KADİR HAS UNIVERSITY
SCHOOL OF GRADUATE STUDIES
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THE INTERNATIONAL POLITICS OF CLIMATE CHANGE: BARGAINING AND NEGOTIATION PROCESSES FROM KYOTO TO PARIS

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MASTER'S THESIS

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LIST OF ABBREVIATIONS AND ACRONYMS

ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AF	Adaptation Fund
AFB	Adaptation Fund Board
AWG-KP	Ad Hoc Working Group on Further Commitments for Annex I Parties under the KP
AWG-LCA	Ad-Hoc Working Group on Long-Term Cooperative Action under the Convention
CC	Climate Change
CDM	Clean Development Mechanism
CERs	Certified Emission Reductions
CH_4	Methane
CO_2	Carbon Dioxide
COP	Conference of the Parties
ERU	Emission Reduction Units
EU ETS	EU Emission Trading System
GCF	Green Climate Fund
GHG	Greenhouse Gas Emissions
HFCs	Hydro Fluorocarbons
INC	Intergovernmental Negotiating Committee
INDCs	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
LDCs	Least Developed Countries
LDCs	Least Developed Countries
LRTAP	Long-Range Transboundary Air Pollution
MARPOL	International Maritime Organization developed by International Convention for the Prevention of Pollution from Ships
MOP	Meeting of Parties
MRV	Measuring, Reporting, and Verification
N2O	Nitrous Oxide
NAMAs	Nationally Appropriate Mitigation Actions
NDCs	Nationally Determined Contributions
NWP	Nairobi Work Programme
O_3	Ozone
ODSs	Ozone-Depleting Substances
OECD	Organization for Economic Co-operation and Development
PA	Paris Agreement
PAMs	Policies and Measure
PFCs	Perfluorocarbons

SBSTA	Subsidiary Body established a program for Scientific and Technological Advice
SF6	Sulphur Hexafluoride
SIDS	Small Island Developing States
UN	United Nations
UNCBD	UN Convention on Biological Diversity
UNCCD	UN Convention to Combat Desertification
UNEP	UN Environment Programme
UNFCCC	United Nations of the Framework Convention on Climate Change
WMO	World Meteorological Organization

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THE INTERNATIONAL POLITICS OF CLIMATE CHANGE: BARGAINING AND NEGOTIATION PROCESSES FROM KYOTO TO PARIS

ABSTRACT

Climate change is actually a natural phenomenon that occurs throughout history. In time, the climate can change do warmer or cooler in specific periods. But essentially with the industrial revolution, the human-induced activities trigger the climate change and the global temperature increase than the normal course of business. So, the fossil fuels which are used in vast scale among other energy sources cause to raise carbon dioxide (CO_2) emissions to the atmosphere. The high degree of CO_2 emissions are related to the greenhouse effect in the atmosphere and this effect harms ecosystems and life of both human beings and non-human beings precisely. In that point, the foundation of the United Nations Framework Convention on Climate Change (UNFCCC) is an essential institution to regulate climate change governance. It establishes several negotiations and two binding treaties: the Kyoto Protocol and the Paris Agreement. In order to understand signing success of both agreements and their problematic implementation process, it will be used two theories of international relations discipline (IR): neoliberalism and critical theory. Complex-interdependence matters in neoliberalism to understand the actors' policies for signing these accords. On the other hand, the emancipation issue of critical theory will explain the commitment issue of the Parties in the implementation process of accords. It will be expected that this study reveals that the multilateral relationship of the states refers to complex-interdependence, and it triggers to sign the accords. Also, it will be aimed to understand that the problematic side of accords is related to the emancipation of climate change as only an environmental issue from economic and political interests. In order to observe the evolution, the timeline of the Conference of Parties (COPs) in the process will be put in place with the IR concept of audience cost.

Keywords: Climate Change, Kyoto Protocol, Paris Climate Agreement, Critical Theory, Neoliberalism, Commitment, International Cooperation

ULUSLARARASI İKLİM DEĞİŞİKLİĞİ SİYASETİ: KYOTO'DAN PARİS'E PAZARLAMA VE MÜZAKERE SÜRECİ

ÖZET

İklim değişikliği tarih boyunca meydana gelen doğal bir olgudur. İklim belirli dönemlerde daha sıcak veya daha soğuk hale gelebilir. Ancak, esasen sanayi devrimi ile birlikte insan kaynaklı faaliyetler iklim değişikliğini ve küresel sıcaklık artışını normal iş akışına göre tetiklemektedir. Endüstriyel faaliyet arttıkça enerji üretimi ve tüketimi de artmaktadır. Bu nedenle, diğer enerji kaynaklarına göre daha fazla kullanılan fosil yakıtlar atmosfere karbondioksit (CO_2) salımlarının yükselmesine neden olmaktadır. Yüksek CO_2 salımları atmosferdeki sera etkisi oluşturmaktadır. Bu etki ekosistemlerle birlikte hem insan hem de diğer canlıları etkilemektedir. Birleşmiş Milletler İklim Değişikliği Çerçeve Sözleşmesi (UNFCCC), her yıl gerçekleşen iklim değişikliği müzakereleri ve iki bağlayıcı anlaşması: Kyoto Protokolü ve Paris Anlaşması ile iklim değişikliği yönetişimini yürütmektedir. İklim değişikliği politikalarının oluşum ve yönetim sürecini anlamak için iki uluslararası ilişkiler disiplini teorisi kullanılacaktır. Anlaşmaların imzalanmasının başarısını neoliberalizm'in karşılıklı bağımlılık ilkesi ile açıklanırken, ilgili anlaşmaların uygulama sürecinde tarafların taahhütlerini eleştirel teori'nin özgürleşme konusu özelinde tartışılacaktır. Bu çalışmanın, devletlerin çok taraflı ilişkisinin karşılıklı bağımlılık ilkesi etkisi altında oluştuğu ve anlaşmaları imzalamayı tetiklediğini göstermesi beklenmektedir. Ayrıca, anlaşmaların uygulama sürecinde karşılaşılan sorunların, eleştirel teori bazında ele alınıp iklim değişikliğinin ekonomik ve politik çıkarlardan evrensel bir çevre sorunu olarak ayrışamaması incelenecektir. İki anlaşma arasında gerçekleşen evrimi gözlemlemek için, süreçte yer alan Taraflar Konferansı'nın çizelgesi izleyici maliyeti kavramında tartışılacaktır.

Anahtar Sözcükler: İklim Değişikliği, Kyoto Protokolü, Paris İklim Anlaşması, Eleştirel Teori, Neoliberalizm, Tahahhüt, Uluslararası İşbirliği

INTRODUCTION

As the demand for energy has grown across the globe, there has been a commensurate rise in the release of carbon emissions into the atmosphere (Iwata et al., 2012). This is due to the way that energy, namely fossil fuels, on which global energy consumptions rests, are produced. The combustion of fossil fuels for energy is the primary reason for today's rising levels of greenhouse gas emissions (GHG). As figure 1 presented, global carbon emissions over the years and as projected to 2050 according to baseline scenarios[1]. These emissions have, in turn, led a new and challenging problem: global climate change (Karl et al., 2009). Global climate change, defined by the United Nations (UN) as catastrophic long-term change in climate, has broad adverse effects for the environment (Balbus et al, 2013; Houghton et al., 2001).

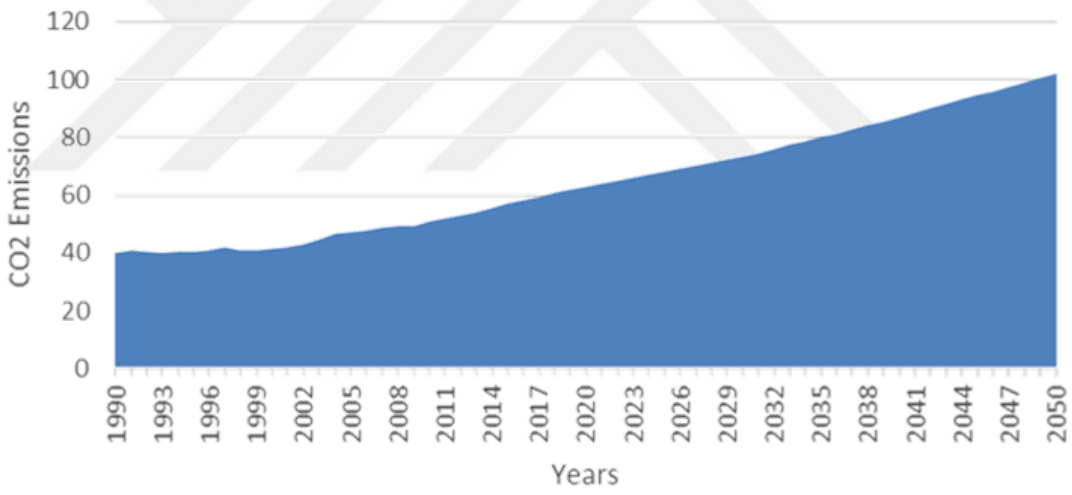

Figure 1.1 2050 Global CO_2 Emissions Projection, 1990-2050
Source: Siegel, 2015

Change has created a global environmental problem that threatens to future of humanity. This period creates a new phenomenon in which the damage to whole ecosystem from human-induced activities is more influential in warming the planet than natural volatility in climate patterns (Boden et al., 2010; Solomon et al., 2007; Stocker et al., 2013). This new international environmental crisis triggers to new set of questions about survival, self-help

[1] "Baseline Senarios" which mentioned by *the IPCC AR5 Working Group* in Kyoto are estimated based on CO_2 emissions' values in 1990

and national interests, as conceptualized by international relations and has emerged during the anthropocentric period (Steffen et al., 2007). There are several reasons, both natural phenomena to human-induced activities, especially those after the Industrial Revolution that are disturbing the normal pace and rhythm of climate change and warming the planet (Houghton, 1994; Weaver et al., 2013). Climate change also creates vulnerability for people and living creatures and deteriorates our collective ecosystems. So, it is significant to take steps for improving climate change policies and reduce the future vulnerability of life on the planet. The term of vulnerability is referred as the state vulnerability which means that what extend the states are imposed negative effects of the climate change (Harris and Roach, 2013; Yamin and Depledge, 2004). Climate change also has an interrelated relationship with the global economic and political issues of the states (Frankhauser and Tol, 2005; Thorpe and Figge, 2018). The main reason is that this problem extends beyond natural border within the context of a cause and effect relationship (Dalby, 2003; Keohane and Victor, 2016). However, it is difficult for states to establish a common solution for this global problem because every country is influenced by climate change in different scale and in different ways across different regions (Balbus et al, 2013). So, the states are inclined to consider their interests on growth, competitiveness, security and public finance at the same time as climate (Sassen, 2000). As such, each actor has own economic and ideological priorities in the policy-making process of climate change (Leiserowitz, 2006).

The solution, however, may be dealt with both individually and by the collective action of states. According to Wood and Vedlitz (2007), global climate change policies should be conducted in global level. All states need to understand that climate change is a common problem of humanity (Chan, 2018). They search for a universal solution to establish a common policy (Busby, 2003). This solution should also create a win-win solution for all to increase their abilities. At the global level, there have been several international negotiations and some global agreements signed over time. Initially, there were initiatives on different, specific issues related to climate and environment. The earliest initiatives, for example, were the following: the International Convention for the Regulation of Whaling in 1946 to protect oceans' ecosystem, the Geneva Convention on Long-Range Trans boundary Air Pollution in 1979, and then Montreal Protocol on Substances that Deplete the Ozone Layer in 1987.

Essentially, the World Climate Conference in 1979 by the World Meteorological Organization was the first substantial attempt to shape climate change governance. Then,

the foundation of United Nations of the Framework Convention on Climate Change (UNFCCC) in 1992 was a foundational step. The UNFCCC has since had a most prominent role in supporting the global response to the threat of climate change (Ediger, 2017; Vandeveer, 2002). There have been several negotiations and agreements established under the UN secretariat. Among these, the Kyoto Protocol (KP) (1997) and Paris Agreement (2015) have made an overwhelming impression in the international area. The KP triggered a new beginning of efforts and partnerships to formulate climate change policy and led all major carbon emitters to enter into negotiation (Streck et al., 2016). During subsequent years, several bargaining and negotiation processes had been taken place. Finally, the Paris Agreement (PA) was adopted in 2015 (Rajamani, 2016). In these international negotiations, there was collaboration to create efficient solutions for emission reduction, the utilization of natural resources, corruption of ecosystem, drought and waste management (Ilcan, 2006).

The primary purpose of the study is to understand that the signing moment of both the KP and PA is a success for climate governance, while their implementation processes are problematic for the commitments of the Parties. For this purpose, two theories of the international relations discipline will be applied: neoliberalism and critical theory. In order to analyze the make-up process of successful accords, the concept of complex-interdependence of neoliberalism will be used. Then, the policy implementation process dynamics will be explained by the concept of emancipation of critical theory. This process has produced both positive and negative parameters for the commitments (Wigley, 2005). So, the process between both agreements will be examined with International Relations concept called 'audience cost.' The process from the Kyoto until the PA which provides transition of states' approaches towards commitments via several sufficient funds, activities, and programs of UN will be put with the concept of "audience cost" for states (Lohmann, 2003; Tomz, 2007). The Conference of Parties (COPs) which are assigned by the UNFCCC annually are explained in detail in a timeline to understand how they put "audience cost" for state's leaders.

In the methodology of the study, analyzing the existing literature on the issue uses the qualitative analysis. Indeed, the process tracing method which is a tool of qualitative analysis is applied (Collier, 2011). This method includes that a review of specific issue is made with a cumulative examination of different activities or acts of a particular character which have relatedly causal link to the point in a specific period (Beach, 2017; Collier, 2011, Crasnow, 2001). In quantitive explanatory research, analyzing climate change

negotiations fall apart in two manners in general. Some researcher focus on a divided part of parties rather than an evaluation of the whole community (Genovese, 2014). This way maybe helps to evaluate the theoretical framework of the decisions (Hovi and Areklett, 2004), but it lacks to explain their practice (Barret, 1999). Some are dealing with the set of issues of the negotiations (Grundig, 2006; Ward et al. 2001), but in here, the researchers fail to notice that there is a lack of information about the bargained issues (Genovese, 2014). The analyses are based on long-term emission reduction targets (Jensen and Spoon, 2011), and previously-defined responsibilities of the parties (Lange et al. 2007). In qualitative explanatory research, in approach of the rationalist institutionalism, states' binding attitude to the cooperation change according to their interests on benefits and cost related to the cooperation (Abbott and Snidal, 2000). Their interest mostly related with their vulnerability level to climate change (Bailer and Weiler, 2015; Dolšak, 2009; Sprinz and Vaahtoranta, 1994). Especially for the countries which their energy production derived from fossil fuels have a vast amount of cost to transform their economic structure for new emission-mitigate technologies (Aldy et al., 2003; IPCC, 2011, Chapter.9). In neorealism, the states which have a strong power presence in international world politics affect to the legalization of commitment roadmap (Baumann et al., 1998; Brooks 1997).

In that point, the UN negotiation and bargaining activities are supplied as causal mechanisms for commitment to two agreements defined as a specific outcome or actual case. The decisions of COPs are analyzed for settlement of “audience cost” and new international economic order for establishing a platform to the high level of participation about the commitment (Chaudoin, 2014; Eyerman and Hart, 1996; Lohmann, 2003). In order to evaluate the whole negotiation process, the official websites of the UNFCCC, World Bank and OECD are appealed to take real-time data processing about the negotiations. The comparative analysis of two agreements is reviewed respectively. Conceptual framework of critical theory and neoliberalism evaluates pre-conditions and afterwards.

This study is composed of three chapters. In the first chapter, climate change is defined and discussed as a scientific fact by the literature and UN assessment reports. In addition to environmental background of the issue, the scope of the climate change also complies with the political and economic parameters of world politics. There are several dynamics that are fundamental to understand in terms of how climate change can be understood in international politics.

In the second chapter, a detailed theoretical analysis is provided. Initially, neoliberalism will be applied to understanding the dynamics towards adopting the Kyoto Protocol and the Paris Climate Agreement. The concept of complex interdependence reflects implications to explain the pathways towards both agreements. Then, critical theory helps with the concept of emancipation, which helps to reveal why their implementation process continues problematic for governance.

In the third chapter, the timeline of international negotiations is examined to understand better how the issue of climate change has evolved in the international arena. The information about negotiation processes comes mainly from the UN official website. In the beginning, it is proposed that the timeline of the talks starts from some different initiatives before the establishment of the UNFCCC in 1992, and it continues with the UNFCCC negotiations, and ongoing negotiations until today. Within these negotiations and bargaining processes, two critical binding treaties – Kyoto and Paris – will receive the most focus. The timeline between two agreements is essential to evaluate because the aim, scope, and direction of the negotiations reflect how climate change policies have been shaped and have evolved.

This study uses the Kyoto-Paris timeline to understand the dynamics of the negotiation processes in climate change governance through a theoretical structure. It is anticipated that these theories will enable readers to understand more clearly the functions of international mechanisms for addressing climate change.

CHAPTER 1

UNDERSTANDING CLIMATE CHANGE

In this chapter, the central issue of international negotiations over climate change is observed through the scientific, economic and political scope in detail. Firstly, there are some experimental pieces of evidence and then the UN's studies to conceptualize climate change. Also, the political and economic dimension of climate change is discussed with the existing literature.

1.1. Climate Change as A Scientific Fact

Climate change is defined as a periodical change in temperature in the climate that occurs throughout the history (Justus and Fletcher, 2006). This change may be an increase or decrease in the temperature and leads to severe adverse effects that shape the atmosphere and ecosystems (Gore, 2006). GHGs are the most significant component of global carbon dioxide emissions, which have resulted from the use of carbon-based energy sources including coal, oil, and gas. Greenhouse gas emissions consist of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N2O), hydro fluorocarbons (HFCs), perfluorocarbons (PFCs), and Sulphur hexafluoride (SF6). Some GHGs comprise water vapor and ozone (O_3), others come naturally (Grossman, 2010). The existence of these gases provides a balance of temperature to the atmosphere. But an excessive increase in their output creates a greenhouse effect that prevents the filtration of infrared radiation in the atmosphere (Dutt and Gaioli, 2007). Greenhouse gases absorb existing radiation within the atmosphere, and this imbalance of radiation triggers temperature to increase. Although oxygen and nitrogen are "transparent to terrestrial radiation," other GHGs are inclined to absorb terrestrial radiation that abandons the Earth's surface. Rising concentrations of GHGs cause "positive radiative forcing," which causes an increase in the absorption of energy on the planet. This situation results in the increase in the Earth's temperature, referred to as global warming (Grossman, 2010). Leading the agriculture, sea level, forests and water resources are adversely affected by the temperature rise (Ediger,

2008; Titus, 1992). It is a scientifically proven fact that temperature is rising. Figure 1.2 indicated that if business as usual activities continues, the temperature increase about to 4°C (Cubasch and Bruns, 2000). In other conditions which are derived from PA's Intended Nationally Determined Contributions (INDCs) and aims of 2°C with 1.5°C limit to emissions, the temperature increase about 2°C to 2100 years. This, in turn is triggering the international community to seek way to limit the increase to no more than 2°C above pre-industrial levels (Falkner, 2016; Sims, 2004; Tol, 2007).

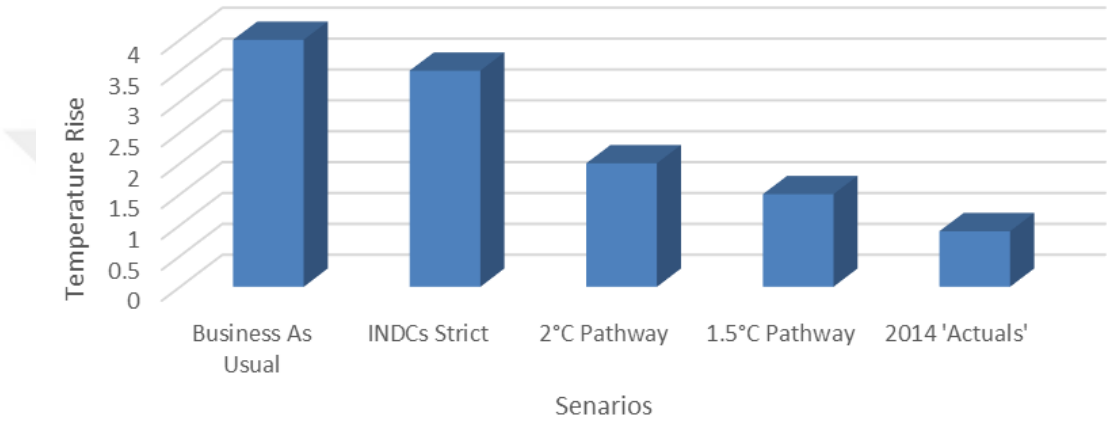

Figure 1.2 2100 Years Temperature Projections
Source: Siegel, 2015

The climate is calmer than the past over the last decades, and this change has already caused great harm to the environment and will continue do so in the future.

It is a well-known fact that climate change does not affect countries to the same degree (Dupond and Pearman, 2006). Every state is exposed to different degrees of climate change. A wide range of climate change effects occurs in different regions. In the southern hemisphere, warmer temperatures lead to drought in agricultural lands and deforestation as well as water flooding incidents (Detraz and Betstill, 2009). On the contrary, in the northern hemisphere, new ice-free sea-lanes are emerging in the Arctic, which enables countries to extract more resources there. For instance, low-lying, island states may confront an extreme level of threat from the rise of sea levels, while countries closer to the equator may experience desertification because of extremely high temperatures. Northern countries see climate change as a chance for their land accretion. These unequal outcomes create a deadlocked situation for international climate policies (Detraz, 2011; Falkner, 2016). They obfuscate future predictions and

create uncertainty for about the long-term costs for states. But GHGs' adverse effects spread globally and accumulate. They will be with us for long periods of time.

1.2. Policy Portrait of Climate Change by UN

The United Nations firstly contextualizes climate change with the foundation of the UNFCCC. The UNFCCC defines climate change as "a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere, and that is in addition to natural climate variability over comparable periods" (UNFCCC, 1992). The Intergovernmental Panel on Climate Change (IPCC) centers upon more scientific side of the climate change by that definition as "any change in climate over time whether due to natural variability or as a result of human activity" (IPCC, 2007). These definitions aim to support each other, but they create a different implication for defining climate change. Both politically and scientifically, the descriptions are not compatible. This situation causes a lack of coherence in policymaking. The lack of coherence creates a stalemate on international climate policies. This stalemate is a critical issue that needs to be solved. Applying effective policy actions cannot wait because climate change is a real fact.

There are several working groups in the UN for climate change politics. Its working group on science prefers the IPCC definition, and the other working group on economics appeals to the UNFCCC's definition, while another working group on vulnerability, impacts, and adaptation applies both definitions (Pielke, 2004). It can be achieved by mitigating the elements that trigger climate change and be framed by adapting to the features that make environment and society vulnerable to these changes. The policies of the UN have been divided in two ways: mitigation policies and adaptation policies. Mitigation policies attempt to control and constrain the scale of greenhouse gas emissions. Adaptation policies deal with making social and environmental systems more tolerant to climate change effects. Nevertheless, climate policies have been reluctant to embark on adaptation side, widely because of confounding definitions of climate change (Pielke, 2004). The establishment of an effective policy needs to merge and combine both mitigation and adaptation policies. The different interpretations limit the adoption of wholesale climate resilience policies.

Having a bias towards adaptation is echoed in the different attitudes of the IPCC towards climate change.

Also, Torvanger (1998) points out that adaptation cost is one of the greatest challenges for climate change policies. It cannot be measured in a fixed way because of changes in society and ecosystems over time. There are different adaptation measures for a wide range of future possibilities that can be unleashed climate change. According to him, adaptation policies are needed to make investments for the long term. For example, building infrastructure that helps to reduce climate change vulnerability is essential for adaptability. These kind of investments do not affect global warming implications, but at least they may reduce the costs of social and natural damage from climate change. As a result of this attitude, in policy discussions, there are some political tensions about mitigation and adaptation policies. Although mitigation-based policies become apparent, both policies should be based on adaptation in order to establish successful climate change policies. Falkner (2016) states that the uncertainty about the conclusions of climate change for countries creates ambiguity for putting together particular policies. They have difficulty to put an efficient provision of a global ‘public good' in this issue because states consider their national interests first before the global issue of climate change.

1.3. Climate Change as An Economic and Political Issue

In international politics, it is challenging to establish a common cause for any issue. Achieving a global political consensus is quite difficult. Kingdon (1995) contends that the policy agendas of world politics are always divergent and crowded, while the political capital is insufficient to deal with that. Climate change, as an international political issue today, is associated with energy security, economic development, and the social and political crises of the states fundamentally.

1.3.1. Energy security matters on way of climate change policies

In energy politics, there are different parameters for influencing political actors. Geographical features, security matters, economic developments and also environmental concerns are essential parameters for energy politics. Every state has

different geographical features, so each country is influenced on a different scale from any geographical facts in the world. The geographical features may gain the countries have a wealthier or poorer identity and enable some advantages or disadvantages among others. Some countries have more resources or have a better strategic location; meanwhile, other countries may not possess one of them or both. There is an inequality of geographical features among countries, in other words, which creates a geographical ground for conflict between states' interests and leads to the use of energy resources as soft power in international relations.

Geopolitics, as a concept, are "a study of the influence of geographical factors on political action" (Winrow, 2007). Hence, current interpretations of geopolitics imply that geopolitics has gained a more diversified and concrete meaning and also a wider range of dynamics in international relations. When talking about the economic side of geopolitics, it is necessary to correlate with the location of energy sources. According to Winrow (2007), geopolitical factors must be considered in light of the location of energy sources in order to understand states' foreign policies in the energy market. The crucial reason is that energy sources are unequally distributed geographically, which makes it an important factor in geopolitics. Also, energy sources are critical to the economic and political goals of states and are thus critical to secure.

In addition, energy security means the procurement of energy from the producer in a secure, uninterrupted, efficient and cheap manner (Pamir, 2007). Energy should be always supplied in that manner and protected from "political intervention; sanctions; invasion; terrorist attacks, sabotage; technical failures; under-investment (exploration, production, refining, etc.); economic problems (inability to pay); poorly designed markets; accidents; and storms like hurricanes" (Pamir, 2007). All these factors prevent energy from being supplied properly and contribute to energy insecurity, which shapes energy politics and international relations. So, geopolitics and energy security both have shaped world politics. Hence a new conception of energy geopolitics, a combination of energy-security politics and geopolitics, has taken hold in the literature (Westphal, 2014).

In this context, climate change falls within the parameters of geopolitics and energy security. The international climate change policies shaped in terms of security matters of states as well. According to Ünver (2017), the prerequisite of successful climate

change negotiations is the establishment of a mechanism that provides energy security matters for states. In parallel with energy security matters, there are both supporters and opponents about that climate change a security issue[2] (Baysal and Karakaş, 2017). These supporters can be divided into two categories: the ones who mention 'human security implications' like food insecurity (Brown and Crawford, 2009), and the others who discuss 'traditional security implications' such as violent conflict and climate migration (Baysal and Karakaş, 2017: 40; Gleditsch, 2012).

1.3.2. Economic burden of climate change policies

Climate change policies also have an economic dimension in world politics. In the modern world, economic development is largely based on the efficient use of energy in industry. This dynamic prompts people to use fossil fuels, which in turn leads to a high level of carbon emissions being released into the atmosphere. Since carbon emissions are the leading cause of global warming, it is the industrial system that must be altered or changed.

To this end, de-carbonization needs to take a new priority as a new economic model in the global economy. De-carbonization aims to have more clean energy sources and technologies that release fewer carbon emissions. In this light, renewable energy technologies can play a critical role in expanding the low-carbon economy. With innovation in energy technologies and their production methods also bring about energy efficiency. New technologies promise a cheaper and more sustainable way to transition into de-carbonization (Cline, 1992; Nordhaus, 1991).

On the roadmap to a low-carbon economy, carbon storage and capture technologies can help reduce carbon dioxide emissions on a large scale. But these technologies are still in the early stages of development and have yet to be implemented on a commercial scale. Others, including high-capacity Nano batteries and synthetic algae can be developed after large-scale investment (Falkner, 2016). For instance, the EU adopts Lisbon Strategy which aims to transform the current economy to a more sustainable version combined with sophisticated technology and social inclusion (World Economic Forum, 2008). In this strategy, the EU planned to reduce emissions with a transition to a low-carbon economy with energy efficiency priority until 2020. Mostly the low-carbon

[2] Baysal and Karakaş use securitization concept as cited from Buzan et.al., 1998; Weaver, O.,1995

energy transition strategy includes the usage of renewable energy technologies (Tilford and Whyte, 2010). The EU does not actualize its target entirely because of the 2008 global economic crisis, but it continues to apply low-carbon energy transition strategies today (Atik, 2017).

To established a well-structured climate change policy, it is also necessary to regulate economies but the burden of such regulations are costly to states' economies (Sullivan, 2009). Subconsciously, this triggers states to behave timidly and adhere to their own short-term agendas that seek to reduce cost. The fact remains that states' political desires or interests in energy sources contravene their financial interests in the energy market (Tonnesson, 2007).

Climate change policies can be managed effectively if all government authorities institute significant alignments with low-carbon transition methods in their private portfolios. Many countries are applying important and necessary state-based climate change policies, such as having regulations and laws that seek to reduce energy-intensity through market-based instruments (Falkner, 2016). There is a tendency of states to support innovations in low-carbon, sustainable technologies (Nyquist, 2015). To establish an effective and beneficial international policy for all, they primarily try to develop a shared sense of the problem, regardless of their investments. Even though there is well-grounded scientific evidence of the climate change, good policy-making is still elusive. Because of the rationality in the policymaking process, states are inclined to take a "wait-see approach" to implementing such emissions-reducing policies (Falkner, 2016).

1.3.3. Political and social issues behind the climate change policies

Global climate change causes a general impoverishment in the world, but the degree of its effectiveness varies from region to region. There is a disparity about environmental conditions between North and South, poor and rich, and developed and underdeveloped countries, which raises the potential for economic crises and political tensions for all (Dupond and Pearman, 2006).

It is already clear that the decline or degradation of the environment is prompting people to migrate (Detraz, 2011). Environmental refugees cross borders to flee the

negative effects of climate change and are destabilizing the international world order in the process (Campbell et al, 2007). The flow of environmental refugees is straining the resources and politics of many states. At its core, it is disrupting the social and economic unity of nations by introducing irregular integration. In addition, migration creates concrete problems that countries have to address, such as supplying water and many other human needs (Brown et. al., 2007). Developing countries are especially prone to experience these problems because of their insufficient resource management (Garcia, 2010). This situation amplifies the urban-rural divide and exacerbates the global gap between rich and poor.

Environmental change also triggers conflicts such as war, terrorism, diplomatic crisis and trading disputes between states (Busby, 2007; Dalby, 2003; Homer-Dixon, 1991). These conflicts originate from the deterioration of the balance of power in economy and politics. The balance of power is inclined to collapse because global environmental damage creates instabilities regionally and globally. If the environmental problem makes these problems increasingly critical, especially in supplying food, it is easy to see how food will become a weapon. This fact is already evident today, and is stimulating adverse effects for humanity.

The potential crises driven by these instabilities can be economic, social and political. Whatever the crises, the states must develop policies along bilateral, multilateral and international lines. Although policymakers need to focus on specific commitments to solve a given problem, in reality they are inclined to shift focus from that particular issue to deal with other relevant policies at the same time. This fact produces divergent policy agendas that are not embraced in a well-structured and specific political venue. Policymakers can deal with policy agendas if they have a clear state of emergency. At that point, the state of emergency changes policymakers' political interests and forces them to act. But greenhouse gas emissions have increased so rapidly and are continue to expand the scope of dangerous to the environment precisely because national policies are so ineffective at achieving a global solution. They must, in other words, be supported by international policies.

CHAPTER 2

THEORETICAL FRAMEWORK: NEOLIBERALISM & CRITICAL THEORY

This chapter will explain the theoretical background of neoliberalism and critical theory. In neoliberalism, the complex-interdependence issue is essential to understand the reason for signing the Kyoto Protocol and Paris Agreement. Then for these two agreements' implementation process analysis, Critical theory helps to explain dynamics with its concept called as emancipation.

2.1. Theoretical Background of Neoliberalism

In the 1930s, the Great Depression decimated the world economy, and Keynesian theory was acknowledged as the way to combat economic recession. Keynesian theory asserted the primary role of the state to intervene to control its market economy. According to this theory, state intervention in the market provided a balanced economy by controlled fluctuations. Until the 1970s, as Venugopal (2015) stated, neoliberalism was associated with the economic ideas put forth by Friedrich Hayek and the counter-Keynesian economists of the Chicago School. By the early 1980s, there emerged a different way to define neoliberalism by arguing privatization, deregulation, and welfare-state model. This broadened economic ideas thinking to include political, social, ideological and cultural policy elements. Since then, neoliberalism has become a term used for many social science disciplines, rather than economic debates, and has shown a tendency to deal with issues of power and ideology. Clarke (2008) and Venugopal (2015) point out that neoliberalism invokes many different adjectives in a conceptual arena such as from states, spaces, and logic to privatization, regulatory frameworks, and good governance.

According to theory, the lack of a hegemonic state power in an anarchic world system creates a vulnerable legal platform for binding international agreements in policy action

(Keohane and Nye, 1977). Anarchic world system with free trade dynamics triggers the states to change their security understanding into a different structure. Notably, the end of the cold war enables to observe that the state can get off from security dilemma (Lebow, 2009). Neoliberalism emphasizes the existence of civil society which means that the community of people govern themselves self-rule (Peters, 2001).

Neoliberalism consists of the political and economic practices associated with free market forces and private property rights (Kotz, 2002). Individual freedom in entrepreneurship and free market economies characterize these practices and include free trade (Harvey, 2005; Parr, 2015). Neoliberalism has its own ethics system that guides all actions, especially in the economy. For instance, contractual relations in the market place are an essential ethical belief for the social good (Harvey, 2005; Treanor, 2005). The liberal market structure therefore improves human well-being in society. People with private property rights, entrepreneurial freedoms, and the free market can do more functioning economic activities (Wilson, 2018).

Moravcsik (1997) indicates Liberal theory in the context of state-society relations by saying that the societal contexts on national and transnational stage have influenced the state's behaviors in politics. According to him, societal tendency, ideas, and preferences shape strategies of the states in world politics. However, Harvey (2005) and Piven (2007) state that neoliberalism has a hegemonic power in discourse because of its having a convincing impact on different thoughts in society. These thoughts accumulate into a form of common knowledge or common sense that enables states to act collectively.

The liberal economic structure can be developed by establishing an appropriate institutional framework (Harvey, 2005). According to neoliberal institutionalist perspective, the institutions have an impact on world politics when two conditions exist. Firstly, the states have an interest in cooperation for potential gain and secondly, the institution has approach relevant to the state behavior (Keohane, 1989). Changing world dynamics to a more liberal market economy, the states tend to embark upon their own economic and politically interdependent initiatives worldwide. This situation allows states to establish policies beyond the national level and leads to corporate between them (Kotz, 2002). Neoliberalism re-conceptualizes states' power relations as

'responsibilization of self' under the hypothesis of governance of welfare. This responsibilization affects to the market structure (Peters, 2001).

In addition to that, the institution affects the states' policy contexts. Building an institutional framework is therefore provided by states. Neoliberalism assigns the state in this role and charges it with providing legality and security bilateral or multilateral structure and services, and guaranteeing property rights and a secure market structure (Harvey, 2005). Well-known international institutions like the World Bank, the World Trade Organization and the UN have a hegemonic power to influence the global economy and world politics (Kotz, 2002).

At the same time, political consensus in international politics is hard for states to achieve. There are divergent national interests that conflict with each other, but in some cases, states are dependent on other states for their policy actions. Usually, bilateral and international relations are dependent upon the economic, political and social connections among states. Keohane and Nye (1977) explain this with the concept of "complex interdependence", which means that modern states have different networks in the international and supranational system that diverge from national security and military issues. In field of politics, economy, communication in modern world, these networks derive from the goods, people, and money transactions beyond the national boundaries. All transactions create a new of relations beyond the military power relations for competition among the states in world politics (Keohane and Nye, 1977).

Many different conceptual frameworks have become identified with neoliberalism. In the course of doctrine, neoliberalism exists as a regular phenomenon in divergent contexts, which leads to many criticisms of neoliberalism at the same time. Saad Filho and Johnston (2004) define neoliberalism as “a hegemonic system of enhanced exploitation of the majority”. It is claimed that neoliberalism contains a neo-colonial discourse that strengthens a minority power in the global system and that free market structure causes the "plundering of nations and despoilment of the environment" (Filho and Johnston, 2004). This frame has not been a well-grounded argument since the scope of neoliberalism addresses the full range of power relations not only for the interests of the minority.

2.2. Theoretical Background of Critical Theory

Critical theory, also known as "Frankfurt School," cumulates and applies social, political and cultural theories in social sciences. The Frankfurt School posits a new way of understanding Marxist revolution. It mostly criticizes Marxist parameters, which rely too heavily on economic interpretations.

Habermas (1971) argues that Marxist ideas should be considered in social and cultural upper structure of society instead of only at the sub-structural level. He focuses on the emancipation issue in the capitalist social-economic structure. The proletariat lost its potential of freedom because by transforming their understanding of emancipation in modern times. So, the concept of emancipation must be reinserted into the discussion about the capitalist system. Four transitional phases of the emancipation process occur: "from domination to exploitation; from exploitation to alienation; from alienation to liberation; and from liberation to emancipation" (Broniak 1988). Specifically, the emancipation of the individual in society is interpreted as a relationship between the proletariat and bourgeoisie. Because the working class is absorbed into the capitalist system, and in this uni-dimensional society, the majority (working class) is incapable of conceiving of an alternative system, including one that might favor them.

Specific historical and social conditions occurred at the founding of the Frankfurt School, which triggered thinking about human oppression in society, and critical theory oriented scholars toward human emancipation and liberation by applying both normative, empirical and practical discourses to observations about the social world. According to Fay (1987), critical theory enabled us to have an understanding of the oppressive features of a society. This understanding provides the basis from which to transform society and liberate humans rationally.

According to Habermas (1971), as in the capitalist system, there is a correlated relationship between knowledge and authority in conventional theories. In conventional theories, such as realism and liberalism, authority is retained by knowledge. The power of the authority is derived from the existing knowledge, and the structure is framed with that order. So, any changes are hard to establish and apply into the structure because of the hegemony of knowledge. According to Geuss (1981), critical theory claims to eliminate the conventional theories about achieving emancipation. The emancipation of

individual from society can only be actualized by a structure building with a critical sense.

According to critical theory, all knowledge is converted into the ideological structure because it reflects values, ideas, and the interest of social groups (Shelby, 2003). It criticizes the nature of the rational mind, positivism, the relationships between human and nature, and its progress in history. Human nature is not fixed; it was shaped by historical changes and social conditions. The theory also questions the nature of the present condition, who is served by theories, how this system can change, and how a new system could create a new intellectual framework. This intellectual framework has to change and transform according to socio-economics and political system, and must be oriented towards establishing the prospect of human emancipation (Weber, 2005).

In addition to the Frankfurt School, critical theory is connected to some post-structuralist scholars, such as Michel Foucault, Jacques Derrida, and others. Both the Frankfurt School and poststructuralist scholars establish their theoretical positions based on Enlightenment developments. The Enlightenment foundations were mostly related to the application of human reason to political, social and cultural practices and to imaging how human potentiality can flourish in everyday life (Macdonald, 2014).

The connection between human reasoning and freedom can only guide toward emancipation beyond those practices. The Enlightenment provides a philosophical ethos which is "the permanent critique of our historical era" and "the art of voluntary insubordination, that of reflected intractability" (Foucault, 2003). This philosophical ethos reflects features of the actual political and theoretical positions in the discourse of the critique.

According to Marcuse (1972), critical theory focuses on the valuation of existing political forces. In addition, Marcuse analyzes how new social and political forces can enable human emancipation. However, Horkheimer and Adorno (1972) are unwilling to accept that the Enlightenment created an "Age of Reason" that triggered significant scientific and technological developments. These developments could have helped human reasoning to dominate nature and reveal the power of instrumental rationality in social and cultural life. But in that sense, they critique reason and rationality as essentially features of domination, rather than forces that produce liberation.

As a scholar in the second generation of the school, Habermas (1971) reevaluated the initial claims of critical theory, especially those that thought about human emancipation as it related to the evolutionary and development processes of human society. In contrast to initial historical-hermeneutic claims, Habermas (1971) proposes a new transformation towards emancipation through the structure of language. According to him, "communicative action" can orient with socially constructed manners of unanimity and understanding enclosed within speech (Habermas, 1971).

There is a growing consensus of the failures in the Enlightenment foundations as they relate to political and ideal assembles in social life. So, earlier notions and engagement of initial critical evaluations were unable to integrate new analyses of emancipation and liberation. Hence, apart from insisting on emancipation through human rights, individual liberties, and economic equality, scholars tend to emphasize that a new mode of critique is needed to take potent political discourses into consideration (Macdonald, 2014). Also, Felix et al. (1983) put a manifestation of this notion of critique. According to them, the critical issue was to recognize that some political discourses and practices prevent the establishment of new modes of desire and becoming. Also, they argued that a common ground is needed for the possibility of emancipation, which can come about through a new linguistic play or philosophical concept.

The other important theorist is Robert Cox, the founder of Gramsci School. Cox (1983) evaluated Antonio Gramsci’s idea ‘hegemony' and added his own perspective. Gramsci defined hegemony is the process that generates "the 'spontaneous' consent given by the great mass of the population to the general direction imposed on social life by the dominant fundamental group" (Gramsci, 1971). In contrast to Marx's ideas on hegemony, in which economic parameters create oppression in society, Cox agrees with Gramsci that hegemony is a mix of consent and oppression. According to Zanetti and Carr (1997), Gramsci combines the activated, diplomatic and deliberate extents of hegemony. Engagement of different actors from international regimes on different economic activities (Cox, 1987; Murphy, 1998) to collide in the developed-states (Saason, 2000) can get along with Gramscian mechanisms of negotiation (Egan and Levy, 2003). According to Egan and Levy (2003), the Gramscian political theory defines centrality of organization and strategy; it focuses on power with its pillars such

as ideology, structure, and economy. The power leads to social change derives from the processing of coalition building, accommodation, and conflict.

Like aforementioned other scholars, Cox differentiated theories into two categories: problem-solving theory and critical theory. According to him, conventional theories such as realism and liberalism are the problem- solving theories, which are defined as ‘form of identifiable ideologies pointing to their conservative consequences, not to their usefulness as guides to action' (Cox, 1983). These theories guide tactical actions that sustain the existing order (Cox, 1981). So, these theories serve some purpose, which can be to solve the problems in the system or to maintain the balance of power in the world order. As problem-solving theories, their main aim is to solve problems existing among relationships and institutions and help them work more smoothly. When looking at a problem, conventional theories analyze and deal with its source. These theories are inherently conservative and aim to smooth out the whole system by solving some parts of the issue. On the contrary to the conventional theories, critical theory aims to extend human emancipation by understanding the process of historical change. It tries to liberate, practically, human beings from the natural conditions and obligations. It can be said that emancipation occurs through communication and dialogue as well as within economic, social and political platforms (Cox, 1981).

CHAPTER 3

TIMELINE OF CLIMATE CHANGE NEGOTIATIONS

This chapter examines the timeline of the international negotiations and policy preferences as well as the discourses of states and attendant mitigation steps. The main actions are COPs which are arranged annually by the UNFCCC to review adaptation and mitigation steps of states and apply new regulations for climate change governance. In here, the literature review mainly includes official information from the UN official website. Also, the summary of the COPs and their reflected outcomes for the commitment issue in the conclusion of this chapter.

3.1. International Initiatives before the UNFCCC

Until the UN established a framework convention, there were different mechanisms that covered many different, specific concerns instead of a constitutive platform that covered international climate change governance in a wholesale fashion. Initially, the 1946 International Convention for the Regulation of Whaling was adopted. This convention focused on putting quotas and setting procedures for whaling states. The aim was to preserve stocks of great whales and protect the oceans' nutrient cycle. Later, the International Maritime Organization developed by International Convention for the Prevention of Pollution from Ships (MARPOL) in 1973. This convention was created to curtail pollutions of the oceans. After MARPOL came the adoption of the Geneva Convention on Long-Range Transboundary Air Pollution (LRTAP) in 1979. The UN Economic Commission operated the LRTAP for Europe. This convention expanded the list of pollutants that should be curtailed and identified specific commitments and steps to address many issues relating to pollution. In 1987, the Montreal Protocol on Substances that Deplete the Ozone Layer was established to eradicate individual states' emission of ozone-depleting substances (ODSs). The decisions taken by the authority of the meeting of the Parties, and, while the agreements were legally binding, they could not be enforced.

The first World Climate Conference was in Geneva in 1979, at which the World Meteorological Organization (WMO) was established. The WMO aimed to inform

about global warming and its conclusions on earth. It issues that the governments should take steps on preventing artificial changes in climate because of adverse influence on human's lives. So, in November 1988, WMO and UN Environment Programme (UNEP) frame the Intergovernmental Panel on Climate Change (IPCC). The establishment of the IPCC was a groundwork for scientific assessments that enables insights for international negotiations. The IPCC assessments are so necessary for providing an underpinning for making international climate change policymaking. These regular assessments were prepared on a scientific basis and assessed climate change and its impacts, as well as the management of its future risks and policies for mitigation and adaptation. More policy-relevant but not policy-prescriptive, the assessments were meant to serve as projections of present and future scenarios regarding climate change. Discussions about different climate change scenarios offered a *status quo* or baseline about the current situation, rather than offer concrete suggestions on actions to be taken.

The IPCC is open to all member countries of the WMO and the UN. It currently has 195 members. The panel consists of representatives of the member states gathered in plenary sessions that take significant decisions. The IPCC Bureau, elected by member governments, ensures leadership to the panel on technical, scientific, and strategic issues. These assessments are indeed made by several leading scientists, who serve as volunteers as coordinating lead authors and lead authors, and hundreds of other experts as contributing authors, all of whom support the work recommended in the reports. Transparency and the overall structure are essential parts of the IPCC reports because they are tested in several rounds of analyzing and drafting stages. They contain the scientific, technical, and socio-economic assessments of climate change (IPCC Fact Sheet, 2013). In November 1990, the IPCC offered its first assessment, reporting that "emissions resulting from human activities are substantially increasing the atmospheric concentrations of greenhouse gases". It subsequently called for a global treaty to be reached at the Second World Climate Conference.

3.2. The Adoption of the UNFCCC and UN Negotiations Timeline

International initiatives have helped make global climate change policies more concrete in practice. In order to ground and structure an international framework, in December

1990, the UN General Assembly created the Intergovernmental Negotiating Committee (INC). In addition to the WMO' studies, the UN bargains emission targets, binding commitments and financial mechanisms in this first meeting of INC in December 1990. International climate change negotiations have been ongoing since the 1992 Earth Summit in Rio de Janeiro, yet global GHGs have increased by one-third since the adoption of the UNFCCC in 1992.

On 5 June 1992, at the Earth Summit in Rio known as the UN Conference on Environment and Development, the UNFCCC developed two sister Rio conventions: the UN Convention to Combat Desertification (UNCCD) and the UN Convention on Biological Diversity (UNCBD). The UNCCD, prepared in 1994, agreed on issues concerning the environment and sustainable land management, characterizing arid, semi-arid and dry lands as vulnerable to climate change. The CBD was a major step forward in working towards sustainable development, protection of biological diversity and its components, and fair usage of genetic sources and their benefits.

The UNFCCC entered into force on 21 March 1994 with a treaty signed by 196 states, known as ‘Parties' in the convention. The signatories agreed to meet annually at conferences known as Conference of the Parties (COP) to discuss recent affairs in climate change and possible responses. The convention separated the Parties into three main groups. The first group was Annex I, which included the industrialized countries, which are also members the Organization for Economic Co-operation and Development (OECD). It included others, too, such as countries whose economies were in transition, the EIT Parties, such as the Russian Federation, the Baltic States, and several Central and Eastern European States.

The second group is Annex II Parties, which include only OECD members of Annex I. Annex II Parties are responsible for providing the financial backing for developing countries to apply emissions-reduction policies under the convention. One of the key aspects of the financial support was the transfer of climate-friendly technologies to the EIT Parties. Other Parties were called Non-Annex I Parties, which contain mostly developing countries. These countries were vulnerable to the dangerous impacts of climate change, including those particularly prone to desertification and drought and which were located in low-lying coastal areas. They were also the group of countries

most reliant on fossil fuels for the economies. Specifically, the convention aimed to address their needs and concerns for investment, insurance, and technology transfer.

In addition, 49 Parties in the convention were known as least developed countries (LDCs) has named by the UN. LCDs had particular circumstances and were given special consideration under the convention, since they had a limited capacity to adapt to climate change policies. Also, there were disclaimers about the role of observer organizations, which participated in sessions and meetings, but with some specific quotas for admission to conferences.

The first Conference of Parties in Berlin was a leading meeting known as a Berlin Mandate. It enabled Parties to negotiate commitments, especially for developed countries. In August 1996, the UNFCCC moved its secretariat from Geneva to Bonn, a city in Germany known as a sustainable international hub. This settlement of secretariat supported the KP. The first and second COPs were designed to build a roadmap towards the KP.

3.3. The First Treaty on Climate Change: KP

In 1997, an essential step for climate change politics was achieved. The KP was adopted on 11 December at COP3 in Kyoto, Japan and entered into force in 2005 according to Article 23. The adoption of the KP was an essential treaty for the reduction of GHGs, a historical milestone for establishing compulsory emissions reduction targets. According to Article 24, in open signature dates from 16 March 1998 to 15 March 1999 at UN Headquarters, the Protocol received 84 signatures. In Article 22, Parties considered the KP as a piece of the convention regarding future procedures, such as ratification, acceptance, approval, and accession. The Parties that did not sign the KP could, however, decide to participate in it.

The KP was recognized as a sharing burden on developed countries specifically. Developed countries were considered the principal actors historically responsible for dirtying the air with carbon emissions; after all, the industrial activity of developed countries was far greater in the past. The Protocol produced binding emission reduction targets for each Party but slowly on the developed ones. The principle of the Protocol was clear in the meaning of "common but differentiated responsibilities" (UNFCCC,

1998). From that signing time to today, 197 Parties (196 states and one regional economic integration organization) accepted the KP.

3.4. The Process after KP: Bonn Agreement and Marrakesh Accords

In July 2001, the second part of the COP6 meeting occurred in Bonn. The meeting was significant because it achieved a political consensus on the writing of an operational rulebook for the KP (UN, 2001). These determined rules were related to international emissions trading, joint implementation, and clean development mechanism issues.

In international emissions trading, the goal was to reduce or limit the amount of emissions that would be determined under the second commitment period of the KP (2008-2012). GHGs would now be defined as a new commodity in the international community. Because emissions were being assigned to specific countries, countries could potentially sell them as units to other countries in order to avoid exceeding their targets. As defined in Article 17 of the KP (UNFCCC, 1998), emissions trading allowed states to sell the emission units that they did not use, even if they were utilized to the determined upper degree. Countries could, in other words, dispose of their unused emissions capacity to a country that exceeded its emissions target. This system was called a carbon trading market, since carbon dioxide produces the largest share of GHGs. In this burgeoning ‘carbon market,' more than the actual number of emissions units could theoretically be traded under other trading schemes encouraged by the KP. Emissions units were transferred in different forms, but the generally accepted measurement was one ton of CO2.

In the joint implementation mechanism defined in Article 6, a country that had an emission-reduction commitment in the Annex B Party could reach a consensus for gaining some emission reduction units (ERU) from another country in the same Annex B Party (Bretona, 2005). This emission removal project was equivalent to one ton of CO2, the Kyoto emission reduction target. Joint Trading would reduce emissions at the source and additionally encourage countries to create new ways to remove them. These projects could gain acceptance by the host Party, and one of the Parties would delegate participants to the project. This mechanism enabled the Parties to have more flexibility and efficiency as well as greater cost savings in achieving the Kyoto commitments. The

host Party would gain advantages through foreign investment and technology transfer. Joint implementation of carbon trading started in January 2008 (UNFCCC, 2018).

The third part, the Clean Development Mechanism (CDM), was defined in Article 12 (UNFCCC, 1998), allowed an Annex B Party, which has emission reduction commitment under the Protocol, to carry emissions-reduction projects in any developing country. In these projects, there are some saleable certified emission reduction (CER) credits, again equivalent to one ton of CO2, which could be counted towards Kyoto targets. For example, these projects can be efficient land use electrification with wind turbines to replace coal in rural areas. In short, they enhance the capacity of developing countries to pursue sustainable development and to make positive investments in the environmental. The mechanism also would allow for greater flexibility, on a global level, to pursue emission reductions strategies for developing and developed countries alike. Since the mechanism came into operation in 2006, there have been 1,650 registered projects that generate CERs, corresponding to more than 2.9 billion tons of CO2. This equaled the upper limit of targets for the first commitment period of the KP.

In the light of these three mechanisms, it can be observed that the Bonn agreement stimulated national movement towards climate change policy and even assisted in local jurisdictions taking action as well. Each Party endeavored to establish projects for effective domestic action. Emissions trading schemes were framed with different climate policy instruments at the local, national, and regional levels. Under these mechanisms, the Parties determined emission reduction units that defined emission obligations for governments. In this context, the EU was a leader, launching the largest emissions trading scheme in January 2005. The EU operated an online database for accounts of permanent installations of the EU emission trading system (European Commission, 2018). In addition to EU countries, other countries, companies and even individuals could participate in the EU ETS. Even this system has more than 30 countries, it does not become successful to decrease CO2 emissions at all (Cohen, 2015; Ediger, 2017).

In November 2001, the seventh COP concluded with the Marrakesh Accords, which set up detailed rules for the KP. The Marrakesh Accords provided instruments for adaptation, assigned new funding targets and goals, and strengthened the capacity for

effective technology transfer. In addition to climate change governance, the main focus was on emission reduction targets. Sterk and Hermwille (2013) state that the literature on such policies has grown to include the full range of climate-related issues. The mitigation policies have usually transformed technology targets, emission pricing models and specific policies and measure (PAMs) for each Party to the convention.

3.5. Kyoto Protocol Enters into Force

The KP entered into force in 2005 with the first Meeting of Parties (MOP 1) in Montreal. In this meeting, most importantly Russia, one of the largest emitters in the world, ratified the KP, and the Parties launched the next commitment period, which would process in 2012. The following commitments of the protocol were not changed, but the results of the first commitment period targets and the timetable for the next period were discussed under the Ad Hoc Working Group on Further Commitments for Annex I Parties under the KP (UNFCCC, 2018).

3.6. Nairobi Work Program: Use of Knowledge

The Nairobi Work Program at the COP12 held in Kenya in November 2006 focused on the vulnerability of countries to climate change and how they could adapt. The Subsidiary Body established a program for Scientific and Technological Advice (SBSTA). "Nairobi Work Programme (NWP) on impacts, vulnerability, and adaptation to climate change" was a mechanism under the protocol to improve the use of knowledge and increase adaptation policies and practices. The program especially aimed to develop understanding about the impacts, vulnerability, and adaptation for Least Developed Countries (LDCs) and Small Island Developing States (SIDS). Improving their understanding and creating knowledge about adaptation actions on technical, scientific and socioeconomic basis became a critical aspect of climate change policies.

The NWP functions were conducted within an extensive network of 360 partner organizations around the world. These organizations included civil society organizations, academic institutions, private sector actors, and the UN, which enabled the establishment of a substantial network in thematic areas with partners at the local,

subnational, national and regional levels. Specifically, non-Party stakeholders became more engaged in the system of knowledge on science-policy actions.

The NWP established portals, such as Focal Point Forum and the online Adaptation Knowledge Portal to gather knowledge on thematic themes. These thematic themes and areas were framed by the Parties and constituted bodies under the Protocol. Knowledge was gathered for making arrangements for thematic topics and regions, and their content was extended in this way. Also, the NWP has a knowledge channel called the Lima Adaptation Knowledge Initiative, which was constituted between national and sub-regional levels.

3.7. IPCC Fourth Report Leads to Bali Roadmap

In 2007, the IPCC released its Fourth Assessment Report that increased consciousness of climate change. With the growing popularity of the issue, the Bali Road Map was established in December 2007 at COP13. The road map led to a new charter for post-2012 period, creating two working groups: the AWG-KP and the Ad-Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA). This new charter focused on forging a secure climate future and established a new course for the negotiations process that would readily address the detrimental effects of climate change. The Bali Road Map also included the Bali Action, which had five main functions: shared vision, mitigation, adaptation, technology, and financing. The Bali Action was proposed to be completed, along with its abiding other decisions and resolutions, by 2009. According to Clémençon (2008), the Bali Roadmap surely strengthen the international negotiations with these advancements indicated above, but specifically it indicated reflection about the challenges of the negotiators. These challenges are shaped according to recognition on each other for global cooperation for climate policies. Also the issue of “social justice” is also mentioned in this COP (Ott et al., 2011).

3.8. Poznan Strategic Programme and Copenhagen Accord

The next negotiation, COP14, took place in Poznan, Poland in December 2008. The Poznan Strategic Programme on Technology Transfer was initiated to support climate

technology development and transfer activities. It also provided funds for climate technologies for countries especially important for developing countries, which needed technology transfer to incorporate climate technologies and meet their targets.

To apply for the program, the Parties launched the Adaptation Fund (AF) that had been accepted in 2001 under the KP. The AF provided finance to developing countries most vulnerable to climate change and incapable of building their own climate change technologies. It received significant funding from the Clean Development Mechanism (CDM). The share of AF that would take from CDM projects would be 2 percent of Certified Emission Reduction (CERs). To conduct this mechanism, the Adaptation Fund Board (AFB) assembled with 16 members and 16 alternates. The AFB would meet at least twice a year and would hold workshops and seminars that would be accessible to the public. With their seminars and workshops accrediting the national implementation entities, the AF assisted in sharing knowledge on implementing adaptation projects with partner organizations and adaptation finance.

In 2009, the landmark COP15 was held in Copenhagen, Denmark, where developed countries promised to provide $30 billion in financing for climate technologies as a starting point for 2010-2012. Submissions were outlined by 114 Parties for emissions reduction, and new mitigation commitments were reached under the Copenhagen Accord. These commitments, however, were not legally binding. Tabau et al. (2010) argues that the mobilization of financing for climate change was a critical step in the establishment of a global climate agreement. It was crucial that adaptation processes be nurtured with financial support. The Copenhagen Accord was successful in creating a financing roadmap for developed countries to help vulnerable, poor developing countries.

3.9. Cancun Agreements

COP16 in 2010 then led to the Cancun Agreements, which were drafted and accepted by most of the Parties in Mexico. Tabau et al. (2010) reported that before the Cancun conference, the developed and developing countries were worried about the possibility of a new agreement. Many of these group of states tended to express the importance of having greater clarity on mitigation commitments and actions. Notably, the key issues

to developing pathways towards a new agreement were the measuring, reporting, and verification (MRV) of obligations and activities, and MRV for supporting mitigation efforts of developing countries.

On the whole, the Cancun Agreements created essential steps for future climate change policies. They led to all industrialized and more than 40 developing countries to publicly commit to their respective emission reductions. Sterk and Hermwille (2013) contend that the Cancun Agreements was so important because developing countries adopted the nationally appropriate mitigation actions (NAMAs) that would demonstrate the active and widespread participation of the globe in climate governance. This significant achievement represented the most considerable collective effort at the international level. It gave definition and a mutually and accountable way for the UN to guide global climate change policy and process.

The Cancun Agreements provided, in other words, the financial, technological, and sustainable development strategies that would reduce the adverse effects of climate change through low-emission targets. The global response to climate change had become popular, so it was a timely step to ensure the transparency of countries' actions on climate. Notably, regarding mitigating climate change, the agreements pledged to assist developing countries and laid forth the terms and conditions for capacity building in developing nations.

On the contrary, according to Tabau et al. (2010) says that the Cancun left several ambiguous areas. First, it was unclear which categories of countries would pledge what on mitigation policies. It was also unclear how the Kyoto commitments would be secured. Lastly, providing a balance between the two negotiation processes and how they would ensure the expected progress still proved elusive. The Cancun Adaptation Framework was also framed with the Green Climate Fund, a technology mechanism.

The Green Climate Fund (GCF) was set up for developing countries to support the climate change policies of the 194 Parties to the convention. It gave equal funding to mitigation and adaptation strategies for the countries’ most vulnerable to climate change impacts. The GCF is considered a financial mechanism of UNFCCC, and was guided by the convention's principles and provisions (Green Climate Fund, 2018).

The Technology Mechanism supported enhancing technology development and transfer to developing countries. In order to coordinate the mechanism effectively, two bodies

were formed: the Technology Executive Committee and the Climate Technology Centre and Network. The Technology Executive Committee is the policy body of the mechanism. It prepares policy analysis reports and provides policy recommendations to improve climate change technologies. Twenty technology experts come from both developed and developing countries, meet several times during the year and organize events that aim to inform about technology and policy issues in the world.

The other body of the mechanism is Climate Technology Centre and Network, which aims to coordinate the implementation of the Technology Mechanism through three services:

1. Providing technical assistance at the request of developing countries on technology issues;
2. Creating access to information and knowledge on climate technologies; and
3. Fostering collaboration among climate technology stakeholders via its network of regional and sectoral experts (UNFCCC, 2018).

The center is directed by the UN Environment together with the UN Industrial Development Organization and is subsidized by 11 partner institutions. It helps establish a network of a wide range of organizations around the world. Nationally, regionally and internationally, this network provides substitutes for its services. An advisory board of the COP coordinates the center. The Technology Executive Committee and the Climate Technology Centre and Network are working in a complementary fashion with each other. Their assistance for developing countries is effectively carried out by the mechanism through both policy and implementation aspects of the climate technology.

3.10. Durban Platform: Construction of PA

COP17 was adopted in Durban, South Africa in 2011. The Durban Platform for Enhanced Action was drafted to embark on a legal agreement that would plan a new universal blueprint to confront with climate change beyond 2020. The platform was an essential step for climate change negotiations because all Parties accepted to play a part to the best of their responsibility and achieve a sustainable successful together. COP17 launched a subsidiary body called the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). The ADP aimed to constitute a legal force for Parties to

implement emissions reduction targets until COP21 in 2015. Also, it presumed the Parties get off the ground impacts of their policies by 2020. With its first session in 2012, the ADP agreed on the agenda, and throughout 2013 and 2014, proceeded with its work, including workshops, roundtable discussions, and technical expert meetings. Hence the ADP concluded its assignment with the PA on 5 December 2015.

In addition, COP17 launched an important initiative called as "Momentum for Change" on 6 December 2011. "Momentum for Change" was a climate change action conducted by UN Climate Change secretariat. The UNFCCC organized a ‘Momentum for Change' that included climate change awards for low-carbon projects across the world.

So, with this action, the UNFCCC encouraged more innovative projects that address both climate change and wider economic, social and environmental challenges in the world. These projects are also considered as transformative solutions for tackling climate change, and are called ‘lighthouse activities’. They are some of the most practical, scalable and replicable examples of what people, businesses, governments, and industries are doing to tackle climate change. ‘Momentum for Change' climate change action mostly deals with these areas: planetary health, climate neutral now, women for results, financing for climate-friendly investment, information and communication solutions, urban poor (UNFCCC, 2018).

3.11. Second Commitment Period of KP

In 2012, COP18 was an important conference because the Parties started to work for a new universal climate change agreement by 2015. It also launched the second commitment period of the KP and brought about a change with the Doha Amendment to the KP. The amendment drafted new commitments for Annex I Parties of the KP, for a second commitment period of the protocol, which would run from 1 January 2013 to 31 December 2020. For the second commitment period, the list of GHGs to be reported was revised, and several articles updated in the amendment.

On September 2013, the UNFCCC secretariat transferred to its new headquarters on the UN Campus in Bonn, Germany. Recently, this building was renovated with low-carbon technologies like solar power and smart lighting. Then, on 27 September 2013, the

IPCC published the second part of the Fifth Assessment Report on climate change. This part of the report was essential to prove the scientific basis of climate change.

3.12. Warsaw Outcomes: Securing Way of A New Agreement

At COP19 in November 2013 in Warsaw, there were significant decisions taken to improve previous decisions on in the Durban Platform and extended with the Green Climate Fund and Long-Term Finance, the Warsaw Framework for REDD Plus, and the Warsaw International Mechanism for Loss and Damage and Warsaw Outcomes.

The Warsaw outcomes put regulations for emission reduction, specifically limiting to deforestation and forest degradation, and establish a mechanism to indicate loss and damage of climate change. Most importantly, Warsaw led to the signing of a universal agreement in 2015, as Parties agreed on a timeline for that year.

This projected timeline consisted of three steps. First, the meeting in March 2014 clarified the objectives of a new climate agreement with its initial draft text given by December 2014 and its formal submission by May 2015, with its concluding a successful negotiation on December 2015. Second, governments determined to prepare their domestic actions for their nationally determined contributions (NDCs), which applied in a new agreement. To achieve their NDCs, the developed countries are intended to support developing countries. This decision for private action was an essential part of the negotiation processes. Last, governments decided to portray precise information for the public and to other countries about their nationally determined contributions.

Before COP20 in September 2014, UN Secretary-General Ban Ki-moon hosted a climate summit in New York, which was attended by heads of state and government, local and global leaders in finance and business, as well as civil society. This summit had a unique effect to establish a new international agreement in 2015. After two months, in December 2014, COP20 was held in Lima, Peru. COP20 could be seen as a pre-assessment of the universal agreement signed in 2015. Hence, at COP20, the Parties could have an opportunity to push collective action on the climate change.

3.13. Milestone for Negotiations: PA

On 12 December 2015, the Paris Climate Agreement (PA) was agreed by 195 nations. This agreement was a milestone because it brought together all nations, for the first time, in establishing a common cause regarding their responsibilities throughout all the time. The PA began to be ratified on 22 April 2016. To date, 183 of 197 Parties have ratified the convention. It entered into force on 4 November 2016, after achieving the "double threshold," which means ratification by 55 countries that account for at least 55% of global emissions.

The Parties focused on strengthening the global response to climate change by aiming to keep global temperature increase to below 2°C in this century. Because the global temperature rise is already above pre-industrial levels and continues to increase today. Literally, with the PA, the Parties at least sought to limit the temperature increase to 1.5°C as an ultimate resilience for climate change.

The PA was a universal agreement to focus on climate change and unleash action to enable a sustainable future by smoothing the way for the countries to make low-carbon investments. To conduct a well-grounded mechanism, it established financial, technical, political and social flows. These flows were mostly the same as the KP mechanisms. The mobilization and provision of financial assets, supporting action by developing countries and technology transfer framework and capacity building were enhanced in detail. In addition to these policies, as a new one, a transparency framework for the Parties in climate action was developed.

Also, the PA established NDCs for all Parties to achieve their aims in the years ahead. In the NDCs system, the Parties are assign to prepare reports about their emissions levels and efforts to mitigate them. The PA also declared that the Parties would reassess the collective progress every five years.

To make the PA work in practice, a work program was established to determine procedures and guidelines for the climate-resilient pathway. There were several critical aspects of the PA in a different issue of climate change. The long-term temperature goal (Art. 2), global peaking and 'climate neutrality' (Art. 4), mitigation (Art. 4), sinks and reservoirs of GHGs (Art.5), voluntary cooperation/market and non-market-based approaches (Art. 6), adaptation (Art. 7), loss and damage (Art. 8), finance, technology and capacity-building support (Art. 9, 10 and 11), climate change education, training,

public awareness, public participation and open access to information (Art 12), transparency (Art. 13), implementation and compliance (Art. 15), global stock-take (Art. 14) were enhanced for activate international cooperation effectively.

Apart from these articles, the Parties agreed on developing specific actions before 2020, which included improving the technical examination process and measuring the high-level engagement with the stock-take of collective progress. At that point, the most important aspect was to incorporate the decisions and efforts of non-Party stakeholders in climate change mitigation policies. Non-Party stakeholders included civil society, business with financial institutions and subnational authorities within cities. All stakeholders were to play a part of this collective process and a Non-State Actor zone for Climate Action platform was established to organize them. This unifying effort strengthened the capacity of local communities and indigenous peoples, as well as the development of technology, the capacity of knowledge and practices through domestic policies and also carbon pricing.

3.14. Subsidiary COPs after the PA

Immediately after the PA, the UN established its 17 Sustainable Development Goals on 1 January 2016. These goals were given a 2030 timeline for sustainable development in government, business, and civil society.

At COP22 in November 2016, the Marrakesh Partnership for Global Climate Action was launched, which established a rulebook for implementing the PA. The Marrakech conference revealed to the world that the implementation of the PA was in good order. The Marrakech Partnership for Climate Action also triggered collaboration between governments and key stakeholders to invest in low-carbon technologies. This increasing resilience to fight against climate change was framed according to rulebook of the PA in the context of the 2030 Agenda for Sustainable Development.

COP23, was held from 6 to 17 December 2017 in Bonn, Germany. It was unique because it was presided over by a small island developing state: Fiji. The most recent meeting, COP24, was held in Katowice, Poland on 2 December 2018.

3.15. Analysis of COPs' Outcome: Audience Cost for the States

COPs' frameworks mainly aim to shape the commitment of states in the process. Some of them focus on improving knowledge and raising awareness of states and civil society, also some of them focus on funds for supplying economic support to climate change resilience.

The COPs which aim to improve knowledge and social support, actually construct audience cost for states. Audience cost drives as domestic audience cost derived from public force from local policies to any foreign policy crises (Baum, 2014; Fearon, 1994; Kertzer and Brutger, 2015; Tomz, 2007). The audience cost may be one of social elements of oppression for states to choose "empty threat" scenario or "stay out" scenario (Tomz, 2007; Trachtenberg, 2012). In that context, audiences can belong to any community or public which may change according to the leader's address to it and the audiences can threat their leaders for being inconsistent in politics (Kertzer and Brutger, 2015), although Weeks (2008) argues that the states which have autocratic regime type have advantage in generating audience cost as much as democratic states. Especially, if the country has a democratic regime, the leaders can use audiences as a policy manner in crisis and also the audiences have louder their expression to the leaders that are a mutual relationship (Eyerman and Hart, 1996; Fearon, 1994; Slantchev, 2012). This more advantageous for democratic states (Eyerman and Hart, 1996; Schultz, 2001).

Inside of the negotiation process, the UNFCCC triggers the audience cost in world politics with its institutional structure and foundation of international agreements. The UNFCCC has an institutional feature because of having a regulation system with COPs. The institutions generate commitments in the way of policymaking. Prepared a suitable platform and conceptual framework enable the states to make have commitment more flexible and credible (Lohmann, 2003). Also, COPs supply binding international agreements for policymaking by the rules and trigger to have audience reactions to them (Chaudoin, 2014). The COPs improve knowledge on climate change effects around the world with communicative action and these raise awareness of the public about their health, economy, and safety (Dryzek et al., 2011). This situation triggers the public to force their leaders to take policies about climate change. The more social inclusion of the climate change issues, the more consistency is constructed between

negotiations with the state's policies. For instance, China has not included in the commitment procedure of the KP because of "equity issue" at that time (Dryzek et al., 2011). Both of the calculation of the amount of emission per capita and economic level of states shape the emission targets. In the process over the negotiations, the climate change policies have gained increasing prestigious for countries and extended scope beyond the states' activities. China, as one of the top ten emitters in the world, started to engage the negotiation process (Schreurs, 2016). In addition to China's example, the highest participation of the states is reached in PA.

Table 3.1 Summary of COPs and Their Outcomes[3]

Number of COP	Name of COP	Decisions and Targets	Contributions to the process	Implications for Commitment Issue
COP6	Bonn Agreement	Rulebook for KP Three determined rules: International emissions trading (1), Joint implementation (2), Clean development mechanism (3)	Stimulated national movement towards climate change policy and even assisted in local jurisdictions taking action	Audience cost
COP7	Marrakesh Accords	Detailed rules for KP: technology targets (1), Emission pricing models (2), Specific policies (3)	Instruments for adaptation, assigned new funding targets and goals, and strengthened the capacity for effective technology transfer	Economic Support
COP12	The Nairobi Work Program	Development of understanding about the impacts, vulnerability, and adaptation for Least Developed Countries (LDCs) and Small Island Developing States (SIDS)	Improvement of the use of knowledge and increasement of adaptation policies and practices	Audience Cost
COP13	The Bali Roadmap	IPCC Fourth Assessment Report supported with five main functions: Shared vision, Mitigation, Adaptation, Technology, and Financing	Emergence of "Social Justice" in climate governance (Ott et al., 2011) Annex I and Annex II see their dependency on each other for cooperation (Ott et al., 2011)	Audience Cost
COP14	Poznan Strategic Program	Climate technology	Finance to developing	Economic Support

[3] COPs' official information is taken from *UNFCCC Official Website*, viewed on 29 November 2018, https://unfccc.int/

		development and Transfer activities The Adaptation Fund	countries most vulnerable to climate change and incapable of building their own climate change technologies	
COP15	Copenhagen Accord	$30 Billion financing for climate technologies	Mobilization of financing for climate change (Tabau et al., 2010)	Economic Support
COP16	Cancun Agreements	The measuring, reporting, and verification (MRV) of obligations and activities, and MRV for supporting mitigation efforts of developing countries Green Climate Fund	Developing countries adopted the nationally appropriate mitigation actions (NAMAs) that would demonstrate the active and widespread participation of the globe in climate governance (Sterk and Hermwille, 2013)	Audience Cost Economic Support
COP17	Durban Platform	Enhanced Action was drafted to embark on a legal agreement “Momentum For Change” Awards for low-carbon projects	Workshops, roundtable discussions, and technical expert meetings Encouragement for more innovative projects that address both climate change and wider economic, social and environmental challenges in the world	Audience Cost Economic Support
COP19	Warsaw Outcomes	Extension of the Green Climate Fund with Long-Term Finance, the Warsaw Framework for REDD Plus, and Warsaw Outcomes	Regulations for emission reduction, specifically limiting to deforestation and forest degradation	Audience Cost

CHAPTER 4

THEORETICAL ANALYSIS OF KP AND PA

In this section, the KP and PA will be analyzed with the above two theories. Initially, the make-up process of both KP and PA will be evaluated with complex-interdependence of neoliberalism. Then, the analysis of the implementation process of KP and PA with emancipation concept of the critical theory.

4.1. Neoliberalism Analysis for Signing Process both of KP and PA

Climate change governance has gained institutional framework with the foundation of UNFCCC. As Harvey (2005) points out building institutional framework is provided by states and this leads to influence the states' behavior in global politics (Keohane, 1989; Kotz, 2002). As Neoliberalism refers to this role to the states by providing legality, and security in national and transnational stage with protecting property rights and market structure (Harvey, 2005). So, firstly the Kyoto Protocol and then Paris Agreement strengthens legality of the climate governance in world politics. In signing process of both agreement, the complex-interdependence matters in that because of deriving from the economy, politics, and communication across the national boundaries (Keohane and Nye, 1977). In the following paragraphs, the dynamics of Kyoto and Paris will be evaluated given view of neoliberalism.

In the liberal world economy, the free-market structure depends on individual liberty, which serves the sake of freedom of people in the economic, social and political area (Harvey, 2005; Kotz, 2002; Parr, 2015). In addition, states preserve their position of being the most powerful actor (Keohane and Nye, 1977). They also have a feature of finding and preserving institutional frameworks in international politics. These frameworks may be bilateral, multilateral, international or transnational and have an appropriate ground to practice active policies (Harvey, 2005). Even an anarchic global system has its own governing rules, and institutions enable states to establish common political decisions in terms of long-term norms and rules (Krasner, 1983). So, climate change refers to those areas of politics in view of neoliberalism, as Stein (2008)

specifies. In energy politics, the anarchic global system leads states towards institutionalism so that they can deal with competition. In that point, the principle of complex interdependence becomes a structural factor; the states struggle within the anarchic global system to build consensus and collaborate (Keohane and Nye, 1977).

The KP, a legally binding treaty, was a vital mitigation step for climate change governance in international politics. It created the opportunity for international consensus to enact specific climate change policies for all Parties and forced them to cut carbon dioxide emissions (Zhang and Xu, 2013). In order to establish a strong consensus, all Parties should have the intention to revise and assign their commitments. Dynamics of the liberal market economy leads the states to make their own economic and political initiatives transnationally. This situation triggers to corporate among them (Kotz, 2002), and defines their relationship as 'responsibilization of self' in world politics (Peters, 2001). According to Ediger (2008), the most important success of the KP is that it provides a carbon trade system as a control mechanism by using market regulations to sustain commitments of states for emission reduction.

As seen in Kyoto, climate change was a problem of that century; the scientifically proven environmental damage of climate change prompted states to act. It needs to take the policy, but at the same time, the states preserved their interests and thus their hegemony in the world economy. This scientific fact triggers social awareness about climate change worldwide. As Moravcsik (1997) indicates in theory, the context of state-society relations affects to each behavior. Societal preferences and thoughts shape the states' policy and strategies. In addition, Piven (2007) mentions that neoliberalism enables several discourses within the system and creates a hegemonic power in that. This power occurs as a form of common sense in the society. In the issue of climate change, broadening scientific knowledge and advancing technology raise its power in discourse in policy-making of the states globally (Moravcsik, 1997).

In the transition period from the KP to the PA, different dynamics changed Parties' perceptions on trust building for a new agreement. Neoliberalism enabled the Parties to understand the dynamics of pathways from KP to the PA precisely. It refers many divergent adjectives in a conceptual arena such as from states, logic to privatization and good governance (Clarke, 2008; Venugopal, 2015). Energy politics and energy resource management are under the authority of governments, but the global energy market

dynamics are also changing. With developing technologies in the energy market, the states inclined to invest in those areas and corporate each other. Free market economies, private property rights and entrepreneurial freedoms drive leading roles in this entrepreneurship (Harvey, 2005; Kotz, 2002; Parr, 2015; Wilson, 2018).

The more liberal the world system is, the more different actors in international politics can actualize collective action (Harvey, 2005; Piven, 2007). If collective action has a larger inclusive process, in which all actors from society can participate, policies have a better chance of reaching a balance in theory and practice. The need for inclusion is essential to actualize an effective action. In the new dimension of the liberal world, the role of states has changed over time (Krasner, 1983; Kotz, 2002). In climate change governance, governmental regulations and international regimes support regulatory frameworks. The international market structure also provides a basis for innovation and financing for climate technology.

The PA was adopted by 195 countries in 2015 and was hailed as a milestone in international climate governance. Its signing moment was considered a success in climate change policies, and the construction of the accord lies in different parameters (Victor, 2016). UN Secretary-General Ban Ki-moon called the PA a “monumental triumph for people and our planet” (Falkner, 2016). After ongoing deadlock negotiations after the KP, ultimately the PA enabled global cooperative action and provided a beginning of a new era in climate change politics. Specifically hegemonic power of the UN in climate governance and societal preferences of the Parties lead to actualize this signing moment (Kotz, 2002; Moravcsik, 1997; Piven, 2007).

In reason signing for the PA, climate change preserved its urgency and scientific scope of integrity and there are different parameters that influence the actions that states take. It created a global process of engagement and cooperative action and a benchmark for defines international climate governance effectively. Having cooperative action serves mutual interests for the Parties (Keohane, 1989).

Because having a consensus enables them to balance power relations (Keohane and Nye, 1977; Kotz, 2002). In contrast to the KP, the PA did not establish emission reduction and limitation targets for individual Parties. The PA focused on overcome these divisions and tried to establish an overall climate change goal (Art. 2).

The most important feature of the PA was to create a platform that put commitments to sharing burdens without any limit to the obligations for a set list of countries. In that point, the state's initiatives for the emission reduction targets are seen in figure 4.1. As indicated in the figure 4.1, the states decide their own targets (above the countries' charts) for emission reductions and differently from the Kyoto, the developing countries have also shown their policy targets as seen in China. These self-determined targets refer to demand of the states for a corporation in a consensus.

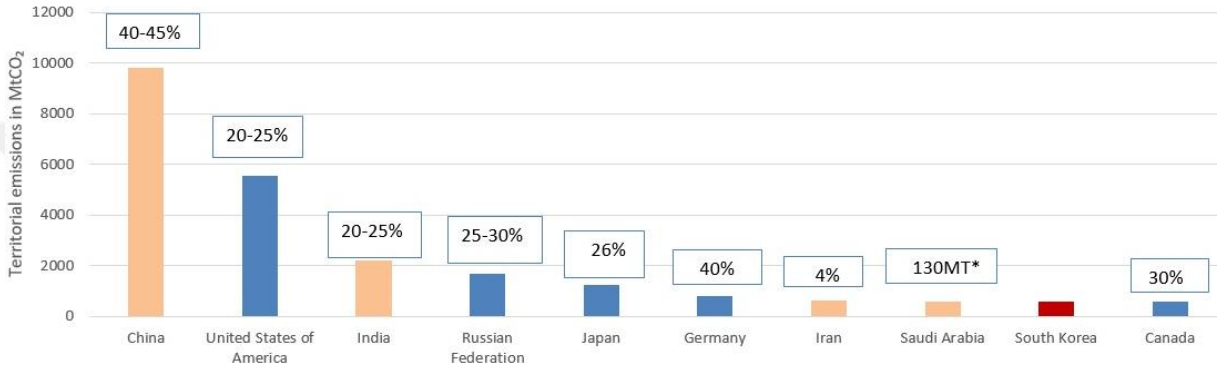

Figure 4.1. CO2 Emissions of Top 10 Emitters in 2014
Source: Boden et al., 2017

The goal depended on countries' decisions on how and how much they could contribute to the goal following the 'principle of common but differentiated responsibility and respective capabilities, in the light of different national circumstances' (Art. 2.2). This article refers to corporative behavior of the states as Kotz (2002) indicates. The Parties' contribution to mitigation policies would refresh every five years (Art. 4.9), at which point, they would have to increase their contributions over time according to the principle of "highest possible ambition" as reflected by their changing capabilities.

The COPs would continue to take stock of the progress of the Parties every five years to ensure that the overall goal was being achieved (Art. 14). This stock-taking would allow Parties to observe the pathway towards achieving the goals of the PA. As Streck et al. (2016) state that the PA does not put any legal limitation to the objectives of states. It had a general climate change policy goal and different commitments for every country. The highest possible ambition was decided according to their capabilities

during the resilience process. This strategy provided states to have burden sharing and to observe the process accurately.

Primarily, the PA abolished one of the critical obstacles of the KP. It stated that all of the major powers cannot be obliged to make massive emissions cuts. Previous targets of the PA proved a negative force for good intentions since each state primarily considered their economic wellbeing first, and then worried about the world (Keohane, 1989; Wilson, 2018). So, reevaluating the common mitigation efforts emphasized that each country would decide their pledges in an international system of climate accountability.

The PA marks a turning point from common distributive bargaining strategies. Currently, states are inclined to found different international institutions to manage and observe market dynamics in energy and environmental issues. In that sense, as Ünver (2017) points out, the concepts made the PA successful were absolute gain, relative gain, complex interdependency and institutionalizing of negotiations. Having successful institutionalism in negotiations makes states' expectations coincide with a mutual point of the issue (Krasner, 1983). Indeed, these institutions that analyze greenhouse gas emissions reduction statistics have catalyzed the observation of states' market regulations and enhanced the realization and perception of 'mutual gain' in the market.

In this sense, an international mechanism like the PA shapes the world economy, which will change according to decisions of the international mechanisms in time. According to Falkner (2016), the PA affects business decisions in three ways: it makes market economies aware of the changing long-term political objectives in the international arena. Secondly, it triggers government policy agendas to make incentives for low-carbon business decisions. Thirdly, it promotes voluntary actions in the private sector. In addition to national agendas, there is also a support mechanism provided by global business.

In PA, the civil society has influence on the policies effectively. The existence of civil society applies as self-governing matters in addition to the states in world politics (Moravcsik, 1997; Peters, 2001). In below, table 4.1 shows a brief summary of the assumptions of neoliberalism within the scope of the KP' and PA's signing process.

Table 4.1 Summary of Neoliberalism and the Accords

	Neoliberalism	**Kyoto Protocol**	**Paris Agreement**
Ontological Assumptions: Nature of Reality	Body of transition, daily activities, and dealings of market-oriented political practices (Peck, 2010) Openness or transparency without a public (Queiroz, 2017)	Climate Change (CC) as a Scientific Fact, Economic and political mechanisms	Climate Change has market dynamics, INDC for mechanisms
Nature of Social Beings	Open-ended, plural, adaptable and contradictory embrace of liberty and order (Peck, 2010)	Based on states' ambitions	Based on states' willingness
Axiological assumptions: Overriding Goal	The individual human being and conception of a good life (Freeman, 2015)	Scientific Precaution for CC Undemocratic platform/ classified as economies	Scientific Precaution for CC More democratic and free market structure
Epistemological assumptions: Knowledge Generated	Knowledge as Human Capital and knowledge based economy (Krašovec, 2013)	Scientific Reports of IPCC	Extended knowledge with high social inclusion
View of Causality	Private property rights, individual liberty, free markets, and free trade (Lodhi, 2017; Harvey, 2007)	Constant Emission Reduction Targets	Policy notifications of states and Investment in low-carbon technologies
Research Relationship	Transfer of information and communication commodities (Dean, 2008)	COPs	COPs & INDC reports of states
Metaphor	Entrepreneur (Marttila, 2018)	Revolutionist	Innovator

Initially, ontological assumptions such as the nature of reality and social beings are presented. In neoliberalism, Peck (2010) suggests that body of transition, daily activities and dealings of market-oriented political practices associate each other. This provides a free-market ideational framework for economy and politics. It has both openness and transparency without a public and this situation prevents that people have a voice in legislation (Queiroz, 2017). In PA, the climate change has a market scope with new technologies. For achieving success, the PA depends on willingness of states about the policies. Kyoto Protocol considers climate change as a fact and develop mechanisms to achieve effective results. For achieving success, it defines state's ambitions on policies.

In overriding goal, Neoliberalism, as Freeman (2015) states, aspires to achieve the individual human being in international relations and to have good life in free market structure. More democratic and free market structure trigger to intention for having good life. PA also search for scientific precaution for climate change adverse effects.

In neoliberalism, knowledge generates as a human capital and a constituent for economy (Krašovec, 2013). In addition to scientific reports, PA has extended knowledge with high social inclusion of the problem.

In neoliberalism, there are causality relationship constructed with private property rights, individual liberty, free markets, and free trade (Harvey, 2007; Lodhi, 2017). Also, transfer of information and communication commodities enables research relationship (Dean, 2008). In PA, there are policy notifications of states enable to follow policies and to transfer of information among countries. Also the popularity towards low-carbon technologies has been increased recently.

In addition, neoliberalist acts as an entrepreneur which has credible vision for new universal structure itself (Martilla, 2018). The PA has more innovative role in climate change governance with own different perspectives.

4.2. Implementation process analysis of both agreements with Critical theory

Even the signing moment of both agreements are considered as success stages for climate governance, the implementation of both agreements are seen as problematic. While the Kyoto implementation process is completed, and it is mostly mentioned as a failure in the literature, the PA implementation process has been continued with concerns about its situation precisely. In this part, the problematic sides of both will be

evaluated with Critical Theory. It is observed that in the implementation process of agreements, climate change governance cannot elude from a unique environmental issue without economic, social, and political parameters.

The Kyoto Convention separated the Parties into their economic development stages, but it failed to formulate useful targets on climate change. According to Streck et al. (2016), having fixed targets brought an unfair system for all Parties because it led to them agreeing to commitments that they were sometimes unwilling to meet (Brown and Huntington, 2004; Streck et al., 2016). Pandey (2014) states that like most international treaties, the explicit outcomes for non-compliance are invalid compared to domestic law; the most real failure to meet the quantified commitments in the first period of the protocol automatically disqualifies a country from participating in the mechanisms. This condition of the agreement triggers to have economic and political conflicts among the Parties, and they cannot have an approach for climate change as an environmental issue. As Figure 4.2 points out that all of top 10 emitters in the world in 1996 give a commitment to the Protocol. Indicated as orange color, China and India do not be forced to be responsible to put reduction target on emissions because of excluded from Annex I countries at that time.

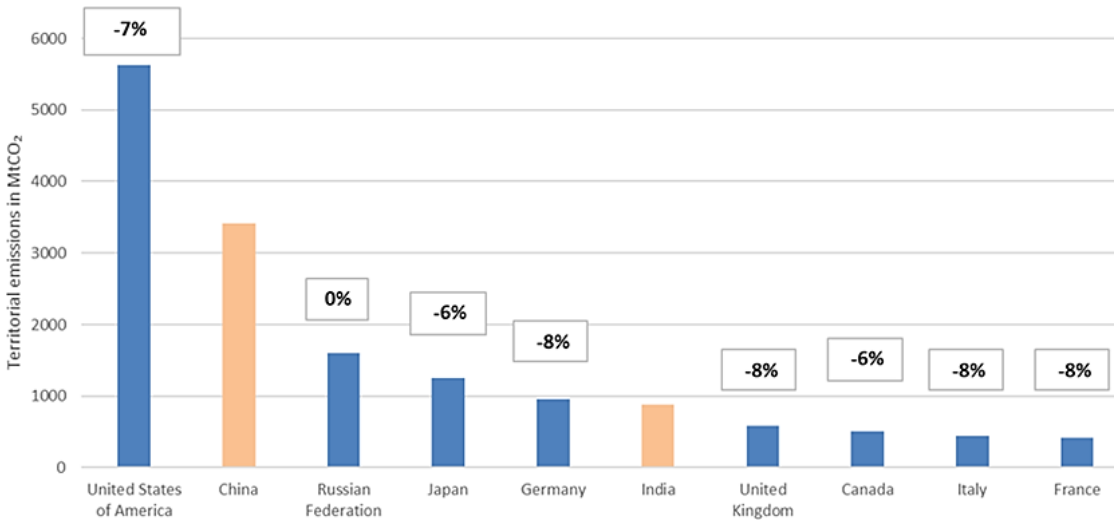

Figure 4.2 Top 10 Emitter Countries in 1996
Source: Boden et al., 2017

The main is that the regulations for emission reduction are arranged in terms of economic development scale and being member of OECD (Boden et al., 2017). The ideological knowledge of climate change cannot be constructed because of this formulation (Shelby, 2003).

The countries under obligation the KP have tended to preserve their approach of applying their targets according to a calculation of absolute emission reductions over a baseline. On the other hand, developing countries mostly desire to actualize their mitigation reduction aims in a business-as-usual manner. A third group, low-income countries, only states their auction catalog. Streck et al. (2016) argue that states envisage their whole development process and consider targets for own contributions while referencing a baseline. But it is still argued that negotiations on market mechanisms remained vague and suffered from conceptual differences.

According to Young (2016), the achievement of targets was only actualized due to the leadership of major emitters such as China, the US, and the EU. Their high degree of pledges to reduce emissions would lead to large, meaningful reductions in practice. Surely the next steps have to be taken by other important countries such as Brazil, Russia, and Japan, which also emit high levels of carbon dioxide.

On contrarily, Falkner (2016), there are three reasons why the KP's commitments did not comprise a comprehensive approach to reducing climate change. Firstly, the regime failed to find effective actions to decarbonize the economic system by putting a constant emission limit target (also as indicated above Figure 4.3). Secondly, binding targets created burden sharing among countries that triggered a distributive conflict in governance. Lastly, in addition to industrialized countries, some developing countries had a high degree of reluctance to reduce emissions because of the constraints it would impose on their economies.

In the implementation process of the KP, it was difficult to gather all major emitters around the table (Ediger, 2008). According to Streck et al. (2016), there was an understanding in early years of climate policy, namely that developed countries had the primary responsibility for action since it was their historical carbon footprints since the Industrial Revolution that created such a heavy burden for all Parties and especially developing ones. At the same time, developing countries considered themselves not responsible because they lacked the technological, institutional and financial capacities

for mitigation policies. They mainly gave priority to improving their economic development.

Initially, the EU aimed to convince the US to sign the climate commitment. The US was reluctant to join the agreement that classified the countries into lists as Annexes, but eventually supported the convention that divided the Parties into developed and developing ones. As Grubb (2004) contends, China and other major developing countries demanded to work with the US in an alternative regime to the KP. But this thought was not supported by the US, which considered this demand a threat to its economy (Broda-Bahm, 1999; Haas, 2008). There is a conflicted approach between states in this dynamic. While the US considers this attempt as a threat, others, especially developing countries, expect developed countries to act in mitigation before they do. Sterk and Hermwille (2013) recognize that the KP that emission reduction targets are adopted according to the high level of efforts that the states have to make. But this enforcement could not meet expectations because states maintained that their maximum efforts for mitigation would inhibit economic development.

After the KP, emissions have risen substantially (indicated as Figure 4.3). At that point, the US withdrew from the protocol with the George W. Bush Administration's announcement on 13 March 2001, making the protocol ineffective in practice (Mckibbin and Wilcoxen, 2002). Bush argued that the KP's emission targets would harm the U.S. economy.

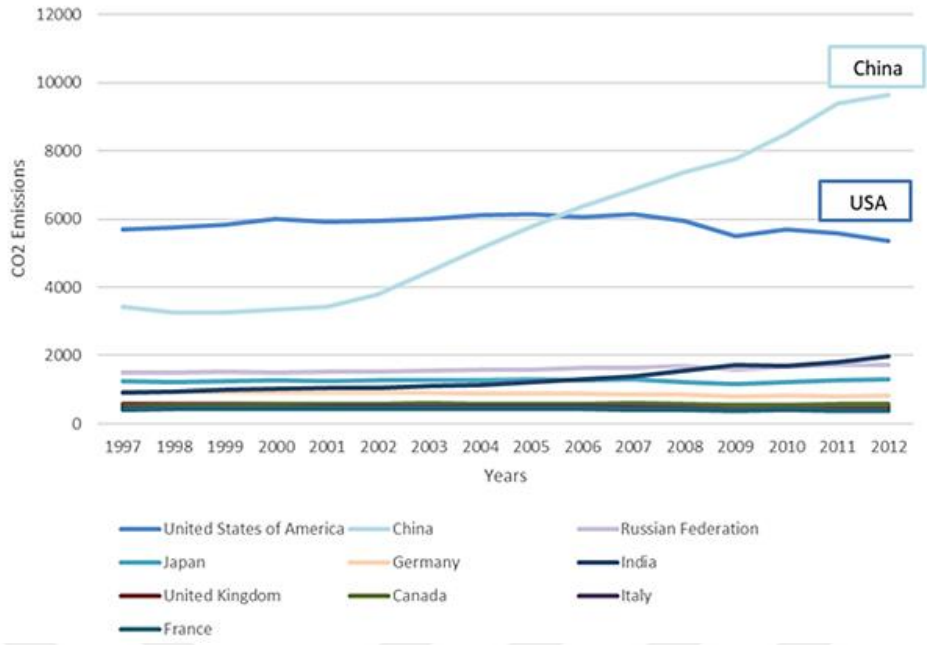

Figure 4.3 Countries' CO2 Emissions after the KP
Source: Boden et al., 2017

As Figure 4.4 and 4.5 point out that China develop its economy and continue its high share on emissions as well. So, as indicated example of China, the US consider that the emission reduction commitments fall behind its economy among other states. Indeed, this withdrawal changed the pathway and affected all Parties, especially other bigger emitters, who were inclined to behave more timidly in their targets. It is seen that hegemonic powers influence others' behaviors within the balance of both consent and oppression (Cox, 1983; Gramsci, 1971; Zanetti and Carr, 1997).

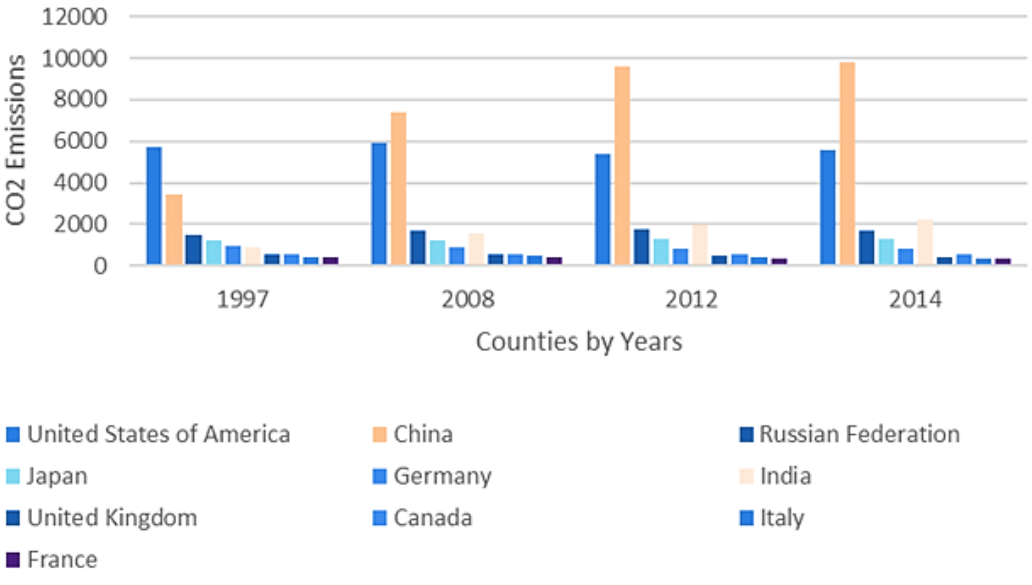

Figure 4.4 CO2 Emissions of Top 10 Emitters from KP to PA
Source: Boden et al., 2017

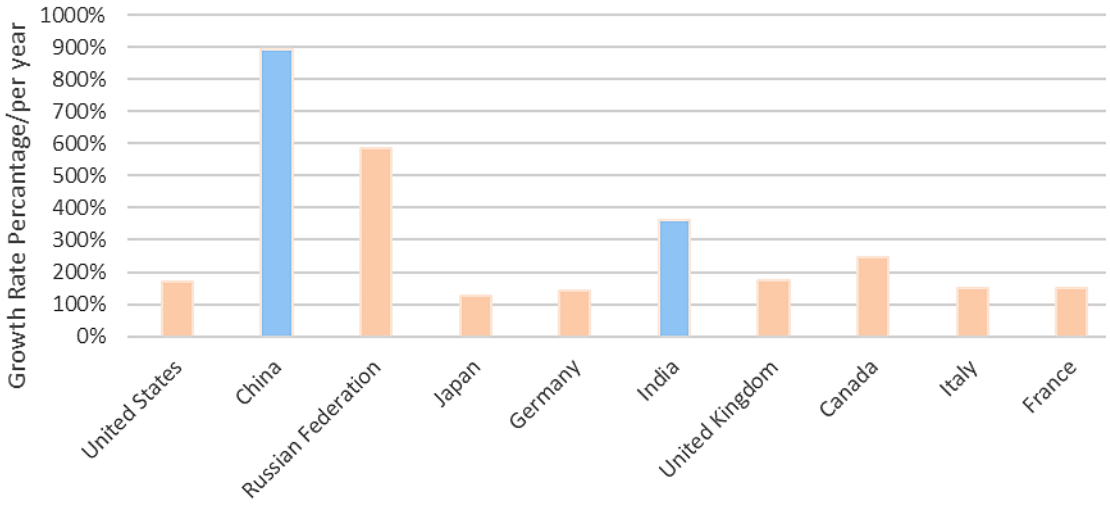

Figure 4.5 GDP Growth by Top 10 Emitters
Source: The World Bank, 2018

Grubb (2004) states that Kyoto had market characteristics that were fully competitive but created uncertainty. For instance, Russia's full participation was unclear in the KP and, as such, other importing countries applied their own "buyer sovereignty" in being selective about the international units they committed to achieving. So, the absence of an effective action to limit CO2 emissions caused a premature end for the protocol. Thus, influenced by that, developing countries have rapidly increased their emissions because of needing to develop their emerging economies. They cannot afford to downgrade their future economic development by imposing limits on future emissions. In here, it is still observed that the spontaneous consent of the mass of population on any specific issue by the small but dominant group (Gramsci, 1971).

The emancipation of the climate change issue as a universal environmental issue cannot be embedded in states themselves. Ünver (2017) suggests that the negotiations be conducted by the states as they are embedded to state-level economic and political issues, rather than having global climate security. In order to establish effective solutions, climate change should be emancipated from political and economic interests of the state, in other words. Even though climate change is a common supranational problem, it cannot be separated from the national interests of states. This is why treaty

survived, but remains ineffective. Parties did not take their responsibilities seriously, and often failed to meet them. They certainly did not exceed them.

In addition, the internalizing state of "hegemony" is a helpful way to evaluate the failure of the KP. Viola et al. (2012) argue that the hegemonic powers acted conservatively to carbon emission reductions because of their own economic concerns, which led to the failure of the KP. These hegemonic powers, such as the US, Russia, and EU are considered developed economies and hold significant shares in global energy supply-demand dynamics (BP, 2018). Climate change's adverse effects were not, in other words, internalized by the hegemonic powers. So, other actors who intended to commit the protocol eventually lost their motivation over time. This situation distorted the overall perception management of global climate politics. On the other hand, Torvanger (1998) pointed out that in order to encourage developed countries' mitigation efforts, developing countries should give up their reluctance to abate their emissions. Otherwise, developed countries would behave timidly in the prospect of the protocol.

Furthermore, the realist concerns of states about energy and economic security interrupted the mitigation pathway of the protocol. The KP was not been implemented successfully, in other words, because the economic and political interests of states directed the international politics of climate change (Dimitrov, 2012). All states acted according to their national interest in policy-making about the climate change (Sassen, 2000). As Ediger (2017) points out that there are three main reasons for failure of the KP. Firstly and prominently, the energy geopolitics become intensifies around the world, secondly the states have different energy sources and needs, and lastly, the role of states and private sector differentiates in practice.

According to Ünver (2017), the post-Kyoto period revealed that unless the relationship between fossil fuels and economic development and production is constructed along well-structured economic parameters, international collaboration on climatic and environmental issues is impossible, as states continued to make their environmental policies according to their energy needs, which are existential in nature (Ünver, 2017).

Furthermore, Brincat (2016) argued that to have dialectical approaches across the social sciences, human agency should be erected through civilizational dialogue. But in process of the KP, human agency could not be constructed on a legitimate basis. There

was no platform for the creation of a vibrant civil society, participatory democracy, pluralism, and multilateralism.

To address the weaknesses of the Kyoto model on mitigations, Sterk and Hermwill (2013) focused on four policy instruments mentioned in the IPCC Fourth Assessment Report. The report suggested that environmental effectiveness, cost-effectiveness, distributional considerations, and institutional feasibility are supportive parameters to advance mitigation policies. When considering a wide range of national priorities, it is challenging to define unique mitigation policies for each country. In that point, the PA differed from the KP. Instead of dictating specific commitments, the PA designates distributive bargaining strategies. Streck et al. (2016) characterize these strategies as stimulating a ‘sharing of the pie'.

Furthermore, the PA has no legally binding properties. The Parties take their own responsibilities as much as they do voluntarily. This distributional manner of responsibilities raises doubts about the future of the agreement; the PA stands on commonly agreed principles derived from trust and common sense. There is no mandate system to force legal procedural changes in the policy agendas of countries. As Habermas (1971) indicated that communicative action serves a transformative role in policy making, and the structure of language constructs the way of emancipation. However, from signing moment in 2015 until today, the communicative action in PA has not been improved emancipation process of climate change as an environmental issue solely. One of the biggest emitters, the US, has declared its decision of withdrawal from the accord in 2017 (Shear, 2017). Other biggest emitter, Russia informs about its plan for ratification of the accord, which will be made in September 2019 (Energy Reporters, 2017). As experienced in the Kyoto process, these changing policies of the hegemonic powers create concerns about the future of the accord.

In addition, transparency about the accuracy of reaching targets, consistency in comparing policies, and the principle of environmental integrity are embedded in the norms of the PA. According to Streck et al. (2016), the path to mitigation reflects the understanding of the Parties that the burden-sharing formula is essential to address climate justice or pragmatically solve the problem. Also, environmental integrity, transparency, accuracy, completeness, comparability, and consistency are fundamental principles that can preserve the legitimacy and viability of a long term, global climate

change mitigation regime. But these activities and policies sustain the existing order, these do not serve any revolutionary way for climate governance. As Critical theory suggests that evolutionary and development process for the emancipation cannot be actualized with traditional theories and order (Cox, 1981; Habermas, 1971; Weber, 2005).

Young (2016) claims that the PA has an active, optimistic side as a result of: the clear intention to limit temperature increases to 1.5°C, the high level participation to intended nationally determined contributions (INDCs) by most of the Parties, the legal property of the agreement, and the periodic review of the Parties' commitments.

On the other hand, the Agreement has a negative side because: the INDCs are usually ambiguous and aspirational goals that cannot be enforced and are not legally binding, the requirements related to verifying, monitoring and reporting are sensitive to a crisis, the supportive mechanism for developing countries is not well-structured, and the agreement is not supported by effective compliance mechanisms (Young, 2016).

In addition, Ünver (2017) states that measurement of carbon emission and greenhouse gas emissions at the state level is a misguided approach for climate change resilience because increasing state-emitted carbon dioxide does not stay within the state's borders, and instead pollutes the world. This is an evolving understanding which is gained from the process of climate governance. Hence, the establishment of an overall climate goal is still risky because individual country contributions may still fall short of the necessary precaution level. Because of this risk, the agreement might lack sufficient action and support. According to Karlas (2017), the Paris Agreement has limited power on implementation of the policies because of having constraining and weaken provisions for legalization of the regime. As Macdonald (2014) emphasizes, human rights, economic equality, and individual liberty provide emancipation. However, these parameters have not actualized in world politics purely. So, the emancipation of climate change still preserves its vagueness in policy implementation. Whether the PA has a good policy framework for collective action will not become clear until the future (Streck et al., 2016).

In below, Table 4.2 shows a brief summary of the assumptions of critical theory within the scope of the KP' and PA's implementation process.

Table 4.2 Summary of Critical Theory and the Accords

	Critical Theory	Kyoto Protocol	Paris Agreement
Ontological Assumptions: Nature of Reality	"Force-field" between subject (meanings) and object (social structures) Dynamic; Historical totality	Climate Change (CC) as a Scientific Fact, Economic and political mechanisms	Climate Change has market dynamics, INDC for mechanisms
Nature of Social Beings	Suspend Judgment; Emphasize human potential	Based on states' ambitions	Based on states' willingness
Axiological assumptions: Overriding Goal	"Emancipation" via social organization that facilitates reason, justice and freedom	Scientific Precaution for CC Undemocratic platform	Scientific Precaution for CC More democratic and free market structure
Epistemological assumptions: Knowledge Generated	Forward-looking; imaginative; critical/unmasking; practical	Scientific Reports of IPCC	Extended knowledge with high social inclusion
View of Causality	Reflection, exposure of constraints through dialogue, reconstruction	Constant Emission Reduction Targets	Policy notifications of states and Investment in low-carbon technologies
Research Relationship	Continuing dialogue	COPs	COPs & INDC reports of states
Metaphor	Liberator	Revolutionist	Innovator

Initially, ontological assumptions such as the nature of reality and social beings are presented. In critical theory, the nature of reality and social beings are determined in a dynamic and subjective manner (Murray and Ozanne, 1991). Notably, "force-field" refers to the social interaction between meaning and social structures, and reality results from this interaction (Jay, 1973). In this interaction, historical totality defines human potential (Furhman, 1979).

The overriding goal, then, is to pursue emancipation within social organizations and agree that human life is considered worthy and valuable to develop (Jay, 1973). In this sense, critical theory, as Habermas (1971) states, goes beyond the insights of ancient Greek politics, which sought to provide fair rights to every individual in speech through a democratic platform. This understanding would allow us to reach a rational consensus in politics (McCarthy, 1978). Kyoto aims to achieve a scientific precaution for climate change effects with an undemocratic platform. So, emancipating the climate change as an environmental problem cannot be actualized precisely.

In addition, the epistemological assumption generated by knowledge is forward-looking and imaginative in critical theory. Critical theory suggests that the more that changes are experienced in historical forms, the more evaluations can be made to understand the dynamics between the subject and the object (Comstock, 1982). Kyoto mainly based on scientific reports of IPCC to trigger states' policies in positive manner.

Thereafter, causality is produced among social structures and is affected by subjects and objects so that the when the subjects are constant, an evaluation of the situation is possible (Comstock, 1982). Research relationship provides balance between the meaning and social structures with existing knowledge. In KP, the constant emission targets are always causality of the rules and the Protocol is enriched the content with continuing dialogue with COPs. Lastly, it is considered that the critical theorist is a liberator, an influencer who helps people learn meanings about dominant institutions on behalf of social change (Murray and Ozanne, 1991). The KP can be considered as revolutionist to put constant emission targets and different mechanism for governance.

CONCLUSION

The modern world economic system demands that states increase energy production to realize growth. The more energy produced in industrial activities, the more that carbon emissions are released into the atmosphere. Fossil fuels are the bedrock of this production and they are the dirtiest emitters of carbon dioxide in their combustion processes (Weaver et al., 2013). GHGs, after all, balance the world's temperature, but their growth is causing temperature to rise, leading to climate change or global warming (Karl et al., 2009). Meanwhile, the adverse effects of climate change for humanity and the environment are multiplying (Gore, 2006).

Although climate change is scientifically an environmental issue, it penetrates the economic and political spheres as well (Thorpe and Figge, 2018). Every state is influenced by climate change on a different scale, but it actually has a broader adverse effect on the world as a whole than minor local effects for the states (Balbus et al, 2013; Chan, 2018; Wood and Vedlitz, 2007). So, climate change's scope extends to both national and global levels (Falkner, 2016). States are seeking a global solution, but national interests limit the potential for reaching such a policymaking solution. Regardless, the scientific basis of the climate change makes it impossible for states not to try.

Initially, the scientific fact of the climate change with its economic and political scope was debatable. According to Dutt and Gaioli (2007), the high degree of greenhouse gas emissions in the atmosphere created imbalances in filtration and radiation system, which caused unusual temperature increases (Grossman, 2010). In addition, climate change does not affect states uniformly because of each state's distinctive geographical features, namely whether it is northern or southern or if it is low-lying or high-lying (Dupond and Pearman, 2006).

The scientific basis for climate change prompted the UNFCCC and the IPCC to prepare its literature broadly in how they defined and conceptualized climate change and emissions-reduction policies. While the IPCC assigned scientific assessments for the definition and evaluation of climate change, the UNFCCC determined different roadmaps for the issue. In this way, mitigation and adaptation policies confused states' actions to the climate change governance (Pielke, 2004). Indeed, there are contradictory

definitions for both mechanisms (Pielke, 2004). This causes them to be less forcefully and effectively applied.

Climate change covers a broad economic and political scope in global governance because states consider it a security issue. States' unique geographical features mean that they face different outcomes in economy and politics (Winrow, 2007). While some countries have geographical advantages in energy sources and other issues, others can experience insecurity in energy (Westphal, 2014). Traditional security issues impinge on energy sources as well, and states consider energy sources as economic and political weapons (Winrow, 2007). Since climate change mostly arises from the production of energy, it directly influences this security instinct of states (Baysal and Karakaş, 2017; Ünver, 2017).

In addition to security, there are others areas that create economic burden for the states. New technologies for the transition to a low-carbon economy are not cheap, as they require advanced engineering to design and high cost to produce (Falkner, 2016). For this reason, states are inclined to sustain their existing energy production with generally cheaper fossil fuels.

Furthermore, climate change has social and political impacts on humanity. Rising temperatures cause the loss of agriculture with droughts as well as floods. Such disasters make people in those areas vulnerable and prompt them to migrate, which in turn creates instabilities in regions and societies and make it more difficult for governments to manage their resources properly (Campbell et al., 2007). Also, fundamental resources such as food and water are depleted more quickly; in the future, food and water could be used as weapons by states or other actors in world politics (Baysal and Karakaş, 2017). Terrorism, trading issues, and diplomatic crises can also emerge from these actions (Homer-Dixon, 1991). In the light of all of these dangers, states endeavor to forge international collaboration on climate change governance.

Leadingly, the UN established the UNFCCC in 1992 to shape, follow-up and regulate climate change policies (Vandeveer, 2002). Since the foundation of the UNFCCC, there have been several negotiations conducted which resulted in two important UN agreements: the KP and the PA. The UNFCCC aims to apply emission targets, binding commitments and financial mechanism as policies. There are rules for developed and developing countries to actualize their emission reduction targets. Specific accords and programs are meant to actualize these goals. The Nairobi Work Programme creates knowledge and provides substantial networks with thematic areas. Also, the Poznan

Strategic Programme and Cancun Agreements created funding avenues for climate technologies. The Durban Platform and Warsaw Outcomes gave legal force to the implementation of emissions reductions targets. These COPs mainly construct audience cost for the states (Baum, 2014; Fearon, 1994; Kertzer and Brutger, 2015; Tomz, 2007). The studies about the raising knowledge and awareness of the issue encourage public to force their leader to take action (Dryzek et al., 2011; Tomz, 2007; Trachtenberg, 2012). In that process, having most of the states' which have a democratic regime is very supportive fact that enable inclusion of audience cost (Eyerman and Hart, 1996; Fearon, 1994; Schultz, 2001; Slantchev, 2012). China is precious instance for this case precisely (Schreurs, 2016). The audience cost change parameters for commitment of states. The rules on agreements change only from developed countries to wide range of classifications among them. The higher participation can be achieved by that way.

The KP in 1997 and the PA in 2015 greatly expanded the scope and impact of climate policies (Rajamani, 2016; Streck, 2012). In this study, the period from the KP to the PA was analyzed to understand the evolution of climate change governance. There was a theoretical analysis of this process with two international relations theories, critical theory and neoliberalism. Specifically, the adoption of the KP and PA was considered a successful accords by using the lens of neoliberalism. Then, the reasons for problems with their implementations were examined with critical theory.

It is observed both signing moment is success for the climate governance. Cooperative action and global networks are its essential advantages for them. In this regard, neoliberalism suggests a free trade mechanism that creates a more dynamic, interrelated contour for world politics (Krasner, 1983). This situation creates a status quo called complex-interdependence in which states establish some collaborative institutions to regulate their relationships to the global community and its problems (Keohane and Nye, 1977; Ünver, 2017). This serves then to enhance institutionalism for supplying legality and market security (Falkner, 2016; Krasner, 1983). Through ongoing negotiations, shifts in international politics led to changes in PA mechanisms (Peak, 2010). Burden sharing was determined according to NDCs, which increased states' tendencies to apply policies voluntarily (Streck et al., 2016; Young, 2016). Finally, the PA brought more transparency to the process, and helped forge a greater common integrity was instilled about solving the environmental challenge (Queiroz, 2017).

The KP is an international treaty on climate change resilience, but it was problematic in implementation because it had fixed targets for states (Streck et al., 2016). The protocol

separated economies into stages and was not a well-grounded formula for useful targets (Falkner, 2016; Pandey, 2014). Burden sharing was a sticking point that caused contradictions in policy governance and created a unique market structure that was fully competitive and created uncertainty for states (Grubb, 2004). It was, in other words, inevitable that states did not embrace these policies. As scholars point out, traditional theories preserve the existing order, and people cannot emancipate themselves from this system ultimately (Cox, 1981). The Paris Agreement has some changing dynamics in its implementation process since 2015. The economic and political interests shape the state's policy preferences in the process. As such, climate change cannot be detached as a unique environmental problem that is separate from political and economic interests (Dimitrov, 2012). This is especially the case with realists, who recognize that energy concerns interrelate with economic interests. In addition, critical theory claims that hegemony matters in shaping global politics (Cox, 1983). Both climate change policymaking process of the KP and PA was shaped from hegemonic powers' priorities (Torvanger, 1998; Zanetti and Carr, 1997). The states were inclined to apply climate resilience policies properly, but also behaved timidly because of the dominant attitude of hegemonic powers (Viola et al., 2012).

Nevertheless, the PA has a well-aligned mechanism that was more transparent, participatory and credible concerning procedural norms. So, the PA still embodied hope that the Parties could actualize climate change policies effectively. On the other hand, it was still unpredictable whether the mechanisms of PA were clarified sufficiently regarding the shared responsibilities of countries and the categorizations of their criteria. The most crucial reforms in this regard pertained to the transparency that the PA provided for the enhanced transparency of action and support through a more robust transparency framework (Queiroz, 2017).

In the light of above information, Paris Agreement is essentially a successful and practical consensus for climate change resilience because of cumulating most of states with high participation for commitment issue. However, it remains uncertain whether this will prove a perfect mechanism for climate governance in the future because of uncertainty about how transparency will be specified for countries and on the basis of what criteria. Will classifying countries as developed and developing and seeking to therefore share mitigation burdens according to their development levels be the best path forward?

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