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Abstract

The global climate crisis deepening rapidly and turning into a severe security problem requires a global struggle. In this regard, the United Nations has initiated comprehensive negotiations for a long time, but the process has not achieved the desired level of success. Behind this failure lie neoliberalism and its institutions that dominate the global economic system. The aviation sector with rapid growth potential develops around the aggressive strategies of neoliberalism. The developments in the aviation sector naturally affect the climate negatively at an increasing rate. In this context, the aviation industry adopting the policy of pretending to be environmentalist has ignored or covered up the environmental impacts to escape the pressure of the climate crisis and continued to grow around the deregulation principle of neoliberalism. This situation, called greenwashing, has been well adopted by the aviation industry. This study deals with greenwashing, a strategic approach that the aviation industry has implemented against other environmental problems, especially climate crises. The study has revealed that the innovative projects of the aviation industry, such as electric airplanes, hydrogen-powered airplanes, biofuel studies, high-efficiency, are highly nonfunctional. In conclusion, the study has emphasized that the aviation industry is not as innocent as pretended; the attempts to hide the sector-based pollution effects are unrealistic, and the sector-related climate crisis continues to increase.

Keywords: Climate Crisis, Greenwashing, Neoliberalism, Aviation Industry, United Nations, International Conventions.

Introduction

As a global security problem today, the climate crisis threatens the future of all living things. For nearly 30 years, the world countries have been in a comprehensive effort to combat the climate crisis. However, these efforts have not been sufficient so far, and global greenhouse gas emissions and global temperatures continue their rapid upsurge. The main factor that creates the climate crisis has been human-made greenhouse gases primarily based on fossil fuels since the Industrial Revolution. In particular, the energy, manufacturing, and transportation sectors produce far more greenhouse gases. The transportation sector holds a significant place in the general emissions. Air transportation, which has a small share in the transportation sector for the time being, is increasing its impact on greenhouse gas emissions due to the increasing demand and the rapid growth associated with it and becoming a critical factor in people's environmental choices due to the intense emissions caused. Greenhouse gas emissions from nearly 40 million flights in 2018 amounted to an average of 900 million metric tons. The International Civil Aviation Organization (ICAO) predicts that emissions that arise from flying will increase by an average of three times until 2050 (ICAO, 2019). The aviation sector accounts for approximately 3.5% of global carbon dioxide (CO₂) emissions (Cohen and Kantenbacher, 2020; Tokuşlu, 2021; Ibrahim and Arouna, 2022; Eskenazi et al., 2022). However, the share of aviation in global CO₂ emissions

is expected to rise to between 15% and 40% by 2050 since the sector has an average annual growth rate of 5% and faces no constraints on emissions released (Baumeister and Onkila, 2017; Ülker et al., 2018).

While natural disasters such as a rise in sea level, extreme climate events, droughts, and heatwaves induced by global warming and climate crisis cause changes in the consumption habits of people and companies, the demand for environmentally friendly products and services has also proliferated globally (Han and Yoon, 2015; Prakash et al., 2019; Bayırhan and Gazioglu, 2021). The impact of the rapid growth experienced in the aviation industry on the environment and, therefore, on the climate crisis has pushed the aviation industry to take measures. The sector has started to attach importance to the execution of technical studies to reduce the environmental effects caused by aviation. However, technological developments and other market-based instruments are considered short-term options for reducing emissions (Chapman, 2007). This situation has led airline companies to turn short-term solutions in their favor and create the image of being -or pretending- more environmentalist. This emerging image has also affected the customer preferences among different airline companies (Aziz, Rahman, Hussain and Nguyen, 2021; Liou and Chuang, 2010). Especially in recent years, increasing environmental awareness has affected customers' purchasing preferences while making them more sensitive to environmental problems (Aziz et al.,

2021; Carter, et al., 2000; Lee and Lim, 2020). In other words, an environmentally friendly image can grow a company's reputation and contribute to its standing out. This situation, which is called Greenwashing, is expressed as deceiving customers by showing companies more environmentally friendly than they are (Baum, 2012). Not every green-looking service or product is environmentally friendly, as expressed in the studies by Chen, et al. (2014), Matthes and Wonneberger (2014), Schmuck, et al. (2018).

Emissions from aviation are growing steadily, and there is substantial evidence that this growth will continue (Cohen and Kantanbacher, 2020). However, initiatives to reduce aviation emissions have not been directly involved in the combat process of the climate crisis carried out through the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement. For this reason, the aviation sector continues to fall behind in other sectors in initiatives to reduce emissions. Moving along neoliberal lines multinational companies and governments are the dominant power and the biggest obstacle in the fight against the climate crisis. These institutions place the interests of their citizens and political members above the long-term common humanitarian interests and take a distant approach to global environmental problems such as the global climate crisis. This situation puts the long-running climate crisis negotiations into deadlock and hinders progress. This is because these institutions and organizations bring their short-term and institutional interests to the fore against the long-term global aims, such as preventing the climate crisis. They pretend to be interested in the climate crisis issues only for the show to maintain their competitive identity in the global market (Brecher, 2015). This situation reflects neoliberalism's strategy of posing problems and pretending to tackle them. As a result, in a free market economy, neoliberalism is a system that creates environmental crises for continuous growth, ownership, and profit, then brings solutions to eliminate these crises but also makes a profit while implementing these solutions.

By adopting this theoretical approach, the current study addresses the airline companies' global climate crisis related practices, which appear to be environmentally friendly, but in essence, disrupt the natural balance. While the study discusses the climate crisis and its consequences, it also explains the context shaped by neoliberalism and the greenwashing practice as a product of this context. Besides, general and specific greenwashing acts or practices in the aviation industry constitute example cases. This study, which criticizes neoliberalism and its dominant paradigm on international relations, adds significant value to the literature by considering the airline companies' neoliberal-based greenwashing practices within the framework of the climate crisis. The arguments put forward by the study will also contribute to getting a better understanding of the reason for the failure in the fight against the climate crisis.

Consciousness Construction Capacity of Neoliberalism

Neoliberalism began to institutionalize at the national level when Ronald Reagan in the USA and Margaret Thatcher in the UK in the late 1970s were in power. Although both Reagan and Thatcher were generally associated with neo-conservative efforts to reposition traditional social values at the center of society-state relations, their remarkable impact was on neoliberal economic policies. Reagan reduced public spending and attacked the unions to dissolve them, while he deregulated numerous industries, including airlines and communications (Bockman, 2013; George, 1999; Harvey, 2005; Venugopal, 2015). In her rule, Thatcher attacked trade unions, particularly the coal miners, broke her commitments on the welfare state, privatized public enterprises such as railroads and housing, reduced taxes, encouraged entrepreneurship, and worked for a market environment conducive to free competition. Thatcher, Reagan, and their institutional supporters worked to deregulate the economy and the public sector, such as education, health, and social welfare, and remove the barriers for financial sector's economic domination over production and trade (Connell and Dados, 2014; George, 1999).

Neoliberalism has become hegemonic since the 1980s, rising from the European economy. Today, this hegemony continues and forms the central economic-political infrastructure that shapes the world. The approach sees individual liberation in free markets where there is no government intervention (George, 1999; Jones and Stafford, 2021; Liverman and Vilas, 2006). In other words, it comprises a set of pro-market ideas, values, and policies that redefine the roles of government and private enterprises through reducing state support and promoting private enterprise in order to improve the competitiveness in the national and international free markets and achieve national goals and objectives (Lawrence, et al., 2017).

Neoliberalism also provides control over the movements of large banks, finance ministries of countries, and companies in the global system, thanks to the Washington Consensus (Williamson, 2014). In other words, ideology is against all practices that do not benefit private-sector profits, including taxes, legal regulations, public investments, which are the tools of public authority. In this context, this ideology has given freedom of action to institutions and companies that cause environmental problems, including the climate crisis. Many privileges, such as privatization, deregulation, free trade, and tax cuts, have caused them to accumulate more profits and to turn the entire world and its atmosphere into a kind of garbage (Brecher, 2015; Heywood, 2018). Neoliberalism asserts that environmental problems can only be solved by increasing economic growth and free trade (Clapp and Dauvergne, 2005).

This view reveals a vicious circle: when economic growth occurs, environmental problems will be solved with the income obtained, which will again cause environmental pollution. This vicious circle arising from the neoliberal system is the main reason for insolvency in the fight against the climate crisis (Brecher, 2015; Konuralp, 2020).

The concept of neoliberalism aims at a system that removes all obstacles, especially the public interest principle of the state, to ensure complete market dominance. Therefore, this economic-growth-oriented system increases the human-based climate damages and seeks to create a community perception as if it were an environmentalist. In reality, it leaves the future of the world and the entire ecosystem at the mercy of the market and prevents an effective fight against greenhouse gas emissions. Neoliberalism and its uncontrollable market strategy is the primary factor causing global warming. Neoliberalism both supports climate-damaging companies that emit greenhouse gases and makes them widespread and ordinary in the public's opinion. The worst part of this situation is that it creates a significant obstacle for society to act against the climate crisis today and in the future (Brecher, 2015). While maintaining its hegemony, the neoliberal thought system uses the doctrine of double reality. Thus, the fake reality offered to shape and mislead society's perception, and the fact presented to the neoliberal companies' global elite never overlap (Konuralp and Bicer, 2021; Mirowski, 2013). One of the most common ways of penetrating social consciousness by turning reality inside out is greenwashing, which exploits people's environmental concerns to show climate-damaging companies as if they were environmentalists. Thus, while neoliberalism alleviates people's environmental concerns, it also maintains its interest-oriented approach, causing a vicious circle in a global problem such as the climate crisis.

The Greenwashing Practices of the Aviation Industry

As an indicator of the active role of neoliberalism in shaping the world of meaning of individuals, "Greenwashing" is the presentation of false information to promote a company or organization as environmentally friendly rather than minimizing the environmental impacts caused by them; or is a deceptive advertising trick intended to mislead consumers who prefer to buy goods and services from environmentally friendly brands (de Freitas Netto et al., 2020); or is the presentation of false or incomplete information by an organization to display an environmentally responsible public image (Furlow, 2010). In 1986, environmental activist Jay Westerveld read the following lines on a card in a South Pacific hotel room: "Save Our Planet: Every day, millions of gallons of water flow to wash towels that have only been used once. Your choice: A towel on a hanger means "I will use it again." Towel on the floor "Please change it." Then, with the irony of "Save the towel-save the planet," he coined the term "Greenwashing" (Corcione, 2021; Dahl, 2010; Watson, 2017).

This idea, coined by Westerveld, arose at a time when most consumers got their news from television, radio, and printed media, so there was no way to check the facts as we do today. However, although the greenwashing concept has changed in the last 20 years, it is still on the global agenda (Corcione, 2021). With the development of environmental awareness, while people turn to more environmentally friendly practices, companies and institutions announce arguments that seem eco-friendly but actually vague and sometimes false to attract green customers more (Furlow, 2010). However, this situation may sometimes expose companies to lawsuits for environmental claims (Corcione, 2021).

Greenwashing has been a corporate practice utilizing the sustainability concept to cover up suspicious environmental cases. In the last few years, there has been a growing trend in companies to market their products or services, which are essential parts of their corporate social responsibility, as green or environmentally friendly. Although this trend initially focused on food (organic) products, in recent times, different industries and large companies have also emphasized green due to environmental concerns. International standards such as the International Standards Organization (ISO) 14001 series and the EU Eco-Management and Audit Plan (EMAS) have become more significant in green orientation. These standards have pushed airline companies to take environmental issues more seriously and competently. However, the combination of greenwashing and the airline industry does not sound very realistic, since people are aware of the negative externalities and impacts of the airline industry on the climate crisis and air pollution (Becken, 2007; Hagmann, et al., 2015; Stern, 2007). Therefore, airline companies need to make splendid efforts to be truly environmentally friendly. Engine manufacturers in the sector claim that the aircraft produced after 2020 are more fuel-efficient. However, this step is not enough to mitigate the environmental damage of airplanes yet. Likewise, biofuel use, operational activities, and voluntary carbon offset initiatives of the airline corporations also seem temporary steps (Cohen, et al., 2013; Mair, 2011).

Cohen et al. (2013) and Cohen and Higham (2011) have reported that airways are the most harmful transport mode for the climate system compared to rail, road, and sea-based passenger types. However, air transport is far from the required transparency regarding the environment. Moreover, some airlines even underestimate the environmental impact of airplanes and tend to overestimate fuel efficiency (Gössling and Peeters, 2007). However, some institutions have begun to develop policies towards the aviation industry to reduce the effects caused by aircraft. In this respect, the most comprehensive study is the Emissions Trading System (ETS) developed by the European Union to achieve the emission reduction targets set by the Kyoto Protocol (Anger and Köhler, 2010; Hagmann et al., 2015). The EU ETS is a cap-and-trade scheme that includes emissions permits trading (Efthymiou and

Papatheodorou, 2019). The system, which also covered aviation emissions in 2012, could not function properly because of the objections of the countries with the largest aviation companies, such as the USA, Australia, and China, and thus the EU ETS aviation system was implemented by only EU and European Economic Area member countries with the “Stop the Clock” measure (Efthymiou and Papatheodorou, 2019; Malina et al., 2012). In response to this adverse situation, the International Civil Aviation Organization called for a Market-Based Mechanism in 2013 to resolve the discrepancies over the charges for emissions from flights outside the EU and the EEA (Efthymiou and Papatheodorou, 2019; Hagmann et al., 2015). At the meeting that followed, 65 states, including the USA, China, and all EU countries, agreed that environmental protection was crucially significant and voluntarily adopted the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) in 2016. CORSIA is a Carbon Offset and Carbon Reduction scheme covering overall flights (Efthymiou and Papatheodorou, 2019; Sharma, et al., 2021).

More and more companies with the goals of growing airports and expanding flight networks feature themselves with “carbon-neutral goals” to hide the actual appearance. However, since these targets only cover ground operations within the airport, they do not involve a large part (almost 95%) of carbon emissions. However, these “carbon neutral” targets legitimize the expansion of the civil aviation sector in most places. In 2017, the opening of the third runway at Vienna Airport in Austria was rejected by a court decision under the Paris Agreement commitments. However, the court’s decision was struck down as unconstitutional a few months later. In 2018, the Federal Administrative Court accepted the third runway opening on the condition that it should be carbon neutral. As a result, it is not realistic for airline companies to tell their customers that their operations are “carbon neutral” for their customer satisfaction (Stay Grounded, 2021).

The current study underlines that the civil aviation industry continues to grow without caring about environmental sensitivities, but just pretending, within the framework of its growth plans. As stated by Lyle (2018), the growth constraints imposed by environmental considerations on the civil aviation industry have created great concern by threatening the sector’s development strategies. However, the superior efficiency characteristics of the civil aviation sector and the sustainable aviation concept are different from each other. This is because, while the civil aviation sector has a positive outlook in terms of economic and social sustainability, which are two of the three pillars of sustainability, it has a negative outlook in terms of environmental sustainability, which is the third pillar. Apparently, airline companies in the sector have opted to continue their current growth without pausing and to pretend to be environmentalists. Therefore, the aviation industry sees the greenwashing method as a unique opportunity. While a world outside the realities is imposed on the customer with the greenwashing method,

the general applications of the aviation industry and various special applications of airline companies are used.

Results

a) Some examples of the general practices of the aviation industry

In terms of efficiency: Although aviation companies claim the sector can be decarbonized by increasing aircraft efficiency, the fact is that efficiency and emissions have been rising simultaneously from past to present. High efficiency takes the flight cost down; while the low flight cost promotes more air traffic, higher air traffic increases emissions more (Stay Grounded, 2021).

In terms of electric flights: Although it is claimed that electric flights will be zero-emission, in fact, there will be no zero emissions unless electricity generation facilities are completely decarbonized (Stay Grounded, 2021). Besides, the problems such as the risk of batteries exploding, long charging times, performance changes at low temperatures, and battery life make up the mystery of electric flights (Han, Yu and Kim, 2019, p. 33). Although electric flights are an efficient mode of transport, they are not efficient compared to rail transport (Stay Grounded, 2021) as existing batteries and electrical systems are too heavy to replace jet fuel or the combustion engine (Costello, 2011).

In terms of flying with hydrogen: It is claimed that hydrogen will not produce CO₂ when burned in a fuel cell and provide zero emissions in flight. However, hydrogen flights will not be viable at medium and long distances before 2050 (Stay Grounded, 2021), and even if hydrogen is produced from renewable electricity, hydrogen flights will continue to cause climate change. The fact that it will continue to produce NO_x emission effective on the system is still behind the curtain (Khandelwal, et al., 2013). Hydrogen flights require a large amount of electrical energy, which will undermine the decarbonization of other sectors (Khandelwal et al., 2013). In addition, for the implementation of hydrogen flights, concerns, especially security, must be eliminated; and new technologies must be produced (Stay Grounded, 2021). Although hydrogen is more efficient than jet fuel, it is more costly (Jain, 2009; Khandelwal et al., 2013; Noland, 2021). For this reason, this process is a long and emission-inducing cycle.

In terms of biofuels: Although it is claimed that the aviation industry will use the second-generation biofuels (Yılmaz and Atmanlı, 2017) obtained from sustainable waste with no food value and no environmentally or socially positive impacts, instead of the first-generation biofuels from agriculture, the sector has not closed the door to the use of first-generation biofuels from crops proven to cause severe environmental and social impacts such as biodiversity loss, rising food prices, and water scarcity (Ahmad and Xu, 2021; Dodd and Yengin, 2021). It is argued that aviation biofuels will significantly reduce emissions compared to jet fuel (fossil), and jet fuel consumption will decrease rapidly,

and thus, governments will provide financial support for the extra cost of biofuels so that the growth of the aviation industry will not be affected. However, despite the sector's promise for the greater use of biofuels in aviation more than a decade ago, the usage is less than 1% of currently used fuel. Second-generation biofuels are likely to replace only a small percentage of fossil fuel use in the future. Subsidies for biofuels risk wasting public money on the wrong solution (Stay Grounded, 2021).

b) Some examples of individual practices of the private companies

Just five months after becoming the first non-coal company in the list of the EU's top 10 carbon emitters, the Irish airline Ryanair ran an advertising campaign featuring the slogan "Europe's lowest-fares, lowest-emissions airline." It based its claim on its young fleet, the rate of seats filled, the latest and technologically less fuel-efficient engines, and the emissions per person produced per kilometer by plane. However, the Advertising Standards Authority has evaluated the claims submitted by Ryanair's advertisement and decided that the issues claimed by the company were misleading due to the lack of provable findings since the companies with which the company could compare were not included in the chart provided, and ruled that the ads should be removed. While Ryanair reacted to the decision, company boss Michael O'Leary rejected the view that emissions from civil aviation were causing the climate crisis. Meanwhile, Transport & Environment Group also accused Ryanair of greenwashing instead of fighting its emissions and advised that it had to stop greenwashing and instead reduce its high emissions (Sweeney, 2020).

The UK-based British Airways airline stated that emissions from aviation account for 2% of global emissions, too small to magnify compared to emissions from land transport. Easyjet, another UK-based airline company, declared that passengers traveling in a car cause an average of 164 kg of emissions per person, but that the emission of a person while flying with Easyjet is 95.7 kg. According to the Aviation Environment Federation, which has evaluated the statements of these airlines, this information provided by airline companies was misleading because British Airways and Easyjet airlines had ignored the fact that the quantity of emissions caused by a round-trip flight from England to New York for only one person would affect the climate system at the same rate as the average annual mileage of a car in the UK (Ahmmed, 2021).

In 2009, Heathrow Airport in England started to transport its customers from door to airport with hybrid technology cars, under an agreement with Green Tomato Cars (GreenTomatoCars, 2022). However, this initiative was not enough to cover the emissions caused by the thousands of daily flights to Heathrow Airport; additionally, it aggravated the acute traffic problems around the airport. Nevertheless, even if this initiative created excitement or sparkle among passengers, that did

not mean that what actually happened in the climate change did not matter.

These efforts were nothing more than shouting loudly to show airlines and airports "green" and distract attention from their carbon-burning business (Ahmmed, 2021).

Richard Branson, the boss of the UK-based Virgin Atlantic airline, is taking steps to make the company greener. The first of these steps was to use coconut oil instead of the traditional jet fuel used in airplanes. However, this attempt was inconclusive because the availability of coconuts in the world was far from meeting the fuel needs of even a single airline. Another step taken by Branson was the use of biofuels. However, it has been understood that using biofuels also affects food production. Namely, biofuel production will cause more people to starve globally, cause geopolitical turmoil, and cause more emissions than traditional jet fuel (Ahmmed, 2021; Fuller, 2018; Pearce, 2009).

Although biofuels accounted for only 0.18% of the fuel use of aircraft of Dutch airline KLM in 2019, KLM made advertisements that falsely implied the use of sustainable aviation fuel up to 50%. After this situation was detected, they were requested to remove the published advertisements (Banis, 2019; Stay Grounded, 2021).

Australian airline Qantas has announced a bonus air miles program to reward its frequent flyer members because of their sustainable behavior. The airline, heavily criticized after the announcement of this plan, and then also explained that it would add the "Green Tier" program to its airline loyalty program to reward its customers who participated in sustainable activities with a bonus of Qantas Points. With these points, you could buy a flight, increase your passenger status and stay at a Qantas hotel. However, activists who opposed this reward have declared that flying was the most polluting activity an individual could undertake, and the practice would thus encourage more polluting rather than less. To become a Green Tier member, passengers should complete at least five sustainable activities each year, such as balancing flights, staying in eco-friendly hotels, installing solar panels in their homes, and donating to ecological values. Most of these actions require members to obtain Qantas carbon offsets. However, the carbon offset schemes are still controversial. On this initiative of the Qantas airline, Greenpeace activist scientist Dr. Doug Parr has noted that this plan would pose a danger of convincing people to take unnecessary and unplanned flights, which potentially reward the efforts for low-carbon with very high carbon-releasing-activities. Also, Leo Murray, director of innovation at climate charity "Possible," said that Qantas airline's "Green Tier initiative" was one of the worst examples of greenwashing he has ever seen (Cuff, 2021).

In their news release, USA-based Alaska Airlines has announced that they would save the planet by using cardboard boxes instead of plastic water bottles in travel. However, carton bottles are not a savior for the earth, but their feature is simply marketability. Cardboards more

affect the planet than the plastic bottle that the company is trying to replace. Research by cardboard manufacturer TetraPak has revealed that cardboard and recycled PET bottles emit nearly the same amount of greenhouse gases. Therefore, cardboard does not provide more emission savings than plastics. In fact, cardboard is not even suitable for recycling like plastic bottles. This initiative by Alaska Airlines is an operation to paint the airline green. This greenwashing trick shows that the company is trying to create a perception of caring a lot about the planet. In reality, an Alaska Airlines flight produces an average of 542 kg of CO₂, but one plastic bottle production generates an average of 83 grams of CO₂. In other words, a single flight produces emissions equivalent to approximately 6,600 plastic bottle productions (Center for Accountability in Science, 2021).

Discussion

Although the climate crisis has a multidimensional structure that affects all areas such as agriculture, tourism, energy sector, water supply, and public health, the long-standing struggle initiative is insufficient. An important reason for the insolubility in the climate crisis is the neoliberalism-based multinational companies' financial interests, which are even more important than human life. In other words, these global companies continue to cause more greenhouse gas emissions by taking steps to make the process work in their favor rather than solve the climatic disaster they cause (Gürçam, 2021, p. 120). As long as multinational companies of the neoliberal economic system have the will to profit, economic-based solutions in the fight against the climate crisis will be far from solving the climate crisis. This is because the neoliberal system, instead of giving up infinite production and consumption, has preferred to develop applications to sell even the air to make more profit (Neale, 2009, p. 61). In pursuit of complex green projects—state-of-the-art airplanes, deceptive carbon offsets, biofuels, hydrogen flights, electric flights, etc.—the aviation industry is making empty promises by displaying a green appearance to the public for the climate crisis solution. There is no significant evidence that the green initiatives of airlines will save the world from the climate crisis. However, most individuals are impressed by these eco-friendly initiatives and ready to travel more. Aviation companies use the concept of greenwashing as the easiest way to deceive the public, and these attempts really harm the Earth and our climate system.

As seen in the example of Kyoto, developed economies, which have filled their air pollution right, can buy the excess carbon credits of companies that have not used the entire quota in the emission trading system. In addition, they continue to pollute without reducing emissions with the carbon-offset method through supporting clean energy projects in poor and low-cost countries (Gürçam, 2021). Neoliberalism claims that environmental corruption is minimized by pricing all the assets offered by the environment. However, pricing the environment means you possess it and turn it into a

destroyable object. Thus, trying to fight the climate crisis through the carbon market, carbon offset, efficiency increase, electric airplanes, hydrogen airplanes, and biofuels are far from the reality. As Schmuck, Matthes, and Naderer (2018) stated, flights using the existing technology are never environmentally friendly by nature.

All the prospective attempts in aviation, such as carbon offset, so-called sustainable aviation fuels, and modern aircraft designs, are considered overly optimistic attempts to save the day since the results of these efforts are far from the goals of the Paris Agreement, which set the global average temperature increase at 1.5°C. The best step for the civil aviation industry to tackle the climate crisis is flight reductions. However, since this measure is necessary but impossible, another option is rising airlines' fares and imposing financial restrictions, such as fuel taxes. The world does not have enough land to support neoliberalism and its popular initiative, greenwashing, aiming to keep us all in the air through using biofuels against the climate crisis. Even though the aviation industry claims it has young fleets, state-of-the-art engines, biofuel production, hydrogen-based fuels, and suggests reducing greenhouse gases and playing a crucial role in the climate crisis; none of these discourses is more significant than the additional CO₂ emission of a new aircraft joining the fleet, or higher fuel consumption under the name of fuel efficiency or the reality of more greenhouse gas emissions because of carrying more passengers. These practices mean that the sector seeks to cover the truth by greenwashing.

Finally, the process of combating the climate crisis, which was accepted globally under the United Nations Framework Convention on Climate Change signed in 1992, could not provide a real common ground and a joint effort globally by 2022. The steps taken by authorities during this process were obviously not realistic when considering the current greenhouse gas rates. The fact that this struggle has not been taken seriously, especially in the rapidly growing aviation sector, as discussed in the study, again reveals that this combat is an unsuccessful attempt. The main point of failure is the approach of multinational companies and the civil aviation industry of the neoliberal economic system to the process in a self-interested manner and seeking ways to avoid struggle rather than struggle with the climate crisis to solve it.

Conclusion

It is impossible to combat emissions effectively without fundamentally changing the type of fuel used in the aviation industry. If fossil-based aviation fuels continue to be used, the aviation industry will also continue to impact the climate system. Apparently, the practices experienced in the past years are far from solving the problem. While the gravity of this situation is evident, the aviation industry hides behind unrealistic greenwashing methods to avoid this situation. In fact, this is a way of integrating into the neoliberal system and continuing to profit anyway. All of the dominant economic and political principles of neoliberalism, such

as domination of the free market, privatization, individualism, consumption and competition, shape the direction of climate crisis policies. Leaving the amount of carbon dioxide concentration in the atmosphere at the mercy of the market without serious intervention in the fight against the climate crisis will undermine this combat and raise future carbon dioxide concentration levels to significantly severe levels for natural life. Therefore, green and environmentally friendly aviation can only be mentioned if significant radical changes occur in the civil aviation sector. Apart from this, it is not possible to talk about green and environmental aviation with the market-based and temporary measures implemented today. For this reason, while society needs to investigate more to avoid greenwashing practices in the aviation industry, the organizations such as the UN must inspect the greenwashing operations implemented in the aviation industry and impose the necessary sanctions on unrealistic practices for the sake of both the environment and humanity.

On the other hand, if it is not possible to reduce emissions from aviation to combat the climate crisis, it would be healthier to turn to alternative practices. For this reason, where infrastructure allows, land-based public transportation options such as rail, bus, or ferry services, which cause lower energy consumption and emissions, should be preferred instead of airplanes for short-distance journeys. In order to be successful in solving the climate crisis, at the UN Climate Change Conference of the Parties, the parties should commit to not using fossil fuels gradually, thus contributing to the reduction of fuels used in the aviation industry. Countries and policymakers should take steps to stop short-haul flights wherever possible and invest in railroads, which are more convenient, greener, and more accessible (Gürçam, 2022; Gürçam and Konuralp, 2022; Gürçam et al., 2021).

References

- Ahammad, S. (2021). An airline's guide to greenwashing. snowcarbon. 9 December 2021 tarihinde <https://www.snowcarbon.co.uk/ski-resorts/airlines-guide-greenwashing> from retrieved.
- Ahmad, S. and Xu, B. (2021). A cognitive mapping approach to analyse stakeholders' perspectives on sustainable aviation fuels. *Transportation Research Part D: Transport and Environment*, 100, 103076. doi:10.1016/j.trd.2021.103076
- Anger, A., Köhler, J. (2010). Including aviation emissions in the EU ETS: Much ado about nothing? A review. *Transport Policy*, 17(1), 38–46. doi:10.1016/j.tranpol.2009.10.010
- Aziz, S., Rahman, M., Hussain, D., Nguyen, D. K. (2021). Does corporate environmentalism affect corporate insolvency risk? The role of market power and competitive intensity. *Ecological Economics*, 189, 107182. doi:10.1016/j.ecolecon.2021.107182
- Banis, D. (2019). Is KLM's 'Fly Responsibly' Campaign Just Greenwashing? *Forbes*. 9 December 2021 tarihinde <https://www.forbes.com>
- Baum, L. M. (2012). It's Not Easy Being Green ... Or Is It? A Content Analysis of Environmental Claims in Magazine Advertisements from the United States and United Kingdom. *Environmental Communication*, 6(4), 423–440. doi:10.1080/17524032.2012.724022
- Baumeister, S., Onkila, T. (2017). An eco-label for the airline industry? *Journal of Cleaner Production*, 142, 1368–1376. doi:10.1016/j.jclepro.2016.11.170
- Bayırhan, İ., Gazioğlu, C. (2021). New Maritime Trade Routes in the Arctic Region: one of the Strongest Alternative to the Suez Canal. *International Journal of Environment and Geoinformatics*, 8(3), 397-401, doi:10.30897/ijegno.911179
- Becken, S. (2007). Tourists' Perception of International Air Travel's Impact on the Global Climate and Potential Climate Change Policies. *Journal of Sustainable Tourism*, 15(4), 351–368. doi:10.2167/jost710.0
- Bockman, J. (2013). Neoliberalism. *Contexts*, 12(3), 14–15. doi:10.1177/1536504213499873
- Brecher, J. (2015). *Climate Insurgency*. Routledge. doi:10.4324/9781315635514
- Carter, C. R., Kale, R., Grimm, C. M. (2000). Environmental purchasing and firm performance: an empirical investigation. *Transportation Research Part E: Logistics and Transportation Review*, 36(3), 219–228. doi:10.1016/S1366-5545(99)00034-4
- Center For Accountability In Science. (2021). Don't Swallow Alaska Airlines' Greenwashing Ploy, <https://accountablesience.com>
- Chapman, L. (2007). Transport and climate change: a review. *Journal of Transport Geography*, 15(5), 354–367. doi:10.1016/j.jtrangeo.2006.11.008
- Chen, Y.-S., Lin, C.-.,L., Chang, C.-H. (2014). The influence of greenwash on green word-of-mouth (green WOM): the mediation effects of green perceived quality and green satisfaction. *Quality & Quantity*, 48(5), 2411–2425. doi:10.1007/s11135-013-9898-1
- Clapp, J., Dauvergne, P. (2005). *Paths to a Green World: The Political Economy of the Global Environment*. *Electronic Green Journal*, 1(22). doi:10.5070/G312210634
- Cohen, Scott A., Higham, J. E. S., Reis, A. C. (2013). Sociological barriers to developing sustainable discretionary air travel behaviour. *Journal of Sustainable Tourism*, 21(7), 982–998. doi:10.1080/09669582.2013.809092
- Cohen, Scott A., Kantanbacher, J. (2020). Flying less: personal health and environmental co-benefits. *Journal of Sustainable Tourism*, 28(2), 361–376. doi:10.1080/09669582.2019.1585442
- Cohen, Scott Allen, Higham, J. E. S. (2011). Eyes wide shut? UK consumer perceptions on aviation climate impacts and travel decisions to New Zealand. *Current Issues in Tourism*, 14(4), 323–335. doi:10.1080/13683501003653387
- Connell, R., Dados, N. (2014). Where in the world does neoliberalism come from? *Theory and Society*, 43(2), 117–138. doi:10.1007/s11186-014-9212-9
- Corcione, A. (2021). What Is Greenwashing? - businessnewsdaily.com.

- Costello, L. A. (2011). State of the Art of Piloted Electric Airplanes, NASA's Centennial Challenge Data and Fundamental Design Implications. Embry-Riddle Aeronautical University.
- Cuff, M. (2021). Qantas airlines accused of 'greenwash' for offering bonus airmiles to frequent flyers under new green scheme. Associated Newspapers Limited. <https://inews.co.uk>
- Dahl, R. (2010). Green Washing. *Environmental Health Perspectives*, 118(6), 246–252. doi:10.1289/ehp.118-a246
- de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B. and Soares, G. R. da L. (2020). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, 32(1), 19. doi:10.1186/s12302-020-0300-3
- Dodd, T. and Yengin, D. (2021). Deadlock in sustainable aviation fuels: A multi-case analysis of agency. *Transportation Research Part D: Transport and Environment*, 94, 102799. doi:10.1016/j.trd.2021.102799
- Efthymiou, M., Papatheodorou, A. (2019). EU Emissions Trading scheme in aviation: Policy analysis and suggestions. *Journal of Cleaner Production*, 237, 1–10. doi:10.1016/j.jclepro.2019.117734
- Eskenazi, AG., Butler, LG., Joshi, AP., Ryerson, MS. (2022). Democratizing Aviation Emissions Estimation: Development of an Open-Source, Data-Driven Methodology, ICRAT 2022, 1-8.
- Fuller, J. (2018). Sir Richard Branson: Commercial low-carbon jet fuel 'within touching distance'. Faversham House Ltd. <https://www.edie.net>
- Furlow, N. E. (2010). Greenwashing in the New Millennium. *Journal of Applied Business and Economics*, 10(6), 22.
- George, S. (1999). A short history of neoliberalism. In conference on Economic Sovereignty in a Globalising World in (26).
- Gössling, S. and Peeters, P. (2007). 'It Does Not Harm the Environment!' An Analysis of Industry Discourses on Tourism, Air Travel and the Environment. *Journal of Sustainable Tourism*, 15(4), 402–417. doi:10.2167/jost672.0
- GreenTomatoCars. (2022). Eco-friendly Gatwick to Heathrow Airport Transfers, www.greentomatocars.com
- Gürçam, S. (2021). İklim Değişikliğiyle Mücadelenin Önündeki Barikat: Neoliberalizm. Hasan Selçuk Eti (Ed.), *Ekonomi, Yönetim ve Pazarlama Alanında Akademik Araştırmalar* in (pp. 109–126). İstanbul: Karadeniz Kitap.
- Gürçam, S. (2022). Analysing the Global Fight Against Climate Change and the Turkish Context. *Lectio Socialis*, 6(2), In-press. doi:doi.org/10.47478/lectio.1004359
- Gürçam, S., Konuralp, E. (2022). Küreselden Yerele Çevresel Politika Yapımı: Iğdır İl Özel İdaresi Üzerine Bir Memorandum. *Iğdır Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, (6), 65–84.
- Gürçam, S., Konuralp, E., Ekici, S. (2021). Determining the effect of air transportation on air pollution in the most polluted city in Turkey. *Aircraft Engineering and Aerospace Technology*, 93(2), 354–362. doi:10.1108/AEAT-08-2020-0176
- Hagmann, C., Semeijn, J., Vellenga, D. B. (2015). Exploring the green image of airlines: Passenger perceptions and airline choice. *Journal of Air Transport Management*, 43, 37–45. doi:10.1016/J.JAIRTRAMAN.2015.01.003
- Han, H., Yoon, H. J. (2015). Hotel customers' environmentally responsible behavioral intention: Impact of key constructs on decision in green consumerism. *International Journal of Hospitality Management*, 45, 22–33. doi:10.1016/j.ijhm.2014.11.004
- Han, H., Yu, J., Kim, W. (2019). An electric airplane: Assessing the effect of travelers' perceived risk, attitude, and new product knowledge. *Journal of Air Transport Management*, 78, 33–42. doi:10.1016/j.jairtraman.2019.04.004
- Harvey, D. (2005). *A Brief History of Neoliberalism*. New York: Oxford University Press. doi:10.1093/oso/9780199283262.001.0001
- Heywood, A. (2018). *Küresel Siyaset*. Ankara: BB101 Yayınları.
- Ibrahim Amadou, O., Arouna, O. (2022). Estimation of Greenhouse Gas Emissions from Remote Sensing and Field Data in the Wari-Marou Forest Reserve and Its Periphery (Benin). *International Journal of Environment and Geoinformatics*, 9(3), 73-83, doi: 10.30897/ijgeo.1023286
- ICAO. (2019). ICAO global environmental trends – Present and future aircraft noise and emissions. <https://www.icao.int>
- Jain, I. P. (2009). Hydrogen the fuel for 21st century. *International Journal of Hydrogen Energy*, 34(17), 7368–7378. doi:10.1016/j.ijhydene.2009.05.093
- Jones, E.-A., Stafford, R. (2021). Neoliberalism and the Environment: Are We Aware of Appropriate Action to Save the Planet and Do We Think We Are Doing Enough? *Earth*, 2(2), 331–339. doi:10.3390/earth2020019
- Khandelwal, B., Karakurt, A., Sekaran, P. R., Sethi, V. and Singh, R. (2013). Hydrogen powered aircraft: The future of air transport. *Progress in Aerospace Sciences*, 60, 45–59. doi:10.1016/j.paerosci.2012.12.002
- Konuralp, E. (2020). Between neoliberal appetite and environmentalist reservations: the political economy of sustainable aviation. *International Journal of Sustainable Aviation*, 6(2), 134. doi:10.1504/IJSA.2020.110603
- Konuralp, E. and Bicer, S. (2021). Putting the Neoliberal Transformation of Turkish Healthcare System and Its Problems into a Historical Perspective. *Review of Radical Political Economics*, 53(654–674). doi:10.1177/04866134211005083
- Lawrence, G., Richards, C. and Lyons, K. (2013). Food security in Australia in an era of neoliberalism, productivism and climate change. *Journal of Rural Studies*, 29, 30–39. doi:10.1016/j.jrurstud.2011.12.005
- Lee, C. and Lim, S.-Y. (2020). Impact of Environmental Concern on Image of Internal GSCM Practices and Consumer Purchasing Behavior. *The Journal of*

- Asian Finance, Economics and Business, 7(6), 241–254. doi:10.13106/jafeb.2020.7(6):241
- Liou, J. J. H., Chuang, M.-L. (2010). Evaluating corporate image and reputation using fuzzy MCDM approach in airline market. *Quality & Quantity*, 44(6), 1079–1091. doi:10.1007/s11135-009-9259-2
- Liverman, D. M., Vilas, S. (2006). Neoliberalism and the Environment in Latin America. *Annual Review of Environment and Resources*, 31(1), 327–363. doi:10.1146/annurev.energy.29.102403.140729
- Lyle, C. (2018). Beyond the icao’s corsia: Towards a More Climatically Effective Strategy for Mitigation of Civil-Aviation Emissions. *Climate Law*, 8(1–2), 104–127. doi:10.1163/18786561-00801004
- Mair, J. (2011). Exploring air travellers’ voluntary carbon-offsetting behaviour. *Journal of Sustainable Tourism*, 19(2), 215–230. doi:10.1080/09669582.2010.517317
- Malina, R., McConnachie, D., Winchester, N., Wollersheim, C., Paltsev, S., Waitz, I. A. (2012). The impact of the European Union Emissions Trading Scheme on US aviation. *Journal of Air Transport Management*, 19, 36–41. doi:10.1016/j.jairtraman.2011.12.004
- Matthes, J., Wonneberger, A. (2014). The Skeptical Green Consumer Revisited: Testing the Relationship Between Green Consumerism and Skepticism Toward Advertising. *Journal of Advertising*, 43(2), 115–127. doi:10.1080/00913367.2013.834804
- Mirowski, P. (2013). *Never Let a Serious Crisis Go to Waste: How Neoliberalism Survived the Financial Meltdown* (Verso Book.).
- Neale, J. (2009). *Küresel Isınmayı Durduralım, Dünyayı Değiştirelim!* (Çeviri: Doğan Tarkan, Ed.) (1st ed.). İstanbul: Bookmarks.
- Noland, J. K. (2021). Hydrogen Electric Airplanes: A disruptive technological path to clean up the aviation sector. *IEEE Electrification Magazine*, 9(1), 92–102. doi:10.1109/MELE.2020.3047173
- Pearce, F. (2009). Sir Richard Branson’s green claims are running on hot air. *Guardian News*. <https://www.theguardian.com>
- Prakash, G., Choudhary, S., Kumar, A., Garza-Reyes, J. A., Khan, S. A. R. Panda, T. K. (2019). Do altruistic and egoistic values influence consumers’ attitudes and purchase intentions towards eco-friendly packaged products? An empirical investigation. *Journal of Retailing and Consumer Services*, 50, 163–169. doi:10.1016/j.jretconser.2019.05.011
- Schmuck, D., Matthes, J., Naderer, B. (2018). Misleading Consumers with Green Advertising? An Affect–Reason–Involvement Account of Greenwashing Effects in Environmental Advertising. *Journal of Advertising*, 47(2), 127–145. doi:10.1080/00913367.2018.1452652
- Sharma, A., Jakhar, S. K., Choi, T.-M. (2021). Would CORSIA implementation bring carbon neutral growth in aviation? A case of US full service carriers. *Transportation Research Part D: Transport and Environment*, 97, 1–23. doi:10.1016/j.trd.2021.102839
- Stay Grounded. (2021). *The Troubling Story of Aviation’s Greenwashing - Stay Grounded*. 9 December 2021 tarihinde <https://stay-grounded.org/the-troubling-story-of-aviations-greenwashing/> from retrieved.
- Stern, N. (2007). *The Economics of Climate Change*. Cambridge University Press.
- Sweny, M. (2020). Ryanair accused of greenwash over carbon emissions claim | Ryanair | The Guardian. *The Guardian*. 30 November 2021 tarihinde <https://www.theguardian.com/>
- Taylor Aiken, G., Middlemiss, L., Sallu, S., Hauxwell Baldwin, R. (2017). Researching climate change and community in neoliberal contexts: an emerging critical approach. *WIREs Climate Change*, 8(4). doi:10.1002/wcc.463
- Tokuşlu, A. (2021). Calculation of Aircraft Emissions During Landing and Take-Off (LTO) Cycles at Batumi International Airport, Georgia. *International Journal of Environment and Geoinformatics*, 8(2), 186–192, doi. 10.30897/ijegeo.836780
- Ülker, D., Ergüven, O., Gazioglu, C. (2018). Socio-economic impacts in a Changing Climate: Case Study Syria, *International Journal of Environment and Geoinformatics*, 5(1), 84–93, doi. 10.30897/ijegeo.406273
- Venugopal, R. (2015). Neoliberalism as concept. *Economy and Society*, 44(2), 165–187. doi:10.1080/03085147.2015.1013356
- Watson, B. (2017). The troubling evolution of corporate greenwashing. *Chain Reaction*, (129), 38–40.
- Williamson, J. (2014). The strange history of the Washington consensus. *Journal of Post Keynesian Economics*, 27(2), 195–206.
- Yilmaz, N., Atmanli, A. (2017). Sustainable alternative fuels in aviation. *Energy*, 140, 1378–1386. doi:10.1016/j.energy.2017.07.077