Climate change Law: from the Kyoto Protocol to present days and beyond

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Abstract

Climate change today occupies an important place in international politics as one of the strange phenomena happening to the environment and as one of the phenomena that can cause many problems if awareness and care are not increased. To properly assess climate change, one must also look at the legal aspect of international law, as this issue has a global character and affects all countries in their way. What has been done in legal terms is not enough, although there is an orientation towards improving the legal aspect by trying to create legal conditions to control climate change and not be allowed to go out of the projections that have been made by science. This research could help us understand how abovementioned agreements made a huge impact on creating a legal regulation and policies which tries to protect the environment and natural resources affected, endangered or impacted by human activities.

In this research the topic bound to make a combination of methods and approaches that can create a scientifically based conclusion. Empirical methods, through which it will seek, data, statistics, documents, and other scientific resources (works, magazines, newspapers, internet). Analytical methods through which to analyze and synthesize resources implications and conclusions. Interpretive methods through which to interpret the material, historical implications and developments to the International Environmental Law. Certainly, will eventually have to summarize in synthetic form, the achievements of this research. In this paper we will try to shed light on what has been done so far and what will be the challenge and goal for the years to come, so that international law is even more codified, more relevant, when it comes to issues that relate to the preservation and protection of the environment from which we receive our daily benefits.

Keywords: Climate Change, International Law, International agreements

1. Introduction

Climate change today occupies an important place in international politics as one of the strange phenomena that are happening to the environment and as one of the phenomena that can cause many problems in the future if awareness and care are not increased.

Climate change is happening all over the world, and this comes from many factors. The world until today has not done enough but now this issue has begun to receive due attention as one of the fundamental problems of the coming years.
In the following topic, we will treat climate change as a phenomenon that is happening and we will also try to give recommendations on what more countries can do to prevent this phenomenon.

In general, with climate change, there are some concerns, among which are that the global temperature is rising, since 2017 an increase has been seen and there is a projection that this is constantly increasing. The sea level has increased by about 20 cm and at the same time, some actions must be taken because this level can go much higher, based on UNDP expert projections this level could raise about 40 cm by the year 2100.

The 21st century has been the hottest, the years 2015 and 2018 entering the top 5 of the hottest years recorded by the world meteorological organization. At first glance, the projections for rising temperatures seem like a small thing as the temperature has risen by only one degree, but according to scientists if this continues to happen we will have problems with even the most basic things as sea levels rise, then the temperature and acidity in the ocean will increase, our ability to grow crops like rice and wheat would be in greater danger.

Also one of the problems that are being caused by climate change is the burning of forests, which could refer to the burning that happened in Amazon, Brazil, and other burnings around the world, and the more hot summers there are the more dangerous it will be for forests.

To see the importance of climate change, we did a research asking people: Do you think that Climate Change is the main problem of the 21st century, in the field of Environment, and the results are not at all surprising, as that most people think is a fundamental problem that we will be dealing with continuously in the coming years.
Also, in the continuation of the more correct understanding of the connection between people as a key factor in climate change, we have asked the question if the human factor is considered to be the main cause of climate change. Do you agree with this statement? and the answers we received are in line with what we have already made as a statement, and that only 3% of people surveyed oppose this finding, putting man at the epicenter, as the key factor in causing climate change with around 97% of people that in one form or another agree that the mankind are responsible for climate change.

Bellow are the findings described in descriptive way:
Also an important issue is the information, which must be appropriate, accurate, distributed as much as possible and be coherent. Information today in time of globalization is the key to success for any problem. Who has the information also have the advantage of coming to a solution? If you are well informed you can contribute to the improvement of the general condition. In the main agreements, much importance has been given to the issue of information, but the proper effect has not yet been achieved. Climate change has recently begun to play an active role, and to be considered a very big problem of the world in the coming years. One-on-one agreements, with the sole purpose of limiting greenhouse gas are and will remain a challenge for future generations.

In order to have a more objective and realistic approach, we asked a question in the questionnaire, where we said: Do you think there is a lack of proper information on the importance of climate change and the answers are lists in the figure below where only 4 % of the people surveyed oppose that there is a proper information regarding this issue, in contrary to 96% of the people who agree with my opinion that there is a lack of proper information, and states needs to do much more in order to have a better result.
The importance of this topic should not be known only by experts of the field, this topic should be generalized, to have a wider scope, in the sense that more people are informed in order to give their contribution. There are various methods by which individuals can contribute to the improvement of the current condition, they can do it by changing their daily routine and taking actions in order to preserve and protect the environment.

2. Climate change Law: from the Kyoto Protocol to present days and beyond

To properly assess climate change, one must also look at the legal aspect of international law, as this issue has a global character and affects all countries in their way. What has been done in legal terms is not enough, although there is an orientation towards improving the legal aspect by trying to create legal conditions to control climate change and not be allowed to go out of the projections that have been made by science.

We will try to obtain and analyze any important agreements and their impact on international law, how these agreements have affected the improvement of the situation. We will also analyze the possibility for future improvements, we will analyze the countries that have complied with these agreements inaccuracy as well as the countries that have violated these agreements.
Among the most important agreements that gave a great impetus to the development of this discipline was the UN Framework Convention on Climate Change 1992, the Kyoto Protocol 2005, and the Paris Agreement 2015 and we will take them one by one not by the importance of them but from the time they occurred, and what they have given to international law these kinds of agreements.

In the individual research we did, one of the questions was: Do you think there is a proper legal framework to address all climate change issues and opinions have been divided where 21% of people Completely agree, another 25% Partially Agree, and 16% of people surveyed had a more moderate opinion where they only agree with this statement, meanwhile 30% of people disagree with this statement and think that there is no proper legal framework to address all issues, compared to 8% who are categorically against and they completely disagree.

Looking at this situation we can conclude that although there are important international agreements, there is still a lot of work to be done by the governments of countries that are very economically developed.
2.1 The UN Framework Convention on Climate Change 1992

The UN Framework Convention on Climate Change 1992 is an environmental agreement, signed by 196 countries in total, and a regional organization with clear objectives to prevent and stabilize climate change by controlling and stabilizing greenhouse gas emissions.

At the time when this agreement was created, it is not that there were a lot of scientific data as it is today on this issue, but this agreement tended to be in line with the Montreal Protocol, taking it as a guide for later developments.

This agreement is of particular importance also because it includes developing countries, which must report annually on the data they have received to adjust the greenhouse gases without harming agriculture and the economy.

Developed countries report in a more detailed way by describing changes in gas emissions from 1990 to the present. This convention also envisages that the states increase cooperation between themselves, also increase education in this field, have synchronization between economic development and the environment without harming it.

A special aspect is the financing, where the developed countries through The Global Environment Facility help and finance projects in this field to achieve the common goal, which is the preservation and protection of the environment in general.

In legal terms there is a problem, even this agreement is not binding, although it provides some opportunities for new protocols that may be binding on the state which signs them.

The UNFCCC is also considered a Soft Law precisely because of its non-binding nature, which means that states have no legal obligations, and are not legally penalized for failing to deliver on commitments. The idea of this convention is for states to adopt national plans to adjust and stabilize greenhouse gas emissions, in an attempt to reverse the situation before 1990.

In general, in any agreement, the legal aspect is a problem as important states are reluctant to sign it due to the protection of their economic aspect. For example, a country like China or the United States, which are the largest emitters of Greenhouse Gases, cannot prevent this quickly, because it would hurt their economy. After all, their industry is slightly dependent on coal and other chemicals that are huge emitters of CO2.

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1 The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet’s most pressing environmental problems. Since then, the GEF has provided more than $21.1 billion in grants and mobilized an additional $114 billion in co-financing for more than 5,000 projects in 170 countries. Through its Small Grants Programme, the GEF has provided support to more than 25,000 civil society and community initiatives in 133 countries.

2 The term “soft law” refers to quasi-legal instruments which do not have any legally binding force, or whose binding force is somewhat weaker than the binding force of traditional law.
One of the most important protocols in international environmental law is the Kyoto protocol, which derives from the United Nations Framework Convention on Climate Change, and operationalizes this convention, trying to minimize the emission of Green House Gases, even to countries with developed industries, as well as in transition countries.

These conventions tend to push states to introduce and adopt policies that lead to a reduction in greenhouse gas emissions.

What was important to the Kyoto protocol was the commitments of the states to fulfill the plan resulting from this protocol, where the first commitment period was from 2008 to 2012. During this period some of the states had managed to exceed the plan and performed even better than they had promised. The economic crisis of 2007-2008 also played an important role in this, because during this period there was a great improvement in gas emissions, due to the remediation of the activity of large industries.³

The purpose of the Kyoto Protocol was to reduce the following gases in its first phase:

Carbon dioxide (CO2); Methane (CH4); Nitrous oxide (N2O); Hydrofluorocarbons (HFCs); Perfluorocarbons (PFCs); and Sulfur hexafluoride (SF6)⁴

Industries were also included in Kyoto Protocol ANNEX A,

- Energy - Fuel combustion, Energy industries Manufacturing industries and construction, Transport, Fugitive emissions from fuels Solid fuels, Oil and natural gas,
- Industrial processes - Mineral products, Chemical industry, Metal production, Production of halocarbons and sulfur hexafluoride, Consumption of halocarbons and sulfur hexafluoride,
- Agriculture - Enteric fermentation, Manure management, Rice cultivation, Agricultural soils, Prescribed burning of savannas, Field burning of agricultural residues,
- Waste - Solid waste disposal on land, Wastewater handling, Waste incineration. ⁵

The abovementioned gases and the gamut of industries that are included in the Kyoto protocol make us realize why countries fail to improve their targets.

The first commitment period included 37 States in total, and this was regulated by Annex I of the Kyoto Protocol which, in addition to the participating states, also introduced Quantified

³ Perry Sadorsky – Article - Energy Related CO2 Emissions before and after the Financial Crisis [https://www.mdpi.com/journal/sustainability](https://www.mdpi.com/journal/sustainability)

⁴ Kyote Protocol – Annex A – Greenhouse Gases

⁵ Kyote Protocol – Annex A – Sector/ Source
emission limitation or reduction commitment, with reference values for each state to be met by 2012.  

In the Kyoto protocol, the legal aspect is very important, also it is important what gives this protocol to the international environmental law and international law, and this can be analyzed in many aspects, starting from the way of ratification, to the categorization that they do to states based on their development.

Unlike UNFCCC which can be considered as soft law, the Kyoto protocol can be considered as both soft law and hard law. Its relation with the countries with developed industry is stronger, and here binding rules apply, which includes all the countries that are in Annex I, while for developing countries the Kyoto Protocol can be considered less strict(Soft Law) because these signatory states do not have the same commitments as the Annex I states.

It is also important that in the Kyoto protocol the legal obligations are to a higher degree, as the members of Annex I who have signed the agreement find it more difficult to leave the legal obligations arising from the agreement. These forces the state to enforce the obligations under the Kyoto Protocol into domestic law, where they are subject to monitoring and enforcement.

After 2012, when the first commitments period was completed, the Kyoto protocol through Doha Amendment had tried to create another second period of commitments from 2013, until 2020, with objectives to implement the new package with even bigger objectives.

The package sets targets:

- 18% cut in greenhouse gas emissions (from 1990 levels).

Even though the second period was from 2013 to 2020, problems were reaching these targets since the Doha Amendment was not approved until October 2020, where 147 parties of the Kyoto protocol have deposited a letter of acceptance what made this amendment enter into force. In the Doha amendment, there was added another gas, Nitrogen trifluoride (NF3) raising the number to 7.

Doha Amendment sets binding targets for 37 Countries, from which 34 have ratified the amendment. There are the countries that participated in the first-round commitment but didn’t take place in the second commitment period (Japan, Russia, and New Zealand). Also from big

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6 Kyoto Protocol – Annex B - Quantified emission limitation or reduction commitment

7 Hard law refers to actual binding legal instruments and laws. In contrast with soft law, hard law gives States and international actors actual binding responsibilities as well as rights. The term is common in international law where there are no sovereign governing bodies. Hard law means binding laws


10 Kyote Protocol - Doha Amandament, Part B - Anex A
countries without targets is Canada who dropped from Kyoto Protocol in 2012, and also the USA as they didn’t ratify the agreement in the first place.

What is always discussed is the success of this agreement and we have different opinions about this. Some think the Kyoto Protocol was successful but others oppose the idea. The reasons for success or failure are many but we can get some of them. The biggest criticism of the Kyoto protocol is that it does not cover the whole world, it is not universal and it is not the same in the ratio of developed countries and developing countries.

The Bush administration had opposed the deal because of the risk to their economy, as 80% of the world is excluded from the deal, while Vladimir Putin has criticized Kyoto for being discriminatory and not universal as a developed country with larger gases emission like China, USA, India, and others do not have any restrictions.

The biggest criticism is why not all countries are treated equally, as the emission of gases does not cause harm only in the state where it occurs, it spreads in the air and destroys the entire atmosphere by not being limited only to the state that emits gases.

However, some aspects are considered as a success, as it is one of the first agreements that have binding rules, it is considered as one of those agreements that have an impact on international environmental law, in its development, also success is considered raising awareness for Greenhouse gases and their importance. Although the objectives have not been met, the projections have not been fully met, but the countries that had made the commitments have managed to improve their situation and this is considered a success. The biggest success is considered to be paving the way for new agreements, which would correct the mistakes that were made in the Kyoto Protocol.

2.3 Paris Agreement

Last but not least is the Paris Agreement, an agreement which has a major impact on issues related to the environment, climate change and international environmental law.

From a legal point of view, the Paris Agreement is also binding on the signatory parties and its purpose is to limit global warming and keep it below 2 degrees Celsius. In order to achieve this goal, the emission of Green House gas must be stopped / reduced, which is also defined in Article II of the Paris Agreement, which describes the goals of this agreement.

Article 2:

(a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change. This objective is very important to try to stop the rising of temperatures by limiting the emission of Greenhouse gases, so the temperatures will not rise above 1.5 ° C, which would have a very large impact on the development of life in general as this would make sea levels rise, then the temperature and acidity in the ocean will increase.¹¹

Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production: This point of the agreement means that climate change will affect food security at the global, regional or local level. Climate change causes an increase in temperatures, this increase affects changes in extreme weather events, it can also affect the loss of water resources by rising temperatures, which can lead to a reduction in agricultural productivity.  

Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. This point of the agreement envisages the way of financing which aims at a financial stability, where developed countries within the period until 2025 would have to invest up to 100 billion dollars to advance ideas and projects that lead to limitation of greenhouse gas emissions, and this is explained by Article 9 of this agreement which states that developed countries must also finance developing countries in order to achieve the required result. 

Article 2 is generally the foundation of this agreement, as this article sets out the projections for the future of climate change in the coming years, but we will take one by one all the other articles that are just as important for the future and implementation of this agreement by defining the key points of the agreement.

Article 4 has a total of 19 points which are related to the goals of this agreement and which are also related to differentiation between states, where in the first point of this article it is specified that the states should start as soon as possible to achieve the Temperatures goals as they are defined in Article 2.

In addition, in Article 4, points 4, 5, and 6 give priority to developed countries to be the driving force and impetus of this agreement by helping developing countries in order to achieve the overall goal. Also the importance of Article 4 has to do with the differentiation between states and the responsibilities that each state has, explained in a general way for all the cases that may occur.

An important part of this agreement is the financial part. To better understand it we refer to point 1 of article 9 which state: Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.
Although this article is very important for the way of sponsorship of this law from the legal point of view, it is important to analyse these articles because in many cases the legally binding character is foreseen exactly in the form in which these articles are formulated.

In addition to finance, capacity building will be common, as developing countries will assist developing countries in capacity building in order to try to improve the overall situation, these issues are discussed in Article 11 where they are given guidelines and targets for all States parties to the agreement.  

An important aspect is the methodology to achieve the common goal, and this is explained by article 10 where great importance is given to technology as one of the areas that can help improve the situation. This then translates into the long-term policies of states in their industry to enhance technology in order to be more efficient in emitting harmful gases. Funding and technology are closely linked and both are goals of this agreement.

To see that the agreement aims for the future to be without Greenhouse gases, takes care Article 12 of this agreement, where great importance is given to education, trainings, rising of public awareness, access to information, and this should be mandatory for all since is the only way to realize the problem we have.

2.4 Legal Aspect – Binding vs Non-Binding

To better understand the Paris Agreement we must also analyze its legal aspect. In principle, this agreement is binding, which means that this agreement must be implemented by the parties that are signatories to the agreement.

But it should be noted that there are criticisms that dispute the legal aspect of this agreement, based on the forms and methodologies of implementation of this agreement. Critics argue that the agreement cannot be enforced by courts and arbitration tribunals as the agreement is not codified, has no enforceable rules, and there are no sanctions for non-enforcement expressed decisively. They are also related to the manner of accepting the agreement, which has to do with ratification in parliament in order to become part of domestic laws. Based on abovementioned facts it was said that the agreement is more as good intention act rather than a law.

Many questions have also been raised about the legal form of whether there can be a treaty under international law, whether obligations can arise from this agreement, whether the agreement can be brought before the courts, whether the agreement is enforceable and whether there are forms of punishment for parties of the agreement.

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But in any case we will analyse why it can be called binding agreement based on the arguments below:

The first relating to the binding character is that the Paris agreement is considered a treaty and based on this binding effect comes from the Vienna Convention on the Law of Treaties 1969 - Article 26 and the Latin maxima “Pacta sunt Servanda” Every treaty in force is binding upon the parties to it and must be performed by them in good faith.21

The second relates to the manner of expression / words used in the agreement. For example, in a treaty the word “shall” was mentioned 117 times and according to scholars the expression of this word gives to agreement the binding role, since this word has binding character and differs from words as “should” of “may”.

The third one is for the way how the agreement got into force, “This Agreement shall enter into force on the thirtieth day after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 per cent of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession.”22 Which allows us to understand that initially there must be 55 ratifying states, then the legal effect will come only when 55% of greenhouse gas emitters are part of the agreement. Here is the difference with the Kyoto protocol as it could not be called successful without the states with the highest emission are excluded from ratifying the agreement.

The fourth is that even this agreement does not allow reservations for the signatory parties, which means that all have equal weight and no one has special reservations.

From all that was said above we can conclude that there are different interpretations. The most common interpretations are that the agreement is legally binding but not in all its parts, and this is related to the fact that not every part of the agreement creates legal obligations.

In any case, the Paris Agreement has gained weight after most countries in the world have signed it. How important it is shows that one of the first three decisions of the newly elected president of the USA was the decision to return to the Paris Agreement after his predecessor had left the agreement. 23

What should be the legal aspect Binding or Non-Binding we had one of the questions in the survey, where people have given their opinions, and we can say that it is one of the most positive feedback questions we have received. Somewhere only 4% of respondents think that agreements in the field of Climate Change should not be legally binding, which means

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23 Joseph R. Biden Jr., President of the United States of America, having seen and considered the Paris Agreement, done at Paris on December 12, 2015, do hereby accept the said Agreement and every article and clause thereof on behalf of the United States of America, available at : https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/
awareness on this issue is raised, with another 96% who think that to achieve the desired success all agreements should be legally binding as the only way to try to achieve zero greenhouse gas emissions by 2050.

Figure 4 Shahiqi, D. – (2021) Unpublished raw data – The Impact of Climate Change on International law – (Lasted from date 10–03–2021 – 25– 03–2021) – SEEU University. Do you think that agreements in the field of climate change should be “legally binding” on all countries.

2.5 Advantages and Disadvantages of the Paris Agreement

In addition to the good intention to limit global warming, we will analyze the aspects where the advantages and disadvantages of this agreement can be presented, taking into account the legal and economic factors as they are very closely related to each other.

Advantages:

• It has almost universal support – 197 states has already accepted the agreement, The Paris Agreement has far more international consensus than the Kyoto Protocol ever had,

• The Paris Agreement will help to control the impact of global warming by limiting the temperatures rise again,

• It encourages countries to invest in renewable energy, and other alternatives forms,

• It will impact employment opportunities around the world, since the lot of new projects will happen. Climate action could produce $26 trillion globally in economic benefits, and this
could happen by the year 2030, five sectors are key for this achievement: energy, food, land use, water and industry.  

- No one can do it alone, all states need to corporate in order to have success,
- It creates more competition for innovation, also it creates a proper background for technology to develop.

Disadvantages:
- It creates different sets of rules for different countries by dividing into two categories – Developed countries and Developing countries,
- The emissions gap after 2030 is massive, as this was seen as hard task to achieve,
- The cost of the Paris Agreement is huge, since only until 2025 it will cost 100 billion, in order to be reviewed after 2025,
- It could cause the price of energy to rise,
- Difficult to enforce, and this is related to the binding vs non-binding character as we mentioned above,
- May not go far enough to slow global warming, since it will depend also on political will of the states to corporate.

From what was said above we understand that in every agreement there will be arguments pro and against which can be verified with time. The purpose should not be discussed as temperature limitation is vital for the future, but the main arguments are whether the agreement can be implemented accurately or it will have the fate of preliminary agreements such as the Kyoto Protocol.

3. Conclusion

To talk about climate change policies and laws we definitely need to relate to the agreements and the legal aspect which has been achieved through the codification that has taken place by the UNFCCC, the Kyoto Protocol and the Paris Agreement.

Considering this Europe is so far a leader in green policy and law-making, also due to the non-participation and non-ratification of the Kyoto protocol by important countries such as the US. The European leadership comes precisely from taking important steps at the right time, and from the consideration it has given to this field by making it a priority and harmonizing it with the economy.

International Law and international society have created a balance with different treaties, there is a will to try in one way or other to minimize the damage of various States towards the environment, which in present times happens very often.

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The other aspect of the topic is how to incorporate Environmental Law, treaties, and other codifications into national Law because the relationship between International Environmental Law (IEL) and domestic Law should be the subject of a serious discussion about the best way in which each domestic legal system could incorporation of international Law norms into national Law.

It must be said that states must do more, they must commit to taking on all the obligations arising from international agreements in order to improve the situation. Without a proper codification we will not be able to have adequate improvement of the situation.

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