

Global Environmental Governance in the Last Period of the Anthropocene: The Case of European Union

Nurbanu BULGUR

¹ *Department of International Relations, Institute of Social Sciences, University of Sakarya*

² *Sakarya, TURKEY*

Corresponding Author: Nurbanu BULGUR

ABSTRACT: *According to template of the article, first, critical views on the concept of Anthropocene were given and the development of the human-environment relationship was mentioned in general terms. The environmental policies of European Union, which then make an exception for this periodic classification, were discussed through the process of globalization. A comprehensive literature review was conducted on the subject and the source analysis (Turkish and English Theses, scientific reports, academic articles etc.), which is one of the qualitative research techniques, was preferred.*

The main research questions it is tried to answer were the following; How did industrialization affect the relationship between human and nature in the Anthropocene? - What should be done to compensate for human-based destruction? - Has the European Union achieved this through environmental policy?

Finally, the article was completed with conclusions and recommendations.

As a conclusion, global warming, environmental pollution, climate change; whether it is due to human or natural factors, the necessity of global environmental management is obvious in both cases. Even in the case of the EU, which has achieved this quite well, policies on environmental protection have not reached the desired level due to differences in the economic growth and priorities of the member states.

KEYWORDS: *Anthropocene, EU, Environmental policy, Global Governance*

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I. INTRODUCTION

“Anthropocene” is a periodic definition used by Paul Crutzen in 2000 to derive from the anthropo- (human) and -cene (new, age) words. He brought this word describing the new age of the world to the literature. There are different views regarding the beginning and meaning of the Anthropocene. In other words, it is hard to find a definite agreement on the exact start date, normative effects and political consequences (Lewis and Maslin, 2015, p.171-72). In order to have a clear narrative along the article, I used Crutzen and Stoermer’s suggestion for starting date of it (second half of the 18th century). Since new concepts have been added to the security literature after globalization, current concepts such as environmental security, global warming and combating climate change have been the subject of curiosity in various disciplines in social sciences. Thus, the meaning of the Anthropocene in the study of the interaction between society, the state and the environment has been discovered.

In general, two different reactions have emerged to propose the Anthropocene as a new age (Pattberg and Zelli, 2016, p. 3). The first is a positive acceptance of the concept, which uses it as an argument to ensure better management of the environment. Secondly, the critical study that questions the rationale underlying the Anthropocene hypothesis and examines the policy and its theoretical and normative implications. In this study, critical views will be taken into consideration and the environmental policies of the European Union, which is an exception to this view, will be examined.

The scope of environmental challenges has expanded considerably because it is based on human development and as we enter a period of change that threatens processes - from a stable climate to biodiversity (Monastersky, 2015, p. 145). Roberts argues that the causes and consequences of global environmental change are increasingly complex and constitute a major problem class (2000, p. 5).

What does this mean for global environmental governance research? Philipp Pattberg and Fariborz Zelli critically address the concept of Anthropocene through three defining features: urgency, responsibility and complexity to briefly mention these features (2016, p. 5);

Urgency: Anthropocene is a rapid movement of the age. This defining feature of the new world system means that we must be more aware of the irreversible effects that should be avoided, as they are extensively influenced by human actions. This avoidance may, in most cases, mean immediate changes. Anthropocene means moving as quickly as possible to achieve relative goals: reducing climate change, losing fewer species,

reducing ozone depletion of the ozone layer. It is not meant to completely solve the problems of climate change, global warming and species decrease. In the context of international governance and international interaction, it is aimed to minimize the damages to nature thanks to the cooperation of actors (Oberthür and Gehring, 2006, p. 13). The basic question is: How can the process leading to Anthropocene be stopped or even reversed?

Responsibility: Anthropocene also means a change in responsibility. These changes need to be carefully mapped and evaluated; because it raises crucial questions for governance: Why do some groups have a specific responsibility for acting? In which processes is responsibility changed in the Anthropocene? Which actors take responsibility; what actors lose? (Biermann, 2009, p.18-20).

Complexity: The concepts of urgency and responsibility show the complexity of the Anthropocene. Anthropocene is an era in which negative transformation in nature such as climate change, air pollution and greenhouse gas emission is explained through the relationship between human and environment. And the individual, society, state or non-state actors is assumed that should take responsibility for the solution of the problem (Biermann, 2012, p. 1310-15).

At this point, each actor has different interests, concerns and so on. That's why, they do not take responsibility at the same level especially developed countries as statistics show (Seelarbokus, 2014b, p. 298). This creates a kind of global injustice and complexity. In many disciplines, including organizational studies (Hoffman and Devereaux Jennings, 2015), geography (Johnson and Morehouse, 2014), theology (Simmons, 2014) and Asian studies (Philip, 2014), some scholars provide a critical perspective for the basic assumptions, research objectives and normative aspects of the Anthropocene hypothesis.

There are different views about the beginning of the Anthropocene. For example, we can describe July 1945 as the beginning of the Anthropocene. Because at the White Sands Proving Ground in New Mexico, the bomb was detonated under the code name "Trinity". The debris from more than 500 above ground nuclear tests between 1945 and 1963 created a detectable layer of radioactive elements in sediments all over the world (Schwartz, 2019; Patberg, 2016, p.3; Tucker, 2019). However, other possible beginning dates have been proposed. In the original proposal of the Anthropocene, Crutzen and Stoermer (2000) propose the beginning of the Industrial Revolution as a suitable starting date.

In his own words: "It seems a bit arbitrary to give a more specific date to the beginning of the Anthropocene, but although we know that alternative proposals can be made, we propose the second part of the 18th century ... (Crutzen and Stoermer 2000, p. 17)". According to another view, the beginning of the Anthropocene coincides with the emergence of the capitalist world system (Wallerstein, 1974). Many views on the reasons for the beginning of this new age are in the literature. However, the declaration published in 2001 reveals the change of environment on a global level.

The four international global exchange research programs - the International Geosphere Biosphere Program (IGBP), the International Human Dimension Program on Global Environmental Change (IHDP), the World Climate Research Program (WCRP), and the international biodiversity program DIVERSITAS - according to the common Global Declaration of Change; "In addition to human activities, greenhouse gas emissions and climate change, it also affects the Earth's environment in many ways. In terms of anthropogenic changes on the earth's surface, oceans, coasts and atmosphere and biodiversity, the water cycle and biogeochemical cycles can be clearly defined beyond natural variability. They are equal to some of the great powers of nature in their scope and effects. Many of them are accelerating. The global change is real and now happening. (Prunk 2002, p. 208)"

The EU's efforts on such a sensitive issue, such as environmental security, and its policy are important. First, the developmental stages of the relationship between human and environment in the Anthropocene will be examined to form the basis. Then, under the title of European Union's environmental policies and globalization, the institutionalization process of environmental policy in the EU will be discussed.

II. METHODOLOGY

A comprehensive literature review was conducted on the subject and the source analysis (Turkish and English Theses, scientific reports, academic articles etc.), which is one of the qualitative research techniques, was preferred.

The main research questions it is tried to answer were the following; How did industrialization affect the relationship between human and nature in the Anthropocene? - What should be done to compensate for human-based destruction? - Has the European Union achieved this through environmental policy?

III. DISCUSSION

In the light of the information obtained, I discuss the nature's struggle with human development, industrialization, building, population growth, consumption, desertification. I argue this conflictual relationship between human and nature has gone through seven stages. These stages show us developmental Stages of the Relation Between Human and Environment

1. Exploration Phase: Geography, geographic discoveries, new roads, waterways, new raw material discoveries, etc.
2. Construction / Building Phase: Shipbuilding to reach the areas which were discovered, the creation of new routes, the production of new weapons, and ultimately the discovery of unknown places and the emergence of new diseases.
3. Colonialism: The dominance and exploitation of the resources attained has centralized slavery. A “human resource” was created for the production processes of these resources.
4. Production Phase: During the process of industrialization (mass production etc.), humanity consumed resources (raw materials and mines) while producing; then, consumer societies were formed and production started with the logic of consumption. As demand increases and the number of people, wars increase, supply in arms, clothing and other sectors increases. The most important point here is: “Consumption of natural resources and underground resources causes climate change”. As a matter of fact, the natural balance between the earth and the sky has been disturbed and its reflections have been seen in acid rain, ozone depletion and air pollution”. Thus, the basic logic of capitalism emerged in this process: Production while Consuming (raw material)
5. Production for consumption: Ultimately, much production, much consumption; means to consume a lot of energy and to leave the waste to the nature. Nature cannot tolerate this destruction as we cannot recycle waste to nature.
6. Establishing Consumption Based Society: At this stage, the distinctions of developed, underdeveloped and developing countries have been explained by the production-consumption balance. Societies that produce more and consume less are developed, societies that produce less and consume more are included in the concept of developing; societies that do not produce ready-made products are characterized as less developed. But you also need to be aware of the change here: “The content of development has changed from time to time. In the early stages of production, development is measured by having enough human resources; then, it is measured by having the necessary production tools, obtaining the necessary production technologies in the next stage and ultimately producing the logic / software of the production technology itself.”
7. Phase of Destruction: Nuclear arsenal, new diseases, illegal migration, adaptation problem (intercultural interaction has revealed this problem) illegal trade, internationalization of terrorism, social deterioration (shrinking families, loneliness and alienation increase with different cultures) spread through globalization. Furthermore, everything is individualized. Individualization brought alienation. With the development of artificial intelligence and intelligent technologies, virtual happiness and sadness have been imposed. This phase means the conflict among the civilizations as well as the conflict between nature and the civilizations. It is possible to define the last (seventh) phase as the “compensatory phase in of humanity. Because I argue hopefully that our planet should be harmonized with nature in order to protect our planet and we should leave fertile soil and a livable environment with a balanced climate structure to the future generations.

We observe that EU, which have repaired the destruction of the two major world wars, nowadays challenges globalization. For this reason, I aimed to examine the aims and practices of the Union on environmental politics and environmental action programs within the framework of the EU's social policies. We should also predicate that the environmental policy and sustainable development norms conducted by the UN after the 1970s (a report called our common future, etc.) formed the basis for EU environmental policy

It is also worth dealing with this exceptional international organizations to draw attention common global policy in order to recover nature. Reaching the maximum level of wastes during the consumption phase showed that the nature is not able to tolerate them. Thus, the environmental security take part among the main issues that constitute a problem. Not only because we consume a lot, but because we cannot recycle the wastes to nature. We cannot provide a conscious development. Moreover, we are destroying the balance of nature.

Oxygen balance and quality of the air deteriorates due to the wastes left by ships, airplanes, vehicles, wastes left by combat technologies and the reforestation. As stated in the EU's 7th Environmental Action Program, air pollution causes the early death of thousands (Selin and Vandever, 2003, p. 29-32; 7th EAP).

IV. FINDINGS

The free movement of knowledge, person and capital that emerges as a result of globalization; globalized local issues and made us aware of environmental disaster or environmental policies implemented anywhere in the world. It facilitated technology transfers and contributed to the development of production technologies.

However, free movement and innovations in smart technologies have also made “consumption” global. Since the conscious consumption of resources / products and sustainable development are not adopted in the

societies, wastes are not recycling to the environment. The environment and the balance of nature is disturbed. Technological development in agriculture, industry and defense sectors in the last century has brought another danger. The damage to the environment and the biosphere produced by nuclear power plants, tanks, war jets, warships, submarines and other smart devices, vehicles and technologies have not been adequately analyzed.

This situation is seen to threaten environmental security.

Therefore, globalization, which provides the free movement of information, technology, people and capital, enables the cooperation between countries especially in economic terms. Although it has emerged as a positive phenomenon, it has brought challenges. For example, nuclear activities, illegal migration, spread of new types of diseases, illegal trade, water security, food security, climate change, human security, environmental security, social deterioration, isolation, alienation, internationalization of terrorism, xenophobia, far-right extremism.

One of the challenges of globalization is environmental security. For this reason, it is seen that a global and common policy is necessary for providing food safety, biosphere, environmental security, natural resource protection for preventing also global warming (Olena Melnyk et al., 2016, p.48; Biermann, 2012, p. 1306).

International environment / climate regime has been gradually developed and several agreements (Paris Agreement, Kyoto Protocol etc.) have been signed and many conferences have been organized on combating climate change since 1970s. Based on these efforts, both positive and negative opinions have been raised as to International Environment Regime (Orhan, G., et al. ed., 2017, p. 67-73).

As an example of positive one; Udo Simonis (2007, p. 12) mentions about the establishment of an effective worldwide environment organization. He argues that this possible international environment regime must fulfill the following three functions mentioned: a) Better integrate and coordinate international environmental policies. b) Building capacity and providing financial support in developing countries. c) To contribute to the better implementation and development of international environmental law.

Nevertheless, it seems an idealistic view since almost all the countries' different variety of interests prevent them from developing a stable environmental policy. Some statistical works show us why the international environment regime could not reach the main goal despite some reduction in greenhouse gas emissions (the main goal is "Protecting the environment, biosphere, disappearing species, and diminishing the catastrophic effect of global warming"). These critical works tell the driving force behind this unsuccessful environment policy as seen in Seelarbokus's article (2014b, p. 295-299).

Seelarbokus interrogates the effectiveness of international environment regimes in many of his works while supporting statistical data. The main conclusion we can draw from his work is that the effects of commercial, political or societal interest groups in domestic affairs make governments avoid conducting strong and sustainable environmental politics (Seelarbokus, 2014a, p. 124,130).

The environmental policies of the European Union have been affected by all these developments. That's why, EU aimed to adopt a sustainable and comprehensive environmental policy. This policy began exactly within the 4th Environmental Action Program covering the years 1987-1992.

With the subsequent regulations, policies on environmental safety and sustainable development were strengthened. Since the global warming has increased, certain thematic priorities have been determined (Manners, 2019, p. 28-31).

I suggest dividing the European Union's environmental activities into the phases: 1957-1972, 1972-1986, 1986-1992, 1992-2001, 2001 and beyond.

In the 1970s, the UN's interest in the environment and development has contributed to the development of EU environmental policies and has made environmental safety and sustainable development among the primary issues (Kaya, et al., ed., 2011, p. 196-200). A common environmental action plan was needed. Process has been progressive in this regard since the establishment of the Union. The first stage (1957-1972) covers the formation process of the community. However, the agreement on the establishment of the community does not include rules on environmental protection.

Community measures aimed to achieve other economic and socially important objectives and only indirectly touched the environmental field; optionally, environmental protection is applied. The concept of the environment was accepted as a field of European integration with the Rome agreement of 1957. In general, the EU institutions were prepared to expand their environmental activities even though there was no common policy during this period.

With the establishment of Euratom in 1957, peaceful use of nuclear energy came to the fore. In the 1967 classification, packaging and labeling of dangerous goods were done. However, environmental policy remained a secondary policy area that was addressed within the framework of the economic policy of the community. Community environmental action programs started in 1972 and various financial and technical tools were used in the implementation of these programs. (LIFE program, eco control, etc.)

In this context, when we look at the founding treaties and policies of the European Union; until the 1970s, it was observed that the environmental issue lagged the security agenda. In the 1970s, the Union started to develop its environmental policy through Environment Action Programs.

However, ecological (environmental) sensitivities such as environmental security at that time could not go beyond being a sub-topic of economic and social development issues. The second phase (1972-1986), especially due to the manifestations of rapid environmental degradation, initiated European countries' targeted environmental policy.

The beginning of the second phase showed the Union's decision to develop in the field of environmental protection. This was thanks to the development of legislation in the participating countries because of environmental disasters and intensification of international environmental cooperation. In the EU countries, life quality standards have started to be developed first.

In the third stage (1986-1992), the Union, aims and principles of environmental policy, international cooperation policy was regulated. As a matter of fact, environmental policy became a primary policy area with the 1987 European Single Act. The Community Council has been given powers to take measures to protect the environment and to take top level protection. With this deed, the Treaty of Rome was amended. In the second article, which aims the establishment, the environmental issue has been added. With the Single European Act (1987), the basic principles and practices of the Union's environmental policies have been more clearly defined and aimed at the following: Protecting and improving the quality of the environment, contributing to the protection of human health and using the natural resources in a rational way for future.

The amendments made by the Amsterdam and Nice agreements, which do not include a special environmental division, but which are based on the coexistence of the EU for the first time, demonstrate the principle of stable development based on balanced environmental management.

Fifth stage (2001 to present) In 2001, a new Nice Treaty, providing significant EU enlargement by 12 countries in central and southern Europe, together with new geopolitical and environmental realities presented more accurate instructions and practical measures to improve Union's strategy (Karluk, 2014, p. 226-232). In accordance with the provisions of the EU constituent agreement, the environmental strategy is based on the program of action in the field of environment, defining priorities and taking immediate measures for the nearest future.

In implementing its environmental policy, the Union adopted seven programs: 1973 (1973-1976), 1977 (1977-1982), 1983 (1983-1986), 1987 (1987-1992), 1993 (1993-2001), in 2002 (2002 - 2012), in 2013 (2013-2020) (Kaya, et al., ed., 2011, p. 206-209).

In 2013, the seventh program of action in the field of environment came into force, which was designed until 2020 and determined the specific requirements of climate change, biodiversity, natural resources, health conditions, and forcing the market to work for the environment.

The main objective of the seventh environmental programs is to achieve a substantial reduction in the "ecological footprint (Dalby, 2008, p. 188) of EU countries over the next 20 years.

V. CONCLUSION

The EU expresses environmental problems as a global problem, as our common future is the problem of our planet. Global challenges need to strengthen global policies and collaborations. However, the arrangements in the internal legislation of the member countries are also very important for the common policy. Economic imbalance in the member states also complicates common policy. Since each country has its own and unique natural resources, industrial and ultimately human potential, these should be taken into consideration.

The EU should also cooperate with other countries on the environment without making any distinction between East-West or Europe-Asia and endeavor to reduce global threats as much as possible. As a matter of fact, all countries are interacting in many areas such as economic interdependence and technological cooperation.

However, in the context of globalization, it will not be possible to solve the problems that arise in the field of food, energy, climate and water security, which are sub-headings of environmental security in itself (EU), and it seems that regional security is difficult to maintain. There must be conscious production, consumption and proper waste management.

In the globalizing world, finding solutions to the diseases and environmental problems in their region does not solve the problem. Even if the EU solves the problems in its own unity, when Union is insensitive to wars, disasters in the world, the problems that is thought to be solved will return to its borders. For example, refugee crisis, the spread of new diseases. Globalized world conflicts and problems like climate change need to be handled in a global way and to be solved through the international joint action. Ultimately, I suggest that when we try to understand globalization, we must take the risks and opportunity into account together.

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