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SECURITIZATION OF CLIMATE CHANGE

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Securitization of Climate Change
İklim Değişikliğinin Güvenlikleştirilmesi

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TABLE OF CONTEXTS

INNER COVER	i
APPROVAL PAGE	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
ABBREVIATIONS	vi
ABSTRACT	viii
ÖZET	ix
INTRODUCTION	1
CHAPTER 1	
CLIMATE CHANGE	6
1.1 INTRODUCTION TO CLIMATE CHANGE	6
1.2 CLIMATE ADAPTATION AND CLIMATE MITIGATITON	13
CHAPTER 2	
POLITICIZATION OF CLIMATE CHANGE	16
2.1 HOW CLIMATE CHANGE IS POLITICIZED	16
2.2 POLITICIZATION PROCESS WITH AND AFTER KYOTO	
PROTOCOL	26
CHAPTER 3	
SECURITY APPROACHES	40
3.1 COPENHAGEN SCHOOL APPROACH	40
3.2 PARIS SCHOOL APPROACH	43
3.3 TRADITIONAL SECURITY APPROACH	44
3.4 CRITICAL SECURITY APPROACH	45
CHAPTER 4	
SECURITIZATION OF CLIMATE CHANGE	49
4.1 CLIMATE CHANGE AS A SECURITY THREAT AND	
SECURITIZATION PROCESS	49

4.2 A NUMBER OF IMPORTANT ENVIRONMENTAL POLICIES AND REGULATIONS OF THE UNITED KINGDOM AND THE UNITED STATES	52
CONCLUSION	58
BIBLIOGRAPHY	63

Abbreviations

BAPA- Buenos Aires Plan of Action

CC- Climate Change

CAFÉ- The Corporate Average Fuel Economy Standards

CDM- Clean Development Mechanism

COP- The Conference of Parties

EC- European Community

ECCP- European Climate Change Program

EO- Executive Order

ETS- Emission Tracking System

EU- European Union

FAO- The Food and Agriculture Organization of the United Nations

GCC(a)- Global Climate Coalition

GCC(b)- Global Climate Change

GCOS- Global Climate Observing System

GCST- Global Climate Science Team

ICSU- The International Council for Science

INC- Intergovernmental Negotiating Committee

IPCC- Intergovernmental Panel on Climate Change

NASA- The National Aeronautics and Space Administration

UK- The United Kingdom

UN- The United Nations

UNEP- The United Nations Environment Program

UNESCO- The United Nations Educational, Scientific and Cultural Organization

UNFCCC- The United Nations Framework Convention on Climate Change

UNSC- The United Nations Security Council

USA- The United States of America

USEPA- The United States Environmental Protection Agency

WCP-World Climate Program

WCDP- World Climate Data Program

WCIP- World Climate Impact Study Program

WCRP- World Climate Research Program

WHO- World Health Organization

WMO- World Meteorological Organization

Abstract

The topic of this thesis is securitization of climate change and it seeks to analyse the securitization process of climate change starting from twentieth century until the twenty-first century. Even though this thesis mainly focuses on twentieth and twenty-first century, the historical context of climate change is the starting point of the analysis. The focal point of this thesis is to underline the importance of international cooperation and mandatory commitments of the global world countries and their consideration as the only solution to the climate change while analysing the importance of the securitization process of climate change.

For a better understanding of the historical process of securitization, different security approaches and qualitative research methods are used for this thesis. The phase between the politicization of climate change and the securitization of climate change will be examined along with different data, and documentary analysis for this thesis. This thesis is a critical analysis for the process of securitization of global climate change as it involves most of the essential and significantly important acts, agreements, conferences and cooperations within.

Özet

Bu tezin konusu iklim değışiklięinin güvenlikleřtirilmesidir. Bu tez yirminci yüzyıldan başlayarak, yirmi-birinci yüzyıla uzanan iklim değışiklięi güvenlikleřtirilmesi sürecini analiz etmektedir. Her ne kadar tez daha çok yirminci ve yirmi-birinci yüzyıla odaklansa da, bu analizin başlangıç noktası iklim değışiklięinin tarihsel sürecidir. Bu tezin odak noktası bir yandan iklim değışiklięi güvenlikleřtirme sürecinin önemini analiz ederken, dięer bir yandan da iklim değışiklięi konusunda uluslararası işbirlięinin öneminin ve global dünya ülkelerinin zorunlu özverilerinin neden tek bir çözüm noktası olarak görülmesi gerektięinin altını çizmektir.

Bu tez çalışmasında, güvenlikleřtirme sürecinin daha iyi anlayabilmek adına, farklı güvenlik yaklaşımları ile birlikte nitel araştırma yöntemi kullanılmıştır. İklim değışiklięinin güvenlikleřtirilmesi ile iklim değışiklięinin politikleşmesi arasındaki safha bu tezde farklı veri ve dökümanlar eşliğinde incelenecektir. Bu tez, iklim değışiklięi açısından gerekli ve ciddi anlamda önem taşıyan pek çok eylemi, anlaşmayı, konferansı ve iş birlięini bünyesinde barındırdığından dolayı global iklim değışiklięi güvenlikleřtirilmesinin kritik bir analizi niteliğindedir.

INTRODUCTION

According to relevant reports released by the Intergovernmental Panel on Climate Change (IPCC), climate change is real and our globe is warming due to human-industrial related activities and greenhouse gases emission in the atmosphere. Today, there are several organizations, bodies both working under the United Nations (UN) and other stakeholders on climate change, analyzing the consequences of climate change. Outcomes of those studies and research focus on reducing the possible dangerous impacts of climate change including; poverty, rising in the ocean and sea levels, human land usage according to the new world order, mass migration influx from undeveloped, least developed, developing and vulnerable countries to the developed and wealthy countries, adaptation and mitigation of earth to the consequences of global climate change. Experts are releasing reports and articles related to climate change each year in order to explain the both possible and current desertification, land degradation, sustainable land management and food security agendas for the following years. Some of the countries are making voluntary and/or mandatory commitments to reduce greenhouse gas emissions per year and focusing on developing the renewable and sustainable energy sources of earth. Some researchers are working on advanced climate change mitigation and climate change adaptation techniques to reduce the risks of extreme and predicted natural disasters and diseases, which are expected within the near future. All the challenges and dangerous impacts that are expected with the global climate change are connected to earth's ecological system, today's world order, socio-political and socio-economic existences of human being within the borders of different countries.

Most of the anthropogenic acts on earth, especially after the industrialization era, sped up the predictable incidents that resulted in extreme weather events, increasing of the atmosphere temperature due to greenhouse gases emissions, increasing in the numbers of natural disasters related with the global climate change while all those

impacts are in the minor phase in the current world. Yet climate change has more potential to affect millions of lives on earth in the following years if proper precautions are not taken starting from today.

Climate change poses serious threats to security of people and countries. The aim of this research is to identify climate change as a security threat and analyse the securitization of climate change in different countries. The aim of this research is to analyse the historical perception of securitization process of climate change through different security approaches. The reason behind analysing these two main points is to support the idea that the international cooperation and mandatory commitments of the global world countries are the only solution for the securitization of climate change. This thesis will start by examining climate change from twentieth century; however, it will support the historical starting point of the climate change from the nineteenth century. The collected data focuses on the dangerous impacts of the climate change on earth since they pose serious threats to the security of living creatures on earth. This thesis will analyse several important international acts and commitments of the countries and organizations on climate change in the international arena in order to highlight the question of which countries took steps to prevent the dangerous impacts of climate change. It will underline the importance of participation of all world countries to mandatory commitments by mentioning the acts of developed/industrialized countries and their positions towards the least developing and most vulnerable countries in the world.

The focus of this thesis is to question and highlight the global climate change, which is an environmental and political problem, in a broadened period since it poses a serious threat to international, national, ecological and human security on earth. This thesis will do that by focusing on the acts, research, voluntary and/or mandatory commitments of the international organizations, and different countries in the twentieth and twenty-first century. This research is supported by different

security approaches that are being used in different countries' global environmental agenda.

In most of the chapters of this thesis, Copenhagen School Approach and Critical Approach are being used as securitization theory. The broader framework of this thesis will be drawn, and identified to construct and examine the secularization process of the global climate change especially in the developed countries such as the United States of America and the United Kingdom. These two countries offer a stark contrast in their environmental policies of the countries compared to the environmental agendas of other European Union (EU) member countries and developing countries. This research aims to highlight successes and the failures of both voluntary and mandatory acts driven by national governments and international communities during the examination of global climate change as a security issue. This thesis aims to build a perspective that supports the idea of international cooperation should be considered as the only solution instead of ecological Darwinism since climate change has being neglected for many decades, yet still requires urgent measures to be taken for the benefit of all human-kind.

To support this thesis, qualitative methodology was used since data and/or documentary analysis are considered to be the most appropriate approach for this research. In this thesis, qualitative methodology was helpful to identify the problem, for addressing the proper information, comparing the texts, online data, agreements, international acts, and interpretations of different documentations of global climate change. Due to the fact that almost all information is driven visually and taken from theoretical data qualitative method was the most suitable methodology among others to describe the global climate change problem and identify the solutions for it while analysing the different documentation techniques in a certain historical period. Qualitative methodology also helped this research to lay out the complex context of climate change and the securitization process, as well as to explain the relations between the environment and human actions on earth. This methodology

also assisted the research to address the solution while revealing the global climate change problem.

This thesis consists of four chapters. First chapter examines the definition of climate change by underlining the scientific and historical facts. In this chapter, possible dangerous impacts of global climate change is mentioned. The terms of climate change adaptation and climate change mitigation will be introduced. Moreover, the expected dangerous impacts of global climate change on developed, undeveloped, developing and least developed countries will be highlighted.

The second chapter examines the politicization process of climate change; how climate change was put in to the international agenda and how it was politicized during the twentieth century. In this chapter international agreements, conferences, panels and reports which were released and published by the international community will be examined.

The third chapter examines the different approaches to security, including Copenhagen School Approach and Critical Security Studies, which are helpful to understand the governments' recognition of global climate change and the precautions preferred regarding the dangerous impacts of climate change.

The fourth chapter examines the securitization of climate change especially in the era after 2011, by underlining specific countries' acts regarding climate change. In this chapter both national and international environmental policies of the United Kingdom, one of the European countries and the United States of America will be examined. Those two countries are particularly underlined in the case where the United Kingdom chose mandatory commitments while the United States of America chose voluntary commitments for their environmental agenda between the twentieth and twenty-first century.

The final part is the conclusion part of this thesis. In this part, the importance of international cooperation as a solution to the climate change will be underlined instead of environmental Darwinism. Nevertheless, the importance of the creation

of mandatory commitments, their implementation and global cooperation will be underlined.

CHAPTER 1

CLIMATE CHANGE

1.1 Introduction to Climate Change

This chapter focuses on different definitions of global climate change, climate mitigation and climate adaptation. The aim of explaining different approaches and definitions on climate change is to understand the historical context of global climate change. It will be underlined that what kind of factors are causing climate to change and how international organizations define the current problem. In this chapter, the possible dangerous impacts of global climate change will be identified with the expected consequences on the developing, least developed and undeveloped countries. The term “climate adaptation”, which refers to precautions that should be taken by the countries and organizations, before the possible dangerous impacts of climate change take place on earth, will be examined in this section.

Climate Change has been one of the most critical subjects within the last decade among scientists, researchers and government representatives. Although climate change has essential importance and have been considered as one of the most terrifying subjects on earth, a lot of people are still confused with the terminology. What is climate change, why does climate change exists, what is global warming, what is the difference between global warming and climate change, and what could be done to reduce the damages of climate change? These are some of the questions and concerns of human kind with regards to the issue of climate change subject.

To be more clear about the terminology; the Oxford dictionary defines global warming, as an increase in the earth’s atmospheric temperature, which is generally affected by the greenhouse effect related to increased levels of carbon dioxide, chlorofluorocarbons, and other pollutants. This greenhouse effect is a result of

increasing levels of certain gasses and pollutants in the air, such as carbon dioxide methane, and chlorofluorocarbons that act to trap heat into the atmosphere, warming the temperatures of everything within. The National Aeronautics and Space Administration (NASA) defines global warming as the increase in the temperature of the earth's surface due to rising levels of greenhouse gases. (Conway 2008) According to United States Environmental Protection Agency (US EPA) global warming refers to a recent and ongoing rise in the global temperature of Earth's surface, mostly caused by increasing concentrations of greenhouse gases rate in the atmosphere. Global warming is resulting in change in the climate patterns yet it only represents one of the aspects of climate change.

On the other hand, the Oxford dictionary defines climate change as a change in climate patterns globally or regionally, particularly in mid of twentieth century due to the increased levels of carbon dioxide in the atmosphere, as a consequence of the demand and usage of fossil fuels. NASA defines climate change, as a change both in typical and average weather of a region or city. This change could be inferred from annual rainfall, or annual temperature of a region or a city. Climate change also could be defined as a huge change in earth's ecosystem and overall climate, including average temperature or typical precipitation patterns of earth (May 2011). In addition, the US EPA refers to climate change as a significant change in the climate for a certain period of time, including the changes, any increase or decrease, in temperature, precipitation or wind patterns that continue for several decades or centuries. The Intergovernmental Panel on Climate Change (IPCC), refers to climate change as any kind of change in climate over a certain period, either due to natural variability or as a result of human activity. The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as a change in climate which is directly or indirectly related to human activities on earth and affecting the global atmosphere observed over comparable time periods (UNFCCC 2011). The definitions of the IPCC and the UNFCCC can be considered to be the most accurate and proper definitions that will be used for this thesis. It is acknowledged that especially after the late twentieth century, generally referred to as the eras succeeding the industrialization era, major changes

in the climate patterns and increase in the atmosphere temperature started to be observed by the scientists. Most of the human activities, which endangers either earth, atmosphere, earth's ecosystem and other living creatures living on the surface of earth, are related to each other and these activities are somehow negatively affecting both the earth and other living creatures on earth.

According to our main sources of definitions on climate change it could be stated that climate change is significantly and critically related to human activities on earth, and global warming could be considered as one of the consequences of climate change. In this research, climate change term will be used and in the following chapters, several dangerous impacts of climate change will be analysed along with global warming. A look at the causes and the history of climate change points could lead us to the period during and after the Industrial Revolution. Most of the scientists are now able to link the probabilities of the temperature outcomes and its impacts on the natural environment, highly associated with different levels of stabilization of greenhouse gases, which are mostly being used after the industrialization of the world, in the atmosphere (Stern 2006).

According to Nicholas Stern (2006), greenhouse gases stocks in the atmosphere (including carbon dioxide, methane, nitrous oxides and a number of other gases that arise from industrial processes) are constantly rising, as a result of all human activities in earth. Stern states that energy emissions are mostly carbon dioxide and 24% of it comes from the power generating activities, which includes most part of daily lives of human beings. 14% of the energy emissions are due to industrial usage, 14% due to transportation usage, 8% due to building usage and 5% of it includes the other energy relations on earth. Apart from these, there is also non-energy emissions, which includes non-carbon dioxide usage according to Stern (2006), and waste management (3%), land usage (18%) and agricultural works (14%) that can be considered among non-energy emissions. Energy emissions are mostly carbon dioxide as a result of human activities; including transportation, power usage and industrial needs. Stern agrees to the fact that there is an increase in the production of carbon dioxide and states that "the current level or stock of

greenhouse gases in the atmosphere is equivalent to around 430 parts per million (ppm) carbon dioxide, compared with only 280 ppm before the Industrial Revolution. These concentrations have already caused the world to warm by more than half a degree Celsius and will lead to at least a further half degree warming over the next few decades, because of the inertia in the climate system.” (Stern 2006)

It cannot be denied that human related activities especially after the Industrial Revolution highly changed and started to be based on energy emissions and have been standardized until today. There are strong evidences based on multiple research that earth’s climate is changing and these changes are largely due to human related activities (Epstein and Ferber, 2011). As most of the scientists agreed on the fact that climate change and warming of the planet are related, and there are more expected dangerous consequences of climate change including, change in temperature of atmosphere, change in precipitation, increasing of ocean temperatures, increasing in sea levels and acidity, melting of glaciers, shifts in ecosystem, extreme weather events and threats to human health. Any kind of small change on earth will directly affect earth system itself.

If we could consider earth as a human body, with its own unique system, keeps a person alive. Eating, breathing, sleeping, digesting and fighting against all dangerous viruses and illness helps a human being to continue this life. When a damage occurs in any part, and precautions are not readily taken for it; then, the system will slowly collapse and, in the end, it fades away. This same scenario can also be applicable for earth. Earth has a unique system for millions of years; however, especially in the recent decades, human activities started to damage earth’s surface and itself from the ground.

The simplest way to put this change chain in order: when earth’s climate is being affected, lands will be affected because the weather will not be the regular weather in which people and animals used to live in. Water resources, which could be considered as one of the most essential needs for human beings, animals and plants, will be damaged by this change due to water levels and changes on land. Then, the

change will leave its marks on agriculture and stock raising. This order could also be followed by diseases and/or natural disasters. And we, as human beings, are included in all aspects of this chain and any outcomes of climate change has potential to harm a lot of people. This harm could come in the form of natural disasters and/or unexpected diseases. Looking at working groups on relation between climate change and human health is helpful on this issue. As an example, according to World Health Organization, within the last 40 years, 30 different new diseases had been seen on earth including, Ebola and Lyme disease (WHO 2014).

According to the report that was published by the Interagency Working Group on Climate Change and Health in 2010, research showed that there is many potential risks of changing climate on cancer risks, due to increased duration and intensify of ultraviolet (UV) radiation. The report also states that cardiovascular diseases are being effected by high temperatures, heat waves, weather changes and air quality. Climate change could also cause shortage of food and malnutrition since its known that agriculture, animal breeding and fisheries are highly influenced by weather and any negative change on climate will affect those sectors negatively. Decreasing in food supplies and food production will especially affect early childhood period since children are more vulnerable. Increasing or decreasing in water temperature, extreme changes on coastal ecosystem could increase the possibility of water contamination with harmful pathogens and chemicals, resulting in increased human exposure.

Also intensification of extreme weather events such as floods, hurricanes, wildfires, droughts, storms could affect people's health during or after these events. All those extreme weather events, which are linked to climate change, could cause severe damage of properties, chronic stress and also, geographical displacement of people (IWGCCH 2010).

According to the UNFCCC, nature of climate change issue needs wildest possible cooperation in international arena, in accordance with their common but differentiated responsibilities, respective capabilities and their social and economic

conditions, especially when it comes to reducing greenhouse gas emissions (Dryzek 2015).

These science-proven impacts are as environmental consequences of the climate change. But what about the social, political and economic consequences of climate change? It would be impossible for the government representative and international organizations to ignore the fact that climate change is real when any of those possible impacts hit any country on earth. Most of the communities and/or societies will face the difficulties to continue their daily activities within the borders of the countries when it comes to food/water/power shortage. Statesmen, politicians and government representatives would be the ones who have to take initiative to solve the problems of their citizenry and each initiative would come along with another economic sanction.

For a better understanding of the economic and political sanctions in place to address climate change, the current positions of the countries should also be analysed. For instance, as climate change was politicized and became a political issue for different countries, positions of the countries started to be differentiated by their economic standing, mainly dividing into three groups: rich countries, developing countries and undeveloped countries. This differentiation became more visible especially in the international environmental treaties and conferences. Intergovernmental Panel on Climate Change (IPCC) identified the responsibilities of industrialized/developed countries in 1990. It was underlined that domestic measures and international cooperation with the developing countries are needed due to fact that most of industrialized and developed countries are responsible of a major part of the dangerous emissions, which is affecting the world's climate order and weather in the atmosphere (First Assessment Report of IPCC, 1990).

According to the author of "Climate Justice and the International Regime", Chukwumerije Okereke, most developed countries denied the negative effects of climate change and tried to depoliticize it for a period of time by stating that climate change is a scientific matter and denied any political and economic reasons or consequences of climate change. Nonetheless, some of those developed countries

had intentions to encumber developing countries by pointing the fact that they were also growing and participating in increase in dangerous emissions in the atmosphere; therefore, the damage cause by climate change.

Upon that urgent need of explanation, IPCC highlighted the need of reducing overall emissions in the atmosphere both for developed and developing countries in their first assessment report in 1990. Developing countries started to argue that developed/industrialized countries' enforcements should be much more effective than those of developing countries since emission rates of developed and developing countries are not equal. Another concern, which was underlined by developing countries, was injustices in local economic systems. Most developing countries argue that there is a correlation between climate change, food, food security and sustainable development due to the ongoing injustices in accessing global economic market. It is highly expected that the inherent injustices would harm developing and least developed countries more than developed countries (Okere 2010).

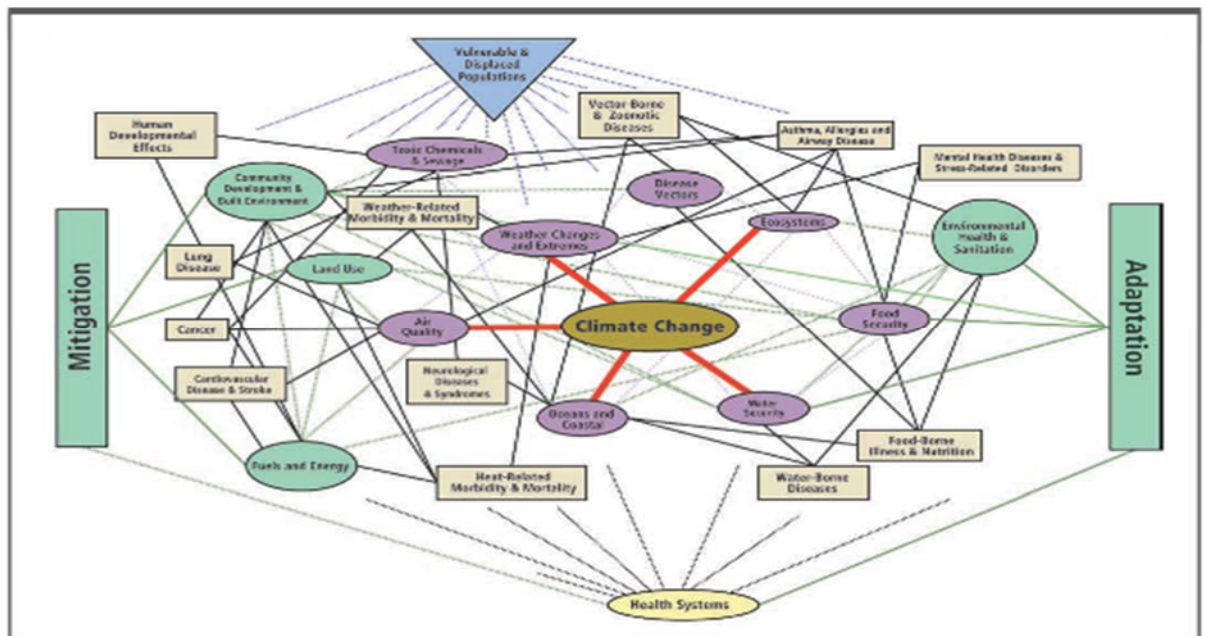
All these significant facts and stands of different countries could take us the point where international cooperation highly matters and is essential to tackle the problem of climate change in our world. Climate change issue could not be analysed apart from its environmental, social, political and economic matters. It does not matter whether countries are sharing the same political views or social values, or economic system, if it is known that climate change will affect all countries indiscriminately.

On the other hand, it is important to know that not all developed and/or developing countries share the same political view on climate change issue, in order to move forward. For instance, whereas Nordic countries had expressed their support for north-south financial transfer and right of development for poor countries, countries including the United States of America expressed their wish to promote main market as the main source in the International arena. Nevertheless, while developing countries including India and China are focusing mostly on their development rights, other developing countries, which could be considered as more

vulnerable comparing the other countries, mostly focus on their survival rights and need of urgent action for international resource distribution (Okere 2010).

1.2 Climate Adaptation and Climate Mitigation

The figure below is taken from the Interagency Working Group on Climate Change and Health report and it shows relationship of climate change with different indicators. In this figure, it is visible how human activities (usage of fuels and energy, land use, usage of chemicals and toxics etc.) are related to climate change affecting the ecosystem and human health. By looking at the figure, it could be



inferred that mitigation and/or adaptation are the only alternatives for human health and health system on earth.

Figure 1: A human health perspective on climate change.

Source: Environmental Health Perspectives and the National Institute of Environmental Health Sciences, 2010

It would be helpful to start with identifying the terms of adaptation and mitigation to lay a common ground for discussion. In Oxford dictionary, the word “mitigation” refers to the action of reducing, seriousness and/or painfulness of something while

the word “adaptation” has two meanings; first, the action or process of being adapted or adapting; the second, is to change and/or process of change by an organism or species to become better suited to its environment. The term “Climate mitigation” term refers to efforts to reduce or counter the emissions of greenhouse gases, while the term “climate adaptation” term refers to efforts to reduce the vulnerability of people and ecosystems to the effects of climate change effects. Even though both terms have common grounds, to reduce the negative and dangerous impacts of climate change on earth, objectives and approaches of these terms differ from each other (WIRE, 2015). In this thesis, the term climate adaptation will be used to highlight the expected vulnerability of people and ecosystem to show the importance of international cooperation on environmental action on earth. The term climate mitigation, on the other hand, will be used to underline the necessity of reducing the greenhouse gases emissions to highlight the current domestic and/or international environmental policies of different countries.

Climate adaptation is necessary to reduce and limit the negative effects of climate change or to take advantage of the opportunities stemming from climate change, where possible. Since it is a fact that climate change has already started to affect our current world in various ways; one of the requirements to protect the living creatures must be to reduce the greenhouse gases emissions. Greenhouse gases emissions could be considered as one of the most important topics in climate change since most scientists already agreed on the fact that global warming is inevitable and heat in the ocean storage already raised due to substantial greenhouse gases emissions percentage in the atmosphere. Preparing human beings and the earth for the expected changes, which climate change could cause, would definitely help to reduce the risk elements for most of the individuals and societies (US EPA, no date).

With regards to inevitable negative scenarios, which climate change could cause within the coming years, many international/national organizations have taken action to address climate adaptation. For instance, in 2013, the European Union (EU) released a covenant on climate and published possible strategies of EU

regarding climate change. According to this covenant, adaptation strategies will be implemented to prevent or reduce the damage which climate change would cause, to save people's lives and money at the same time. In April 2013, the EU members agreed on the EU adaptation strategy, which includes the need for national/international coordination, support and information sharing among the member states. Additionally, one of the important points of the adaptation strategy states that most vulnerable and disadvantaged states should be capable of taking necessary measures. For instance; using water resources more efficiently, building precautions for future extreme weather conditions and climate change, taking measures to prevent flood and drought, developing enduring and productive crops, afforestation to reduce the risk of storms and landslides, and building a corridor in order to help the migration of species. Of course, all the necessary implementations and precautions are needed at all levels of administration including local, regional, national, between EU member states and international (EU, 2013).

Looking through the definitions of climate change, mentioning about the possible dangerous impacts of climate change and introducing ourselves with climate adaptation and climate mitigation would help human being to understand that all living creatures are in one single sinking boat on earth. It is impossible to deny the fact that every single life would be affected from each other's actions either in a positive or in a negative way. The terms of climate adaptation and climate mitigation would be more understandable as it would be analysed in the following chapters; under the politicization and the securitization of the climate change sections, when various international organizations and stateholders decided to improve their current situation after acknowledging of global climate change and became determined to make voluntary and mandatory commitments to reduce the greenhouse gases emissions.

CHAPTER 2

POLITICIZATION OF CLIMATE CHANGE

2.1 How Climate Change is Politicized

In this chapter, the evolution of climate change and the politicization process of global climate change will be examined. The most significant and critical environmental acts, conferences and agreements of both within the twentieth and the twenty-first century will be the key elements of this chapter. Even though the main focus period is chosen as after twentieth century, nineteenth century will be also mentioned in this chapter as a starting point. The environmental policies of different countries and non-governmental/international and national actors will be highlighted in this chapter since they all contributed as important milestones to the politicization of climate change.

Although the term climate change is considered to be a new discovery for human beings, the emission of greenhouse gases and its effects, the existence of heat percentage on the atmosphere is not a new discovery for earth. Climate change term was first brought up to attention of human beings in nineteenth century.

In the late nineteenth century, in April 1896, a Swedish scientist Svante Arrhenius, wrote a paper to *Philosophical Magazine and Journal of Science*. In his paper, Arrhenius claimed that fossil fuel combustion, emissions from human industry could result to global warming on earth. He stated that there is a correlation between carbon dioxide concentration in atmosphere and temperature. He claimed that 15°C is earth's surface average temperature, and stated that it was the result of natural greenhouse gas effect. He also underlined the fact that using and increasing the level of carbon dioxide concentration on earth would cause 5°C rise in the earth's temperature. Nonetheless, American scientist Thomas Chamberlin and Arrhenius, tried to calculate the carbon dioxide rate in the atmosphere, and the results supported Arrhenius's statement that human activities on earth could lead to

warming of earth's temperature. Upon collaborations with other scientists, Arrhenius made several calculations on earth's atmosphere temperature regarding both increasing and decreasing amounts of carbon dioxide. In addition to that he suggested cutting down on carbon dioxide amount in the atmosphere could lead decreasing of the temperature in Europe (Arrhenius, 1896).

In the following years, discussions on global warming and climate change were carried on by different scientists. While some scientists declared that global warming and climate change did not exist, some scientists argued that greenhouse gases emissions effected the temperature of both the earth and atmosphere. Yet the first-time climate change, as a term, was used internationally took place in a conference which was held by World Meteorological Organization (WMO) in Geneva in 1979. This conference is mostly referred to World First Climate Conference: "a conference of experts on climate change and mankind," which was held with the collaboration of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Environment Program (UNEP), the Food and Agriculture Organization of the United Nations (FAO), the World Health Organizations (WHO) and other partners in science. During the conference sessions, most scientists agreed on the fact that burning fossil fuels, changes in misuse of lands on earth, and deforestation had already increased the carbon dioxide rate in the atmosphere and all these events could lead to a gradual warming in the atmosphere. At the end of the conference, it was decided that there were three urgent and necessary actions needed to be taken. The first one was, taking full advantage of people's knowledge regarding present climate. Secondly, it is important to take steps to improve the present knowledge on climate, and the third one was foreseeing and preventing potential human-made changes on climate. Nevertheless, World Climate Program (WCP) had established its four components upon the suggestions of this conference; the World Climate Data Program (WCDP); the World Climate Applications Program; the World Climate Research Program (WCRP); the World Climate Impact Study Program (WCIP) (World Climate Conference, 1979).

In October 1985, the United Nations Environment Program, World Meteorological Organizations (WMO) and the International Council for Science (ICSU) organized an international assessment in order to understand the role of carbon dioxide and greenhouse gases emissions and their effects on climate. This assessment is later on referred as “the Villach Conference”. Various environmental scientists and research managers attended to this conference. The participants of the conference shared their ideas, suggestions and expertise on climate modeling for earth and human beings. It is important to underline the fact that the scientists who participated in this conference, before even attending the Villach Conference, gathered their efforts in order to publish the Brundtland Report, which put together the ideas of scientists who studied sustainable development and climate stability. During the conference, features and usage of greenhouse gases, ozone layer depletion and usage of chemicals on earth, and all dangerous effects of those on climate change were presented. The participants of the conference also emphasized the need for more research, using scientific principles and technology, to target emission and/or concentration limits. At the end of the conference two important implementations were clarified and highlighted. First, to ensure the periodic assessments are to be undertaken to contribute to the the state of scientific understanding and its practical implications, and secondly, to initiate the consideration of a global convention, when deemed necessary (Villach Conference, 1985).

Upon the workshops held during the Villach Conference, the Advisory Group on Greenhouse Gases was established in 1986. The main purpose of establishing this Advisory Group was to observe the increasing percentage of greenhouse gases both on the ozone layer and its negative effects on the climate change, as well as to secure the academic studies, workshops and public interest on changing climate. The Advisory Group drew international attention to the subject and it was supported by various international organizations including; the World Meteorological Organization, the United Nations Environment Program, and the International Council of Science Unions. The accomplished works of Advisory Group led the

international arena to 1988 Conference on the Changing Atmosphere (Zillman, 2009).

In June 1988, various international scientists and policy makers came together in Toronto, Canada for the World Conference on Changing Atmosphere: Implications for Global Security which referred as “Toronto Conference”, to discuss emerging concerns regarding the climate change including ozone depletion, possibility of acid rain, global warming and atmospheric issues. Upon this conference, for the first time, greenhouse gases emissions and increasing carbon dioxide rate in the atmosphere took media’s attention. Important steps had been taken during the Toronto Conference regarding the international environmental diplomacy since the conference highlighted the importance and need of “taking specific actions to reduce the impending crisis caused by the pollution in the atmosphere” for governments, non-governmental organizations or individuals, the United Nations and its related agencies (Fenech, 2013).

As a follow-up of to Toronto Conference, in November 1988, in Geneva, the Intergovernmental Panel on Climate Change (IPCC) was set up, in order to prepare scientific information, assessments on climate change and its impacts, along with realistic response strategies, by the World Meteorological Organization and the United Nations Environment Program. The very initial task of the IPCC was to prepare a comprehensive analysis on scientific knowledge of climate change, social and economic impacts of climate change and possible response strategies for governments and possible future conventions under recommendations to tackle climate change (IPCC History, no date).

In March 1989, the Hague Summit took place. Seventeen people representing different states attended to the summit to establish an institutional authority within the UN framework in order to preserve earth’s atmosphere and fight against global warming. The Hague Summit is critically important for two reasons. First, this summit was the first summit in which different heads of states attended to an environmental conference. Second, during the summit, industrialized nations were held responsible for the deleterious emissions rate in the atmosphere and ozone

layer depletion. According to The Hague Declaration, which was published right after the summit, the planned so-called institutional authority would work to gather and share, define standards, improve precautions in order to promote compliance, and negotiate necessary legal instruments (Hague Declaration, 1989).

The Hague Summit differs from other environmental conferences since it specifically drew attention to industrialized countries' responsibilities. For the first time, policy makers, state representatives and other international/national stakeholders agreed on the fact that developed/industrialized countries' acts were to be considered different from developing and, least developed countries' acts regarding environmental matters.

In November 1989, the Noordwijk Ministerial Conference took place. Various representatives from 11 international organizations, and government representatives from 67 countries attended to this conference along with the Commission of European Community (EC). Even though not all industrialized state representatives attended the conference, "climate change" term was recognized as a "common concern to mankind" by all the participants of the conference. During the Noordwijk Conference, it was underlined that each state has different responsibilities, and the right of managing their natural resources and to take necessary actions regarding sustainable development steps. Upon this conference, the Noordwijk Ministerial Declaration on Climate Change was signed, by the participatory countries, which urges that all participatory states to contribute to these efforts with their views, research and raising problematic issues on climate change, greenhouse gases emissions and its effects on the world in an international arena. The idea of reducing carbon dioxide emission by around 20% by the end of 2005 was suggested. Additionally, industrialized countries were urged to support the Intergovernmental Panel on Climate Change. The declaration specifically urged to take steps on emissions, funding, research and monitoring activities regarding to climate change (The Noordwijk Ministerial Declaration on Climate Change, 1989).

The Noordwijk Ministerial Conference is important since it is the first time "climate change" term was approved as a common concern of human kind and

states were urged to take necessary steps to improve the situation. Above from all, it was a threshold moment for the international area that not all states have the same responsibilities to improve the current situation and prevent the dangerous impacts of climate change but each state would have their own mechanism regarding their will. Also, it would not be wrong to claim that the term climate change drew attention both in the national and international arena since the number of participants had significantly increased.

As a follow-up to the Noordwijk Ministerial Conference, in November 1990, the Second World Climate Conference was organized by the World Meteorological Organization, the United Nations Environment Program and several different international organizations. Various government representatives from 137 countries attended to this conference along with the European Community and several different international organizations. The conference consisted of two parts; scientific and ministerial parts. For both sessions of the conference, there was huge amount of participation from different countries. During the conference, progress that had been made over the last decade and the First Assessment Report which was released by Intergovernmental Panel on Climate Change in 1990 were reviewed and analyzed. There were recommendations for necessary urgent action on food, water, energy and land usage of human-kind. Also, the establishment of Global Climate Observing System (GCOS) was one of the suggestions that stemmed from this conference. During the conference, the importance of both international negotiation and international cooperation on climate change was underlined. In the declaration that was released upon the Second World Conference on Climate Change, it was precisely stated that climate change was a common concern of the human kind, and the importance of equity regarding this concern as well as the need to approach it via “a common but differentiated [set of] responsibilities” of the governments (Zillman, 2009). The Global Climate Observation System (GCOS) was aimed to observe earth’s atmosphere, ocean and land to identify variabilities on climate, the causes and the consequences of climate change. The data of the program was, and still is, open and accessible for all the participants and users, who were/are seeking to improve climate observations. The Global Climate Observation

System is not a self-observation program but to one that is contributed by various national observing agencies, space agencies and research programs on climate. The observation system covers all biological, chemical and physical changes in the climate system, atmosphere, land surface and the ocean. GCOS is responsible for making recommendations and preparing specific programs which include possible precautions to climate change by using its data and resources (WMO Programs, no date).

The Second World Conference on Climate Change was right after the Noordwijk Ministerial Conference, and the statement of climate change as a common concern of human-kind, was reiterated in this conference and governments were urged to take different but common responsibilities to reduce their greenhouse gases emissions. Nonetheless, with the establishment of Global Climate Observation System, all governments, different national and international organizations, various researchers from different institutes and scientists encouraged to share their expertise and suggestions to improve the current situation.

In the meantime, the United Nations General Assembly decided to establish a single body, which was supported by the United Nations Environment Program and the World Meteorological Organization, in order to hold the intergovernmental negotiating process under the United Nations General Assembly. Upon that, in December 1990, Intergovernmental Negotiating Committee (INC) was established and its first sessions was held in February 1991 (INC First Sessions, 1991).

After Second World Conference on Climate Change, in June 1992, the United Nations Conference on Environment and Development was held. The Second World Conference on Climate Change, which was also referred to as the Earth Summit, was the largest gathering of Heads of State, until that date. The Rio Declaration on Environment and Development was signed by more than 170 country representatives at this conference. The Rio Declaration, which was also referred to as Agenda 21, easily differs from previous declarations as it consisted of 27 different principles. Rio Declaration sought to establish a new global partnership through participation of all levels of cooperation by states on earth.

According to the principles which were released under Rio Declaration, human beings and their concerns regarding sustainable development were in the center, and the right of development should be fulfilled with the environmental needs. Environmental protection should be one of the main concerns of the sustainable development. States have their own right to manage their own natural resources and they are responsible for their national and international activity that affects climate change. However, all states and individuals should cooperate toward sustainable development. Priority should be given to those who are most vulnerable or in developing/least developed and undeveloped countries. Earth ecosystem must be protected and restored with global partnership and common but different responsibilities should be taken in governmental level. Reducing unsustainable patterns of production should be prioritized by the states. Scientific and technological knowledge on climate system should be promoted. States should increase public awareness on climate change and all individuals should participate in environmental action. States should cooperate with each other and support each other in the international arena, especially with regards to the international economic system. All states should regulate their own national law for the expected climate change victims who are faced with pollution and environmental damage. States should discourage harmful environmental activities. States should apply precautionary approaches to protect their environment, and states should inform other states in case of any natural disasters or other environmental emergency situations occurring within its borders. Women and indigenous communities should participate in all those activities and they must be encouraged to have a vital role in environmental management and sustainable development. Young people should be mobilized both for sustainable development and for a better future. States should avoid armed conflict since it is harmful for environment and instead of conflicts, they should promote international cooperation as necessary. States should resolve their environmental disputes peacefully. All states and people should cooperate to fulfill all the necessary principles mentioned above (Rio Declaration, 1992).

The Rio Declaration is considered as one of the early environmental accomplishments of the twentieth century regarding its context. It has importance

both for promoting international cooperation and peace, and encouraging all kind of human-kind participation as necessary. The Rio Declaration advanced the call for sufficient international cooperation of states and people.

Another accomplishment of Second World Conference on Climate Change in Rio in 1992 (Earth Summit) was that the United Nations Framework Convention on Climate Change (UNFCCC) was opened for signatures after the conference. The United Nations Framework Convention on Climate Change brought two other conventions along with it: the United Nations Convention on Biological Diversity and the United Nations Convention on to Combat Desertification (UNFCCC Timeline, 1992).

One of the objectives of the Convention was to stabilize the greenhouse gas concentration in the atmosphere at a certain level that would not harm ecosystem and climate systems of earth. The UNFCCC also aimed to establish three viable settlements; allowing ecosystem to adopt naturally to climate change, ensuring the food production and delivery systems and enabling the economic development of countries to proceed in a sustainable manner. Even though the convention was opened for signatures by participating countries in 1992, the convention did not enter into force until in March 1994 (Ramakrishna, 2000). Countries that signed the convention from here after are referred as “parties”. Upon this convention, parties started to meet annually at the Conference of Parties (COP) in order to negotiate their observations, scientific research and technological progresses on climate change. When the United Nations Framework Convention on Climate Change entered into force in March 1994, all parties started to share their national strategies on climate change with each other and in the meantime, the Intergovernmental Negotiating Committee continued its annual meetings in order to discuss parties’ commitments, arrangements, financial/technical mechanism and supports to developing countries who are considered as most vulnerable (UNEP, 2000).

In March 1995, the first meeting of the Conference of the Parties (COP 1) took place with the attendance of 117 Parties and 53 observer states. All parties agreed on the objectives and commitments, which the Convention contained for the

developed countries; therefore, this conference was considered to be the first meeting of the international environmental agreement which had prompt start. Upon the agreements, the parties released the Berlin Mandate which contains additional commitments and objectives on climate change. Nonetheless, it was decided that a process should be established for all countries in order to take appropriate action not only to save the day but also beyond 2000s. The Berlin Mandate urged an international law which was legal bound actions in order to limit the emissions in the atmosphere. Although First Meeting of the Conference of the Parties gained accomplishment in international arena, adoption of the Berlin Mandate became a subject of very intense debates. While developing countries managed to adapt the results and succeed in their commitments, industrialized countries failed to accomplish their responsibilities on time. While the debates and negotiations between developed and developing countries was ongoing, Global Climate Coalition (GCC) which was formed by the several private sector leaders in 1989, interfered with the debates and stated that it was unwarranted for any (developing or developed) countries not to take action in the light of the science of local climate change. And upon this statement, it urged that Parties have to meet again (Ramakrishna, 2000).

The First Meeting of Conference of the Parties and Berlin Mandate highlighted the importance of international cooperation although the developed countries failed to accomplish their responsibilities. Nonetheless, the Berlin Mandate drew attention of the international community to the need to take urgent measures to protect world's environment by establishing an international law that suggests limitation on the greenhouse gases usage.

The Second Meeting of the Conference of the Parties (COP 2) took place in July 1996. Several parties, observer states, intergovernmental organizations, non-governmental organizations, the United Nations agencies specializing on environmental issues, along with other United Nations bodies attended to this conference. One of the important points of COP 2, was the attempt to incorporate legally binding and compelling commitments on climate change Ministerial

Declaration. Another accomplishment of the conference was the release of the second assessment report of Intergovernmental Panel on Climate Change. Around 2000 world-wide scientists and experts studied on the second assessment report. The report stated that greenhouse gases emissions continued to increase in previous years and human activity effects on this increase and global climate change was irrefutable. The assessment report also stated that the climate has been changing in the last 1000 years and it is highly predicted that the atmosphere temperature would rise within the following years, if human-kind does not take immediate precautions regarding their dangerous influences on climate change. The report also stated that parties including the European Union, the United States, and most of the developing countries made commitments to act in the absence of consensus, and confirmed that all those strong parties were ready to continue to work on their necessary responsibilities (Bodansky, 2001).

Although, developed/industrialized countries failed to accomplish their commitments in the Berlin Mandate after COP 1, with the release of second assessment report and COP 2, they made themselves clear to carry the burden along with the developing and least developed countries and clarified that they were ready for cooperation at least for the environmental policies.

2.2 Politicization Process with and after Kyoto Protocol

As a positive follow up this process, in December 1997, the third meeting of the conference of the Parties (COP 3) took place. This Third Meeting of the Conference of the Parties was historically important milestone since Kyoto Protocol was adapted during this conference. The Kyoto Protocol was the first treaty which demands the reduction of the greenhouse gases, up to five percent reduction, in order to combat to climate change both in the twentieth and twenty-first century. Even though the Kyoto Protocol was adapted in December 1997, it did not enter into force until 2005. The Kyoto Protocol was an important enforcement, especially for the industrialized countries, since it demanded that greenhouse gases emissions of industrialized countries be stabilized based on the principles of the convention. In addition to those important accomplishments, the Kyoto Protocol was binding,

of noteworthiness for the 37 different industrialized countries that participated. The Kyoto Protocol also underlined the importance of the “common but differentiated responsibilities” principle by putting more responsibility on developed nations, as it should be. It would not be wrong to claim that pollution was somehow limited by this convention (Kyoto Protocol, UNFCCC, no date).

With this protocol greenhouse gases emissions became a commodity internationally; which meant that without permission emission would not be possible and trade of emission permit would be on the market. The Kyoto Protocol was one of the most positive actions to its date, as it claimed reduction of emissions, no matter which part of the planets’ atmosphere it belonged, would be effective. The Kyoto Protocol encouraged the investors, both states and the individuals and/or groups from the private sector, who were interested in green development and cleaner infrastructure and systems (along with the supporters of these investors. One of the most important objectives of the Kyoto Protocol was to ensure the accountability of the parties while promoting and facilitating the commitments of the parties. After the adoption of the protocol, the member states of the European Union proposed to increase the emissions cut percentage to 15 percent, in order to adhere to the objectives of the Kyoto Protocol, while other developed/industrialized countries including Australia and the United States proposed weaker emissions cut by the end of 2010. After this discussion, the protocol created an equal and more flexible mechanism, called the Clean Development Mechanism (CDM), both for the developed and developing countries in order to reduce the greenhouse gases emissions rate with the support of international and domestic actions (Bodansky, 2001).

When the fourth meeting of the conference of the parties took place in 1998, more than 180 countries’ representatives attended to the conference along with participants from various non-governmental organizations and press members. The conference mostly focused on the process of Kyoto protocol and its mechanisms over parties. All remaining questions and skeptical problems regarding the progress on climate change were summarized under Buenos Aires Plan of Action (BAPA).

One of the most important differences of the action plan was that it highlighted usage of land, encouraged technology transfer among the parties and the deforestation problem on earth (Rentz, 1999).

Even though the Kyoto Protocol was an essential and necessary step for the ecosystem of earth and human-kind, it was not sufficient enough during its implementation process as the parties to the Protocol failed to meet the targeted commitments.

Until early twenty-first century, there have been significant and effective actions on climate change. Both states and actors from non-governmental and intergovernmental organizations have worked with scientists from all around the world who have expertise on climate change and atmosphere, land, energy and water usage on earth, as well as human related impacts on the atmosphere's temperature and other related topics to environmental preservation in order to limit and/or reduce the greenhouse gases emissions into the atmosphere as well as to create a better and livable planet for human-kind. It should not be underestimated that most of the legal and cooperative actions, which took place towards the end of twentieth century, have had positive effects to create a clean, green and sustainable world. Even though these implementations were not enough when it comes to the rate of greenhouse gas emission in the atmosphere; all international environmental conferences and all conventions, encouraged developing/least developed/undeveloped and developed countries to take initiatives in order to adjust their domestic and international environmental policies in accordance with the Kyoto Protocol.

On the other hand, all those improvements made oil producing countries concerned about their economic growth in the international arena due to the limitation of the greenhouse gas emissions, and the world was able to see the developed and developing countries' unwillingness when it comes to the environmental commitments. Some developing countries like China, Brazil and India claimed that legally binding commitments were unfair for developing countries while industrialized/developed countries such as the United States were

refusing to take more initiative on environmental commitments even though the percentage of greenhouse gas emissions of developed/industrialized countries were higher comparable to the developing countries (Ramakrishna, 2000). At the same time, other vulnerable countries were able to see their possible future scenarios. For instance, vulnerable island countries realized that they would face the danger of rising in the sea level while countries located in sub-Saharan Africa, could face with natural disasters and/or diseases as well as difficulties to access the local and/or international economic markets. And there were few expected scenarios for the vulnerable countries if international cooperation would not be a part of the solution.

For those countries, states and actors from national/international organizations which were/are not intended to be part of international cooperation on environmental policies, with the support of oil producer companies, claimed that climate change and global warming are not real, in the late twentieth century when enormous developments had been made on climate change. Some scientists started to make statements on that human activities and greenhouse gas emissions were not related to each other while they accepted the fact of climate change. Other scientists started to claim that climate change was natural, unstoppable and people could not do anything to prevent its dangerous impacts. While all these events took place in the international environmental arena, in 1998, a former president of the National Academy of Sciences and the former tobacco company scientist Frederick Seitz, called scientists to sign a petition that urged rejection of the Kyoto Protocol for the US government. The petition stated that carbon dioxide was not harmful either for the planet or human beings and claimed that the carbon dioxide rate was not related to the climate change. During the release of this petition, it was claimed that 17,000 scientists were said to have signed this petition although later on it was discovered that the number was not correct at all. Within the same year, one of the best world-wide known oil and gas company ExxonMobil, started funding the scientists who were more skeptical on climate change and global warming. Again, in the same year, with the help of Exxon MobilCompany, the Global Climate Science Team (GCST) was created. One of the main tasks of Global Climate Science Team was to discredit, through broadcasts and publications, scientists and organizations who

claimed that greenhouse gases were causing a warm of the planet. In April 1998, the Global Climate Science Team released a plan called “Global Climate Science Communications Action Plan” which contains the reasons not to support Kyoto Protocol as well as to discredit the scientific research and studies on the correlation between the greenhouse gases and global warming, which had been established in the previous years (Union of Concerned Scientists, 2007).

These unnerving actions were made to discredit the important developments to date and discourage the expected cooperation between the countries. It is not a coincidence that these discouraging petitions and statements came about at a time when enormous improvements were beginning to take place with regard to environmental cooperation between countries.

These discouraging acts and statements were not enough to undermine the efforts of climate action within the last century. Various worldwide reknown scientists and international organizations continued their works on climate change. In April 1998, three environmental researchers; Michael Mann, Raymond Bradley and Malcolm Hughes, published their work on global temperature change within the past 600 years. This research, proved that global temperature had risen and the climate got warmer in the few decades when compared with the previous 1000 years. The research claimed that the increase in the greenhouse gases emissions caused the increase in the global climate change and its temperatures (Mann, Bradley, and Hughes, 1998). In November 2001, the Seventh Session of the Conference of the Parties (COP 7) took place in Marrakesh, Morocco and during the conference, the Intergovernmental Panel on Climate Change released another assessment report on climate change. 516 well-known experts on environmental studies contributed to release of the third assessment report. This assessment report stated that the temperature of the planet had warmed faster than the estimates of the scientific researches. The report also mentioned that human lifestyle and human activities on earth were the main reasons of this unexpected increase of the temperature. Possible scenarios in case of sea level rising and vulnerable island states’ situations were discussed during the conference. The Third assessment

report also highlighted the possible danger of unexpected temperature on the atmosphere while it supported the fact that the temperature of earth was higher than the other time periods within the last centuries. At the end of the conference and the report, parties had been warned regarding the oncoming dangers of climate change such as, increase in the sea levels, changing rain patterns and other dangerous impacts of the local warming (IPCC, 2001).

The COP 7 and the release of the third assessment report are crucial since they highlighted the correlation between the human activities on earth and the increase in its temperature. It was a clear and undeniable fact that human activities and greenhouse gas emissions accelerated global warming and the climate change process on earth. There were several developed and developing countries that were working together and trying to find a solution for climate change and its expected dangerous impacts on earth. Conferences, research and the meetings of the conferences of the parties continued to take place worldwide, which could be referred to as follow up steps to climate change. On the other hand, there were a few industrialized countries and powerful private sector holders in the developed countries, who continued their works and research to discredit the facts of climate change and global warming. While improving their statements, these private sector holders and government representatives came up with the statement that global warming was not real and greenhouse gases were not related to current climate change.

March 2001, was a turning point of international environmental developments; the US government decided to withdraw from the Kyoto Protocol, that is one of the most important conventions regarding environmental policies. While explaining the reasons for withdrawing from the protocol, the President George W. Bush stated that he ratified to withdraw from the Kyoto Protocol because his administration rejected to put the convention into force as they believed that the Kyoto Protocol forced industrialized/developed countries to fulfill more commitments than developing countries and put more burden to developed/industrialized countries regarding the greenhouse gases emissions. Lobbying efforts, which were supported

by important, powerful, and effective gas, and oil producing companies including ExxonMobil, to the United States government showed its strong impact. The Bush administration also stated that if the Kyoto Protocol would be implemented, it would damage the country's economy and its economic interests in the international arena. Right after withdrawing from the protocol (within the same year) several press releases on global warming and climate change studies were blocked, and a press conference on global warming was cancelled in the country (Mooney, 2005). At the same time, the White House prevented the United States Environmental Protection Agency to distribute brochures on climate change as the scientists refused to change the language they used on their brochures (Maassarani, 2007). Furthermore, in the following years, the scientists who claimed that human activity was related to climate change and global warming were punished, releases on global warming studies were blocked, and the United States Government representatives highly criticized scientists and activities who were supporting the global warming action with their arguments (Union of Concerned Scientists, 2007).

While this discouraging turn of affairs was taking place, the Kyoto Protocol, legally binding with 128 signatories (at that time), entered into force in February 2005. According to the Kyoto Protocol, the industrialized countries would meet their targets in order to reduce and limit the greenhouse gases emissions. The Clean Development Mechanism (CDM) would encourage and be supportive for the developing countries which were trying to promote sustainable development since they were trying to limit and reduce their greenhouse gas emissions. The international carbon trading market would be in place and the emission trading regime would enter into force to help the industrialized countries to cut their greenhouse gas emission and to meet their promised targets in the following years. And the determined budget of the protocol would be used in order to fight against the dangerous impacts of climate change and it would be used for helping developing and the most vulnerable countries to cope with climate change. In the period when the Kyoto Protocol entered into force, four developed countries did not ratify the protocol and these countries were; the United States of America, Australia, Monaco and the Liechtenstein. While most of developing countries had

their emission reduction targets underlined in the protocol, four developing countries did not have any emission reduction targets when the protocol was signed. These countries were Brazil, China, India and Indonesia (Kyoto Protocol Press Release, 2005).

In December 2007, the Thirteenth Sessions of the Conference of the Parties (COP 13) took place in Bali, Indonesia. This conference was important since the developed countries who did not ratify the Kyoto Protocol, including the United States of America, attended the conference with its government representatives. During the conference, the Intergovernmental Panel on Climate Change released its fourth assessment report. It was highly critical and important that the Fourth Assessment report contained a chapter titled “Adoption and Mitigation”. With the release of the fourth assessment report, world-wide known policy makers and international organizations accepted the fact that the damage was already done and the temperature kept increasing in the atmosphere due to increased greenhouse gases emissions. And this step brought international environmental arena to terms with climate change adaptation and mitigation as the parties were searching ways to adapt human being and world ecosystem to changing climate and its effects rather than taking precautions for it.

Another accomplishment of the conference was that the parties agreed on the Bali Road Map, which was an agreement to strength and secure the international climate change for two years. The Bali Road Map was a new negotiating process along with various resolutions on climate change and its impact on earth. During the conference Bali Action Plan, which was released under the Bali Road Map, was also released. The Bali Action Plan was another improvement in the international environmental arena since this plan focuses on important technology transfer between attended parties in order to reduce the vulnerability from the dangerous impacts of climate change. The Bali Action Plan also underlined the possible natural disasters and diseases, which could come along with the changing climate and global warming, and warned people to take precautions regarding this issue. Actually, it is possible to realize some of the current world’s problems, as a result

of the changing climate, today in various countries, such as unequal and difficult access to resources, increase in the numbers of the hazards, food security, re-shaping of economic globalization and spreading diseases including HIV/AIDS (IPCC Fourth Assessment Report, 2007).

With release of the fourth assessment report, the world found itself in a predictable position. It was openly discussed and noticed the difficulties, situation and expected scenarios of vulnerable states in the international area and the developed/developing and undeveloped countries started to focus on climate adaptation and mitigation with COP 13.

In December 2009, the Fifteenth Session of the Conference of the Parties (COP 15) took place in Copenhagen, Denmark along with 115 world leaders' attendance. The conference drew a significant political attention comparing with the previous international environment conferences as the state representatives including the ministers attended to the conference from the very first days and not only in the final days. During the conference the Copenhagen Accord, a political agreement of the parties, was drafted. This agreement contained all mentioned future implementation, mitigation, adaptation, technology transferring, precautions for deforestation goals of the Bali Action Plan. The agreement suggested that the temperature rise should be less than 2 degrees Celsius and it put another long-term goal, which states that temperature rise should be 1.5 degrees Celsius by 2015. In addition to that, the Copenhagen Accord suggested implementation of a mitigation plan and international support for developing countries for measurement, reporting and verification (MRV) in order to target their greenhouse gases emissions every two years. The Copenhagen Accord had a call to support the developed countries to implement their adaptation plans. Under this agreement, a Technology Mechanism was also established to speed up the technologic development and technologic transfers among the parties for adaptation and mitigation. (Copenhagen Climate Summit, 2009).

With Copenhagen Accord, the politicization of the climate change process had come to the securitization of the climate change process. Climate Change

became a world-wide recognized political issue and along with the long-term goals that were set by international organizations and the state representatives in the international environment agenda to prevent the dangerous impacts of the climate change and to adapt the human-kind and life on earth to the changing climate.

In December 2010, the Climate Change conference took place in Cancun, and at the end of the conference all participatory states decided to sign Cancun Agreements, which could be considered as very important regarding climate change. The main objectives of the agreements were that the international community show the world that developing and vulnerable countries would not be neglected anymore and those countries would get support from the developed countries as needed. Some of the main objectives of the Cancun Agreements were to encourage all participatory countries to reduce the greenhouse gases emissions with each countries' different responsibility. This is highly important since it is a clear cut for differentiating factor for the developing and developed countries to take steps regarding climate change. Another objective of the agreements was to ensure the transparency of the international community to see the progress and the breaches and decisions on the previous agreements for the long term set goals. This objective is important since all participatory governments were eager to show their actions to the international community without hiding the facts. Signing this agreement made another significant point in the international agenda regarding fighting against the dangerous impacts of climate change. Another objective worth highlighting was the intention to assist the vulnerable people and states in the world in order to properly undertake adaptation of climate change. The agreement suggested taking steps to build an international capacity especially for the developing countries to meet the overall challenge. These significant important steps show the accountability of developing and vulnerable states among all climate change agreements. And the agreement suggested assisting in establishing effective institutions and systems which would help and ensure the objectives of the agreements are being implemented by all participatory states (Cancun Agreement, 2010). The Cancun Agreement and the Cancun Climate Change Conference were a significant step, especially for the developing and vulnerable countries, as the

agreement made clear that developed countries must be in cooperation with the developing and vulnerable states for a permanent solution.

In November 2011, the next Climate Change Conference took place in Durban, which is considered as a clear change regarding climate change negotiations. The Durban Climate Change Conference was the second largest meeting among all climate change conferences in the international arena. Participating governments agreed that there was an urgent need to draw a line for a fresh universe and need to sign a legally binding agreement which aimed beyond 2020. All participating governments stated that they all would play their roles properly in the international community and perform their best to achieve the success all together. A comprehensive plan was made to stabilize the greenhouse gases emissions and to preserve right to sustainable development. In all climate change negotiations, climate change actions were pushed forwarded, and both national and international actions and intentions were set into table to reduce greenhouse gases emissions. It was also decided that the global temperature rise should not be more than two degrees as higher rise in the temperature would show severe dangerous impacts on our globe. Another accomplishment of the conference was all participating countries highlighted the importance of developing, vulnerable and poor states' conditions and developed/industrialized countries showed their support to those governments during the conference. During the conference the implementation of the Bali Action Plan, Kyoto Protocol and the Cancun Agreements were discussed and made a clear decision to put those agreement into force no later than 2015 (Durban Climate Change Conference, 2011). The Durban Climate Change Conference was one of the most efficient conferences in the early twenty-first century on climate change, environmental policies and international cooperation for a permanent solution. Supporting developing/vulnerable states were highly promoted and sought for a clear cut to limit the greenhouse gases emissions in the international agenda. And overall, most efficient and significant agreements, which were signed by the participating countries within the previous years, were pushed forward to get into force no later than 2015.

However, while all those important developments had continued on climate change in the international area, in December 2011, another industrialized/developed country Canada decided to withdraw from the Kyoto Protocol. Canadian representatives blamed the United States for not taking enough responsibilities to decrease the greenhouse gases emissions and for pulling out of the Kyoto Protocol. The prime minister stated that Kyoto Protocol did not include world largest two emitters, the United States and China, and clarified that without these two emitters there would not be a solution for climate change. Other Canadian Government representatives stated that all the provisions that were set by the protocol caused difficulties for Canada to compete in the international economic market. There was other assumption regarding Canada's withdrawal from the Kyoto Protocol stating that Canada failed to meet its targets, which were promised in the previous years on the convention, and due to its failure, it was highly possible to pay a fine; therefore, Canada was determined to withdraw from the protocol. (Vaughan, 2011)

Whatever the reason was behind of this withdrawal of Canada from the Kyoto Protocol, it was an important turning point for the international environmental organizations and other stakeholders who cared and invested on climate change and global warming when another biggest emitter decided to withdraw from the protocol. This situation cast doubt for developing countries to implement the provisions of the conventions. Several developing countries had the same questions on their minds, while they were having difficulties accessing to global economic market, while they were not affecting the atmosphere temperature as much as the big emitter countries including the United States, China, and Canada, would it be fair for them to implement the provisions? Were they eager that much to reduce their greenhouse gases emissions while developed/industrialized countries were continuing to grow in the international area, international economic market and were not caring about the emission limitation as much as them? Developing countries were skeptical and they questioned the feasibility of the provisions after this moment.

After a year with skepticism and questioning climate change, in November/December 2012, Doha Climate Change Conference took place. In this conference, specifically climate change mitigation and adaptation were discussed. Participating countries determined that there is need for an amendment in Kyoto Protocol, and after all negotiations, Doha Amendment was adopted. The Doha Amendment included a revised list of the greenhouse gases to be reported and analysed by participating parties throughout the commitment period of the agreement. During the conference, the European Parliament was asked to give its concurrence to the agreements since the Doha Amendment to the Kyoto Protocol concerned a joint of commitments of the European Union (EU) and Iceland to reduce the greenhouse gases in the atmosphere. All these countries would have commitments to the international community with the Doha Amendment, while other developed/industrialized countries including the USA, Japan, Canada and Russia did not. The Doha Amendment included the previous commitments for those states which were already ratified in 2009, but did not involve any new commitments. According to the Doha Amendment, 20 percent of the greenhouse gas emissions should be reduced. For this amendment request, the European Parliament voted in favor and both European Union and its member states chosen to fulfill their commitments under the Kyoto Protocol. In sum, several states already agreed and/or achieved their greenhouse gases emissions under the Kyoto Protocol and considered another joint commitment with other parties, including Iceland, to reduce the greenhouse gas emissions (Erbach, 2015).

With this amendment, the world was able to see the different approaches and environmental policies of the developed/industrialized countries. It was a big step and significant accomplishment for European Union member states to sign and voted for in favor of this amendment, while other biggest emitters of the world such as Canada and the USA decided to withdraw from the Kyoto Protocol. Starting from that period, there were two different options, either developed countries would leave the vulnerable states for environmental Darwinism or they would vote and work for in favor of international cooperation for a permanent solution.

In this chapter the historical process of the politicization of climate change was analysed in relation to important conferences, agreements and acts within the twentieth and the twenty-first century. It was analysed how international environmental arena was affected from different approaches of the different countries on climate change issue within the years. Also, the concerns of developed/developing and undeveloped countries were highlighted in this chapter. For a better understanding of climate change as a security threat, it was critically important to realize the effects of human activities on earth, the need of common but different responsibilities of the countries and the urge for cooperation in the international area. In this chapter, all these subjects were highlighted in a chronological order.

CHAPTER 3

SECURITY APPROACHES

3.1 Copenhagen School Approach

Different security studies will be examined in this chapter of the thesis. These security studies are the Copenhagen Security Approach, the Paris School Approach, Traditional Security Approaches and the Critical Security Approaches which is also known as the Aberystwyth School of Security Studies. The reason for explaining different security approaches in this research is to understand the different approaches of countries both in environmental policy making and in the international area. It is highly important to learn the different security approaches in the security studies to understand the differences of those approaches to analyse the different state and actors' positions in the international arena. This chapter is a summary of these different security approaches by giving the definitions with important points, explanations and examples.

The Copenhagen School is mostly associated with the Copenhagen Peace Research Institute (COPRI) that was established in 1985 by the Danish Parliament, which had important and significant contributions and effects in both the security and development studies. Even though there are arguments supportive and against the idea of the Scandinavian approach to the security studies, this institute had crucial contributions with its quantitative of research to the peace studies in the area. Some theorists including Bjorn Mollen and Johan Galtung, agreed that all this research took place by the institute for peace and on peace, had a military and political characters in it. It could be considered as the main feature of this school that security concept that is socially constructed. The Copenhagen School theorists offer a completely new concept of security where social life interrelates with economy and security (Buzan, 1991).

The best representation of Copenhagen Approach for security studies was presented in the book called "Security: A New Framework for Analysis" by Buzan, Waever and Wilde. According to the book, the Copenhagen Approach for Security

is about survival. In the international agenda, international security has a different meaning which lies in the usage of political actors in its borders. Security is an act/reaction to an existential threat to the domestic or international agendas throughout a given period of time. According to the Copenhagen School approach, there are three main sources needed for security conditions: a threat which exists or may become into existence, measures and precautions to be taken regarding this threat, and the possible effects which could rise by breaking these rules. Securitization requires urgent reaction when problems arise. And securitization could be considered as a political decision process where the political actors have a right to claim, control and deal with the situation even though this way could be considered as less democratic. Securitization is considered as a need of urgent action where top political leaders could take initiative and could proceed with their decisions without democratic values or public opinions. In the Copenhagen School Approach, existential threat could be considered as the most important factor. These existential threats are mostly identified as threats or problems that were against or pose a threat to a state's sovereignty, legitimacy, national security and governing authority where the referent object could be defined as state. The crucial part to understand here is that state actors and/or the political actors have a right to claim that the state could deal/handle/control or intervene the problematic situations without any surveillance mechanism when a certain threat is identified. Both political and state actors considered this intervention as the right of a state in order to re-gain the control successfully. In this approach definitions of threat, defence, and solutions are three important factors for defining a problem. According to the same book, the military is an important factor to defend the national security and sovereignty. On the other hand, the Copenhagen School approach to security studies have a broadened security agenda that all kinds of threats are defined in five sectors such as military, environmental, economic, social and political. In this approach it is important that security should be considered as a negative, as a failure in order to handle the problematic issues of normal way of politics. Additionally, it should also be noted that Copenhagen School approach of security studies mostly prefer the term of de-securitization where the problematic issues are taken out of its

sphere of exceptionality and replaced into the ordinary public sphere (Buzan, Waever, Wilde, 1998).

It would be useful to analyse the five sectors for a better understanding of the Copenhagen School approach to the security studies. The Military sector of the security approach that occurred particularly after the Second World War when technological developments on military took place in states' agendas. It was the time when different states realized the importance of the investment in military power was important and started to focus on that at a regional and global level. The Economic sector of security approach exists to the extent of military power of the state and it could be identified as basic power of state where its citizens have access to basic infrastructures and resources when it is necessary. However, this approach has important concerns regarding the spreading of poverty among the world's states and the potential for conflicts among the states due to the gap between the rich and the poor. The Political sector of security approach is where a state and its citizens in domestic and international level determine systems based on good governance or bad governance. Both good governance and bad governance could lead a state to different situations and implementations. The social sector of security approach mostly involves national values such as collective identity and national customs. This sectoral approach also involves human-related issues including migration, culture, education, religion etc. and all related threats that fall under these issues. Threats, which could be seen against the national security, national sovereignty and religion related fall under this sector approach. The environmental sector of security approach became popular especially after the Cold War era. This is one of the most important sectors among those five sectors since the environmental sector is complex and has both national and international impacts. The environmental sector of security is related to the other four sectors, and it includes the dangers and threats not only to domestic or external affairs but also threats to human welfare and the earth. Climate change, pollution, depletion of natural resources, deforestation and other ecological problems, which emerged from human-related activities, also fall under environmental sector of security (Copenhagen School's Approach to Security Studies, no date).

Even though the environmental sector or environmental approach is not a priority for Copenhagen School Approach, the Copenhagen School analyses environmental topics deeply. Copenhagen School Approach played important roles by analysing and explaining the emerging environmental issues within security context. For all those years among the debates on European Security concerns, the Copenhagen School recognized the environmental sector as an important dynamic for security studies. With the existence of following environmental threats such as climate change and global warming on security debates both different state actors and important international organizations started to use the environment discourses to promote a new world order and their foreign policy. Due to its complex nature and uncertainty, environmental issues were neglected for other security approaches while the Copenhagen School Approach to security studies considered environmental issues as much important as military issues and determined that there is a need of environmental approach to analyse the security dynamics of the world (Trombetta, 2009).

3.2 Paris School Approach

The Paris School Approach to Security Studies could be a sociological approach that was developed by the Paris School, and is also known as in-securitization. The Paris School Approach to security studies mostly focuses on the contextualizing process which is helpful for problematic issues to transforming them into practices and solutions in securitization. This approach involves media, social practices and other related issues and/or branches in it, since this approach was seen as a social process of securitization. The Paris School Approach to is about time process and contextualizing. According to theorists of this approach including Didier Bigo, the process of collecting information, categorizing the problem and the parameters, and assisting the experts for identifying the information are important factors of this approach. More importantly, not only the threat itself but the process of a threat, which involves social constructions of it and the reasons behind of the threat are the factors which needed to be examined to understand the threat and the solution. According to Bigo, identifying a threat, with the existing

fears behind of it, is helpful for investigators and these steps would promote the social institutional interest of a state (Bigo, 2002).

For the Paris School Approach to security studies there are three important factors. First, the securitization itself is not only related to the exceptional measures which needed to be taken when a threat occurs but also it is related to surveillance and policies that are related to traditional security studies. It is mostly seen in the representation of a threat and turning this threat into either negative or positive connotation in securitization process. Second, the important factor is the expertization of the securitization both socially, technically and professionally. Experts will assist to understand the problematic character of the securitization no matter what it is related to. Third, the degrees of institutionalization that involves different combination of spoken action and securitization through practices. This factor is important when limited institutions are trying to call for a more extensive form of a governance which is hidden, and these spoken actions are more likely to challenge the authoritative position of security experts and related bureaucracies. Even though the Copenhagen School Approach and the Paris School Approach could be considered as complementary approaches within security studies. The Paris School approach to security studies shows how problematic issues could be transformed into policy making processes and security practices without the need of an extant threat; while the Copenhagen School approach to the security studies outlines what kind of exceptional precautions should be taken when a threat comes to being. Understanding of the securitization of the Copenhagen School is a process of de-politicization that allows for exceptional and urgent decisions that might suspend the democratic values and procedures. Securitization of Paris School draws different de-politicization process since the transformation of a political matter into the security process mostly hidden and based on competitive understanding which was characterized by the experts (Trombetta, 2014).

3.3 Traditional Security Approach

In traditional security studies, the concept of security is not an argumentative concept. Traditional Security studies are based on Realism and its scientific

objectives such as there is an existing objective, a world and this world is separated from the individual. According to John Mearsheimer, traditional security study is a study of relentless security competition between the state actors and governments since there is always a possibility of war in the background. The traditional Security Approach focuses on the use of force by one state to another state in order to keep itself safe. It would not be wrong to claim that the traditional approach to the security studies is characterized especially before and during the Cold War period. During the Cold War period, this approach was often criticized since it was not broad enough to cover all security aspects and it only focused on military threats and national security (Mearsheimer, 1994). Nonetheless, traditional approach to the security studies is about to guarantee the state and state's sovereignty in order to make sure that there is no higher authority above the state. Realism and history are the most important factors of this approach. In addition to that, military power is one of the essential factors of the traditional security studies since traditional approach favors the fighting potential or military capability of a state. Traditional security studies suggest that if a state has both the fighting potential and weaponry power in the international area, this state could guarantee its own authority and there is no security breach in its system. On the other hand, according to John Herz, a state should create a security dilemma to guarantee itself in the international area and this act in itself is essential for a state's survival. According to Herz, there is no security in the absence of authority, and thus, each state should work on its own security dilemma by re-defining the threat against the national security and empowering its military force (Walt, 1991).

3.4 Critical Security Approach

Critical Security Studies is also known as the Aberystwyth School of Security Studies. Critical Security Studies or Aberystwyth School of Security Studies underlines that Realism is not the most appropriate methodology for social sciences, especially when a state is being used as the referent object of security. One of the important theorists of the critical security studies Ken Booth, who claims that Realism and its theorists both had important power and influence during the Cold

War period because that period was the right time to describe the political realm. Nonetheless according to Booth, Realism lost its power especially towards the end of Cold War Era because Realism had no power to look beyond the borders and that period needed to look deeper than it seemed; which meant that traditional security approach was not sufficient enough to solve the problems of the time. In that period, critical thinking to understand the interactions of states and critical understanding to see the beyond borders were required. Critical theorists Ken Booth and Richard Wyn Jones criticize the traditional security studies' threat definitions, especially the external threat definitions to a state security. These theorists underline the importance of real conditions of in-security, which are also important as much as the real conditions of security since the security concept lies in the real conditions of in-security. For instance, biological drives such as food, water, shelter are the life determining conditions and this urge is called survival in order to exist. While these conditions are necessary for one to be in existence, security conditions are necessary for one to continue living. According to the critical security studies, everything is socially constructed and it refuses the world politics as a given. This approach is not about refusing the importance of a state in world politics but also reminds us of the importance of re-orientation, while looking at world politics' structures, dynamics and possibilities (Booth, 2007).

The Cold-War Era prepared a ground for critical thinkers and theorists putting the environment on national security agenda and introduced them with a new concept of environmental security. It was recognized that environmental issues are significant and they might endanger the persistence of earth and human security. The possible dangerous impacts of environmental issues such as poverty, malnutrition, disease, climate change would be extremely dangerous for human security, and therefore, security providers, state and other important security actors, should be encouraged to address these problems (Newman, 2010). And the critical approaches offer another method to address these environmental issues, and some of them came up with the idea of demilitarization of security thinking to focus mostly on mitigation of the causes of the environmental issues. In the security

approach of critical thinking, environment itself was not considered as a threat or potential cause for the conflicts, but environment is recognized as an ultimate goal of security, with the green theory of security. According to that theory, since the survival of the state has been considered as the ultimate goal for the theorists, survival of society, the individuals and most importantly the earth are needed to be guaranteed (Brandão, no date).

The Copenhagen School of Security Studies and the Aberystwyth School of Security Studies have certain commonalities; both schools are against the assumptions, presumptions and the principles of traditional security studies. Both the Copenhagen School of Security Studies and the Aberystwyth School of Security Studies underline the importance of the conceptualizing of security and its relationship with other social actors. However, they are also different from each other in two ways. While the critical security studies, concerned with the transformation of security dilemma; the Copenhagen school to security studies blame Realism as a part of its politics. While the theorists of Critical Security Studies are discussing the possibility of major change in world politics as they believed that everything is socially constructed; the theorists of the Copenhagen School are discussing about the real security concerns for real people for securitization (Diskaya, 2013).

In this research, the Copenhagen School Approach to Security Studies and the Critical Security Studies will be the two main security studies which would be pointed out in the securitization of climate change part. These two security studies are especially chosen for this thesis since climate change is considered as a threat to the national security for most of the states in the world and requires immediate action, which involves Copenhagen School Approach to Security Studies and its principles. Also, the critical security studies will be helpful to understand the realms of insecurity conditions and will of survival of human-beings and earth, since

survival element is highly essential to understand the importance and need of international cooperation and climate adaptation and/or mitigation for this thesis.

CHAPTER 4

SECURITIZATION OF CLIMATE CHANGE

4.1 Climate Change as a Security Threat and Securitization Process

In this chapter securitization processes of the climate change will be analysed with comparative studies. The securitization acts and policies made by different countries and different state actors will be examined in this chapter of thesis. For comparative study, the United Kingdom and the United States of America are chosen since these countries were considered as one of the most influential and powerful developed/industrialized countries and among the biggest emitters in the world. The previous and current environmental policies of European Union member states, the United Kingdom and the United States will be underlined in this chapter. This chapter also includes different historical parts, when different states and state actors started to consider climate change as a national threat and their acts regarding to this environmental security problem. For this historical process, especially the positive acts and policies of the United Kingdoms and the United States will be examined even though their historical continuums are different. The situation of other developing/vulnerable/least developed or undeveloped countries will not be examined in this chapter, since this chapter of the research mostly focuses on these two countries and their securitization processes of climate change.

Starting from early 1990s, the European Commission had taken many significant and effective initiatives and steps on climate change. The starting point of the European Commission was to take steps to reduce the greenhouse gases emissions and to improve sustainable energy sources. Providing electricity from renewable energy sources and taxation on energy products were of the enforcements among those initiatives. The European Commission also suggested making voluntary commitments to several member states, put enforcements especially for the car owners in those countries to reduce the carbon dioxide emission by the 25%. Since the European Union Council of Environment Ministers were aware of the fact that those steps would not be enough to reduce the

greenhouse gases emission more than 8%, the ministers requested for a list of priority actions and precautions in the community level. In the beginning of 2000s, the European Commissions released the European Climate Change Program (ECCP) to support the previous initiatives on environmental policies. One of the aims for the establishment of European Climate Change Program was to identify and improve all necessary as well as immediate elements and implementations on climate change in European Union level. First countries, which agreed to cut their greenhouse gas emissions according to their usage rate, were Germany, the United Kingdom, the Netherlands and Poland, even before joining the European Union. After officially joining to EU, these countries continued with their voluntary acts and other EU countries such as Spain and Sweden followed these countries and made voluntary commitments to reduce their greenhouse gases use. European Union developed a system which could track the reduction of greenhouse gases emissions which is called Emission Tracking System (ETS) among its member states and its late target was 40% of reduction compared with 1990 by the end of 2030. In addition to that, EU member states made a “2020 package” to ensure that the European Union member states would meet their climate and energy target by the end of 2020. This 2020 package includes 20% cut of greenhouse gases emissions, 20% increase of renewable energy sources and 20% improvement in sufficient energy sources. (ECCP, 2017)

Apart from that EU member states developed their national emission reduction target that covers housing, agriculture, waste and transportation according to their usage. All national reduction targets of the member states differ from one state to another since they were set according to the national wealth of the countries in the European Union. And all these reductions were being observed by the emission tracking system in order to meet their targets. In addition to that renewable energy investments and funding also differ from one-member state to another within this system, which were set according to the national wealth of the countries. For instance, while Malta has 10% of renewables production, Sweden has 49%. Nevertheless, the European Union supported the development of low carbon technology market and set measures to increase the energy efficient through

its borders. With all these implementations, the European Union planned to create new jobs and advanced the of growth green markets within its border. (ECCP, 2017)

Although the European Union had adopted proactive approaches to climate change by ratifying the Kyoto Protocol, the United States of America strictly opposed to the Kyoto Protocol. While some cities in the United States of America had voluntarily adopted greenhouse gases emissions cuts, the United States itself did not fully provide a commitment on reduction of greenhouse gases. Even though the United States is one of the biggest emitters, the country did not bound itself with any climate change obligations. In addition to that some scientists and states including the time of the president George W. Bush, with the support of the oil producers tried to blacken the climate change progress and stated that climate change was not a scientific fact. The environmental policies of the United States on climate change were not based on mandatory commitments, whereas the European Union environmental policies included mandatory commitments among its member states. The United States' environmental policies were based on voluntarily and aspirational commitments and mostly focused on non-committal terms, which meant that those environmental policies depended on good faith and good efforts both in the domestic and international levels. According to the United States Global Climate Change Policy Book, some of the main objectives of the climate change policies are new technology in business challenges, implementation of new regulations in taxations, the transportation programs and the carbon sequestration, which could be easily differentiated from the mandatory commitments of the European Union. Although the United States tried to implement essential policies on climate change such as the US Energy Act and modifications for the corporate average fuel economy standards (CAFE), the government failed to provide a renewable portfolio since its environmental policies were not mandatory actions. Another important fact was the United States' technology was based on fossil fuel system and each initiative that was taken by the United States, on behalf of development technology ignored the fact of climate change, and this situation contributed as an accelerating effect for climate change. Transportation, technological and financial resources were not enough to implement the voluntary

environmental policies in favor of climate change regulation. Within the same period, another considered solution was carbon sequestration, which is considered as one of the best solutions in the United States. Although carbon sequestration was seen as a limited solution and tiny step to climate change in the United States; it failed to provide effective results. Since all environmental programs and policies were designed voluntarily and considered as limited solutions to the climate change and its dangerous impacts, all those environmental policies and programs urged more explanations and improvement with the encouragement of more participants in order to meet the targets of one of the biggest emitters. Another critical issue on climate change in the United States was the failure of public sectors and media involvement in the voluntary policies. Domestic transportation and daily home life contributions were not sufficient when its compared with the daily greenhouse gases emissions in the United States. Most of the policy makers and scientists believe that more information should be shared on climate change publicly to ensure active participation. Media channels, public sectors and important well-known figures should be involved in the process. And more importantly more significant steps and improvements are needed to move away from carbon based economic development (Carlarne, 2010).

4.2 A Number of Important Environmental Policies and Regulations of The United Kingdom and The United States

The United Kingdom's response to climate change started in the 1980s and it was considered as a political issue when environmental policies of the UK are analysed. The United Kingdom had a different history before 1990s on its environmental policies; however, during 1990s, the country changed its approach to environmental issues. In the beginning of 1990s, during the time when the Intergovernmental Panel on Climate Change released its reports, the UK had the same approach as the United States regarding environmental concerns. The UK also started to set voluntary emissions targets even though it was one of the greatest emitters inside of EU along with Germany at that time. Later on, the UK started to play a leading role in the international negotiations on climate change. In the

beginning of 2000s, climate change and its expected dangerous impacts started to be highlighted by the British government representatives in scientific reports and media channels. It is important to highlight that government representatives noted the dangerous impacts of climate change and possible dire scenarios coming with the changing climate. Floods, droughts, storms and expected situation of the vulnerable states were highlighted in the media speeches. In those speeches, it was reminded that climate change could be the long-term challenge for human beings. Right after the media attention to climate change issue arose, the UK government set its priorities both domestically and internationally. The UK government highlighted the link between the dangerous impacts of climate change and security concerns on its reports and public information channels. Government representatives claimed that climate change would have severe impacts on daily life of the society including agriculture, food security, water resources and population movements and all those implementers would affect the state's economy and security. The UK made a clear effort to define the climate change as an existential threat as in Copenhagen school approach to security studies, by implying climate change as a security concern for the UK but not for the human welfare on earth generally. In 2007, the UK government released its first climate change program and set a debate to discuss whether climate change was a security issue or not. This program outlined the UK government's plans to reduce the greenhouses gases emissions, and re-shape the energy, business, agriculture and transport sectors. In the following years, several state holders, NGO representatives and media actors started to draw a link between climate change and security. Another significant step, among these developments, was a government representative such as Tony Blair (then the Prime Minister), started to point out climate change was an urgent issue and needed to be dealt in a broadened security agenda. Tony Blair also highlighted the fact of forced migration, conflicts and unrest, which are expected to be occurred with the changing climate, and stated that all these acts would affect the developed/industrialized nations and countries. One significant point of these speeches was to underline the possible migration effect, which could be triggered right after a possible natural disaster and/or epidemic disease in the world, within

the context of international security policies of the state. Apart from that, another important political figure David Miliband (then the secretary of state for environment, food and rural affairs) defined climate change as a national security and foreign policy issue. In one of his speeches, Miliband directly identified climate change as a threat to national security and added that scarcity of food and water resources could be major source of a conflict in the future, such as in Darfur. He also underlined that the government representatives should be worrying about mass migration and conflicts over natural resources when the climate change hit the poorest and most vulnerable countries in the world. Miliband implied that climate change needed to be considered as a development issue since he believed that all those mentioned above were linked and related to state's development policy. He also highlighted the dangerous impacts of the climate change and stated that the consequences of climate change would be the ultimate threat to the people. He supported the idea that the only way to prevent this threat was to stabilize the greenhouse gases and its emissions in the atmosphere. In addition to David Miliband, another government representative Margaret Beckett (then the Foreign Affairs Secretary), put the climate change and climate security in the center of foreign policy. In one of her speeches, Beckett clearly specified that all the governments needed to show concrete and real progress on climate change measures and those governments should make multilateral institutions work by building coalitions among each other. Beckett tried to raise awareness on climate change both with her works and speeches, since she considered it as a security issue. In all her works, she tried to extend the environmental approaches and policies by implying that climate change is not only an environmental problem, but also is a political, security and economic issue. With all these important steps and initiatives, climate change got wide acceptance as a security issue both by the citizens of the United Kingdom and the government representatives. And, soon enough the United Kingdom government showed their securitizing move both domestically and internationally (Hughes, 2007).

While these developments took place in the UK, there were also improvements in the USA in the early twenty-first century, regarding to its

environmental policies. During the presidential elections in the USA, Barack Obama clearly stated that environmental problems, such as climate change, would be placed his policy agenda. With the president Obama and his mandate, the USA's approach to environmental studies and climate change issue had significantly changed. The Obama administration had replaced the environmental problems within the security discourse and in a short time, most people became familiar with the term climate change. It is a huge difference that while in Bush administration the National Security Reports rarely mentioned the climate change, under Obama administration climate change term was mentioned around 28 times in the National Security Reports. The National Security Report that was released in 2010 under Obama's mandate stated that the government needed to look for cooperative solutions to the threat of climate change. According to the records, climate change had been identified as a security threat for the first time in the USA with this report. In addition to that, in one of his speeches, Obama urged the citizens of the United States to use clean and renewable energy resources to protect America's security, which could be considered as a highly important step for the climate change securitization process in the USA. Also, Obama claimed that climate change was real and it would cause new conflicts, refugees and drainage of natural resources across the globe. In 2011, Obama issued an Executive Order (EO) Federal Leadership in Environmental, Energy and Economic Performance, which sets sustainability goals for federal agencies on the greenhouse gases emissions. Along with all these improvements, the Obama mandate clearly accepted climate change as a security threat and urgent issue that needed to be dealt with. Obama also underlined the dangerous impacts of climate change on his several speeches especially between the years of 2009 and 2013. He claimed that none of the nations could avoid the dangerous impacts of climate change and with this speech, he tried to highlight the fact that climate change is a universal problem and it poses threat for people's lives on earth. It is important to realize that while the UK government representatives clearly approached to climate change as a security threat only for the people of UK, President Obama tried to make this subject clear and stated that climate change was a universal problem. After 2013, Obama continued to add

climate change term to his speeches to draw attention to the environmental issues and he called all nations for immediate actions. Obama and his administration defined the climate change under security terms and classified the climate change as an immediate threat for the United States of America and the rest of the world. By 2014, economical funding informative initiatives on climate change had been main focus point for Obama and his administration. In May 2014, the United States of America Global Change Research Program released a report which stated that climate change was real and it was a real threat to all American citizens and their daily lives by focusing the scientific researches and the possible dangerous impacts of climate change. In the same year, Federal Climate Change Programs' funds had been increased by 36%. All these important steps and significant attempts supported the fact that Obama followed a progressive securitization process of climate change (Sanchez, 2014).

After climate change started to be considered as a security threat by two developed/industrialized countries, other developed/industrialized countries and biggest greenhouse gas emitters of the world also started to follow this idea. Right after Obama's administration clearly identified the climate change as a security threat, the militarization or military intervention of global climate change was brought to the agenda during the Paris Conference of the Parties which was held in 2015. In the Paris Agreement, which was signed after the conference, it was internationally accepted that global climate change has critical importance and urgent action needed to be taken for its mitigation and/or adaptation to the climate change, before around 100 million people started to suffer due to extreme poverty which climate change could cast by 2030. Both during the conference and in the Paris Agreement, it was directly mentioned that global climate change has direct impacts on international peace and security, and 2016 chosen as an ideal year to take immediate initiatives on climate change with the assistance of the United Nations Security Council. Also, during the conference several states raised their concerns on securitization process of climate change since there is a possibility that the developed/industrialized countries would neglect to address their obligations and would not meet their targets, and more likely would focus on their security

problems. Several states also raised their concerns on developed/industrialized countries regarding their abilities to use of military capacity in order to manage and/or dictate the other developing/vulnerable states to control over their natural resources and to prevent the mass migrant flows (Bhatiya, 2016). Paris Agreement and year 2015 was a turning point for climate change, since media drew attention of people towards the environmental issues. It was an important conference especially for those vulnerable/developing countries since they could raise their concerns on developed/industrialized countries' security problems and abilities.

In this chapter, different historical securitization processes of climate change were highlighted. According to all these information, international community accepted the fact of climate change and started to consider it as a security issue. World started to recognize climate change and its possible dangerous impacts of earth, from different perspectives, different media channels and different government representatives. There was a significant difference between above mentioned states' policies and acts that some states took responsibilities, voluntary/mandatory commitments seriously while the other stated did not. In this chapter, it was also highlighted that not only the international organizations or scientists but also developing/vulnerable and developed state actors were able to see the need for an international cooperation for a solution.

CONCLUSION

According to all reports released by the Intergovernmental Panel on Climate Change, global climate change will have the most dangerous impacts on least developed and poor countries. Even though this fact is a world-wide known truth, today vulnerable island states and developing countries are not being supported by the major developed/industrialized countries of the world. However, this is not the only obstacle for international cooperation while other major countries such as India and China are still refusing the global climate change as a fact and a security problem, focusing on the subject as a development concern. The common approach of China and India to global climate change is more likely as a development concern since it has potential to cause conflicts over natural resources, which could lead to resource scarcity, humanitarian emergencies, and migration influx from vulnerable states to other ones. Due to all those factors, the debate of securitization of global climate change has no final resolution yet. Developed/industrialized countries' approaches could also differ from one another, as well as differ from the developing/undeveloped countries' approaches when it comes to the global climate change, which is called as North/South dimension of environmental conflict. While most developing countries are against the idea of military intervention or militarization of environmental issues, some developed/industrialized countries are focusing on the protection of their nation state borders regarding the world's ecological problems. There is a huge problem with this approach since those developed/industrialized countries are focusing only on their sovereign states instead of focusing to reduce their greenhouse gases emissions. Another problem of this north/south conflict approach is least developing/undeveloped countries and vulnerable countries are not being properly and enough represented in the United Nations Security Council, and therefore, international community are still ignoring to hear their voices and promote their interests while releasing commitments regarding global climate change adaptation and mitigation (Finlay, 2012).

The experts, researches and scientists are telling the whole world that human related activities are changing the global climate and causing the warming of the globe. The multiple research, reports, books and articles released by those scientists and experts are analysing the current situation and urging the international community to take proper action and suggesting all countries to act carefully due to expected rise in the ocean level and other dangerous impacts of climate change. It is also stated that living creatures on earth will face longer, hotter heat waves and dangerous droughts and floods with the changing climate. All these dangerous impacts would possibly trigger conflicts over natural resources, poverty and hunger and in parallel with this greater migration influx of the people. Several international organizations, different state holders and several security related organizations, including Pentagon, claimed that global climate change is a threat to national security and it is not only an environment related problem but it is also a human related security concerns. First the politicization and then, the securitization of climate change could be considered as significant and essential steps in international environmental area. The only separating line here is that global climate change should not be considered only as a threat to national security for developed/industrialized countries, but it should be considered as a security threat to human existence on earth and, act accordingly. For instance, according to one possible scenario stated that vulnerable island states would suffer more than the USA, due to expected rise in sea and ocean level, and this problem should not be seen as the environmental problem of vulnerable island states but it should be also considered as an environmental problem for the United States and the world, too – since all countries are sharing the same world. Another important point for the international cooperation is that while least developed and developing countries have poor civic institutions and poor systems to fight against climate change, developed/industrialized countries have more resources to manage the negative impacts of the global climate change. Today, unpredicted weather-related problems occur everywhere in the world without considering south and north perceptions. For example, unexpected droughts occurred in the different regions of Russia, Australia and Pakistan and all these droughts had different effects on accessing the

global economic market and natural resources. Access to global economic market also differs from one country to another. When any kind of drought and/or food scarcity problem occurred in the world due to dangerous impacts of climate change, developing and least developed countries would be harmed more as they would not access the economic market easily and they would face more difficulties than developed/industrialized countries. Food scarcity problem and facing difficulties to access to the global economic market is not only a humanitarian problem but also it is a political issue. Due to the geographical inequalities, severe parts of Africa continent and Southern Asia, are facing serious starvation problems in today's world. In the future, these problems would occur more and more, and the farmers would not be in a place either to plant seeds or to protect their foods. Therefore, especially the food scarcity issue is one of the most important issues since it has potential to cause crises among different countries and continents. In addition to that, the possibility of conflicts over natural resources in case of any kind of scarcity is highly inevitable scenario for the future world (Hoffman, 2015).

One of the most important problems of today's world is the representation of climate change in the international community. There are still a lot of people, organizations, government representatives and countries which are unwilling to see the fact of global climate change. Climate change term has severe and different enemies both in political and social world. Due to this problem, proper solutions on climate change such as mitigation and adaptation of climate change, or fighting against climate change, are being neglected. Therefore, today, climate change has real and difficult challenges. Even though the international community has several difficulties and challenges to find a permanent solution on climate change, there is still hope. If the world countries could start to believe in science and act according to the mandatory commitments in order to reduce their greenhouse gases emissions, start to use renewable and sustainable energy from now on, and focus on the fact that all the countries are in the same sinking boat regardless of how much they are developed, if the world could agree on the idea of international cooperation and could focus on climate change adaptation and climate change mitigation from now on, the world could be a more livable place for all human-kind. If

developed/industrialized, developing and least developed countries would start to work on the management of their natural resources with fair agreements, expected conflicts are more likely to be avoided. If international and powerful security organizations would assist to resolve social and political inequalities, wealth distributions, governance processes and non-military approaches in the adaptation of the rules and promote the international cooperation, the idea of ecological Darwinism could be beaten easily. And with this approach not only developed and powerful countries and people would remain but with the power of the international cooperation, developing and least developed countries could also reduce the possible harm. For a permanent solution, the world needs more representation from non-governmental and international organizations in the international area, especially during the environmental policy making process. The world needs more public and media attention to inform people of the world properly on climate change and environmental problems. The world needs the support of civil society, people, public sectors, state holders and international community for international cooperation.

This thesis attempted to analyse an ecological fact and environmental issue that is called global climate change. It attempted to highlight the politicization and securitization processes of global climate change with environmental and socio-political facts. This thesis attempted to underline a permanent solution option and highlight the importance of international cooperation on global climate change.

In the first chapter, different definitions of climate change were examined with the negative impacts of global climate change. Ecological facts, adaptation of climate change and climate change mitigation were introduced to the reader. The important terms regarding the global climate change were defined. In the second chapter, the historical process of politicization of climate change was examined; from the very first point when the climate change started to be considered as an environmental problem until the time being when the climate change started to be considered as a security issue. Different reports which were released both by the United Nations and its related branches, conferences and reports which were published by the Intergovernmental Panel on Climate Change were analysed.

Second chapter also underlines the problem of wrong representation of global climate change, which still exists today with the support of powerful oil producers, several national and international organizations, that are trying to ignore the fact of climate change. In the third chapter, different security studies were examined, such as Copenhagen School approach to security studies, traditional security studies, Paris School approach to security studies and critical approach to security studies to understand the different approaches and perspectives of today's countries on global climate change and their environmental policies. In the fourth chapter, the last part of this thesis, different governments' reactions and acts are being examined in the light of security studies. Here, the most common security studies were Copenhagen School Approach to security studies and this was followed by the critical security studies in the international community. In this chapter, the period when and how global climate change started to be considered as a security threat was highlighted. For a comparison and a deep understanding of two important countries and two biggest emitters; the United States and the United Kingdom were examined with their voluntary and mandatory commitments. In this chapter, it was also mentioned the importance of the international cooperation while underlining the situation of the least developing countries.

This thesis demonstrates the different acts of both developed and least developing countries on global climate change issue. It underlines the importance of securitization of climate change by not only considering the climate change as a threat to national security but also by considering the fact that this is a threat to world's security. This thesis demonstrates that there are multiple solutions for human-kind to reduce the dangerous impacts of changing climate on earth. Furthermore, it underlines the importance of international cooperation by mentioning the current politics perceptions of the developed countries and the political challenges that the least developing countries faced.

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