

# Different Dimensions of **Environmental Security in Türkiye** and Beyond

EDITORS

**MUHİTTİN ATAMAN**

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SETA

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OF ENVIRONMENTAL  
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## INTRODUCTION

MUHİTTİN ATAMAN\*

GLORIA SHKURTI ÖZDEMİR\*\*

One significant element is dragging the world community toward the necessity of going beyond national borders and interests to work together in the face of new challenges: the environment and its security. These environmental changes not only have a direct impact on the health and welfare of the people but at the same time threaten the territorial integrity and economic growth of states. With this considered, the risk of violent conflict is increased as well.<sup>1</sup>

Today the biggest and maybe the most neglected threat to humanity, in many pundits' eyes, is global warming. The implications of subsequent climate change will have far-reaching impacts in all regions of the world, but they require special attention in industrialized countries that have compounded the consequences for the rest of the world, which is classified as developing or undeveloped. The challenge, on the other hand, does not acknowledge differences and thus requires collective action. Just to mention a few, some of the most felt effects of climate change are rising sea levels, resource depletion, freshwater shortages, deforestation, biodiversity loss, and natural disasters like floods, hurricanes, droughts, and wildfires. Indeed, according to the latest data from the World Health Organization (WHO), it is estimated that in the period between 2030 to 2050 climate change alone will cause approximately 250,000 additional deaths per year because of malnutrition, malaria, diarrhea, and heat stress.<sup>2</sup>

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<sup>1</sup> Jon Barnett, "Environmental Security," in J. Peter Burgess (ed.), *The Routledge Handbook of New Security Studies*, (Oxon: Routledge, 2010).

<sup>2</sup> "Climate Change and Health," *World Health Organization*, (October 31, 2021), retrieved from <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>.

## DIFFERENT APPROACHES TO ENVIRONMENTAL SECURITY

The severity of these environmental problems has brought to the fore profound discussions on their impact on humans, states, and the world as a whole. The debates on environmental security can be divided into two periods: 1960-1980 and the post-Cold War era. In this framework, debates over the securitization of the environment have gained prominence, starting mainly in the late 1960s and early 1970s. Starting with the so-called “war over water” between Israel and its Arab neighbors in the 1960s, the impact of water on national and regional security came to the fore. Highlighting the importance of water security for the Middle East region, it was argued that “long after the oil runs out, water is likely to cause wars, cement peace, and make and break empires and alliances in the region, as it has for thousands of years.”<sup>3</sup> Soon after that, the oil shocks of 1973 and 1979 brought attention to the West’s dependence on foreign oil resources and once again served as a reminder of the impact of scarce resources on national security.<sup>4</sup>

This increased awareness about the environment and the security nexus became obvious as many state and non-state actors began to take steps in coping with the risks. Indeed, for the first time the term “environmental security” was first coined in the 1987 report of the World Commission on Environment and Development titled “Our Common Future.”<sup>5</sup> Environmental security is broadly discussed here in the context of sustainable development. The environment is considered a “peace and security issue” and at the same time, the document highlights the fact that this issue requires international efforts by stating: “The global commons cannot be managed from any national centre: The nation state is insufficient to deal with threats to shared ecosystems. Threats to environmental security can only be dealt with by joint management and multilateral procedures and mechanisms.”<sup>6</sup> These

<sup>3</sup> John K. Cooley, “The War over Water,” *Foreign Policy*, No. 54, (Spring 1984), pp. 3-26, retrieved from [https://moodle.swarthmore.edu/pluginfile.php/96008/mod\\_resource/content/0/Resource\\_Scarcity\\_and\\_Food\\_Politics/Cooley\\_War\\_over\\_Water.pdf](https://moodle.swarthmore.edu/pluginfile.php/96008/mod_resource/content/0/Resource_Scarcity_and_Food_Politics/Cooley_War_over_Water.pdf).

<sup>4</sup> Rita Floyd and Richard A. Matthew, “Environmental Security Studies: An Introduction,” in Rita Floyd and Richard A. Matthew (eds.), *Environmental Security: Approaches and Issues*, (Oxon: Routledge, 2013), p. 4.

<sup>5</sup> “Report of the World Commission on Environment and Development: Our Common Future,” *United Nations*, (1987), retrieved from <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>.

<sup>6</sup> “Our Common Future, Chapter 11: Peace, Security, Development, and the Environment,” *United Nations*, retrieved from <http://www.un-documents.net/ocf-11.htm>.

discussions gave rise to the 1992 Rio Earth Summit, which is considered by some scholars as a turning point.<sup>7</sup> Specifically, the summit, also known as the “Earth Summit,” was considered one of the largest intergovernmental conferences of the time.<sup>8</sup> And as a result, it brought to the fore a broad global policy “agenda and a new blueprint for international action on environmental and development issues that would help guide international cooperation and development policy in the twenty-first century.”<sup>9</sup>

As the Cold War came to an end in the early 1990s, global debates started to focus once again on environmental crises. Indeed, the post-Cold War discussions on environmental security are directly related to Western, especially American, policies. It is argued that the environmental concerns were used to justify the traditional security institutions, i.e., NATO and the Pentagon.<sup>10</sup> Specifically, as the Cold War came to an end, the collapse of the Soviet Union resulted in the diminishment of the greatest threat for the U.S. and its allies, especially in terms of NATO. This led to an ideological vacuum, which was manifested in a decline in budget allocations for NATO in general and the American Army in particular.<sup>11</sup> For this reason, environmental issues started to gain prominence in the doctrines of these institutions. At this point, a shift in the environmental security discourse happened. Namely, before 1989, the debates concentrated on the threat that environmental changes pose to the states but most importantly to the existence of human life. However, after 1989, the environmental issues have been “securitized” as the threats they posed started to be analyzed from the national security perspective and the emergence of violent conflicts.<sup>12</sup>

<sup>7</sup> Floyd and Matthew, “Environmental Security Studies: An Introduction.”

<sup>8</sup> Lord Ennals, “The Significance of the Rio Earth Summit,” *Medicine and War*, Vol. 9, No. 3 (1993), pp. 191-198.

<sup>9</sup> “United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992,” *United Nations*, retrieved from <https://www.un.org/en/conferences/environment/rio1992>.

<sup>10</sup> Barnett, “Environmental Security,” p. 126; Jon Barnett, *The Meaning of Environmental Security: Ecological Politics and Policy in the New Security Era*, (London: Zed Books, 2001).

<sup>11</sup> Barnett, “Environmental Security,” p. 126.

<sup>12</sup> Thomas F. Homer-Dixon, “Environmental Scarcities and Violent Conflict: Evidence from Cases,” *International Security*, Vol. 19, No. 1 (1994), pp. 5-40; Jessica Tuchman Mathews, *Foreign Affairs*, (Spring 1989), retrieved from <https://www.foreignaffairs.com/united-states/redefining-security>; Simon Dalby, “Security and Environment Linkages Revised,” in Hans Günter Brauch, *et al.*, *Globalization and Environmental Challenges Reconceptualizing Security in the 21st Century*, (New York: Springer, 2008), p. 166; Barnett, “Environmental Security,” p. 126.

## GLOBAL AND REGIONAL ENVIRONMENTAL INITIATIVES

Simply put, environmental security refers to the protection of the natural and human environments from harm or destruction. This includes measures to address issues such as climate change, pollution, resource depletion, and other environmental challenges that can have negative impacts primarily on human health and well-being, but also on the national security of states. Considering that environmental changes have a global impact, several international efforts have taken place to address these issues and to find possible solutions. Starting in 1972 with the first world conference on the environment – the United Nations Conference on the Human Environment – in Stockholm several other undertakings have been held, especially after the end of the Cold War, i.e., the Earth Summit in 1992, which led later to the ratification of the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC is an international treaty that was adopted in 1992 with the goal of stabilizing greenhouse gas concentrations in Earth’s atmosphere.

The UNFCCC established a framework for international cooperation on climate change, and it has been ratified by almost all countries.<sup>13</sup> Within the latter’s framework, the UN holds yearly conferences (Conference of Parties, COP) that tackle the latest issues on climate change and environmental security, the most recent one (COP27) held in Egypt, in November 2022. Dubbed also the “African COP,” the world’s largest climate conference this year had at its center the developments in Africa as it is one of the regions most affected by climate change. This was indeed an issue that according to many African and developing states was overshadowed and required immediate attention.<sup>14</sup>

It is important to highlight the fact that COP conferences have led to important international charters such as the Kyoto Protocol and Paris Agreement, adopted in 1997 and 2015, respectively. These legally binding international treaties aimed to limit global warming. While the Kyoto Protocol aimed mainly to reduce greenhouse gas emissions to mitigate the negative impacts of climate change, the Paris Agreement aims to limit global warming to well below 2 degrees Celsius

<sup>13</sup> “About the Secretariat,” *United Nations Climate Change*, retrieved from <https://unfccc.int/about-us/about-the-secretariat>.

<sup>14</sup> Büşra Zeynep Özdemir, “COP27: Ne Beklendi, Ne Gerçekleşti?,” *Sabah*, (November 19, 2022), retrieved from <https://www.sabah.com.tr/yazarlar/perspektif/busra-zeynep-ozdemir/2022/11/19/cop27-ne-beklendi-ne-gerceklesti>.

above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees Celsius.<sup>15</sup>

In light of these events, states have started to change and adapt their national security policies by taking into consideration the above-mentioned agreements and the ongoing environmental changes. However, despite these efforts, the world faces several environmental problems that emphasize the need for rapid and direct action. As an illustration, just in recent months, as the world is shaken by the Russia-Ukraine war, it has once again been demonstrated that environmental security – in this case in terms of food security – goes beyond the borders and will have a global impact.

Türkiye, like all other nations, is facing the harsh reality of global change and looking into the challenge of dealing with its ramifications. For Türkiye the fight against climate change and environmental problems are top priority items on its agenda.<sup>16</sup> Ankara joined the Kyoto Protocol in 2009 and the Paris Agreement in October 2021 under current President Recep Tayyip Erdoğan. Türkiye is committed to reaching net-zero carbon emissions by 2053 through the implementation of these initiatives. It was noted in Türkiye's Eleventh Development Plan (2019-2023) that the country was committed to making significant economic and social changes to implement a “green revolution,” one element of the larger initiative to construct “green cities” in the National Green Building Certificate System.<sup>17</sup>

Furthermore, the Ministry of Environment, Urbanization, and Climate Change of Türkiye developed a Regional Climate Change Course of Action, outlining the steps that must be taken to assuage the negative consequences of climate change.<sup>18</sup> The ministry emphasized its awareness of the need for fresh approaches to protect water sources, lower water use, improve rain harvests, recycle water, and build drip irrigation systems when it adopted the National Climate Adaptation Strategy and Course of Change (2011-2023).

<sup>15</sup> “What Is the Kyoto Protocol?,” *United Nations Climate Change*, retrieved from [https://unfccc.int/kyoto\\_protocol](https://unfccc.int/kyoto_protocol); “The Paris Agreement,” *United Nations Climate Change*, retrieved from <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

<sup>16</sup> “Climate Change and Environmental Problems Are Common Issues of Humanity” Presidency of the Republic of Türkiye, (June 16, 2022) retrieved from <https://www.tccb.gov.tr/en/news/542/138443/-climate-change-and-environmental-problems-are-common-issues-of-humanity->.

<sup>17</sup> “On Birinci Kalkınma Planı (2019-2023),” *T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı*, (2019) retrieved from [https://www.sbb.gov.tr/wp-content/uploads/2022/07/On\\_Birinci\\_Kalkinma\\_Plani-2019-2023.pdf](https://www.sbb.gov.tr/wp-content/uploads/2022/07/On_Birinci_Kalkinma_Plani-2019-2023.pdf).

<sup>18</sup> “Türkiye Cumhuriyeti İklim Değişikliği Eylem Planı (2011-2023),” *T.C. Çevre ve Şehircilik Bakanlığı*, retrieved from <https://webdosya.csb.gov.tr/db/iklim/banner/banner591.pdf>.

## CHAPTERS' OVERVIEW

The academic debates have covered a broad agenda regarding environmental security. First and foremost, the concept of “environmental security” has been discussed widely and in the existing literature, several contested meanings of the term can be found. Furthermore, a large flood of academic works has focused on global environmental processes such as climate change, flooding, and resource scarcity (especially water and food), among others. Unquestionably, these academic studies play a crucial role in how the world, especially governments, respond to such environmental crises. Within this context, this book focuses on some of the latest developments and trends in the world, including here the policies of major actors such as the U.S., China, Russia, and the EU. But at the same time, this book aims to fill a gap in terms of literature about the most prominent environmental issues that Türkiye is facing and trying to solve, including here climate change, and water, food, and energy security.

Starting from a general perspective, in Chapter 1, Yasemin Kaya questions the role of International Environmental Regimes (IERs) in global environmental governance. She astutely argues that as the Anthropocene is fundamentally altering the contextual settings in which IERs work, the scope of mainstream conversations about the effectiveness of IERs should be widened to include the earth system viewpoint. The conclusion of the paper is bitter yet insightful. Despite continued attempts by regimes, environmental indicators reveal that there has been a tremendous increase in global environmental change. The efficacy of environmental regimes is a contentious topic since IERs, whose purpose is to collaborate to produce solutions for environmental problems, have not been sufficiently successful in this regard.

To account for the nexus between geopolitics and environmental security, in Chapter 2, Peter Hough approaches the issue from a supranational angle by bringing under the spotlight the great power competition in the Arctic. The author argues that, although the Arctic is still not an arena for war due to geopolitical rivalry among world powers, environmental issues pose the greatest dangers as intergovernmental ties in the area deteriorate. According to Hough, Russian energy export disruptions caused by Western sanctions may force the Kremlin to explore ecologically destructive initiatives further north. Canada may also be tempted to make up for energy shortages by restarting controversial drilling projects that were previously abandoned. The sparsely inhabited Arctic is unable to deal with oil spills, and additional incursions would result in higher pollution and much more destructive social disturbance.

In a similar vein in Chapter 3, Lassi Heininen assumes that although there is a new (East-West) great power competition with its associated conflicts in international politics. No violent conflicts arise in the Arctic in his argument, but environmental degradation and rapid climate change continue to endanger the inhabitants. The author further highlights the fact that in international politics, there is an urgent need to expand beyond the unified state system and achieve what was previously done domestically on a global, planetary scale, yet this is not occurring. Overall, both chapters on the Arctic reveal that the post-Cold War Arctic is an intriguing case study for emphasizing the importance of the environment, as well as a reminder that high geopolitical stability and mutually beneficial common interests are both products of, and prerequisites for, effective collaboration.

Continuing with the most recent trends in terms of environmental security, in Chapter 4 Karim Elgendy focuses on a more disputed case, namely the East Mediterranean. As the author rightly points out, the Eastern Mediterranean area is a disjointed area covering a diverse group of countries formed by core topography and overlapping geopolitical goals. One thing is a common concern, though, the climatic issues and a system for cooperation are urgently needed in the Eastern Mediterranean. Elgendy provides several suggestions that would result in an effective regional collaboration on sustainable energy and climate. Furthermore, he argues that a better collaboration structure in the East Mediterranean should focus on coordinating national energy and climate plans with policies and solutions that encourage regional collaboration rather than competition, support climate security, and are suitable for the region's conditions, resources, and needs.

In the next chapter, by bringing to the fore the concoction of climate change and technology, Bruno Maçães challenges readers to reconsider climate change and its impact on global politics. According to Maçães, we cannot refer to climate change as a byproduct of the Anthropocene, the world that humans have created. Because of our limited potential to influence natural processes and consequent inability to control the unintended effects of our activities and decisions, climate change is still fundamentally a natural phenomenon that humans have only just begun to cause. Intriguingly, Maçães contends that joining the Anthropocene for the first time, as opposed to leaving it, is the solution to the climate problem.

The next two chapters will bring to the readers a better understanding of the global developments in regard to climate change policies. In Chapter 6, Büşra Zeynep Özdemir evaluates the climate change policy of the European Union, one of the actors who work the most for climate action. Specifically, the chapter

provides a thorough framework and evaluation of the evolution of the European Union's climate policy, the actions that have been taken within this context, and where the European Union stands right now. Onur Kolçak, on the other hand, in Chapter 7, focuses on the other three most important actors concerning climate change, namely the U.S. (the world's largest, high-income economy, is a free market with minimal government interference), Russia (an upper-middle income emerging market and advancing economy, structured as a centrally planned economy with government interference), and China (the world's second-largest economy with significant levels of state ownership and a centrally planned economy). Kolçak argues that the different characteristics and differences of the development levels of these three states provide good examples to understand what plays a role in creating and adopting policies for environmental sustainability.

The book then turns its attention to Türkiye, the environmental issues it is facing, and at the same time the initiatives it has taken. In Chapter 8, İzzet Arı provides a detailed framework of Turkish national climate policy against the backdrop of global climate change discussions. The chapter succinctly explains how Türkiye is helping to combat climate change on a global scale. The basic tenets of Türkiye's stance in climate negotiations include climate justice, taking into account the historical obligations of industrialized nations, the "Common but Differentiated Responsibilities and Respective Capabilities" (CBDR-RC) concept, and equitable burden-sharing among all parties. As a result, the Paris Agreement's structure, obligation coverage, and goals are consistent with Türkiye's overall climate policy. Türkiye's attempts to ensure equity in the UNFCCC's classification of nations reflects its ambitions for climate justice. In the conclusion, the author warns that while Türkiye's demand for climate justice must still be taken into account in current international climate discussions, Türkiye should incorporate and execute national climate policies in its development plans and programs.

As mentioned above, natural resource scarcity, within the context of energy security, has been a driving environmental issue. Not only does energy security highly impact the states' policies, but it has the potential to create violent conflicts. For this reason, for a better understanding of Türkiye's climate policies, the evaluation of its energy policies is highly important. In this regard, in Chapter 9, Barış Sanlı and Sohbet Karbuz contend that Turkish energy policy in the next decade will be determined by the current constraints and evolving global issues. Furthermore, they elaborate on these issues within the framework of fundamental constraints, policy dynamics, and international relations. The constraints limit the political

landscape, while the tensions create opportunities for new solutions. Şanlı and Karbuz argue that Türkiye's environmental concerns will increase, but demand growth will determine a larger part of the Turkish energy policy in the future.

In Chapter 10, Ayşegül Kibaroğlu uses institutional and cross-sector (energy and food) analyses to define Türkiye's water security policies and practices with a particular focus on the transboundary water security strategies of Türkiye. The author concludes that a strong institutional structure, notably at the state level, has been built to achieve Türkiye's overall socio-economic development objectives, which depend on the development of water and land resources. The need for improved governance, with proper coordination and cooperation among the public, private, and non-governmental institutions in charge of securing water for agricultural and hydropower development, domestic and industrial uses, as well as the preservation and protection of the environment, is however necessitated by the various types of increasing pressures on scarce water resources.

Finally, yet importantly, this book places special attention on the Ukraine war, the food crisis that emerged, and the grain deal reached with Türkiye's mediation. Bilal Bağış, in the last chapter, discusses the potential short-term and long-term impacts of the Ukraine war especially in terms of the food market. The chapter provides a critical analysis of the food market dynamics, underlines factors affecting supply and demand, and provides insight into expectations regarding the future, including the impacts of the temporary suspension of the grain deal in the fall of 2022.

While the importance of environmental security certainly is going to increase in the following years as more regional and global actors will be included in the action to counteract climate change, it is necessary to analyze and understand the issue from geopolitical and economic standpoints. With that said, some of the chapters in this book were included in one of the latest issues of the *Insight Turkey* journal. However, being aware of the complexity and importance of this issue for the world, but also especially for Türkiye, we felt the need to extend these arguments with new areas of discussion and collect them in this book.





ONE

UNDERSTANDING  
ENVIRONMENTAL  
SECURITY:  
GEOPOLITICS AND  
RECENT TRENDS





# RECONSIDERING THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL REGIMES IN THE ANTHROPOCENE

YASEMİN KAYA\*

## INTRODUCTION

At the dawn of the 50<sup>th</sup> anniversary of the 1972 Stockholm Conference on March 18, 2022, a turning point in the development of international environmental policies, unprecedented temperatures were recorded simultaneously in the polar zones of Earth. In the face of the abnormal 40°C and 30°C above-average temperatures in Antarctica and the Arctic respectively, calling attention to unpredictable extremes, climatologists highlighted that the temperature expectations in the polar zones should be revised -yet again.<sup>1</sup> Almost every day, extreme weather events, such as heavy rainfall, floods, tsunamis, hurricanes, tornados, landslides, heat waves, and forest fires, occur in different parts of the world. These catastrophic events reveal that the permanent and far-reaching impact of human activity on the planet is causing serious and unpredictable changes in the biophysical processes of the earth system. The magnitude of these human-driven changes has led many scientists to believe that we are about to enter into (or have entered) a new geological epoch called the Anthropocene: an era in which human activity is the dominant factor influencing the climate and the environment,<sup>2</sup> and the stable and predictable conditions of the Holocene are left behind.

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<sup>1</sup> Fiona Harvey, "Heatwaves at Both of Earth's Poles Alarm Climate Scientists," *The Guardian*, (March 20, 2022) retrieved March 30, 2022, from <https://www.theguardian.com/environment/2022/mar/20/heat-waves-at-both-of-earth-poles-alarm-climate-scientists>.

<sup>2</sup> Paul J. Crutzen and Eugene F. Stoermer, "The Anthropocene," *IGBP Newsletter*, Vol. 41, (2000), pp. 17-18.

The international community has been working to overcome the difficulties of implementing global environmental governance and generating solutions to environmental problems for over 50 years, particularly through International Environmental Regimes (IERs) and the multilateral environmental agreements (MEAs) that set the basis of these regimes. The International Environmental Agreements Database includes over 1,300 MEAs and over 2,200 bilateral environmental agreements.<sup>3</sup> In spite of these efforts and the huge number of IERs, ongoing, rapid increases in environmental change are a paradoxical phenomenon. Thus, the effectiveness of IERs has always been a matter of controversy.

The present study suggests that the scope of mainstream discussions over the effectiveness of IERs should be expanded to consider the earth system perspective, since the contextual conditions in which IERs function are changing fundamentally in the Anthropocene. The earth system perspective refers to a holistic approach that can deal better with the complexities and inherent uncertainties of the Earth System. A generally accepted final determinant of regime effectiveness is a match between the institutional structure of the regime and the problem it tackles.<sup>4</sup> However, it is difficult to claim that IERs are institutions that can confront the challenges brought about by today's unprecedented earth system conditions since IERs are grounded on the stable and predictable earth system conditions of the Holocene and an international system consisting of sovereign states that are territorially separated from each other.<sup>5</sup>

IERs are organized around the purpose of reducing the pressure on ecosystems and leaving a healthy and balanced environment for future generations. Such a concern not only puts off the problem temporarily but is far from comprehending the interconnectivity between the elements of the ecosystem, the complex socio-ecological processes at work within that system, and the new systemic conditions that are emerging as a result of excessive human intervention. In addition, relations among states are gradually being more affected by changes in the earth

<sup>3</sup> "International Environmental Agreements (IEA) Database Project," *University of Oregon*, retrieved February 22, 2022, from <https://iea.uoregon.edu/>.

<sup>4</sup> Arild Underdal, "One Question, Two Answers," in Edward L. Miles, *et al.*, (eds.), *Environmental Regime Effectiveness: Confronting Theory with Evidence*, (Cambridge: MIT Press, 2001), pp. 3-45; Ronald B. Mitchell, "Problem Structure, Institutional Design, and the Relative Effectiveness of International Environmental Agreements," *Global Environmental Politics*, Vol. 6, No. 3 (2006), pp. 72-89.

<sup>5</sup> Davor Vidas, Jan Zalasiewicz, and Mark Williams, "What Is the Anthropocene and Why Is It Relevant for International Law?" *Yearbook of International Environmental Law*, Vol. 25, No. 1 (2015), pp. 3-23; Louise du Toit and Louis J. Kotzé, "Reimagining International Environmental Law for the Anthropocene: An Earth System Law Perspective," *Earth System Governance*, Vol. 11, (2022), pp. 1-10.

system than by political changes. Many problems on the horizon due to the transformation of the earth system, such as the disappearance of small island states from the world stage, massive migrations, the marginalization of vulnerable communities, economic collapse, increased poverty and inequality, are problems that will be caused more and more by changes in the earth system rather than primarily by political change.<sup>6</sup>

Aiming to draw attention to the importance and necessity of the earth system perspective in the effectiveness of IERs, the present study consists of three sections. The first focuses on mainstream discussions over the effectiveness of environmental regimes. The second defines the new trends in organizing the institutional structure of environmental regimes. The final section explains IER features that may prevent them from coping with the challenges of the Anthropocene and presents viable recommendations for the inclusion of the earth system perspective into environmental regimes.

## TRADITIONAL DISCUSSIONS OVER THE EFFECTIVENESS OF IERS

The number of IERs has rapidly increased since the 1972 Stockholm Conference, which strongly highlighted the importance of multilateralism in the environmental field. Studies evaluating the effectiveness of environmental regimes have been noticeable, particularly since the 1990s, and have been conducted mainly within the discipline of International Relations (IR). As a result, the question of effectiveness has been approached from a state-centered understanding in line with the general framework of the IR discipline, which focuses its analysis on the question of how states act/would act under different conditions. As an extension of this understanding, regimes are seen as a set of rules that define how actors behave when faced with certain problems or situations. Krasner's definition of a regime is significant since it reflects this perspective clearly: "Regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations."<sup>7</sup>

<sup>6</sup> Vidas, *et al.*, "What Is the Anthropocene," p. 20; Frank Biermann, "The Future of 'Environmental' Policy in the Anthropocene: Time for a Paradigm Shift," *Environmental Politics*, Vol. 30, pp. 1-2, (2021), p. 74, pp. 61-80.

<sup>7</sup> Stephen D. Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," in Stephen D. Krasner (ed.), *International Regimes*, (London: Cornell University Press, 1991), pp. 1-21, p. 2.

**O**ne significant element is dragging the world community toward the necessity of going beyond national borders and interests to work together in the face of the new challenges that it poses: the environment and its security. Today the biggest and maybe the most neglected threat to humanity, in many pundits' eyes, is global warming. Just to mention a few, some of the most felt effects of climate change are rising sea levels, resource depletion, freshwater shortages, deforestation, biodiversity loss, and natural disasters like floods, hurricanes, droughts, and wildfires. The severity of these environmental problems has brought to the fore profound discussions on their impact on humans, states, and the world as a whole. As a result, debates over the securitization of the environment have gained prominence.

This book aims to present different dimensions of environmental security and their impact on international politics. Well-known scholars from Turkey and abroad reflected on recent trends on environmental security and at the same time the environmental policies of several actors, with a special attention on Türkiye.

