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Türkiye's Climate Policies in the Context of Sustainable Security*

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Abstract

Climate change is becoming one of the most crucial problems threatening the integrity of the global system. The impacts of climate change have been posing new threats to the states' interests, human prosperity and environmental sustainability. This article aims to analyze Türkiye's climate policies within the context of the sustainable security approach, which focuses on the balance between national, human and environmental security. The study argues that Türkiye's economic priorities prevail over its climate strategies. Moreover, Türkiye becomes more vulnerable and less resilient to the impacts of climate change as long as the country's carbon emissions continue to rise. Therefore, this article argues that if Türkiye considers the risks of climate change with a sustainable security approach; economic advantages, social prosperity and environmental protection for both present and future generations could be equivalently guaranteed.

Keywords

Climate change, Türkiye, sustainable security, carbon emission, Paris Agreement.

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Introduction

Among the growing ecological problems of the 21st century, climate change stands out with its global dimension and destructive impacts. Climate change refers to large-scale and long-term changes in the world's weather patterns and average temperatures (Met Office). The increasing density of the greenhouse gases (GHG) in the atmosphere, especially carbon dioxide/carbon (CO2), causes the average temperature on Earth to rise; which in turn leads to changes in precipitation regimes and moisture balance, resulting in the melting of glaciers, changing ocean currents, rising sea levels, intensified extreme weather events, and destruction of human habitats (NOAA). In history, natural causes such as volcanic eruptions had triggered changes in climatic conditions and warming in the atmosphere. However, the scientific reports published by the Intergovernmental Panel on Climate Change (IPCC) prove that the climate change experienced today is caused by human-induced (anthropogenic) activities, occurring notably in the last 250 years (IPCC, Special Report, IPCC, Climate Change 2021). The industrialization process spreading the use of fossil fuels, urbanization, changing agricultural practices and deforestation have accelerated climate change by increasing CO2 emissions (Cubasch et al. 100). IPCC reports state that climate change affects freshwater resources, food production systems, urban and rural areas, economic sectors, human health, and poverty rates (Field et al.). Depending on these effects, political, economic, social, and humanitarian crises have been deepening in different parts of the world and the impacts of climate change have become emerging security threats.

Climate change as a global problem with multidimensional impacts requires global efforts for mitigation and adaptation. The adoption of the United Nations Framework Convention on Climate Change (UNFCCC) (United Nations, Framework Convention) at the UN Conference on Environment and Development held in Rio de Janeiro in 1992 under the auspices of the UN Environment Program (UNEP) was the first international initiative launched in this context. Based on the UNFCCC, the Conference of the Parties (COP) was formed to conduct climate negotiations to develop mitigation and adaptation policies, and coordinate the global partnership and cooperation for coping with climate change. The adoption of the 1997 Kyoto Protocol opened a new phase for the efforts to fight against

climate change, and imposed obligations to developed countries to reduce or limit their GHG emissions. Due to the limited implementation of the Kyoto Protocol, the need for an international agreement came to the fore (UNFCCC, Durban Climate Conference), and the Paris Agreement was signed on 12 December 2015.

This study focuses on Türkiye's climate policies determined within the framework of the Kyoto Protocol and the Paris Agreement. The study aims to discuss the role of a sustainable security approach in Turkish climate policies by examining the security risks for the country posed by climate change. The sustainable security approach is considered as an alternative security approach that can be integrated with economic, social, and environmental policies. In this context, firstly the basic assumptions of the sustainable security approach, then Türkiye's perspective on the environment and sustainable development will be briefly analyzed. After the international regulations on climate change and Türkiye's compliance with these regulations are examined, the sustainability of Türkiye's climate policies will be discussed. Finally, considering the security risks posed by climate change for Türkiye, the possible contributions of sustainable security will be assessed. In this regard, along with the descriptive method and certain empirical data, the discussion on how the sustainable security perspective can reshape Türkiye's climate policies will be conducted with a normative perspective.

Sustainable Security

Since the 1970s, alternative approaches to the traditional security perspective, which accepts that the main actor in security is the state and it aims to provide national security by focusing only on military issues, have gained ground in the literature (Brown, Mathews, Myers, Rothschild, Ullman). The new security approaches prioritize the safety of different elements beyond the state such as individuals, the environment, and institutions. Human security focusing on individual and environmental security on the environment-security nexus has evolved in this process. Within the discussions on broadening security, the Copenhagen School examined the interrelated role of political, economic, social, and environmental security sectors along with military security through differentiated referent objects (the unit under threat). In this context, the Copenhagen School revealed

whether an issue is related to security or not through the *securitization* approach (Baysal et al., Buzan). Securitization is a speech act that transforms a situation into a security issue by persuading the audience. Accordingly, the securitization process is constructed by the securitizing actor, who represents an existential threat against the reference object that needs to be protected, thus the measures to be taken and the actions to be applied for preventing the threat are legitimized (Buzan et al.). In this regard, while the scope of security studies has been expanded, the state's conventional security policies and the securitization of certain problems, including environmental ones, have prevailed. The environmental security approach, on the other hand, criticizes the securitization of environmental problems and claims that *desecuritization* of the environment -or removal of it from the context of security- would allow focusing on the underlying causes for solving the problems (Deudney, Barnett, Dalby). However, the sustainable security approach, which integrate the environment into the security agenda without securitizing it, provides a framework to consider environmental problems together with economic and social factors.

With the Oil Crisis, which took place in the 1970s, the resource scarcity became evident. Therefore, environmental impacts of the Green Revolution -the intensive agricultural policies of the developing states-, the correlation between internal conflicts and natural resources deprivation, first findings on ozone depletion and climate change were begun to be discussed. Thus, questioning the economic models and considering the environmental factors triggering the insecurity due to their transboundary impacts were prompted. The Limits to Growth, the report prepared by the research team led by Donella Meadows with the initiative of the Club of Rome in 1972, focused on the effects of exponential growth on the environment and the infinite supply of resources, and sowed the first seeds of the sustainability approach (Meadows et al.).[1]

The report titled Our Common Future, known as the Brundtland Report, published in 1987 by the World Commission on Environment and Development under the auspices of the United Nations (UN), used the concept of *sustainable development* for the first time. In this regard, it was emphasized that despite the developmental goals, natural resources should be used upon considering future needs (WCED). As the sustainable

development approach is defined as a process of change in which economic policies should be integrated with the social welfare and environmental protection, the needs of present generations should also be met without compromising the needs of future generations. Moreover, sustainable development was also seen as the basis of partnership and cooperation against the security risks created by environmental degradation and poverty (WCED 240-248). With the Agenda 21 action plan adopted at the Rio Earth Summit held in 1992 that included the participation of states, non-governmental organizations, and private sector representatives, the policies to realize sustainable development and to minimize the pressures on the environment were crystallized (United Nations, *Agenda 21*). It was reminded that environmental protection is an integral part of sustainable development, the common but differentiated responsibilities are recognized regarding the protection of ecosystems, and states have an obligation to establish an effective legal framework that determines environmental standards (Boyar 1934). The Millennium Development Goals, adopted in 2000, revised in 2015 and transformed into Sustainable Development Goals, consist of 17 titles related to ending poverty, protecting the planet, and spreading peace and prosperity to everyone through global cooperation (UNDP *Sustainable Development*). As Barbak (39-40) points out, since the end of the 1980s, many international reports focused on sustainable development have associated development with security and defined security as one of the components of sustainable development. By considering the interdependence between the sustainability of nature and socio-economic development, the sustainable development approach aims to consistently balance human's economic and social needs with environmental protection and management (Upreti 221, Khagram et al. 296). This approach has also brought in several planning, analyzing, monitoring, and control processes for economic investments, business, centralized and local governments, and individuals (Scoones 591). As Boyar (1932-1933) stated, sustainable development is a process bringing duties and responsibilities to all public, private and civil actors, emphasizes the present and the future needs in a dynamic context considering the changing conditions. Sustainable security is thus the reflection of this transition process on the security studies. Sustainable security offers a new perspective at the nexus of economic,

environmental, and security politics by focusing on the common security needs of states, humans, and nature in a sustainable manner.

Sustainable security has been shaped in parallel with new security approaches criticizing the conventional approach to security. Accordingly, it is argued that in the complex interdependencies, it is difficult to find a clear-cut distinction between security approaches, therefore it becomes challenging to implement consistent and sustainable policies.[2] Sustainable security proposes a comprehensive perspective to respond to the question of whose security and it presents a balancing and dynamic focus on the referent objects by prioritizing the interactions between the state, humans, and the environment (Khagram et al.). Beyond the instrumental value of nature for humans, sustainable security aims to redress the balance between the preservation of nature and the protection of life support systems for human needs, and underlines the importance of nature's standalone value and its sustainability (Barbak, Khagram et al., Zala).[3] According to Voigt (175), sustainable security is "*based on the creation of long-term sustainable livelihoods*". The author claims that the sustainability of livelihoods will foster stability, as it will guarantee the operation of basic services, the continuity of life support systems, the successful resource management and long-lasting peace; so sustainable security will contribute to the development of cooperation and prevention of conflicts (Voigt).

In a global interdependent system structure, sustainable security also contributes to the rethinking of national security, from a perspective that integrates collective and human security elements (Center for American Progress). Shifts in the international conjuncture after the Cold War have globally changed the perceptions on security. Global terrorist acts, particularly the September 11 attacks, have strengthened the assumptions on national security (Barbak 38) and according to the Oxford Research Group (ORG) the criticism of this situation has shaped the sustainable security approach. The report published by the group states that international terrorism is a relatively minor threat compared to other, more serious global problems. It is envisaged that responding to threats with the use of force within the scope of national security will exacerbate rather than alleviate the problems that cause instability, and possibly increase the risk of further terrorist actions. The sustainable security approach, on the other hand, aims to eliminate

the root causes of intersecting threats and problems through cooperation between governments, international institutions and civil society (Abbott et al.). In this process, since the global impacts of climate change became more evident and security risks have multidimensionally increased, the need for holistic security approaches focusing on the interdependence between different units and actors has prevailed for both mitigating the effects of climate change and solving the intermingled problems. The sustainable security approach is one of the alternatives to assess the security risks created by climate change not only from the perspective of conflict but also together with economic, social and ecological sustainability. Before examining Türkiye -located in one of the climate hotspots and facing serious economic, social, political and environmental risks due to the climate crisis- within the sustainable security approach, Turkish perspective on the environment and sustainable development will be briefly discussed. Then, international initiatives for climate combat and Türkiye's compliance with international regulations will be assessed.

Environment and Sustainable Development in Türkiye

Since the beginning of the Turkish Republic, industrialization-based development policies have been the core element of the Turkish economy. The 1972 Stockholm Conference, which emphasized the negative environmental impacts of industrialization and brought the environmental issue into the international agenda, played a crucial role for Türkiye to take into consideration the environmental degradation and restructuring of environmental institutions and regulations. The Environmental Research Unit in 1972, and the Undersecretariat for Environment in 1978 were established under the Prime Ministry (Bahçeci 49-50); and a separate chapter -mentioning the importance of the environment- has been added to the Third Five-Year Development Plan (1973-1977) (Keleş et al. 508). The 1982 Constitution emphasized in Article 56 that everyone has the right to live in a healthy and balanced environment. This article formed the basis for the decisions of the Constitutional Court underlining the connection between the environment and personal rights and freedoms; hence, the protection and enhancement of the environment have been accepted as the obligation of the state and also the duty of the citizens (Boyar 1944-1946). In the Sixth Five-Year Development Plan (1990-1994) the relationship

between human health and environmental protection was indicated and the basic principles of the sustainable development approach -without using the term itself- were referred (Keleş et al. 509). In the Seventh Five-Year Development Plan (1996-2000), the integration of environmental policies into all economic and social policies was required within the framework of sustainable development; in this context, the plan highlighted the importance of creating a stable and sustainable growth milieu (DPT 17, 20). The Environment Law No. 2872 adopted in 1983 stated that all arrangements and precautions for the "protection and improvement of the environment, for improving and securing health, civilization and life conditions of present and future generations" should be "in conformity with economic and social development objectives". With the regulation made with Law No. 5491 in 2006, the main objective of the Environmental Law was determined as the protection of "the environment, the common area of all living things, following the principles of sustainable environment and sustainable development".

Although Türkiye quickly implemented the necessary legal arrangements supported by international initiatives for the adaptation of the sustainable development approach, she had not adopted the UNFCCC for a long time. Türkiye eventually completed the ratification process on 24 May 2004, ten years after the framework convention entered into force (T.C. Dışişleri Bakanlığı). In 1992, the UNFCCC listed the countries in the transition process to the market economy in Annex I, along with the industrialized countries that are members of the Organization for Economic Development and Cooperation (OECD) and the European Union. Moreover, in Annex-II, it was accepted that the OECD member industrialized countries listed in the Annex-I group were responsible to support the developing country parties. Türkiye as an OECD member drew attention to her special position by arguing that she was economically less developed than most of the countries in the Annex-I and Annex-II lists. Türkiye's main hesitation to adopt the framework convention was related to the commitment to assist developing countries, arguing that some of which were more developed than herself (Depledge). Türkiye's special circumstances were eventually recognized with the 26/CP7 Decision taken at COP7 in Marrakesh (UNFCCC, *Report of the Conference*), and then Türkiye ratified the UNFCCC with a *sui generis* position. Thereby, while Türkiye remained in Annex I, including the

states subjected to the legally binding targets on reducing GHG emissions, she was deleted from the Annex II list of the states obliged to provide financial resources and supply technology transfer to developing countries (Depledge). In this regard, Türkiye began to shape her climate regulations in compliance with international climate policies, but in a way without harming her economic growth.

International Initiatives for the Climate Crisis and Türkiye's Adaptation to Climate Politics

The Kyoto Protocol, which aims to reduce global GHG emissions, was adopted on 11 December 1997 and entered into force on 16 February 2005. In this regard, industrialized countries, which have the greatest responsibility for historical emissions, were allowed to use new market mechanisms to reach the GHG emission reduction targets and certain flexibility mechanisms known as Joint Implementation, Clean Development Mechanisms, and Emissions Trading were provided (UNFCCC, *Kyoto Protocol* 12-18, Telesetsky). The Kyoto Protocol also presented principles respecting the development rights of developing countries regarding common but differentiated responsibilities, voluntary commitments, and participation (Bodansky). Despite some controversial points, the Kyoto Protocol was an important step in climate combat with its concrete and restrictive regulations. However, while it was observed a decrease in the GHG emissions of the countries that fulfill the protocol obligations, the emissions of the non-participating countries have kept increasing (Aichele et al.). Hence, the deepening impacts of climate change have persisted due to the low emission cuts.

Türkiye ratified the Kyoto Protocol in 2009 (T.C. Dışişleri Bakanlığı). Since Türkiye was not a party to the UNFCCC when the protocol was adopted (1997), she was not included in the Annex-B list, which comprised the OECD countries that committed to reducing GHG emissions by set amounts (5% on average) during the 2008-2012 period relative to 1990 levels. Therefore, Türkiye as an Annex-I country did not assume the obligation to reduce mandatory GHG emissions. There are some arguments to explain why Türkiye delayed the adoption of the protocol by 2009. As a developing country, Türkiye claimed that her economic and sectoral structure was not suitable for reducing GHG emissions; the structural

change was costly; the emission reduction commitments required by the protocol were problematic in terms of fair and equitable responsibilities. However, Türkiye's candidature for EU membership, her position in world politics, and the status shift in Annex-I have positively affected her decision to ratify the protocol (Alkan-Olsson et al. 18-22, Köse 62-66).

After Türkiye became a party to the Kyoto Protocol, the preparation of a national action plan for combating climate change was accelerated as specified in the Ninth Development Plan (2007-2013) (Turhan et al., *Beyond Special* 450), and the Climate Change Strategy 2010-2023 document was published by the Ministry of Environment and Urbanization. This document, reflecting Türkiye's national vision, objective, and commitment strategy, targeted to integrate climate policies with development/industrialization policies, enhance energy efficiency, increase the use of clean and renewable energy resources, and offer "high quality of life and welfare to all citizens with low carbon intensity". It was also emphasized that active participation in the fight against climate change would be ensured by considering her particular conditions (T.C. Çevre ve Şehircilik Bakanlığı, *İklim Stratejisi* 10). Thereby, the principle of common but differentiated responsibilities has become the basis of Türkiye's climate policies by underlining her special circumstances. It was also stated that Türkiye's adaptation and mitigation policies would be carried out through international cooperation following the principles of sustainable development. On the other hand, Türkiye also claimed that instead of a GHG reduction commitment based on any previous year, "the emission limitation through measures that will not adversely affect her sustainable development and efforts to fight poverty" would be implemented (T.C. Çevre ve Şehircilik Bakanlığı, *İklim Stratejisi* 14-15). In this regard, the Climate Change Action Plan 2011-2023 prepared by the Ministry of Environment and Urbanization repeated hereof that Türkiye aimed to ensure energy efficiency for low carbon intensity and to develop the use of clean and renewable energy resources by emphasizing special circumstances and common but differentiated responsibilities (T.C. Çevre ve Şehircilik Bakanlığı, *İklim Eylem Planı* 14).

Türkiye's developmental priorities have undoubtedly influenced climate mitigation and adaptation policies. In the strategy documents, the common but differentiated responsibilities and the special conditions of the country,

as well as the priority of the sustainable development policies were clearly emphasized. However, as Türkiye did not pledge any emission reduction commitment in the Kyoto process, she became the country with the highest GHG emission increase rate among Annex-I countries with a 110.4% rise in 2013 compared to 1990 levels (Turhan et al., *Beyond Special* 448-449). Although Türkiye generally shows her willingness to participate in climate negotiations and cooperation, Turhan et al. (*Beyond Special* 453) claim that she has been reluctant to adopt mitigation commitments.

In 2015, at COP21, the Paris Agreement, as a crucial keystone for global climate politics and the regulations for post-2020, was adopted. The Article 2 of the agreement aims to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial" (United Nations, Paris Agreement). As the Agreement recognized the importance of appropriate financial support, implementation of new technologies and capacity building framework to strengthen the countries' ability to cope with the impacts of climate change, and affirmed that developed countries should provide financial support to developing countries (therefore the Green Climate Fund was established). The Paris Agreement represents a common ground for all countries to take responsibility and strengthen global efforts in this context, rather than strictly dividing the responsibilities of developed and developing countries (United Nations, *Paris Agreement*).

While the Kyoto Protocol was mainly based on the roles and responsibilities of industrialized countries to reduce GHG emissions, the Paris Agreement brought obligations for all states parties -no matter developed or developing- in terms of emission reduction by guaranteeing their common but differentiated responsibilities (Karakaya). With the Paris Agreement, the states' parties have determined their GHG reduction targets and climate change adaptation policies with their Intended Nationally Determined Contributions (INDCs). Before COP21, 187 countries submitted their voluntarily determined INDCs. However, the Agreement has not brought any sanction mechanism for monitoring whether the state fulfills her commitment. It is also argued that the targets presented by nation-states are not consistent with the agreement's objective of keeping global warming below 2°C (European Commission). Türkiye, like other UNFCCC

parties, submitted her INDC before COP21. In this document, Türkiye, by emphasizing her developing country status, pledged to limit its GHG emissions by 21% until 2030, however, rather than reducing the emissions she guaranteed to lower the increase in GHG emission rate (INDC).

Türkiye signed the Paris Agreement at the High-Level Signing Ceremony in 2016; but it took five years to complete the ratification process of the agreement in the Grand National Assembly of Türkiye (United Nations Treaty Collection).[4] This could be relied on the ambiguity regarding whether Türkiye's *sui generis* position in the UNFCCC would also be accepted for the Paris Agreement. As a result of special circumstances, Türkiye was guaranteed to benefit from UNFCCC mechanisms for financial assistance such as the Global Environment Facility (GEF). However, whilst Türkiye was still on the Annex-I list of the Convention, and it was uncertain how she would access the financial assistance mechanisms formed through the Paris Agreement such as the Green Climate Fund and the Clean Development Mechanism (CDM), the ratification process of the agreement was delayed (İklim Haber, *Türkiye'nin Önerisi*).

According to Semra Cerit Mazlum, from the very beginning of the climate negotiations, Türkiye has adopted a passive approach and preferred not to participate in collective efforts, and she explained this through the *precious loneliness* strategy (Çelik 73-77, Gürcanlı). She claims that this strategy in the climate negotiations put the country in a difficult position in terms of expressing its demands and representing its interests (Cerit Mazlum). The states parties have the opportunity to represent and negotiate their common interests within the groups they formed. For instance, the Environmental Integrity Group, which was created in 2000 with the initiative of Switzerland, including South Korea and Mexico, is one of these groups. Türkiye keeps attending the negotiations -defending her own *special circumstances* – without participating in any group. Nevertheless, Türkiye has shown her willingness to stay in the negotiation process. Although she did not ratify the Paris Agreement, she attempted to host the 2020 UNFCCC negotiations (Turhan). Moreover, at COP 24 held in Poland in 2018, Türkiye reiterated her request to leave the list of *developed countries* and enter the list of *developing countries*, however, this request was not included in the agenda of the conference (Akal). Moreover, another result of Türkiye's isolated

position in the negotiations is the insufficient relations with non-state actors such as companies, local authorities, environmental organizations and social movements, which have become active and inseparable elements of climate politics (Cerit Mazlum 148).

Deputy Minister of Environment and Urbanization and Chief Climate Change Negotiator Prof. Dr. Mehmet Emin Birpınar, in his statement, said that Türkiye would continue to fight against climate change by prioritizing renewable energy; in this respect, he stated that Türkiye aimed to enter the category of developing countries such as South Korea, Argentina, Brazil, Mexico, Chile, Saudi Arabia and China, which can receive financial support and assistance, and benefit from the Green Climate Fund. He added that Türkiye's main objective was to access the credits necessary for emission reduction and renewable energy investments, and if the obstacles in this regard would be removed, Türkiye would ratify the agreement (İklim Haber, *Mehmet Emin Birpınar*). Environment and Urbanization Minister Murat Kurum announced on his official Twitter account that they put the Paris Agreement on the agenda at the Climate Change Coordination Meeting on 6 April 2021 (Kurum). President Recep Tayyip Erdoğan, also stated in his speech at the 76th UN General Assembly that Türkiye is ready to ratify the Paris Agreement (DW). Before the COP 26 Glasgow Summit got started, the Paris Agreement was approved at the General Session of the Turkish Parliament on 6 October 2021, and on the 11th of October, the UN Secretary-General, who is in the position of depository, was informed that the Agreement would come into force on 10 November 2021 (Erkul Kaya).

The Paris Agreement brings a bottom-up mechanism; therefore, all states parties determine their own national carbon reduction target. While the Agreement does not create a control and sanction system, the commitments of the parties whether they have historical responsibilities or are responsible for current emissions are not officially binding. It is evident that the climate crisis requires common and coordinated policies of developed and developing countries because both face the threats posed by climate change. However, the negligence of these policies or delayed actions creates unexpected results, especially increasing climate vulnerability of less developed countries and the poor who are not responsible for GHG emissions. Therefore, Turkish

climate policies could not solely create a significant change in the global context. Türkiye is not among the historically responsible countries, and it is clear that there are many developed and developing countries with higher carbon emissions than Türkiye. Even though the ratification of the Paris Agreement and the transformation of the Ministry of Environment and Urbanization into the Ministry of Environment, Urbanization and Climate Change are positive steps, Türkiye's current GHG emissions keep rising and due to the transboundary impacts of GHG emissions and climate change, the geographical, political, socio-economic and environmental vulnerabilities of the country are imminent. The lack of substantial mitigation and adaptation measures negatively affects the climate resilience of Türkiye. In this regard, the next section will discuss the sustainability of Türkiye's climate policies.

Are Türkiye's Climate Policies Sustainable?

Türkiye's climate strategy, like development policies, put emphasis on sustainability. In the last three decades, the GHG emissions of Türkiye have been rising due to her developing economy and rapid growth trend. As Türkiye did not set a greenhouse gas reduction target in the Kyoto process and adopted a rapid economic growth model, carbon emissions, which were at the level of 219 million tons in the early 1990s, started to increase rapidly after 2007, as seen in Figure 1.

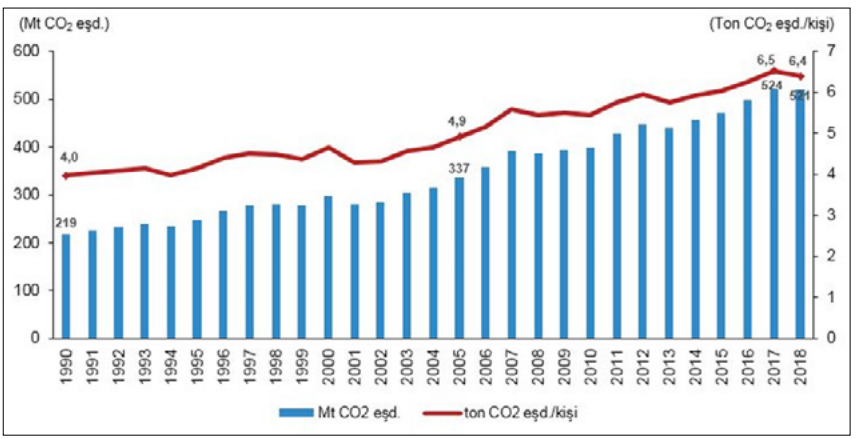

Figure 1. *Total and Per Capita Carbon Emissions in Türkiye* (TÜİK, "Sera")

Carbon emissions per capita, which was slightly over 4 tons during the 1990s, increased rapidly in the 2000s and peaked in 2017, reaching 6.5 tons. Carbon emissions also have a positive correlation with the post-2001 GDP growth seen in Figure 2.

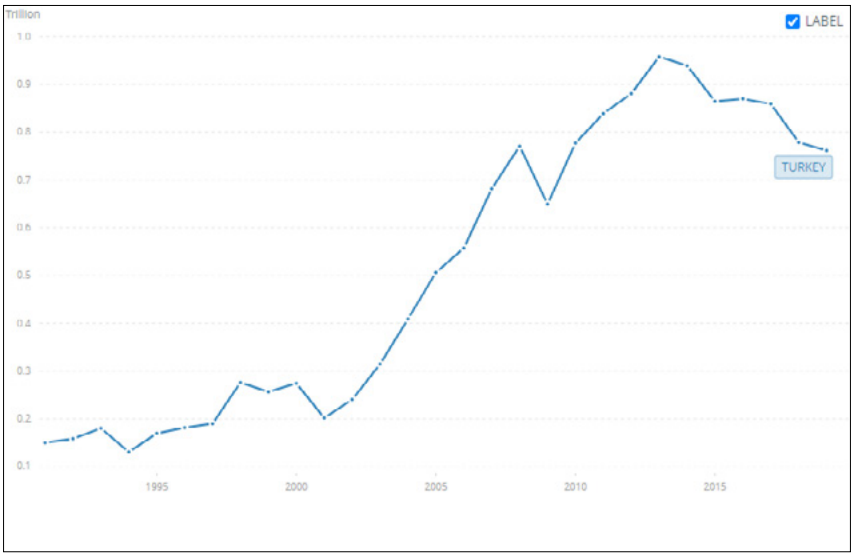

Figure 2. *Türkiye's GDP between 1990-2019* (The World Bank, "The GDP")

According to the Global Carbon Atlas, Türkiye -with its 83 million population, 761 billion dollars GDP, and 9,126 dollars per capita income in 2019 (The World Bank, *Data*)- is the 16th biggest carbon-emitter country in the world, and responsible for 1.05% of global GHG emissions (Friedrich et al.). Moreover, despite the increase in her carbon emissions per capita, Türkiye still ranks 54th in the world (Knoema). Factors such as the geographical scope of states, population size, and level of development affect carbon emission rates; therefore, Türkiye's climate policies could be compared with other developing countries having similar aspects. For instance, South Korea, as an important actor with her growing economy, 52 million population, 1.646 billion dollars GDP, and a national income of over 31 thousand dollars per capita (The World Bank, *Data*), ranks 9th in the world with an annual 668 million tons carbon emission, and she has committed to reduce emissions by 37% by 2030 (Global Carbon Atlas). With a population of 127 million, a GDP of 1.268 billion dollars, and a

national income of 9.946 dollars per capita, Mexico has economic indicators closer to Türkiye (The World Bank, *Data*). Mexico, with an annual carbon emission of 663 million tons, is the 14th largest carbon emitter in the world and aims to reduce its carbon emissions by 36% by 2030 (Global Carbon Atlas). Climate Action Tracker classified Türkiye's 21% reduction target as critically inadequate, South Korea's reduction target as highly inadequate, and Mexico's target as insufficient (Climate Action Tracker). Although the targets of all three countries were found insufficient to mitigate the impacts of climate change, Mexico and South Korea presented more detailed mitigation targets than Türkiye's INDC. Türkiye's current carbon emissions are less than Mexico and South Korea, therefore this may explain the lower carbon reduction target. However, Türkiye has determined its reduction target according to the future level of carbon emissions based on business-as-usual scenarios in 2030, not based on present values. On the other hand, although Türkiye has not yet announced its national contribution statement (NDC) after ratifying the Paris Agreement, Minister Kurum stated that the zero-carbon target will be adopted by 2053 in accordance with the green development policies (*Sabah*). Despite this will, at COP26 held in Glasgow in November 2021, Türkiye did not join the "Global Declaration on the Transition from Coal to Clean Energy" and the "Oil and Gas Alliance", which foresee a gradual exit from fossil fuels; but supported the declaration on the deforestation combat and the agreement to zero emissions in vehicles (Yeşil Gazete). In this context, it is important for Türkiye to understand that other actors with their detailed plans for a low-carbon economy transition may get a more advantageous position in a global transition process. If Türkiye insists on a fossil fuel-based economy, this may negatively affect not only her climate adaptation but also her political prestige, and her present and future competitiveness in the global economy as well.

Most of the empirical studies on the sustainability of environmental and climate policies in Türkiye, and the relation between economic growth and sustainability, underline the necessity to ameliorate sustainable policies and increase the use of renewable energy resources. According to the studies on Türkiye through the Environmental Kuznets Curve Hypothesis[5] there is a correlation between energy consumption and economic growth and rising CO2 emissions in Türkiye between 1960-2010. These studies also draw attention to the increase in CO2 emissions due to the fossil fuel use

and Türkiye's energy dependency to the external resources. Accordingly, studies have suggested the implementation of robust policies focusing on the use of renewable energy resources, reducing energy dependency and minimizing environmental degradation through the regulations within the context of a sustainable environmental approach (Koçak, Lebe, Zanbak et al.). Furthermore, it is also argued that despite a significant progress in the environment and energy sectors in terms of green growth and sustainable development with certain practices like taxation or incentives, Türkiye needs to enhance her policies to reduce energy dependence, increase the use of renewable energy, develop green technology, and adopt an active strategy to be part of international cooperation and regulations (Al, Altunbaş, Aydın et al., Kılıç, Özdemir et al.).

In the Eleventh Development Plan (2019-2023), it is noted that Türkiye has been conducting a policy to limit the emission increase trend with a green growth strategy, and also takes the importance of climate adaptation efforts into account along with high and sustainable growth expectations (T.C. Cumhurbaşkanlığı 24). However, Türkiye continues to use fossil fuels, coal in particular, for the energy consumption of the growing economy (Timperley). Since 2000, an increase has been observed in renewable energy investments in Türkiye. Despite the remarkable renewable energy potential of the country, the installed renewable energy generation capacity was 235.2 watts per capita in 2010, but reached 538.4 watts per capita in 2019; however, the share of renewable energy in total energy consumption decreased to 7.6% in 2019 while it was 9.9% in 2010 (TÜİK, *Sürdürülebilir Kalkınma*).[6] Furthermore, it has been determined as a priority to increase the production share of renewable energy sources to 30%, increase the geothermal installed capacity to 3 GW by 2023, and increase the solar and wind installed capacity to 16 GW by 2027.[7] Even though Türkiye aims to increase the share of renewable energy, it is emphasized that GHG emissions have doubled due to the coal investments in the country (Climate Action Tracker). According to the report prepared by the Mining Policies Specialization Commission of the Eleventh Development Plan, the use of national resources especially hard coal and lignite reserves should be encouraged in order to reduce foreign dependence on electricity production. In this regard, the report underlined that the legislation related to the environmental impact assessment process, which measures the negative/positive impact of economic investments

on the environment, deteriorates mining investments, and the natural protected area announcements deter the investors (T.C. Kalkınma Bakanlığı 50-51, 133-135). Moreover, considering the thermal power plant projects neglecting the negative impacts on the environment and human health, legal adjustments to change the status of mandatory air filters for industry, and the absence of measures such as tax regulations aiming to reduce emissions (Avcı, Tokyay, Ocak), Türkiye's sustainability discourse becomes disputable. To eliminate the negative impacts of the hydroelectric and geothermal energy investments, which have a high share in renewable energy, on green areas/forests, agricultural areas, and water resources, regulations that will keep the balance between economic interests and environmental sustainability are indispensable (Erkul, Turhan et al., *Beyond Special*). Turkish policies prioritizing economic growth over climate policies and environmental sustainability (Gönenç et al. 13) that disregard long-term losses and costs have aggravated the irreversible environmental degradation. An analysis within the framework of sustainable security may contribute to responding why Türkiye necessitates a new perspective in climate policies.

Security Risks Created by Climate Change in Türkiye and Possible Contributions of Sustainable Security

Türkiye is located in the Eastern Mediterranean Basin, which is defined as a climate hotspot by the IPCC, hence the country becomes highly vulnerable vis-a-vis climate change. The IPCC reports forecast that precipitation will decrease and a warmer and drier climate will be seen in the Mediterranean basin (IPCC *Climate Change 2014*). In this context, Türkiye's GHG/carbon emissions as well as the increasing trend in average temperatures pose new challenges. Despite the emphasis on sustainability in economic growth-oriented policies, fossil fuel-based energy policies and the negligence of ecological sustainability affect the efficiency of the climate policies. Figure 3 reflects the average temperatures observed in Türkiye between 1970 and 2017.[8] In parallel with rising temperatures, extreme weather events such as sudden and excessive precipitation, floods, droughts, severe storms, and tornadoes have also been intensified in Türkiye.[9]

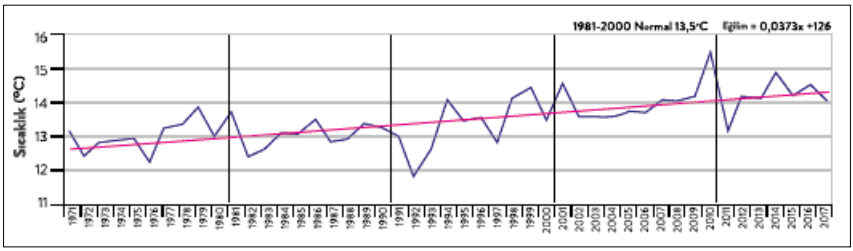

Figure 3. *Annual Average Temperatures in Türkiye Between 1971-2017* (T.C. Çevre ve Şehircilik Bakanlığı, *Türkiye'nin Yedinci Ulusal Bildirimi*)

According to the 2020 data of the General Directorate of Meteorology, the increase in both temperature and extreme weather events is remarkable. It is stated that the average temperature was recorded as 14.9°C in 2020 that is 1.4°C above the temperature average of 1981-2010 period. Additionally, the risk of drought became more imminent due to falling precipitation averages (12.9% below the 1981-2010 period and 14.5% below the previous year's average) and in 2020, the frequency of extreme weather events reached the highest number with 984 cases (T.C. Tarım ve Orman Bakanlığı Meteoroloji Genel Müdürlüğü 4-11). Projections based on different scenarios point out that temperatures will increase by an average of 2.2°C to 3.8°C by the end of the century in Türkiye, thereby, a decrease in precipitation but an increase in precipitation irregularities are estimated (Demircan et al. 61-117).

In this regard, it could be predicted that the destructive impacts of climate change would exacerbate in Türkiye due to the continued carbon emissions and the ineffectiveness of national and global efforts against the climate crisis. Scientific studies (Demircan et al. 132, Bayraç et al. 33-46, Öztürk) forecast that rising temperatures and changing water cycle would adversely affect the precipitation regime in Türkiye, therefore drought, desertification, and forest fires that negatively affect water resources would pose new challenges for water and food security, public health, land and marine ecosystems, and coastal areas; and a risk of resource scarcity would become more acute because of potential drought and its impacts on agricultural production and productivity. The forest fires of the 2021 summer, the most extensive in Türkiye's history, have clearly shown the risks caused by high temperatures and drought. Furthermore, Türkiye is a country that experiences moderate to high levels of water stress, and even in the optimistic climate scenarios

for 2030, it is estimated that the water stress will be extremely high in the central parts of the country (Aqueduct). In this case, agricultural activities, food prices and access to food, meeting vital needs and providing hygienic conditions could be exacerbated due to the problems in access to water. Related to the aforementioned climate risks, the emergence of new public health problems and the potential of rising social and political tensions may challenge not only human security but also national, economic and environmental security in Türkiye. At the nexus of intermingled problems, economic burdens, disruption of agricultural production, and destruction of living spaces caused by extreme weather events may result in additional costs for both citizens and the state. Türkiye's fossil fuel-based economy may trigger new human and economic problems regarding health and health expenditures due to the health problems caused by fossil fuels, especially coal, such as respiratory, heart and lung diseases or death (especially in infants, children, pregnant women and the elders) (Gacal et al.).

Climate change has created complex transboundary impacts. In this regard, the multidimensional risks posed by climate change have mutually threatened both Türkiye and other regional states, and the problems in the regional countries are expected to have direct consequences for Türkiye. For instance, the civil war that was inflamed by many intersected internal and external factors in Syria in 2011 can be evaluated in this context. According to Homer-Dixon, environmental degradation, drought and famine can trigger conflict in regions facing political, social and economic problems. Certain studies focusing on the Syrian conflict reveal the role of the drought in 2010 (Arap Center for Studies of Arid Zones and Dry Land ASCAD, De Chatel, Gleick). Accordingly, the drought, which was directly due to climate change, had been among the reasons igniting the conflicts. For Türkiye, the Syrian Civil War has created new national, humanitarian and economic security risks (particularly due to the migration flows) in the context of border security, internal security problems, social unrest, living conditions of migrants, and the increase in military and social expenditures. Considering the exacerbating impacts of climate change by 2050, especially the potential of new migration flows from Southeast Asia and Africa (IMO, Rigaud et al.), Türkiye may face new and more serious challenges in the not-so-distant future.

Türkiye's priority on economic development affects her vision on climate strategy. Despite the sustainable development discourse, Türkiye's emphasis on economic growth by referring to the special circumstances and the lack of comprehensive policies to lower carbon emissions makes sustainable practices controversial. Turkish climate policies have not sufficiently and holistically focused on the impacts of climate change on the economy, social life, and politics of the country in the 21st century. In the Sustainable Security Index created by ORG, Türkiye was ranked 140th among 155 countries (ORG). South Korea and Mexico, which were compared with Türkiye in the previous sections, rank, respectively, 17th and 99th in the same index. Although more detailed comparisons are necessary for this context, it is observed at first glance that developing countries in competitive global markets are able to implement growth policies together with more sustainable climate policies. In the process where the climate crisis has been deepening and a binding international climate regime on the basis of global common interest has remained missing, the role of the states becomes crucial to develop more effective and comprehensive policies. Sustainable and climate-resilient national policies that focus on the root causes and interdependent impacts of climate change could contribute not only to protecting the state and its citizens' interests but also stimulate a global transformative action. Renewing the security agenda in accordance with the national political shift is an integral part of this process.

It is clear that climate change has created multidimensional internal/external security risks in Türkiye. However, it is observed that the country's security strategy does not include the internal risks posed by and the external threats related to climate change. While Türkiye's perception of security and security strategy focuses on external and internal threats against national integrity in the context of hard power and military, since the beginning of the 21st century Türkiye has been taking into account economic, humanitarian, and cultural challenges (Aydın et al.). On the website of the Ministry of Foreign Affairs, the security risks posed by climate change are considered in the context of migration and instability (T.C. Dışişleri Bakanlığı). Although Minister Kurum defined the climate change problem as a national security issue in a statement dated 2019 (Boztepe et al.), a security strategy document holistically addressing the national, human, and environmental impacts of climate change in Türkiye has not been formed yet. Kaya et al. (191) state

that Türkiye assesses climate change not as a security problem that requires urgent and extraordinary measures, but as a problem to be coped with through decisions on sectoral change within the sustainable development framework. In addition, it is emphasized that Türkiye does not consider climate change from national security or climate security perspective, but rather focuses separately on the risks to water, food, and energy security (Gönenç et al.). In this regard, it could be claimed that Türkiye has not securitized climate change, however, it should be added that the lack of a holistic security perspective increases the vulnerability of the country to multidimensional security risks created by climate change. Therefore, we argue that this contradiction could be overcome with a sustainable security approach that will enable Türkiye to adopt a new perspective integrating economic, social, and environmental policies with security strategies. The risk of securitization (of climate change) might be eliminated through integrated security policies considering the root causes and interdependent factors that are aggravating the problem.

A sustainable security approach and strategies developed within this framework would be an alternative to protect the long-term interests of the country by anticipating future risks and enhancing the preparedness capacity for domestic or external threats. In this regard, beyond the implementation of sustainable policies with economic and developmental objectives, a climate strategy that would emphasize the balance of ecological sustainability and social equity would also guarantee the right of future generations to live in a country that would not have been devastated by the effects of climate change. Instead of carbon-based investments, it is necessary to focus on more profitable and efficient long-term renewable projects without compromising labor rights and environmental risks. Even though their financial costs seem high in the short term, they will contribute to reducing the costs of climate change. Furthermore, Türkiye, as an importer of renewable technologies, should aim to become a manufacturing country to enhance climate resilience and reduce foreign dependency as well. Hence strengthening the R&D investments, increasing the quality of education, and spreading environmental and climate change awareness have to be achieved through integrated and sustainable climate policies.

With its developing economy, Türkiye endeavors to be an influential actor in global and regional politics. It is estimated that international efforts for climate mitigation and adaptation will be accelerated by the mid-century due to the destructive impacts of the climate crisis. Although Türkiye has taken part in climate negotiations, she has not played an active role in climate cooperation. Moreover, the avoidance of the country to ratify the Paris Agreement (together with countries that faced internal conflicts) had negatively influenced the image and prestige of the state. In this context, Türkiye's return to the Paris Agreement process is an important step, but being a party to the Paris Agreement is not solely sufficient for Türkiye to enhance the resilience and for fighting the climate crisis. The economic priorities of Türkiye in the Kyoto Protocol process had slowed down the climate policies and access to the new market mechanisms (Gündoğan et al.). The ratification of the Paris Agreement provides Türkiye some benefits to access certain financial aid and technology supply mechanisms, as Minister Kurum emphasized that this would also create new opportunities for access to climate finance (*Sabah*). However, the global system has been transforming; with Industry 4.0 the production process has entered into a new phase, new climate-compatible economic models such as the Green Deal have begun to be discussed, and the pressure of transnational public opinion on a zero-carbon transition has been accelerating. In the context of the Green Deal, the EU in particular brings up new measures toward its trade partners. Türkiye needs to closely observe these current issues and create new strategies not to be excluded from this transition process. Instead of focusing on access to finance, Türkiye should consider climate change more seriously to protect the national interest, social welfare, nature, and the rights of future generations. Türkiye's climate resilience and future can be strengthened by the implementation of long-term, sustainable transition policies rather than prioritizing short-term economic benefits. Therefore, the sustainable security approach could be the basis for creating more comprehensive, balanced, and sustainable policies against the climate crisis in Türkiye. Sustainable security could open a new path for Türkiye to defend her long-term interests in global initiatives and enhance her role in global cooperation.

Conclusion

The problem of climate change has been accelerating despite global initiatives and its impacts have become more frequent and destructive. The essential factor aggravating climate change is GHG emissions, but restrictions to reduce emissions have still not been effectively implemented. Therefore, problems caused by climate change such as extreme weather events, rising sea levels, widespread health problems, or climate-induced migration have created several risks and threats from national security to human and environmental security. There are different approaches -state, human, or ecosystem centric- in the literature focusing on the nexus of climate change and security. This study focuses on the sustainable security approach, which aims to find balance between national, human, and environmental security perspectives. In this context, we examine Türkiye's approach to international climate regulations, and her sustainable development and climate strategy in order to evaluate whether these policies are effective to fight climate change. As a result of policies prioritizing economic development, Türkiye has not been able to conduct consistent policies with the global climate regulations to lower GHG emissions, and this has accelerated the phenomena such as increasing temperatures, decreasing precipitation, and intensified extreme weather events due to climate change. The projections show that without a GHG reduction target, Türkiye may become more vulnerable to the effects of climate change in the future. The vulnerability derives from both the challenges within the country and the low climate resilience of the geography where the country is located. In this context, this study claims that Türkiye has not sufficiently considered the security risks created by climate change, and needs to develop a new security perspective regarding the climate crisis. It is argued that sustainable security could be an alternative for Türkiye to strengthen her preparedness for the intermingled security risks posed by the climate crisis. It is also claimed that establishing a climate security policy prioritizing only national security may neglect the root causes of the problem and result in the securitization of the process. Therefore, with a sustainable security approach balancing economic, social and ecological concerns, Türkiye would be able to develop integrated climate policies that holistically consider all threats against different reference objects of security. Therefore, an economic transition allowing for an equitable model of social welfare, ecological sustainability, and the rights of future generations to live

in a healthy environment could be prevailed. Through a sustainable security strategy, Türkiye will be able to strengthen the climate resilience of the country, and at the same time could improve her role in global cooperation. Hence, the new strategy adopted by Türkiye could also contribute to regional peace in a geography that will become more vulnerable due to the impacts of climate change.

Notes

1 In this context, it is stated that while the complex interdependence and self-renewal capacity of ecosystems ensure the continuation of natural resources, especially economic activities lead to a faster deterioration than the self-renewal capacity of nature. In order to prevent this, the importance of sustainable use of resources should be understood (Meadows et al.).

2 In this regard, sustainable security criticizes the narrow perspective of national security and the broad individual-centered perspective of human security. It also questions whether environmental security can be consistent with sustainable development.

3 The ecological security approach also proposes similar assumptions. However, the broad perspective of ecological security focuses on ecosystems by admitting that all species are equal and vital, and ecological balance is necessary to be preserved. In addition, while ecological security aims for systemic transformations through international law and binding regulations, sustainable security considers the improvements in the existing system by taking into account the economic fundamentals. Both ecological security and sustainable security attempt to present an alternative to anthropocentric approaches (Atvur et al., Vural).

4 As of 2022, countries that have not ratified the Paris Agreement are Eritrea, Iran, Libya and Yemen.

5 The Environmental Kuznets Curve Hypothesis argues that economic growth would continue to degrade the environment until the average income reaches an optimum point, then the growth would contribute to improve environmental conditions.

6 At this point, the share of water in renewable energy is at the forefront. According to 2019 data, 342.8 watts of energy per person were produced from hydropower. In the same period, solar energy production remained at 91.3 watts, and wind energy production at 72.1 watts (TÜİK, *Sürdürülebilir Kalkınma*).

7 As of the end of 2018, 28.29 GW of Türkiye's total installed energy capacity consists of hydroelectric, 7.01 GW of wind, and 5.07 GW of solar resources. Different investment models and incentive tools have been designed to

strengthen the position of renewable energy sources in the market after 2020 (T.C. Cumhurbaşkanlığı Yatırım Ofisi).

8 From 1997, the increase of average temperatures became more obvious, in this regard the highest temperature increase was recorded in 2010 (T.C. Çevre ve Şehircilik Bakanlığı, *Yedinci Ulusal Bildirim* 28).

9 Between 1971 and 2017, there was a rising trend in extreme weather events; storms and tornadoes increased 36%, heavy rain and floods 31%, hail 16%, heavy snowfall 7%, and avalanches 2% (T.C. Çevre ve Şehircilik Bakanlığı, *Yedinci Ulusal Bildirim* 30).

Contribution Rate Statement

The authors' contribution rates in this study are equal.

Conflict of Interest Statement

There is no conflict of interest with any institution or person within the scope of this study. There is no conflict of interest between the authors.

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Sürdürülebilir Güvenlik Çerçevesinde Türkiye'nin İklim Politikaları*

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Öz

İklim değişikliği, küresel sistemin bütünlüğünü tehdit eden en önemli sorunlardan biri haline gelmektedir. İklim değişikliğinin etkileri devletlerin çıkarlarına, insan refahına ve çevresel sürdürülebilirliğe yönelik yeni tehditler ortaya koymaktadır. Bu makale, Türkiye'nin iklim değişikliği politikalarını ulusal, insani ve çevresel güvenlik arasında denge kurmaya odaklanan sürdürülebilir güvenlik yaklaşımı çerçevesinde incelemeyi amaçlamaktadır. Çalışma, Türkiye'nin ekonomik önceliklerinin iklim stratejisinin önüne geçtiğini savunmaktadır. Ayrıca, Türkiye'nin karbon salımı artmaya devam ettikçe ülke, iklim değişikliğinin etkilerine karşı daha kırılgan ve daha az dirençli hale gelecektir. Bu çalışmada Türkiye'nin iklim değişikliğinin yarattığı riskleri sürdürülebilir güvenlik yaklaşımı çerçevesinde ele alması halinde ekonomik çıkar, toplumsal refah ve çevresel korumanın hem mevcut hem de gelecek kuşaklar için dengeli şekilde garanti altına alınabileceği savunulmaktadır.

Anahtar Kelimeler

İklim değişikliği, Türkiye, sürdürülebilir güvenlik, karbon salımı, Paris Anlaşması.

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Политика Турции в области изменения климата в контексте устойчивой безопасности*

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Аннотация

Изменение климата становится одной из важнейших проблем, угрожающих целостности глобальной системы. Последствия изменения климата создают новые угрозы интересам государств, процветанию человечества и экологической устойчивости. Данная статья направлена на анализ климатической политики Турции в контексте подхода к устойчивой безопасности, который фокусируется на балансе между национальной, человеческой и экологической безопасностью. В исследовании утверждается, что экономические приоритеты Турции преобладают над ее климатическими стратегиями. Более того, Турция становится более уязвимой и менее устойчивой к последствиям изменения климата, пока выбросы углерода в стране продолжают расти. Таким образом, в статье утверждается, что если Турция будет рассматривать риски изменения климата в контексте устойчивой безопасности, тогда экономические преимущества, социальное процветание и охрана окружающей среды как для нынешнего, так и для будущих поколений могут быть в равной степени гарантированы.

Ключевые слова

Изменение климата, Турция, устойчивая безопасность, выбросы углерода, Парижское соглашение.

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