CLIMATE CHANGE AND GLOBAL WARMING

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To cite this article: Çokadar, Sueda Nur. "Climate Change and Global Warming", İNSAMER, 03.12.2020. | Analysis

Climate change is one serious global problem. The phenomenon has manifested to the point of temperatures increasing in the atmosphere; warming of the oceans, melting of glaciers, rising in sea level, increase in ordinary unnatural events, and similar developments.

In general, it can be said that the intensity of the change has become global. Briefly, global warming can be defined as "…the increase in the average temperature of the world due to the increase of greenhouse gases released into the atmosphere." The main issue that needs attention here is related to the increase in carbon dioxide in the air that triggers warming. Studies have found that gases such as carbon dioxide, methane, and nitrogen trap heat in the air. In this case, as the rate of carbon dioxide in the air increases, the sun rays coming to the world are absorbed more than they should be, and this causes the heat in the atmosphere to increase.

Clouds and ice masses reflect 30% of the sunlight coming into the earth and send it back to space while transporting 70% of it to the atmosphere. Thanks to this balance, heat is absorbed by the ozone layer, and even when air temperature decreases, the heat is maintained and the order of the airwaves forming the climate cycles is ensured.

The earth needs a healthy ecosystem, seasons, and water cycle. However, in the last century, the earth's air temperature has warmed by an extraordinary 0.9 ° C. In the last half-century, the rate of temperature increase has almost doubled. It is stated that while the world population was 3 billion in 1960, the amount of carbon in the atmosphere was 315 particles per million, and 64% of the wild nature was preserved. By 2020, it was found that while the amount of carbon in the atmosphere was 417 parts per million, the wild area decreased to 35%.

The sources of the earth's oxygen are oceans and forests. Preservation of balanced wildlife is essential for both to produce oxygen, which is the basic need of humanity and the ecosystem. Overfishing in particular, which started with the growth of industrial fishing in the 1950s, caused the balance in the oceans to deteriorate. The oceans provide almost 50% of the earth's oxygen. In addition, deforestation is one of the most significant resource losses. The forests, which serve as an oxygen source and cooling element are being destroyed, sometimes to make space for industrial products such as palm and soy, and sometimes for timber production, the construction of farms, pastures, or settlements.

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In short, while resources that clean the world are consumed, on the one hand, gas emissions that pollute the air are constantly increasing on the other. Carbon is released into the air by factories, pollution of water resources, and the reintroduction of carbon by the water cycle. Products such as fossil fuels, pesticides, cleaning materials, animal farms, cosmetics, mercury or other chemicals, coolants, and plastic compounds are released into the air, soil, rivers, oceans, and lakes; this serves as the main reason for environmental problems.

Experiencing different climate changes due to warming or cooling in past ages is not a phenomenon that the world is alien to. However, the main factor that distinguishes the climate change experienced in the last century from the previous ones is that this change does not happen naturally but by man-made destruction of nature. Environmental degradation has also increased with rapid population growth and urbanization that followed the Industrial Revolution, the excessive use of natural resources, the cutting down of carbon-absorbing forests, the deterioration of the balance of life in the oceans as oxygen source by pollution and hunting, the release of harmful gases and the increase in chemical production. Today, as pointed out above, the average temperature has risen above 1 ° C compared to the pre-Industrial Revolution era, and when this temperature reaches 2 ° C, the number of people affected by the climate crisis is projected to increase by at least 64%, equal to more than 4 billion people.

Since climate change is not experienced at the same rate in every region, it has different effects in every geography. Warming is stronger in the Arctic region during the cold seasons and stronger during the warm season in the mid-latitude regions. The temperature increase has different speeds in different places; temperature change is felt more in terrestrial areas where people live than in the oceans. For this reason, the melting of the glaciers risks potential flooding at the submergence of some tropical island and coastal countries, and it causes to increase in precipitation and floods in the continents.

Regions that might be most affected by disasters such as drought, flood, and storm due to climate change are Sub-Saharan Africa, Southeast Asia, Central and South America. In these regions, drought on the one hand, floods on the other could destroy agriculture and water resources by disrupting the soil structure, threaten both food security and public health. In the last 20 years alone, the number of people affected by floods has approached 100 million. There is no doubt that this number will grow even more with the increase in global warming. Disasters have economic costs as well as the loss of life. The fact that middle and low-income countries do not have the budget to cover the damages of disasters causes societies to become poorer.

Existing data show that climate-related risks will generally affect disadvantaged societies more in terms of technology, economy, and politic. Because at least one in every five people lives in places with high warming and crowded population areas will naturally suffer more impact on global warming.

In order to create a system that can adapt to climate change or avoid its damages, it is important to analyze three basic data: speed, duration, and magnitude of warming. Although this information is relatively easy to access, the real problem is that the global initiative taken to stabilize global warming is extremely slow.

The biggest culprit of global warming is undoubtedly industrial production that pollutes nature, thanks to the capitalist growth mentality of the West. This deterioration, accelerated by industrialization and fueled by the consumption habits of globalizing world societies, has occurred as a result of the uncontrolled use and consumption of natural resources by turning them into commodities. In this sense, the industrialized Western countries, which have the largest share in global warming, do little to reverse the course of action, while the underdeveloped countries, which will experience the greater negative consequences of climate change, seem stuck between despair and a little indifference. Although the necessary steps are not taken enough, at least the understanding that global warming will endanger human life and food security in the long term has caused the issue to be discussed in the global political scene.

The principle that each country contributes to the fight against climate change in proportion to its responsibility - in other words, the principle that the industrialized countries that pollute the world most should make the most contribution and take responsibility - is important.

The first steps regarding environmental awareness were initiated by the declaration of "Earth Day" in 1970 and addressing environmental problems globally at the United Nations (UN)'s Human Environment Conference held in Stockholm in 1972. At the conference, which focused on environmentally compatible economic development, a declaration named "Operation Plan for Human and Environment" was published and the UN Environment Program (UNEP) was established. In the 1980s and 1990s, scientific research about the increased global warming gradually started to make a lot of noise. While UNEP organized the Intergovernmental Panel on Climate Change (IPCC) in 1988, the UN Framework Convention on Climate Change was adopted at the UN Environment and Development Conference in Rio de Janeiro in 1992, and the first serious steps were taken in reducing greenhouse gas emissions with the agreement.

The principle that each country contributes to the fight against climate change in proportion to its responsibility - in other words, the principle that the industrialized countries that pollute the world most should make the most contribution and take responsibility - is important. However, since the international conventions made do not have any binding force and sanctions, developments in this area are sluggish. Moreover, the understanding of cooperation on climate change as a threat limiting the sovereign rights of states and industrialization efforts has prevented the desired achievements.

However, the Kyoto Convention, which entered into force in 2005, and the Paris Climate

Agreement, which was signed in 2015, set new measures as targets for states. According to these documents, reducing greenhouse gas emissions to the atmosphere starting from industrialized countries and reducing climate change below 2 ° C compared to the pre-industrial period until 2100 were determined as the main goals.

Various responsibilities fall on the protection of the environment, from the individual to the state, to all segments of society. In an individual sense, everyone should do more than just protect the environment they live in, but also demand that the state of their citizenship enact laws on environmental protection, inspect the nature of production facilities, and increase investments in clean energy. In addition to these, the habits of eating, cleaning, and using resources should be rearranged in a way that contributes to the balance of nature. In this context, it is important to gain the habit of eating agricultural products based on pulses, grains, fruits, and vegetables, as well as to be sensitive to issues such as reducing the consumption of plastic and chemical products and not wasting water.

Besides individual efforts, what really matters is to take institutional and political measures. In order to preserve the oceans and forests, states, international actors, and organizations should prioritize the protection of the natural cycle rather than protect stakeholders or blindly following consumer demands. Although the international agreements made so far draw a hopeful picture, each state must build the necessary regulations in its own society for the process to work.

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