environment through their activities across the cycle. Considering that in cases before international and regional human rights courts the respondent will necessarily be a state or several states, it is

³³¹ Priscilla Schwartz, (2010), “The Polluter Pays Principle”, in Malgosia Fitzmaurice, M. David, Panos Merkouris (eds), *Research Handbook on International Environmental Law*, (Edward Elgar Publishing), p. 264.

³³² *ibid.* p. 261.

³³³ *ibid.*

³³⁴ Khan, Mizan R, 2015, “Polluter-Pays-Principle: The Cardinal Instrument for Addressing Climate Change” *Laws* 4, no. 3: 638-653, p. 640.

³³⁵ *ibid.*

³³⁶ *ibid.*

³³⁷ *ibid.*, p. 641.

necessary to determine whether states can be considered polluters to apply this principle. Since states are the competent entities to regulate how this cycle should work and have international and regional obligations to do so in a way which prevents its negative effects and therefore its inherent human rights violations, thus they should also be responsible when failing to do so. Therefore, states would be regarded as polluters by the omission of their obligations to prevent significant harm caused by the plastic cycle.

1.2. The intergenerational equity principle:

As it has been amply established by scholars, “future generations are highly present in environmental law, which explicitly mentions and acknowledges their legal standing”³³⁸. This is also highlighted in several legal documents which refer to the future generation³³⁹. Besides, most constitutions mention future generations when acknowledging the existence of a right to a healthy environment or within the concept of sustainable development.³⁴⁰

Like climate change effects, the impacts of the plastic cycle have a dimension beyond geographic space, as it also has a dimension of time and generations.³⁴¹ The principle of intergenerational equity can be invoked to protect the interests of future generations. It implies that there is a relationship (‘inter’) between generations (‘generational’) which requires present generations the correct or just handling (‘equity’) of planetary resources³⁴² to preserve the environment for future generations. Consequently, it concerns the interaction between rights, responsibilities, and equality between generations, present generations, and future generations. Therefore, “summoning future generations opens an unlimited and profound temporal dimension that environmental law must occupy. Otherwise, it risks remaining confined to a static and insufficient approach”.³⁴³

The intergenerational principle applied to the plastic cycle determines that current generations need to secure future generations adequate natural resources and sufficient environmental quality so that they too can have access to a healthy and sustainable environment. Future generations will suffer disproportional burdens when compared to older generations since they are the ones that will inherit a

³³⁸ Isabelle Michallet, “Equity and Interests of future generations”, in Malgosia Fitzmaurice, M. David, Panos Merkouris (eds), *Research Handbook on International Environmental Law*, (Edward Elgar Publishing, 2010), p. 151.

³³⁹ See: Stockholm declaration on the human environment, Principle 1; Rio Declaration Principle 3; United Nations Framework Convention on Climate Change, Article 3.

³⁴⁰ Isabelle Michallet, “Equity and Interests of future generations”, in Malgosia Fitzmaurice, M. David, Panos Merkouris (eds), *Research Handbook on International Environmental Law*, (Edward Elgar Publishing, 2010), pp. 151 e 152.

³⁴¹ Gibbons, (2014), “Climate Change, Children’s Rights and the Pursuit of intergenerational Climate Justice”, *Health & Human Rights Journal*, Vol16, June 2014, p. 20.

³⁴² Hadjiargyroy, (2016), *A Conceptual and Practical Evaluation of Intergenerational Equity in International Environmental Law*, *International Community Law Review* 18 248–277, p. 249.

³⁴³ *ibid*, p. 150.

damaged environment and consequently have access to more limited resources than previous generations. The principle of intergenerational equity places a duty on current generations to act responsibly stewards of the planet and ensure the rights of future generations to meet their development and environmental needs, as well as to place their needs at the core of climate change policies and action³⁴⁴. In the context of the plastic cycle, that would entail, for example, regarding their needs when developing policies and measures aiming to reduce plastic production and added chemicals, as well as better controlling plastic waste disposal.

Even though none of the three courts in analyses has yet expressively applied this principle in their judgements, the ICJ and the IACtHR have clearly implied it in its reasoning, namely when in connection with the sustainable development principle. The ICJ has determined that “[o]wing to new scientific insights and to a growing awareness of the risks for mankind - for present and future generations (...) new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with the protection of the environment is aptly expressed in the concept of sustainable development”.³⁴⁵ Hence, there is ground for the ICJ to take the next step and build from this reasoning to explicitly apply the intergenerational equity principle to plastic cycle litigation to strengthen the argument that states ought to mitigate the negative impacts of this global environmental phenomenon, which leads to human rights violations.

Regarding the IACtHR, in the case of the *Yakye Axa Indigenous Community v. Paraguay*³⁴⁶, the court has stressed the importance of preserving the environment to guarantee the “enjoyment or exercise of their territorial rights [which] is detrimental to values that are very representative for the members of said peoples, who are at risk of losing or suffering irreparable damage to their cultural identity and life and to the cultural heritage to be passed on to future generations”.³⁴⁷ Therefore, by arguing the need of protecting the environment for the cultural heritage of future generations of a particular indigenous group, the IACtHR leaves the door open to the possibility of the explicitly invoking this principle in the future in the context of plastic cycle litigation to strengthen the argument that states have obligations to take preventive measure to mitigate negative consequences of this cycle.

After this judgement, the IACtHR has further implied the intergenerational equity principle in the OC-23/17 Advisory Opinion, going one step further into the development of this reasoning of protecting the

³⁴⁴ Conseil des droits de l'homme, Étude analytique sur la relation entre les changements climatiques et le plein exercice effectif des droits de l'enfant, Rapport du Haut-Commissariat des Nations Unies aux droits de l'homme, 6-23 juin 2017, UN Doc. A/HR/35/13, para 35.

³⁴⁵ Ganckovo-Nagymaros Project Case, para. 140.

³⁴⁶ *Case of Indigenous Community of Yakye Axa v. Paraguay*, IACHR Series C No. 125, IHR 1509 (IACH 2005), 17th June 2005, Inter American Court of Human Rights [IACtHR].

³⁴⁷ *ibid*, para. 203.

environment for future generations.³⁴⁸ The Court did not however go as far as explicitly applying this principle. In the said opinion, the IACtHR referred to the Inter-American Democratic Charter which stipulates that “[t]he exercise of democracy promotes the preservation and good stewardship of the environment. It is essential that the States of the hemisphere implement policies and strategies to protect the environment, including application of various treaties and conventions, to achieve sustainable development for the benefit of future generations”.³⁴⁹ Thus, by referring to sustainable development in the context of protection of the environment for future generations, this Court also opens the opportunity for the expansion of this reasoning through the direct application of the intergenerational equity principle in future cases, for example to global environmental phenomena cases, such as plastic cycle litigation.

Considering that there is no legal literature on the plastic cycle and intergeneration equity yet, it is once again necessary to resort to climate change literature to fill this gap which, as reputedly emphasised throughout this thesis, is possible due to the many similarities between these two global phenomena. Even though in the context of climate change most authors and organizations only connect the principle of intergeneration equity as only concerning future generations’ needs, the author considers that an interpretation of the principle of intergeneration equity in relation to the principle of best interests of the child leads to the conclusion that the first also applies to present-day children as the incoming generations. The exact same can be argued regarding the plastic cycle.

Similarly, to future generations, present-day children will also have their lives affected by other generations’ decisions regarding the plastic cycle, which ultimately will impact the availability of natural resources at their disposal throughout their lifetime as well as the overall condition of the environment they live in. Hence, the principle of intergeneration equity requires that, when current generations with decision-making power combat climate change, they need to take into consideration future generations and children of the present’s needs, as they are the ones that will inherit and grow in a world that is and will be immensely affected by older generations’ measures and policies or lack of them.

In fact, in recent years, international cases raised by children concerning the relationship between human rights violations, more specifically children’s rights, and states’ contribution to environmental degradation have been raised before national and international bodies.³⁵⁰ The relationship between children’s rights and environmental alterations is clear, as highlighted by the United General Assembly,

³⁴⁸ See: *Advisory Opinion Inter-American Court of Human Rights OC-23/17*.

³⁴⁹ Inter-American Democratic Charter, adopted at the first plenary session of the OAS General Assembly on September 11, 2001, during the twenty-eighth period of sessions, Article 15.

³⁵⁰ *Future Generations v Ministry of the Environment and Others*, Supreme Court of Colombia, 5 April 2018; and *Duarte Agostinho and Others v. Portugal and 32 Other States*.

children are disproportionately affected by the impacts of the plastic cycle, being among the most vulnerable to its negative consequences.³⁵¹ This generation is disproportionately impacted by their unique metabolism, physiology, and mental developmental needs which makes them more vulnerable to toxic additives commonly found in plastic items.³⁵² Also, current children will have to endure environmental alterations caused by this cycle for longer than older generations. In addition, as discussed in the previous chapters, the plastic cycle heightens existing social and economic inequalities, intensifies poverty and reverses progress towards improvement in children's well-being.

A child rights-based approach to the plastic cycle should reflect the application of the principle of the best interests of the child in this context. The application of Article 3(1) CRC to the plastic cycle determines that, when addressing this human rights issue, states are obliged to take into primary consideration the best interest of the child. This way, the application of this principle obliges states to take into consideration children's specific risks that arise with this cycle, as well as their particular development needs. Besides, the application of Article 3(2) to the climate change context creates positive obligations for states to develop effective legislative and administrative measures to combat it to guarantee the overall well-being of the child, which includes access to a safe and clean environment.

All in all, as defended in the *Future Generations v Ministry of Environment and Others* case³⁵³, the principle of intergeneration equality urges immediate action to avoid the imposition of a disproportionate burden on children and future generations which arises from the negative consequences of the plastic cycle. Additionally, the principle of the best interest of the child demands that children's interests are taken into consideration by present political authorities with the decision-making power to define the policies and measures to combat the effects of the plastic cycle.

2. The fair share principle and the proportionality principle as criteria to determine states' obligations

Another issue that is now associated with climate change litigation and that will most likely also be raised in plastic cycle litigation is how much can states be held accountable for this global phenomenon. Meaning, the problem of determining how much states must prevent the negative consequences of the cycle to comply with their obligations.

³⁵¹ Human Rights Council, Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous and wastes – the stages of plastics cycle and their impacts on human rights, Marcos Orellana, 2021, A/76/207, para 9.

³⁵² *ibid.*

³⁵³ *Future Generations v Ministry of the Environment and Others*, Supreme Court of Colombia, 5 April 2018, para 14.

The author argues that to answer this question it is necessary to resort mainly to two principles: the fair share principle and the proportionality principle. The fair share principle has not yet been recognised by the courts in analysis. It will be invoked to further develop the argument raised in the previous chapter that the precautionary principle determines that states ought to take preventive measures to mitigate the negative impacts of the plastic cycle with due diligence, due diligence being assessed through the application of the fair share principle. Thus, this principle will provide criteria to determine whether such measures are enough to comply with these obligations, which must be considered on a case-by-case state analysis, having in mind the specific circumstances of the country in question.

Additionally, the author resorts to the proportionality principle to build on the criteria provided by the fair share principle. The proportionality principle, a fundamental principle to adequately balance conflicting factors, in this case, the advantages of the plastic cycle and disadvantages of its effects, is an essential tool to assess the fairness of that balance. Overall, the main argument is that these courts should resort to these principles when determining whether states' specific targets regarding plastic cycle mitigation comply with the obligations of preventing significant harm caused by the plastic cycle and if they do so with due diligence.

2.1. The fair share principle

The fair share principle can be considered a “key component in determining the adequacy of an individual state’s contribution in the context of a collective action problem is whether that contribution represents a fair share of the global effort”.³⁵⁴ Therefore, this principle can be applied to plastic cycle litigation to help determine whether an individual State’s action to mitigate the negative effects of the cycle can be considered enough, as part of the global efforts that each state must take.

The problem behind the fair share principle and the exact amount that each state should reduce is translated into states’ inability to reach an international agreement and consequent establishment of the applicable criteria to determine how to share the burden of mitigation of global environmental phenomena which cause significant transboundary harm.³⁵⁵ Some authors believe that the question of the fair share must be resolved through the determination of a concrete target for climate change litigation, and by analogy plastic pollution litigation, to be fully effective.³⁵⁶

³⁵⁴ Lavanya Rajamani, Louise Jeffery, Niklas Höhne, Frederic Hans, Alyssa Glass, Gaurav Ganti & Andreas Geiges, (2021), National ‘fair shares’ in reducing greenhouse gas emissions within the principled framework of international environmental law, *Climate Policy*, 21:8, 983-1004, p. 984.

³⁵⁵ Gerry Liston, Enhancing the efficacy of climate change litigation: how to resolve the fair share question in the context of international human rights law, *Cambridge International Law Journal*, Vol 9 No. 2, p. 257.

³⁵⁶ Cf: *ibid*, p. 262.

To better analyse the fair share question, it is important to bring to the discussion the guiding principles on shared responsibility.³⁵⁷ This instrument is a non-binding international instrument codified in the International Law Commission's 2001 Articles on the Responsibility of States for Internationally Wrongful Acts, as well as the 2011 Articles on the Responsibility of International Organizations.³⁵⁸ The articles there enshrined "seek to formulate, by way of codification and progressive development, the basic rules of international law concerning the responsibility of States for their internationally wrongful acts".³⁵⁹ As this document makes clear, in cases of shared responsibility of states, meaning cases where multiple states by committing one or more internationally wrongful acts contribute to an indivisible injury, all of those must be separately considered responsible for their contribution to that act.³⁶⁰ Moreover, accordingly, all must take preventive measures to mitigate that harm.³⁶¹

Regarding climate change litigation, many scholars debate whether it is within courts' competence to determine the exact amount that states ought to reduce GHG emissions.³⁶² Once again, due to the similarities between the plastic cycle and climate change, the same question will most likely arise regarding plastic cycle cases. Meaning, whether international and regional human rights courts have the competence to determine that exact amount. Many arguments have been invoked in favour and against and the literature is still quite divided in this aspect in the context of climate change. Some argue that it is not the Courts' competence to determine States' exact fair share since that is a matter of States' international commitments and national policy.³⁶³ For instance, within the European regional human rights system, those legal scholars defend that would be the conclusion that clearly stems from the application of the well-established principle of subsidiarity³⁶⁴. This principle established the ECtHR's

³⁵⁷ International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, November 2001, Supplement No. 10 (A/56/10), chp.IV.E.1

³⁵⁸ Even though this is a non-binding instrument, the ICJ has referred to the principles there established in several judgements and advisory opinions. Namely, in the Corfu Channel case, Military and Paramilitary Activities in and against Nicaragua case, and in the Gabčíkovo-Nagymaros Project case, advisory opinions on Reparation for Injuries, and on the Interpretation of Peace Treaties (Second Phase).

³⁵⁹ International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries*, Year Book of the International Law Commission, 2001, Vol II, Part Two, General Commentary (1).

³⁶⁰ International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries*, Year Book of the International Law Commission, 2001, Vol II, Part Two, Commentary to Article 47(6) – "According to paragraph 1 of article 47, where several States are responsible for the same internationally wrongful act, the responsibility of each State may be invoked in relation to that act. The general rule in international law is that of separate responsibility of a State for its own wrongful acts and paragraph 1 reflects this general rule. Paragraph 1 neither recognizes a general rule of joint and several responsibility, nor does it exclude the possibility that two or more States will be responsible for the same internationally wrongful act. Whether this is so will depend on the circumstances and on the international obligations of each of the States concerned".

³⁶¹ International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts with Commentaries*, Year Book of the International Law Commission, 2001, Vol II, Part Two, Commentary to Article 47(3) – "what is called for in the face of serious breaches is a joint and coordinated effort by all States to counteract the effects of these breaches".

³⁶² See: K. Yoshida and J. Setzer, *The Trends and Challenges of Climate Change Litigation and Human Rights*, European Human Rights Law Review 140, 2020; Margaretha Wewerinke-Singh, "Remedies for Human Rights Violations Caused by Climate Change", *Climate Law* 9, 3 (2019), 224-243; and Olivier van Geel, 'Urgenda and Beyond: The past, present and future of climate change public interest litigation', (2017), Maastricht University Journal of Sustainability Studies 56.

³⁶³ *ibid.*

³⁶⁴ Protocol No. 15 Amending the Convention for the Protection of Human Rights and Fundamental Freedoms (2013), Art.1.

subsidiarity role, meaning the idea that national authorities, which are democratically elected, are in principle and on many occasions better placed than an international court to evaluate local needs and conditions³⁶⁵. Hence, many have applied this line of reasoning to argue that the convention should not apply to climate change cases, invoking that this is a matter of a broad policy which should be in the competence of states to determine how much should states mitigate GHG emissions. Therefore, considering the similarities between the plastic cycle and climate change as global environmental phenomena, it can only be expected that these same arguments are also invoked in future plastic cycle litigation.

On the other side of the spectrum, there are those who believe that climate change cases, such as for example the landmark *Urgenda* case, where the Dutch Court determined a concrete target which The Netherlands ought to meet, constitutes a form of judicial activism which is beyond the courts' competences.³⁶⁶ Judicial activism has been defined as “judges pushing the boundaries of existing law for political purposes”.³⁶⁷ This definition illustrates how judicial activism might be problematic as it interferes with the concept of separation of powers. Hence, many scholars invoke that such decisions hinder democracy, as “[d]emocracy requires that the choice of substantive political values are made by elected representatives rather than by unelected judges. As such, substantive political choices should be left to elected and accountable officials.”³⁶⁸

As mentioned in the introduction, due to time and space constraints, the author will not further develop this problem. Instead, the author starts from the standpoint which is accepted by scholars (that accept the possibility of climate change litigation): courts have the competence to determine whether States' actions regarding climate change are enough to comply with international and regional human rights obligations. It might sound that this standing point entails the same, but it does not. Determining the exact amount of plastic reduction, added chemicals reduction and the ways in which the disposal phase should be conducted is one thing, accessing whether these national policies comply with states' international and regional obligations is another. While the first involves the concrete determination of an exact amount or that the state must attain or a specific activity (regarding the disposal phase) it must conduct; the second functions as the minimum threshold that must be achieved to fulfil states' obligations, analysed on a case-by-case basis. Thus, these must be considered as two different things.

³⁶⁵ *Scordino v. Italy [GC]*, App. No. 36813/97, (ECtHR 29 March 2006), para 140.

³⁶⁶ *Urgenda v The Netherlands* (2019), Supreme Court of The Netherlands, ECL:NL:HR:2019:2007, Summary of the decision.

³⁶⁷ Olivier van Geel, 'Urgenda and Beyond: The past, present and future of climate change public interest litigation', (2017), Maastricht University Journal of Sustainability Studies 56, p. 58.

³⁶⁸ Ran Hirschl, 'Resituating the Judicialization of Politics: Bush v. Gore as a Global Trend', (2002), 15 Canadian Journal of Law and Jurisprudence 191, p. 216.

When choosing the appropriate measures to mitigate the negative effects of the plastic cycle, States ought to choose measures which are reasonable and adequate. For instance, the jurisprudence of the ECtHR explicitly stressed that even though states have the discretion to choose such measures, these must be “reasonable, effective, suitable”.³⁶⁹ Therefore, as mentioned in the first chapter, it is not reasonable to expect nor demand that states implement a zero-plastic waste policy.

Additionally, one must bear in mind that not all states contribute the same to the negative consequences of the plastic cycle since states have different levels of intensity of the activities within the cycle. This is valid considering not only present activities, but past activities as well as states have historically contributed to the negative effects of this cycle on different rates. Hence, the application of the fair share principle requires a state-by-state analyses that considers how much a state contributes and contributed to this phenomenon in order to assess whether that state is complying with its human rights obligations in relation with the plastic cycle. Hence, the determination of what constitutes a state’s fair share needs to reflect that not all states should contribute the same to mitigate the negative consequences of the cycle considering that they contribute to it in different scales, thus being responsible for this phenomenon in different degrees. Moreover, as develop in the next section, consideration must also be paid to the economic development of the states which necessarily influences the measures available to mitigate the negative impacts of the plastic cycle.

Subsequently, when suggesting a legal base to help answer this question, one must also ponder two fundamental issues: the importance of plastic and the consequent dependency of today’s society on this material, as well as the negative impacts of the whole cycle to the environment of human rights. Thus, when considering this issue, one must regard both the advantages offered by plastic, as well the negative effects of the whole cycle. To better analyse these conflicting interests, the next section will bring the proportionality principle to this debate.

2.2. The proportionality principle

Even though the proportionality principle has been extensively used in the jurisprudence of the three courts in analysis (ICJ, IACtHR and ECtHR)³⁷⁰, the author chose to analyse this principle in this chapter as a tool to develop the criteria provided by the fair share principle. Hence, this principle will be applied

³⁶⁹ See regarding Article 2: *Budayeva and Others v Russia*, para 134, *Brincat and Others v Malta*, para101; See concerning Article 8: *Fadeyeva v Russia*, para 96.

³⁷⁰ See: Trykhlil, K. (2020), "The Principle of Proportionality in the Jurisprudence of the ECtHR", *EU and Comparative Law Issues and Challenges Series (ECLIC)*, 4.

in the context of plastic pollution to help provide for the criteria with which these Courts should assess whether states complied with their obligations regarding the plastic cycle.

As it is clear from these case-law, and consensually accepted by legal scholars, for a state's interference with derogable human rights to be possible, it needs to be proportionate.³⁷¹ A state's interference is proportionate if it complies with four requirements: it must be prescribed by law, necessary in a democratic society, pursue a legitimate aim and be proportionate *stricto sensu*.³⁷² Thus, considering that the plastic cycle can lead to human rights violations, this principle should also be applied in the context of the plastic cycle to determine whether states' actions within this cycle are lawful.

The first requirement entails that the state in question has legislation to better control the several stages of the plastic cycle. Hence, the court must determine whether the activities within the plastic cycle which interfere with the enjoyment of human rights comply with this regulation. The second and third requirements have been amply addressed in the first chapter, where the author demonstrated that plastic production must be considered necessary in today's society. In fact, as argued in the said chapter, plastic has extremely useful properties which are important for the manufacturing of products that are fundamental for our safety, health, and sustenance. Hence, it also follows that there are legitimate aims pursued when producing this material. Consequently, one can conclude that the whole cycle, being inherent to plastic production, is also necessary and pursues legitimate aims.

The last requirement, proportionality *stricto sensu* entails that a fair balance is struck between the rights and interferences at stake. As demonstrated before, States ought to take preventive measures to mitigate the plastic cycle, as it is not possible to completely prevent its negative consequences as that would imply an unreasonable zero plastic policy. Additionally, when considering what such balance should look like, in the particular case of the plastic cycle, Courts must assess states' plastic cycle legislation and policies. In doing so, Courts must rely on the opinion of scientists, as well as environmental and sustainability experts, in an interdisciplinary manner, to have the necessary technical knowledge to determine whether states' legislation and policies are within states' fair share. If so, they then need to consider whether states comply or not with those, to determine whether there are any breaches of the states' regional and international obligations.

As the IACtHR has also acknowledged, for "measures to meet this standard, measures that a State must take to converse fragile ecosystems may change over time, for example, in light of new scientific or technological knowledge". Thus, it is also important to bear in mind that, what is considered a

³⁷¹ See: *ibid*, pp. 128–154.

³⁷² *ibid*.

proportionate restriction to plastic production today, with the scientific information and the technology available in 2022, will almost certainly not be the same in just a matter of some years. As we have learned from another global environmental phenomenon such as climate change, as time passes by, it is possible that, if the necessary measures are not adopted, the scientific data available will demonstrate that the situation has deteriorated considerably.³⁷³ Therefore, more restrictive measures may be needed.

Moreover, with scientific progress, the information available about the impacts of the plastic cycle is likely to become more accurate. Hereafter, one must also be alerted to the possibility of it showing a more alarming scenario than anticipated today. Hence, the restrictions previously established might actually not lead to a fair balance to the detriment of the environment and human health. This way, demanding stricter policies and legislation to limit plastic production might be necessary. Likewise, as technology also evolves, it might be possible to substitute plastic for other materials in sectors where previously plastic usage was viewed as indispensable. For example, before plastic straws and cutlery were the norm, whereas now they are the minority.

All the above also applies to other stages of the cycle where states must mitigate the plastic cycle's negative effects, such as restricting the chemicals that can be added during the different stages of the cycle and better regulation and control of plastic disposal.

Additionally, economic questions regarding the costs which states will incur to mitigate the negative effects of the plastic cycle will also arise. It is not clear yet whether restrictions in plastic production and single-use plastic items and the consequent choice of more sustainable materials will necessarily mean more costs for producers and consumers.³⁷⁴ However, regarding the disposal phase, it is well accepted that incineration and landing are cheaper ways to dispose of plastics. Therefore, it can be foreseen that economic arguments will be raised to defend the fact that these disposal techniques should be less restricted as they are the cheapest option, even if (definitely) not the most environmentally friendly one.³⁷⁵

Regarding the importance of economic factors, both the ICJ and the ECtHR have stressed the need to carefully consider economic factors as an argument to justify states' conduct regarding the environment. The ICJ determined the need to "reconcile economic development with protection of the environment

³⁷³ See: IPCC, Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, 2014.

³⁷⁴ See how there are studies with different conclusions on this matter in: Richard Gray, What is the real price of getting rid of plastic packaging? (BBC News, 6th July 2018), < <https://www.bbc.com/worklife/article/20180705-whats-the-real-price-of-getting-rid-of-plastic-packaging> > accessed 21 May 2022.

³⁷⁵ See: Elizabeth Royte, Is burning plastic a good idea? (National Geographic, 12 March 2009) <<https://www.nationalgeographic.com/environment/article/should-we-burn-plastic-waste>> accessed: 21 February 2022.

[which] is aptly expressed in the concept of sustainable development”.³⁷⁶ Unfortunately, the concept of sustainable development that the Court referred to was just briefly mentioned in the ICJ jurisprudence.³⁷⁷ Further development would be extremely relevant given the broad scope of this principle, which can also be illustrated in the interpretation of legal scholars of the said principle.³⁷⁸

According to this Court, when reconciling economic development with the protection of the environment “new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past”³⁷⁹. Therefore, the Court emphasises the need to adequately balance the interests at stake, even in cases, such as the plastic cycle, which do not involve new activities. Additionally, this Court also stresses, as mentioned above, the present-day environmental conditions must be taken into account when accessing that balance.³⁸⁰

Moreover, the ECtHR as also touched on the economic arguments in *Hamer v Belgium*.³⁸¹ In this judgement the Court has determined that “financial imperatives and even certain fundamental rights, such as ownership, should not be afforded priority over environmental protection considerations”.³⁸² Therefore, the ECtHR has compelling case law that can be invoked in the case states argue financial constraints to justify insufficient plastic production restrictions. Meaning, cases where states adopt measures which are not proportionate, for not giving enough weight to environmental protection to detriment of financial imperatives.

3. Concluding remarks

In this chapter, the author goes one step further and suggests the application of principles that have not yet been applied by these Courts to strengthen the arguments raised in the previous chapter and support the conclusion that states have human rights obligations to prevent significant transboundary harm caused by the plastic cycle. These obligations arise from the application of the precautionary principle argued in the previous chapter and are also required by the application of the polluter pays principle and intergenerational equity principle invoked in the present chapter.

³⁷⁶ *Ganckovo-Nagymaros Project Case*, para 140.

³⁷⁷ *Ganckovo-Nagymaros Project Case*, para 140.

³⁷⁸ See: *Ganckovo-Nagymaros Project Case*, *Pulp Mills Case*.

³⁷⁹ *Ganckovo-Nagymaros Project Case*, para 140.

³⁸⁰ *ibid*.

³⁸¹ *Hamer v Belgium*, App. No. 21861/03, (ECtHR, 27 January 2008).

³⁸² *ibid*, para 79.

The application of the polluter pays principle to the plastic cycle determines that polluters should be accountable for the damages caused to the environment through their activities across the cycle, considering that states are the competent entities to regulate how this cycle should work and have international and regional obligations to do so in a way which prevents its negative effects and inherent human rights violations. Therefore, they must also be responsible when failing to do so. Consequently, states would be regarded as polluters by omission of their obligations to prevent significant harm caused by the plastic cycle.

Additionally, the application of the intergenerational equity principle urges for immediate action to avoid the imposition of a disproportionate burden on children and future generations. This principle placing a duty on current generations to act as responsible steward of the planet and ensure the rights of future generations to meet their development and environmental needs, when mitigating the negative consequences of the plastic cycle. For instance, when aiming to reduce plastic production and added chemicals, as well as better controlling plastic waste disposal. Furthermore, this principle should also be extended to present children as a generation that is also disproportionately affected by the plastic cycle. This interpretation is also in line with the principle of best interests of the child.

In conclusion, the combination of these principles leads to the conclusion that states have human rights obligations to mitigate the negative effects of the plastic cycle. Nonetheless, that is still insufficient to allow for plastic cycle litigation, since it does not answer the question of what states must do to be in compliance with these obligations. In other words, how much is enough to guarantee it? Considering that this is an extremely difficult question, which requires a case-by-case assessment, in this case a state-by-state assessment, the author suggested some criteria in which these Courts can be based to assess it. Namely, this chapter focused on the application of the fair share principle, which was later developed through the proportionality principle.

All in all, it led to several conclusions. First, it is not reasonable for Courts to require that the human right obligations that arise with the application of a human rights framework to climate change requires states to have a zero-plastic policy. That would be unrealistic and unproportionable considering that plastic is a very useful material which has several and important benefits for humankind, as explained in the introduction and also emphasised in this chapter. Hence, the measures chosen to tackle this question must be reasonable and adequate.

Moreover, not all states should contribute the same to mitigate the negative consequences of the cycle considering that they contribute to it in different scales, hence being responsible for this phenomenon in different degrees. Therefore, the application of the fair share principle requires that, to determine if a state's mitigation measures are according to their fair share, consideration must be given to the

dimension of the state, how much it contributes for the problem including an assessment of the state's historical contribution when determining whether a state's action concerning the plastic cycle is in compliance with its human rights obligations. Furthermore, that should also be assessed through the application of the proportionality principle and consequent application of its requirements.

However, there is still another question of admissibility which has been frequently raised by legal scholars and the high courts that have dealt with global environmental cases, such as climate change: the question of victim status of individual applicants. The next chapter tackles on this issue in the context of plastic cycle litigation.

VI. Overcoming the victim status questions in plastic cycle litigation when the applicants are individuals

As concluded in the previous chapters, overcoming the jurisdiction problem and establishing the criteria for the determination of the level of due diligence necessary for states to comply with the precautionary principle and inherent mitigation obligations through the fair share principle, is not enough for plastic pollution actions to be admissible before regional human rights courts. Another issue frequently raised when it comes to environmental claims regarding a global environmental phenomenon is the question if the applicants can be considered victims.³⁸³ Meaning, the analysis of whether they fall within the scope of victim status.

This question was already extensively raised in all the cases concerning climate change litigation thus, as highlighted during this chapter, the similarities between climate change and the plastic cycle can only lead to the conclusion that future plastic cycle cases will most definitely have to address this issue as well. In this chapter, the author will answer the sub-research question of how to overcome the issue of victim status that has been frequently raised in the context of environmental cases, and more specifically in cases of climate change.³⁸⁴ This question will be analysed in the context of plastic pollution litigation.

For the purposes of this subsection, the author only focuses on regional bodies, since the international court which has been in analyses in this thesis, the ICJ, only has jurisdiction to judge international disputes between states. Therefore, as from the courts in analyses only in these regional human rights systems individuals can be applicants, this chapter is solely concerned about the problem of the victim status of applicants of plastic cycle litigation in the context of the European and Inter-American regional human rights systems.

³⁸³ See: K. Yoshida and J. Setzer, *The Trends and Challenges of Climate Change Litigation and Human Rights*, European Human Rights Law Review 140, 2020; Margaretha Wewerinke-Singh, "Remedies for Human Rights Violations Caused by Climate Change", *Climate Law* 9, 3 (2019), 224-243; and Olivier van Geel, 'Urgenda and Beyond: The past, present and future of climate change public interest litigation', (2017), Maastricht University Journal of Sustainability Studies 56.

³⁸⁴ *Urgenda v The Netherlands* (2019), Supreme Court of the Netherlands, ECLI:NL:HR:2019;2007; *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, (29 April 2021); and *Consail d'Etat*, Judgement of 19 November 2020, no.427301.

1. Victim status of plastic cycle litigation within the ECtHR

In the context of Article 34 the word “victim” “denotes the person or persons directly or indirectly affected by the alleged violation”.³⁸⁵ Hence, this article is invoked to dismiss applications that constitute forms of *actio popularis*. Meaning, Article 34 of the Convention does not allow complaints in abstract alleging a violation of the Convention nor applications that seek a mere interpretation of the convention.³⁸⁶

Hence, the ECtHR has frequently emphasised that its role is not to interpret the law and apply it in abstract but to apply it to a concrete situation where the applicant’s rights enshrined in the Convention or Additional Protocols were affected. “To sum up some major points: in order to have her/his complaint comprehensively examined by the Court, an applicant must show that the environmental problem at hand affects her/his personal position in a direct way and that therefore she/he is not merely acting on behalf of the common good (victim requirement and associated prohibition of *actio popularis*, plus test on the applicability of the invoked ECHR provision)”³⁸⁷. Additionally, “the environmental deterioration complained of must be “serious” and, in turn, severely affected the applicant’s sphere”³⁸⁸.

However, that does not necessarily mean that there is no margin for the Court to rule that applicants that are affected by a global environmental phenomenon, such as the human rights violations that arise in the several stages of the plastic cycle, cannot be considered as direct victims of this phenomenon. For that it is essential that they demonstrate to be direct victims of the violation, establishing how a certain activity of the plastic cycle has caused them harm, significant harm in line with Article 35(3)(b).

Yet, the Court has determined before that the criterion of being directly affected should not be interpreted in a “rigid, mechanical, and inflexible” way through the proceedings.³⁸⁹ In accordance with this doctrine, and having in mind that, as mentioned above that the Court has established that Article 34 should be interpreted without excessive formalisms and in an evolutive manner, the ECtHR must acknowledge that the harm suffered by plastic cycle litigation applicants undoubtedly translates into interferences with the enjoyment of rights specifically protected by the convention. Otherwise, the ECtHR could make the protection of the rights guaranteed by the Convention practical and effective

³⁸⁵ *Eckle v. Germany* [GC], App. No. 8130/78, para 66; *Vatan v. Russia*, App. No. 47978/99, para 48.

³⁸⁶ *Centre for Legal Resources on behalf of Valentin Câmpeanu v. Romania* [GC], para 101.

³⁸⁷ Riccardo Pavoni, “Environmental Jurisprudence of the European and Inter-American Courts of Human Rights Comparative Insights”, in Ben Boer (ed.), *Environmental Law Dimensions*, April 2015, pag 92.

³⁸⁸ *ibid.*

³⁸⁹ *Micallef v. Malta* [GC], App. No. 17056/06, para 45; *Karner v. Austria*, App. No. 40016/98, para 25; *Aksu v. Turkey* [GC], App. No. 4149/04, para 51.

and not theoretical or illusory, which the Court has also had the opportunity to stress in several of its judgements.³⁹⁰

Additionally, the living instrument doctrine has been previously applied to Article 34 and thus, it can also be invoked in these cases of plastic cycle litigation, helping to strengthen the argument that victims of a global environmental phenomenon can be considered direct victims. In fact, the ECtHR has urged the need to interpret the Convention as a living instrument, applying this doctrine specifically to the victim status enshrined in Article 34 ECHR by interpreting it in an evolutive manner in the light of conditions in contemporary society without excessive formalism.³⁹¹

Bearing in mind that, as highlighted in the first chapter, the plastic crisis has reached unprecedented levels and unfortunately studies suggest that we are nowhere near mitigating it if the current state's conduct does not change, the ECtHR can argue that a less formalistic interpretation of the victim status is necessary when interpreting Article 34 ECHR in the context of plastic cycle cases to prevent human rights violations inherent to it. Such a conclusion is essential to guarantee the effective protection of human rights, for instance, the rights to life, right to private and family life and the prohibition of discrimination which are seriously threatened throughout the several stages of the plastic cycle, as explained in the previous chapters.

Besides, the jurisprudence of the Court does not lead to the conclusion that the mere fact that one harm can affect simultaneously a large number of individuals or even the whole population should prevent them from being considered as direct victims. A different interpretation would implicate that people that are directly affected by the plastic cycle lose the possibility of invoking the violation of their rights for being affected by a global problem capable of causing harm to countless other individuals. Thus, the fact that the plastic cycle directly affects large groups of individuals does not strip the applicants of their status as direct victims. Allowing for a different interpretation would “effectively render states’ contributions to the rights violations associated with climate change unreviewable, diminishing the efficacy of the Convention system and risking the nullification of Convention protections”.³⁹²

This reasoning was also followed in *Urgenda*, where The Supreme Court of The Netherlands considered that the protection granted by Articles 2 and 8 of the Convention is available to “the society or the population as a whole and protect the entire population of a region threatened by environmental

³⁹⁰ *Airey v. Ireland*, App. No. 6289/73, (ECtHR, 09 October 1979), para 26 and *Artico v. Italy*, App. No. 6694/74, (ECtHR, 13 May 1980), para 33.

³⁹¹ ECtHR judgements: *Monnat v Switzerland*, App. No. 73604/01, paras 30-33; *Gorraiz Lizarraga and Others v. Spain*, App. No. 62543/00, (ECtHR, 11 November 2004), para 35; *Stukus and Others v Poland*, App. No. 12534/03, para 35; *Ziętal v Poland*, App. No. 64902/01, (ECtHR, 12 August 2009), paras 54-59.

³⁹² Global Justice Clinic's third-party intervention to the *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* App. no. 53600/20, para 33.

hazard”.³⁹³ Likewise, the German Federal Constitutional Court concluded that “the mere fact that a very large number of people are affected does not exclude persons from being individually affected in their own fundamental rights”³⁹⁴. This was also the reasoning recently followed in France by the *Conseil d’Etat*.³⁹⁵

Concluding, in accordance with all the cited jurisprudence in this section and the doctrine of the flexibility of the victim status that has been recurrently recognised by the ECtHR, as well as having in mind the mentioned national jurisprudence of key national high courts, there are legal grounds for the applicants of future plastic cycle litigation to be considered as victims within the sense of Article 34 of the ECtHR. As argued in the previous chapters, they can be directly affected by states’ lack of action when dealing with the plastic cycle, which can be proven to be responsible for substantial harm to the applicants’ life and physical and mental health, among others.

2. Victim status of plastic pollution litigation within the IACtHR

Unlike the ECHR which has a provision regarding the specific requirements for individual applications (Article 34), the ACHR does not provide for an equivalent provision, not explicitly setting requirements for a victim to lodge an application for individual claims. Instead, Article 44 of the American Convention generally establishes that “*Any person or group of persons, or any nongovernmental entity legally recognized in one or more member states of the Organization, may lodge petitions with the Commission containing denunciations or complaints of violation of this Convention by a State Party*”.³⁹⁶

As enshrined in that Article, another relevant difference between the two regional systems is that in the American system not only individuals can lodge applications, but also non-governmental organisations (NGOs) can bring cases to the IAComHR, which potentially might reach the IACtHR. This feature is especially relevant for future plastic litigation since many environmental NGOs have been linked with environmental cases, for instance in the climate change case of *Urgenda v The Netherlands*, the NGO *Urgenda* was the applicant of the complaint before the State.³⁹⁷ Thus, “obviously, such a broadly recognized locus standi of NGOs may fulfil a pivotal function in all cases raising issues of general

³⁹³ *Urgenda v The Netherlands* (2019), Supreme Court of The Netherlands, ECL:NL:HR:2019:2007, para 5.3.1.

³⁹⁴ *Bundesverfassungsgerichtshof* (BVerfG), 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20, para 110 (29 April 2021).

³⁹⁵ *Consail d’ Etat*, Judgement of 19 November 2020, no.427301, para 3.

³⁹⁶ *Italics* by the author.

³⁹⁷ Riccardo Pavoni, “Environmental Jurisprudence of the European and Inter-American Courts of Human Rights Comparative Insights”, in Ben Boer (ed.), *Environmental Law Dimensions*, April 2015, pag 92.

interest, including in the field of environmental protection. This is unparalleled in the European system”.³⁹⁸

However, even though the American convention has considerably less strict standing requirements, one cannot conclude that this entails the permission for forms of *actio popularis*. In fact, in an advisory opinion³⁹⁹ the Court has established what was then called by scholars as the implicit victim requirement⁴⁰⁰ when determining that “a concrete violation of the human rights of a specific individual”⁴⁰¹. Therefore, according to this advisory opinion, apart from identifying the rights of the convention were allegedly violated, it is “essential”⁴⁰² to also identify the victims. Applying this doctrine to plastic cycle litigation the petitioner needs to invoke a specific right violated by the State and name the individuals affected by it.

The Court infers this implicit obligation ““from Article 46(1)(b), which provides that the petition or communication “be lodged within a period of six months from the date on which the party alleging violation of his rights was notified of the final judgment””⁴⁰³ and from Article 46(2)(b), which dispenses with the exhaustion of domestic remedies and waives the requirement of the stated period if “the party alleging violation of his rights has been denied access to the remedies under domestic law or has been prevented from exhausting them”^{404”},⁴⁰⁵. Hence, from these provisions, the Court concludes that “[t]he contentious jurisdiction of the Court is intended to protect the rights and freedoms of specific individuals, not to resolve abstract questions”.⁴⁰⁶

Nonetheless, in environmental decisions after this Advisory Opinion, the IACommHR has quite often disregarded this implicit requirement raising the question of its practical applicability.⁴⁰⁷ However, in the Metropolitan Nature Reserve v. Panama case, the Court unexpectedly used a stricter interpretation of the implicit requirement. For most authors this case “cannot be taken as a particularly instructive and representative precedent from the Inter-American human rights practice, or as an inflexible indication of the Inter-American bodies’ negative attitude towards collective claims and public interest litigation

³⁹⁸ *ibid*, pag 93.

³⁹⁹ *Advisory Opinion OC-14/94*, International Responsibility for the Promulgation and Enforcement of Laws in violation of the Convention (Arts 1 and 2 of the American Convention on the Human Rights), Inter-American Commission on Human Rights, IACHR Series A No 14, IHRL 3321 (IACHR 1994), (2000)116 IRL 320, 9th December 1994, Inter-American Court of Human Rights [IACtHR].

⁴⁰⁰ See: Riccardo Pavoni, “Environmental Jurisprudence of the European and Inter-American Courts of Human Rights Comparative Insights”, in Ben Boer (ed.), *Environmental Law Dimensions*, April 2015.

⁴⁰¹ *Advisory Opinion OC-14/94*, para 45.

⁴⁰² *ibid*.

⁴⁰³ Italics by the author.

⁴⁰⁴ Italics by the author.

⁴⁰⁵ *Advisory Opinion OC-14/94*, para 46.

⁴⁰⁶ *ibid*, para 49.

⁴⁰⁷ Riccardo Pavoni, “Environmental Jurisprudence of the European and Inter-American Courts of Human Rights Comparative Insights”, in Ben Boer (ed.), *Environmental Law Dimensions*, April 2015, pag 94.

in the environmental sphere [as][t]he case was not argued persuasively”.⁴⁰⁸ Mainly, the petitioner did not name the members of the association nor did it provide for criteria to identify them. Instead, it just generally referred to members of the association as being the victims. This way, the inadmissibility of this application could have been avoided and the victim status would almost certainly never have been questioned had the petitioners named the members or provided for a criterion to determine the ones who could be significantly affected by the impacts of the project on the environment.

Additionally, due to the extremely diverse American social, political, historical and cultural contexts, it is clear from the jurisprudence of the Court that the American system has “extensively discussed and applied”⁴⁰⁹ a pro-individual interpretation of the Convention. This interpretation allows for an expansion of individual protection under the American Convention as “by adopting an expansive interpretation in favour of individuals or pro homine is able to refer to different human rights instruments and, consequently, render decisions that extended beyond the traditional scope of the American Convention and originally belonged to other areas of international law such as international humanitarian law, environmental law and indigenous rights”.⁴¹⁰ Furthermore, the Court has recurrently argued in favour of an evolutionary interpretation of the Convention which regards the current circumstances thus regarding the convention as a living instrument⁴¹¹. In conclusion, “the interpretation of the rights embodied within the Convention must take into consideration society as a whole, paying due account to the complex plurality of cultural understandings that are present (contextual interpretation) and in accordance with the current present conditions existing at a given time (evolutive interpretation)”.⁴¹²

All in all, it is clear from the IAComHR’s decisions and the IACtHR judgements that “there is certainly room for flexibility in respect of the ACHR’s victim requirement and prohibition of *actio popularis*, including in the area of environmental protection”⁴¹³ as the “the collective perspective firmly embraced by the Inter-American organs in this context indirectly benefits environmentally related claims”⁴¹⁴. This flexibility of the victim status is definitely a good sign for future plastic cycle litigation. It gives room to believe that when confronted with a first global environmental phenomenon, such as plastic cycle litigation, the Court will determine as admissible, not only cases where the applications determine who

⁴⁰⁸ *ibid*, pag 95.

⁴⁰⁹ Valerio de Oliveira Mazzuoli and Dilton Ribeiro, “Indigenous Rights before the IACtHR: a Call for a Pro Individual Interpretation”, in *The Transnational Human Rightst Review* 2 (2015), 32-62, pp. 43-44.

⁴¹⁰ *ibid*, 46-47.

⁴¹¹ *Case Mapiripán Massacre v. Colombia*, 49 victims and their next of kin v Colombia, Merits, Reparations, and Costs, [2005] IACHR 14, IACHR Series C No 134, IHR (IACHR 2005), 15th September 2005, Inter-American Court of Human Rights, [IACtHR], para 106.

⁴¹² Alejandro Fuentes, *Rights to Lands, Participation and Consultation of Indigenous Peoples: A summary of the Inter-American Court of Human Rights’ Judicial Interpretation*, (2016), Raoul Wallenberg Institute of Human Rights, p.6

⁴¹³ Riccardo Pavoni, “Environmental Jurisprudence of the European and Inter-American Courts of Human Rights Comparative Insights”, in Ben Boer (ed.), *Environmental Law Dimensions*, April 2015, pag 95.

⁴¹⁴ *ibid*, pag 97.

are the victims who suffered a specific harm caused by the plastic cycle, but also applications which provide for criteria to identify the victims. For example, the victims can be identified through the delimitation of the case, that is through the determination of the affected area, the population affected and therefore victims can be identified.

3. Concluding remarks

As concluded in this chapter, there are legal grounds established in the Court's jurisprudence to conclude that the Court can determine that victims of global environmental phenomena, such as victims of the human rights violations that arise because of the plastic cycle, can be considered as direct victims of these events. Namely, the combination of the application of the doctrines of guaranteeing that the convention is interpreted in a way that guarantees that the rights therein are practical and effective and not theoretical and illusory and the doctrine of applying the convention as a living instrument can be invoked as legal reasoning to reach such conclusion.

Unlike the ECHR which has explicitly enshrined requirements for individual applicants to have been directly affected by the harm suffered, the ACHR does not establish such restriction. However, that does not simply mean that this system allows for forms of action popularis. In fact, in the Advisory Opinion OC-14/94 analysed in this chapter, the IACtHR established an implicit requirement of the identification of "a concrete violation of the human rights of a specific individual".⁴¹⁵ Therefore, this doctrine would require plastic cycle litigation petitioners to invoke a specific right violated by the State and identify the individuals who suffered it. However, this implicit requirement has been disregarded several times by the IACommHR in its decisions and by the Court itself in the judgements after.

All in all, when it comes to a comparison between the two different systems, the analyses of the relevant case law regarding the victim status of these two courts leads to the conclusion that lodging an application before the IACtHR has a better chance of succeeding as this Court has adopted a brother approach to the concept of victim than the ECtHR who is clearly stricter.

⁴¹⁵ Advisory Opinion OC-14/94, para 45.

VII. Conclusion

For many years now the scientific community has been insistently warning us about the negative impacts that many human activities have on the environment, including plastic pollution. More than 11,000 scientists declared ‘clearly and unequivocally that planet Earth is facing a climate emergency’ back in November 2019.⁴¹⁶ If there was any scientific doubt in the past whether the future of the planet, that is the Earth as a whole system, is at risk due to man-made activities that can be responsible for irreversible environmental alterations, there are no questions now.⁴¹⁷

While it is true that plastic has many advantages which have been amply used for overall societal development, it is also clear that we have been using and abusing this material to the point that we now face what many have named as the “plastic crisis”. This crisis has reached unprecedented levels and studies confirm that there is no prospect for this problem to be solved anytime soon. Quite the contrary, scientific research suggests that, if we do not take appropriate action, plastic production is likely to more than quadruple by 2050. Besides, an alarming 50% of all the plastic produced consists of single-use plastic items. Despite these disturbing facts, there are still no legally binding instruments to determine states’ obligations regarding the whole plastic cycle. Namely, on how to control and mitigate its negative environmental and health effects that have amply been demonstrated. And this is also a human rights problem.

As detailly emphasised throughout the thesis, the connection between the plastic cycle and human rights is clear as the activities within this cycle, from the beginning of the cycle with the extraction of fossil fuels to the end of the cycle with the disposal of plastic, interfere with the enjoyment of several human rights. Namely, the plastic cycle interferes with the enjoyment of the human right to a healthy environment. This right is amply recognised as an autonomous right by several regional human rights systems, namely the African and Inter-American systems. Furthermore, this right was also recognised as an autonomous human right internationally by the UN.

Therefore, by establishing a link between human rights and the plastic cycle then addresses this problem through a human rights framework to overcome some of the issues that have been raised in the context of global environmental phenomena, such as plastic cycle litigation. This thesis suggests that a human

⁴¹⁶ William J Ripple, Christopher Wolf, Thomas M Newsome, ‘World Scientists’ Warning of a Climate Emergency’ (2020) 70(1) *Bioscience* 8, 8.

⁴¹⁷ See: IPCC, *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2014; and Nielsen TD, Hasselbalch J, Holmberg K, Strippel J., *Politics and the plastic crisis: A review throughout the plastic life cycle*, WIREs Energy Environ. 2020.

rights framework can be used to make states accountable for the human rights violation that the plastic cycle leads to. It answers the research question of whether international law and, more specifically human rights law framework can be used for a plastic cycle litigation in the affirmative.

To answer this research question and conclude that this framework can indeed be applied in this context, this thesis answers four sub-research questions. Regarding the first sub-research question, the European regional human rights system is the only regional system which has not yet recognised the right to a healthy environment as an autonomous human right, neither in the ECHR nor in its Additional Protocols. In the absence of an international legally binding agreement to establish states' concrete obligations regarding how to control all the stages of the plastic cycle, the question arises: can states still be liable for the negative consequences to the environmental and human health that arise from the activities within this cycle? This thesis concludes that the lack of a recognition of a right to a healthy environment should not be enough to dismiss an application of a cases of global environmental phenomena, such as plastic cycle litigation.

The application of two very well-established doctrines, the interpretation of the convention as a living instrument and the European consensus, contribute to the conclusion that the Convention can be applied to these cases through the “greening” of already recognised human rights. Namely, the author applies the right to life – Article 2 ECHR, and the right to private and family life – Article 8, as well as the prohibition of discrimination – Article 14, articles on which plastic cycle applicants can base their claims. This is also the interpretation that allows for the rights enshrined in the convention to be practical and effective. Therefore, the issue of the lack of recognition of an autonomous human right to a healthy environment within the European system can be overcome.

Therefore, it is possible to conclude that, in the international system, as well as in the regional systems, namely the Inter-American and the European systems, which are the focus of this study, there is a legal basis for the claims concerning plastic cycle litigation. However, the establishment of a legal base on which applicants can base their claims is different. It can be done either directly through invoking the violation of a human right to a healthy environment whenever the system in which the application is lodged recognises such right, or through invoking other human rights, such as the ones listed before.

Nevertheless, this is not enough to conclude that the human rights framework should be used in the context of plastic cycle litigation. In fact, many legal scholars and high national courts have highlighted some significant issues that challenge the application of a human rights framework in cases of litigation

concerning global environmental phenomena⁴¹⁸, such as plastic cycle litigation. Regarding the second sub-research question of whether the jurisprudence of international and regional human rights courts can be used to overcome the issue of the transboundary nature of the harm caused by the plastic cycle, this is replied affirmatively. As a global environmental phenomenon, the negative effects of the plastic cycle affect the environment as a whole, not only affect individuals in the jurisdiction of the state responsible for the plastic cycle in their territory but also individuals outside their jurisdiction. Besides, the contrary is also true, as the negative consequences that arise from the plastic cycle in one territory are the result of states' actions within this cycle.

The author examines the jurisprudence of the ICJ, IACtHR and ECtHR, all of which determine that the precautionary principle can be invoked to argue that states have positive obligations to take preventive measures to mitigate significant foreseeable harm and are obliged to do so with due diligence. Therefore, applying this reasoning to the plastic cycle, one can conclude that states have positive obligations to take preventive measures to mitigate the negative effects of the plastic cycle which lead to human rights violation. When doing so, states ought to act with due diligence. Additionally, the examination of the jurisprudence of these courts also leads to the conclusion that states are bound to mitigate significant foreseeable harm, even considering that they do not have the ability to cease the human right violations by themselves. This way, these obligations to take the appropriate steps towards climate change mitigation exist regardless of the possibility of being able to mitigate the negative consequences of this phenomenon by themselves.

Moreover, questions regarding the causal link between states' activities and human rights obligations arise in the different stages of the plastic cycle. These questions emerge because there is a long and complex causal chain between: the harm suffered by the applicants in the form of human rights violations; the environmental effects of the plastic cycle; and states' action, the ineffective way with which they are dealing with this problem, meaning excessive plastic production and usage and how plastic waste is treated. However, although this causal link is indeed long and complex, it has been proven scientifically, at least in probabilistic terms.

Besides, apart from resorting to the precautionary principle, a principle that has been amply recognised by these courts, this thesis proposes the application of other principles not yet recognised in the judgements of these courts, to strengthen this legal argument that states have obligations to control and

⁴¹⁸ See: K. Yoshida and J. Setzer, *The Trends and Challenges of Climate Change Litigation and Human Rights*, European Human Rights Law Review 140, 2020; Margaretha Wewerinke-Singh, "Remedies for Human Rights Violations Caused by Climate Change", *Climate Law* 9, 3 (2019), 224-243; and Olivier van Geel, 'Urgenda and Beyond: The past, present and future of climate change public interest litigation', (2017), Maastricht University Journal of Sustainability Studies 56.

the mitigate the negative effects of the plastic cycle responsible for significant foreseeable harm. Particularly, the author applied the polluter pays principle and intergenerational equity principle.

Overcoming the transboundary nature of the plastic cycle and establishing a causal link between states' actions, or omissions of appropriately controlling the cycle to mitigate its adverse effects on the environment and consequently on human health, do not solve all the issues that can be raised in the context of resorting to a human rights framework to plastic cycle litigation. There is still the need to address the difficult question of how much states must mitigate this foreseeable significant transboundary harm to comply with their obligations, which constitutes the third sub-research question. In other words, how much is enough to guarantee that these obligations are fulfilled?

The author suggests some criteria to approach this question, which requires a state-by-state assessment. Namely, this chapter focuses on the application of the fair share principle which is further developed by the author through the proportionality principle. The combination of these two principles leads to several conclusions: it is not reasonable for courts to require a zero-plastic policy which would be unrealistic and unproportionable; not all states must contribute the same to mitigate the negative consequences of the cycle considering that they contribute to this global phenomenon in different scales with regards being taken to how much they currently contribute for the problem, but also considering how much they have contributed to it historically; lastly, the assessment of whether states complied with their obligations regarding this cycle must include the application of the proportionality principle.

Finally, there is still another question of admissibility, which has been frequently raised by legal scholars and the high courts that have dealt with global environmental cases: the question of victim status of individual applicants and whether it is possible to regard plastic litigation applicants as direct victims. This question is answered in the context of the Inter-American and the European systems in the affirmative and comprises the fourth and last sub-research question of this thesis.

In the European regional human rights system, the ECtHR is bound by Article 34 of the ECHR to dismiss all the applicants that constitute forms of *actio popularis*. However, as concluded in this thesis, the Court's jurisprudence leaves room to determine that victims of global environmental phenomena, such as victims of the human rights violations that arise as consequence of the plastic cycle, can be considered as direct victims of these events. Particularly, the combination of the application of the doctrines of guaranteeing that the convention is interpreted in a way that enables the rights therein to be practical and effective and not theoretical and illusory, as well as the doctrine of applying the convention as a living instrument can be invoked as legal reasoning to reach such a conclusion.

Moreover, within the Inter-American human rights system, the analyses of the jurisprudence of the IACtHR suggests that this system will be less strict when it comes to the admissibility of claims of individuals in the context of global environmental phenomena, such as plastic cycle litigation. Particularly, this conclusion arises from the fact that the ACHR does not establish a specific restriction on the legal standing of victims of these phenomena, at least expressively. Nonetheless, that does not simply mean that this system allows for forms of action popularis. This Court established in an advisory opinion the implicit requirement of the identification of “a concrete violation of the human rights of a specific individual”.⁴¹⁹ Therefore, applied to the plastic cycle, this doctrine would require plastic cycle litigation petitioners to invoke a specific right violated by the State and name the exact individuals who suffered it. However, this implicit requirement has been disregarded several times by the IACommHR in its decisions and even by the Court itself in the judgements after this advisory opinion.

All in all, this thesis concludes that there is a legal basis for the application of a human rights framework to plastic cycle litigation, hence answering in the affirmative the research question of this thesis. To do so, the author answers four sub-research questions, this way overcoming the major issues that have been raised regarding the application of a human rights framework to a global environmental phenomenon, such as plastic cycle litigation. Therefore, considering the existence of such a legal basis and the fact that the plastic crisis has reached unprecedented levels, applying a human rights framework to plastic cycle litigation, might be an effective tool to raise awareness of this fact and pressure states into acting to better regulate and control. This can lead to the mitigation of several of its negative consequences which threaten several human rights.

⁴¹⁹ Advisory Opinion OC-14/94, para 45.

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