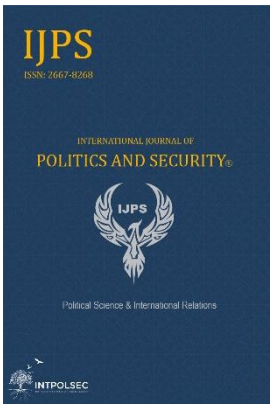
International Journal of Politics and Security (IJPS)

ISSN: 2667-8268

https://dergipark.org.tr/tr/pub/ijps



Defining Environmental Security as a National Security Issue

Author(s) : Berna Aksoy Özcan

Source : International Journal of Politics and Security (IJPS) / Vol. 5 / No. 1 / May 2023, pp. 73-94

DOI: 10.53451/ijps.1178361

Date of Arrival : 21.09.2022
Date of Acceptance : 09.03.2023

To cite this article:

Özcan, Aksoy Berna. "Defining Environmental Security as a National Security Issue". *International Journal of Politics and Security (IJPS)*, Vol. 5, No. 1, 2023, pp.73-94, DOI: 10.53451/ijps.1178361

All intellectual property rights of this article belong to International Journal of Politics and Security (IJPS). It cannot be republished, reproduced, distributed, sold, or made available to the public for free / paid to use in any way, without any prior written, written communication, copying, or the broadcasting system. Academic citations are outside this rule. The ideas stated in the article belong only to the author(s).

Defining Environmental Security as a National Security Issue

Berna Aksoy Özcan[1]

Abstract

In the 1990s, the relationship between security and the environment has been studied intensively due to globalization. As a result of the environmental problems being included in the national security agenda, the elements of the traditional security understanding remained insufficient in the definition of national security. The uncertainty and non-locality of global environmental threats force the state, which is the highest organizational structure among the actors of international relations, to play an important role in ensuring environmental security and cooperating with other states.
In this study, it will be argued that environmental security is a national security issue. Since environmental threats are different from classical security threats, it will be pointed out that environmental security is at least as important as national security in state governance based on human survival.

Keywords: *Environment, Environmental Security, Climate Change, National Security*

1. Introduction

Since the 1980s, there have been various academic studies have examined the relationship between environmental issues and security. In these studies, three opinions have attracted our attention. The first is the pessimistic opinion Neo-Malthusian approach[2] which emphasizes environmental scarcity and conflict and sees the population as an important cause, and the second is the optimistic approach[3] or skeptical neoliberal approach which argues that science and technology have sufficient potential to solve environmental and climate problems, and the third one is the justice-oriented utilitarian approach[4], which argues that international cooperation will solve global problems. All three approaches point out the state as the main actor in the cause-and-effect relationship of global environmental issues. In recent studies, because of the complexity and regional diversity of environmental issues, researchers have examined this problem within the framework of global security and in terms of international cooperation with an approach centered on human security.[5]

[1] Ass.Prof.Dr., Nişantaşı University, Faculty of Economic and Administrative Science, Department of International Relations, İstanbul/Türkiye, ORCID: 0000-0002-2448-6282, aksoyberna@gmail.com
[2] Donella H. Meadows et al, *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*, (New York, Universe, 1972); Donella H. Meadows et al., *Beyond the Limits*, (Post Mills, Vt., Chelsea Green Publishing, 1992).; Lester Brown, Redefining National Security, *Challenge*, Vol:29, Issue:3, (August 1986), 25-32.
[3] Bjorn Lomborg, The Skeptical Environmentalist: Measuring the Real State of the World, (Cambridge UP, Cambridge, New York, 2001).
[4] Thomas F. Homer-Dixon, Environment, Scarcity, and Violence, (Princeton University Press, Princeton NJ, 1999).
[5] Robert A. Matthew, "Is Climate Change a National Security Issue? "*Issues in Science and Technology*, 27(3), (2011), 49-60.; Hans Günter Brauch, "Introduction: Globalization and Environmental Challenges:

In fact, according to the national security process in environmental issues, the lack of clarity is what the threat is or which threat may affect which destination. It also relates to the resilience, capacity, compliance, and intensity of the threat to confront this type of threat and requires long-term preparation. However, the probability of the threat to environmental security makes it difficult to consider both the state and the individual. This is because traditional national security is focused on existing threats or past threats or the enemy states. However, today's global environmental threats are not similar to the past threats encountered in a certain region or at a certain time. Hence, it is necessary to redefine national security in terms of environmental security threats. In this study, national security will be examined at the state level in terms of the relationship between environmental security and national security.

The purpose of limiting the subject to the state level is that global environmental problems have potentially violent conflicts, and the impact of environmental degradation on the well-being of societies and economies. As a result of the environmental issues being included in the national security agenda, the elements of the traditional security understanding are insufficient to define national security and the need for the state to redefine national security emerges. The fact that global environmental threats are based on probabilities forces the state to play a significant role in ensuring environmental security since it is the highest organizational structure among international societies. In this context, although liberals claim that globalization limits the effective role of states, it is the fact that the active role of states continues due to their institutional structures and their contributions to international cooperation in solving global environmental problems concerning the environment and national security.

In this study, it will be argued that environmental issues should be perceived as national security issues due to changing conditions. Additionally, it will be emphasized that the state should consider national security issues over uncertain and sudden environmental threats and create a new national security perspective. In the first part, a conceptual analysis is made and the concepts of security, national security, and environmental security are explained. In the second part, the overlapping parameters of environmental security issues and national security

Reconceptualizing Security in the 21st Century", Globalization and Environment Challenges: Reconceptualizing Security in the 21st,(Berlin, Springer-Verlag,, 2008); Simon Dalby, Environmental Security and Climate Change, *International Studies*, 2020, doi:10.1093/acrefore/9780190846626.013.168

issues are discussed. In the last part, it is explained that environmental security should be considered a national security issue and that national security should be redefined.

2. The Concept of Security and the Role of State

Security is derived from the Latin word "Securitas", which consists of the combination of the words *se* (*without*) and *cura* (*anxiety*). Securitas means "*Silence and being free from anxiety*". It is Cicero adds the word to the literature in the form of "Securitas".[6] In philosophy, it was first used by Cicero and Lukretius to express a psychological state of mind, such as relief from grief and suffering. Security was used as a political term to refer to "political stability" during the reign of the Roman Emperor Augustus.[7] In the 16th century, Hobbes argued that the state's goal was to ensure individual security and that it provided a cumulative benefit by gathering power on one hand through the social contract. While surrendering their freedom and rights to the state, the individual obtains his security against any danger under the control of the state.[8] This instability and constant shows that security is more important than freedom in an individual sense. Hobbes stated in his Leviathan that the state is the enforcer of the laws of nature as the dominant power and protects social security through laws.[9] Therefore, the concept of security is identical to the concept of state.

Security has also been used along with the word "certainty" in the sense of maintaining the status quo due to conflict in many intra-European wars in the West.[10] 18th-Century Enlightenment Philosophers (Kant, Locke, Montesquieu, Bentham, Rousseau, Hume) argued that the state played an active role in creating political stability and the notion of sovereignty through the general will of individuals. They especially referred to the importance of Hobbes' environment of trust in eliminating the evil in humans through the state.[11] In

[6] M. Frederick J. Arends,,"From Homeros to Hobbes and Beyond – Aspects of 'Security' in the European Tradition" , *Globalization and Environmental Challenges Reconceptualizing Security in the 21st Century*, ed. Hans Günter Brauch, (Berlin, Springer-Verlag,, 2008), 263.
[7] Arends, 269.
[8] Richard H. Ullman, , "Redefining Security". *International Security*, 8(1), (1983), 132.
[9] Thomas Hobbes, Leviathan (Longman Library of Primary Sources in Philosophy). (New York: Routledge., 2008), doi:https://doi.org/10.4324/9781315507613
[10] Hans G. Brauch, Threats Challenges, Vulnerabilities and Risks inEnvironmental and Human Security. (UNU-EHS, Bonn, Germany,2005), 20.
[11]Bentham, Jeremy, Theory of Legislation. London:Trübner and Company, 1871, Googlebooks, https://books .google.je/books?id=F53AxEX-jEUC&printsec=frontcover&hl=tr#v=onepage&q&f=false, (18.05). 2022)

particular, Kant outlined the conditions for peace in his philosophical essay “Perpetual Peace: A Philosophical Sketch”, which resembled the democratic peace theory in some ways. He mentioned the republican states, which he defined to have representative governments, as the establishment of an international federation of the whole states. Kant also argued that the protection of individual rights would be ensured at a universal level as a result of the creation of international citizenship law. This will present a universal peace environment and end the struggle for the supremacy of the states. The categorical imperatives and transnational citizenship law, which Kant cites as the key to achieving Perpetual Peace, are based on the assumption that all states should be governed by the republic to idealize peace. Grotius, a representative of 17th-century philosophy, also defined international security as a more moderate international system. According to him, it's unlike that individual security will be guaranteed by a joint agreement among independent states, and this guarantee will also provide an international legal system that considers the balance of interstate interest and power.[12] Hobbes's realism, Kant's theory of perpetual peace, and Grotius's definition of international law argue that states are the most important institutions that ensure the safety of the individual.

The purpose of the establishment of the state is the happiness of the individual and therefore the happiness of the society in political practice. The voluntary abandonment of individuals' freedom to achieve equality and justice is related to the high level of awareness provided by education. To idealize the state is to educate the individual and to ensure political stability through education. In defining the concept of security, it makes sense to match the definition of security with "political stability" during the reign of the Roman Emperor Augustus.[13] Therefore, safety and security are assured by the citizens of a nation contractually ceding their freedom to the state to be protected from threats and to be liberated.

The traditional meaning of national security is protection from organized violence caused by armed foreigners or enemy states. It is so vital to protect the state’s territorial integrity for the state’s survival.[14] In this respect, international relations have always been evaluated based on relations among states, through the concepts of war and peace. The state, which is the

[12] Taylor Owen, “Challenges and Opportunities for Defining and Measuring Human Security”,. *Disarmament Forum*, 3, (2014), 18.
[13] Brauch, 2005, 7.
[14]Joshua Busby, “Environmental Security”. ed. A. Gheciu and W. C. Wohlworth , *The Oxford Handbook of International Security*, (Oxford University Press , Oxford: London, 2018), 478.

supreme authority aims for a foreign policy based on the national interest to protect its borders, which is a security area in its relations with other states. Due to the wide scope of the security issues as a consequence of globalization, it is impossible to solve the problems at the local, regional, national, or international level through one or more variables, as a result of the catastrophic effect of security-related problems. In fact, today national security is discussed over many variables that are the basic dynamics of the state's survival dilemma in political, economic, and social security fields.[15] The primary security problems of the state arise in these fields. In addition, energy security, commercial security, environmental security, resource security, etc. are the issues that arise as a consequence of globalization and suggest that national security should be discussed more comprehensively.

3. The Concept of Environmental Security

The environment is expressed as "environment" in English and its origin comes from the Latin word "Amet". The meaning of the environment is the “supplier”.[16] In the human-environment relationship, the environment is the resource and the human is the end-user. Therefore, the environment is the supplier of all human needs. The first stage of human survival is supplying the needs, then the second stage is to create a safe space to be protected from dangers and to continue living in safety. This safe area also needs a strong organization and public administration due to social life. The primary reason is to ensure that the need for food becomes sustainable, and the secondary reason for human survival is to carry its existence into the future, including the next generations. Environmental security refers to the natural resources and habitable environment of a country in a way that threatens the economic, political, and social stability of a country.[17] The concept of environmental security was first expressed as an area of international policy in the 1994 report of the World Commission on Environment and Development (WCED).

[15] Ben Purvis, Yong Mao, Darren Robinson, “Three pillars of sustainability: in search of conceptual origins.” *Sustainability Science*, 14, (2019): 683.doi:https://doi.org/10.1007/s11625-018-0627-5, (09.04). 2022).
[16] Latin-English Dictionary, https://latin.english-dictionary.help/english-to-latin-meaning, (05.05). 2022).
[17] Simon Dalby, "Security and Environment Linkages Revisited". ed. H. G. Brauch, et.al., In Globalization and Environmental Challenges, (Berlin: Springer 2008), 182.

At the Rio Earth Summit in 1992, it was reported that the environment acts as a catalyst for the concept of sustainability.[18] The structure of globalization that supports neoliberal economies in the 1990s and the relative removal of the borders of countries against liberal economies have also changed the priorities of national policies. Development, which is an element of competition among states, has become an important part of the sustainability of the environment in these years. This has caused it to be taken into consideration as a political priority because it is impossible to talk about sustainable development without providing environmental security.[19] Therefore, environmental security is directly related to both sustainable development and national security, as the environment affects economic and political conditions.

Environment, as a natural resource, is a production factor of the development goals in capitalist economies. But today, deterioration of the quality of natural resources as a result of industrialization, inequality in taking advantage of natural resources in the regions where resources belong, and inequality in the geographical distribution of resources, forces migrations of resource scarcity. Today, issues such as high politics are among the foreign policy issues of states. Simultaneously, these problems are internal security problems. Because three problems can be both the cause and result of environmental degradation. The solution to these problems is based on long-term planning. The problems include population growth, inequality, and poverty. These factors not only cause conflicts in interstate relations but also cause intergovernmental conflicts with neighboring regions where there is a shortage of access to resources within the country.

4. Redefining National Security

It can be emphasized that the meaning and perception of the concept of national security changes up till now determined by the differentiation, violence, and impact of threats, as well as changes in needs arising from the change in societies. Today, the functions of states are similar to the structure of the societies they belong to. The view of the state as an object of society to the national security problem also differs from state to state in this respect. Society's

[18] UN Conference on Environment and Development (Agenda 21), U.N., https:// sustainabledevelopment.un.org/content/documents/Agenda21.pdf, (10.05).2021)

[19] Simon Dalby, "Environmental Security and Climate Change", International Studies., June 2020, doi:10.1093/acrefore/ 9780190846626.013.168, (28.04).2022)

perception of the state is the sharing of rights and freedoms, and the provision of justice includes the protection of the state in view of national security, taking precautions against threats, and defending the country. Hence, considering that the concept of national security should meet social expectations, both the physical basis and the institutional structure of the state are shaped according to the national interest. The traditional meaning of national security is protected from organized violence by armed external forces. Protecting the territorial integrity of the state is as vital as the survival of the state. Hence, international relations have always been discussed through the concepts of war and peace based on interstate relations. The state, which is the supreme authority, aims at a foreign policy based on the national interest to protect its borders, which is a security area in relations with other states.

National security is a concept defined by many theorists and statemen in many ways. Though all definitions can be categorized based on three dimensions;[20]

a) Security based on conflict or cooperation
b) The unit of analysis (individual, national, or global)
c) The threats with which it is concerned

However, in addition to this explanation, security has faced multilayered issues revealed by globalization. In 1994, the United Nations Development Program (UNDP) proposed a new understanding of security, called "human security", in which people are at the center, rather then a narrow understanding of military and political security.[21] In the general framework of the UN Human Development Reports, the solution point in the fight against environmental issues has been the sustainability of development. However, as a result of the sustainability of development, the aim of economic benefit only for developed countries has revealed inequality.[22] This situation creates a risk of conflict in interstate relations. Therefore, sustainable development in global environmental issues should be evaluated with a cumulative benefit. The concept of development should be urgently evaluated in terms of the sustainability of life and the environment since the raw material resources in the world are rapidly deteriorating and decreasing as a result of mass production. This is because the environment created by

[20] Gareth Porter, "Environmental Security as a National Security Issue", Current History, May 1995, Vol:94, Issue:592, 218-246.
[21] Lorraine Elliott, "Human security/Environmental security", *Contemporary Politics*, 21(1), (2015): 11-24. doi:https://doi.org/10.1080/ 13569775.2014.993905, .(05. 05). 2022)
[22] Martin Ravallion, "Good and Bad Growth: The Human Development Reports". *World Development*, 25(5), (1997), 632

globalization in connection with the economy makes only a limited society in welfare. However, a larger world population in total lives under the threat of hunger, drought, and conflict. Therefore, solving the environmental issues caused by climate change is an ethical issue, not a political one.[23] The most important factor for environmental issues to be of ethical value is that the value of benefit should be in balance in every field (economic, political, social) related to human beings. Today, it is possible to focus on the quality of development, not the quantity of development, and to achieve sustainability by enacting constructive policies and appropriate legislation in the economic, political, and social fields.[24] Considering that the effective role of the state primarily ensures individual and social security, this is possible with the sustainability of life as a priority, but the sustainability of development as well as the minimization of human harm to the environment. Therefore, today, with the effects of globalization, the narrow meaning of the concept of the national security process replaced with broader human security.

In 1986, Lester Brown, in his article "Redefining National Security", stated that there is an effective relationship between climate change and security, and the degree of influence of societies on food security is related to the struggle for existence. He stated that the military forces of the states will be insufficient to deal with the problems caused by climate change and that effective policies will emerge with the revision of the budgets of the states after the joint disarmament decision.[25] The most important factors in perceiving environmental issues as security problems are famine and resource scarcity. The associated reduction of agricultural land and the deterioration or pollution of water resources cause internal conflicts or forced migrations in societies (underdeveloped countries) that adopt the environment as a living space at the lowest level. Forced migration has become a foreign policy problem by affecting the demographics and economy of neighboring countries.[26] For example in the 1970s, Ethiopia's loss of arable land caused food shortages, which increased migration to Somalia and accelerated the Somali invasion of Ethiopia.[27] In case the natural resources of a society move away from

[23] Al Gore, “Gore says climate change "not a political issue". Reuters, October 12, 2007.
[24] Purvis, Mao, and Robinson,” Three pillars of sustainability”, 687.
[25] Lester Brown,”Redefining National Security.” *Challenge*, 29(3), (1986, July-August):29.
[26] Jack A. Goldstone, ., Population and Security: How Demographic Change Can Lead to a Violent Conflict. *Journal of International Affairs*, 56(1), (2002, Fall) :14.
[27] Idean Salehyan, “From Climate Change to Conflict? No Consensus Yet”. *Journal of Peace Research*, 45(3),(2008): 319.

the sustainable level, social conflict may occur as a result of social and economic contraction.[28] Many conflicts about security in the past have been due to resource scarcity or the inequality in the geographical distribution of natural resources and the effort to reach them. Inequality causes conflict in social life. Here, we can talk about the relationship between the source and violence. Because in the consumption of natural resources for the benefit of humans and society, when the supply cannot be provided by the environment or the state, the disruption of the vital order also reveals conflict. Richard Falk's book "This Endangered Planet", written in 1971, mentioned the violence factor in the environment-security relationship for the first time Falk emphasized that the environment can be a cause of conflict by talking about the defense of the powers that have a large share of the resources to protect the resources against the weaker side that has a smaller share.[29] The scarcity of resources in the world, and the geographically unequal distribution of resources cause powerful states to strategically intervene in these resources and control their resources. For example, in Darfur Problem, China, as a developing country, conducts an effective and strategic policy on African countries, as it meets its increasing energy needs from African countries (Sudan, Angola).[30] The more vital the demand for scarce resources is for the country, the better the location of the resource should be controlled.

In 1994, Robert Kaplan spoke of a dark future in his book titled "The Coming Anarchy", where environmental issues will cause national security problems.[31] Thomas Home-Dixon, in his book titled "Environment, famine and violence" published in 1999, claimed that we are on the verge of a period that will increase military conflict with the effect of increasing environmental change.[32] Kaplan and Dixon emphasized the environmental stress caused by climate change on national security and that preventing this change and ensuring the safety of the environment is essential for national security. If the demand for resources remains the same, the existence of problems such as the decrease in the productivity of agricultural lands, the decrease in agricultural and forest lands, and water scarcity will cause economic contractions in some countries. For this reason, three elements in environmental security will increase the

[28] Richard A. Matthew, " Is Climate Change a National Security Issue?" *Issues in Science and Technology*, 27(3), (2011 Spring): 52.
[29] Don C. Piper, "This Endangered Planet: Prospects and Proposals for Human Survival By Richard A. Falk". *American Political Sicence Review*, 69(1),(March 1975): 370-372.
[30]Jeffrey Mazo, Chapter Three: "Darfur: The First Modern Climate-Change Conflict", *Adelphi Papers*, 49(409), (2009):79, doi:10.1080/19445571003755538
[31] Robert Kaplan, The Coming Anarchy. *Atlantic Monthly*, 273(2), (1994): 57-58.
[32] Homer-Dixon, (1999): 59.

state's security concerns. The first is the decrease or deterioration of the resources of the environment, the second is rapid population growth, and the third is poverty. Hunger, migration, economic crisis, and political tension are the result of deterioration in underlying environmental factors.[33] Therefore, a country will need to keep the productivity and accumulation value of its resources (*population amount and national income*) constant to save itself from being dragged into this environment.

4.1. Overlapping Environmental Security Issues to the National Security Issues

The state should be able to supply resources affordable for the benefit of society or to provide equality among the various segments of society in terms of using natural resources for them. Therefore, resource scarcity caused by environmental degradation is a problem of both internal and external security. The international society and cross-border economic, social, and political problems, epidemics, population growth, migrant and refugee problems, environmental pollution, and poverty, which have emerged with globalization, are threats to the countries. The ability of countries to protect both their borders and populations in terms of efficiency and improvement of natural resources has become the parameters of national security policy today.

At this point, the national security approach based on social security would be the right approach to make the territorial defense sustainable in the balance of human nature by considering the environment as a value.[34] Because the continuity of the supply environment provided by the environment to humans is possible if the environment is sustainable as an ethical value.[35] The role of states is to both benefit the people of the society they belong to and create a cumulative effect by considering equal and fair sharing. In addition, the state should find solutions to environmental threats within the framework of cooperation, with an approach that adopts sharing the solution resources at the regional and international levels with the international society.[36] However, the solution to the problems arising from environmental degradation causes the states to produce national policies and limited solutions instead of humanitarian policies since these are both long-term and require a large financial resource.

[33] Myers, "Linking Environment and Security." Bulletin on the Atomic Scientis (1987): 48.
[34] Peter Uvin, "A Field of Overlapps and Interactions", Security Dialogue, 35(3), (2004): 352-353.
[35] J. Baird Calliott, "Non-Anthropocentric Value Theory and Environmental Ethics", American Philosophical Quarterly, 21(4), (1984): 300.
[36] Anthony Giddens. The Politics of Climate Change. Polity Press, 2011. 72.

The state is responsible for the sustainability of the supply of natural resources and the stability of the environment for society's survival. Ecosystem stability is a significant issue that provides a regular environment in which species can survive. However, a new concept named "*environmental stability*" is a gateway to political, economic, and social stabilities and also sustainabilities. Environmental stability will be possible in an environment of peace and cooperation. In this regard, Dalby[37] argues that interstate cooperation is inevitable on a thin line between stability and instability since the environmental change has dimensions that will cause both structural and direct violence. However, structural and direct violence can cause environmental insecurity.

If the environmental stability of a country deteriorates, the balance in the economy deteriorates, the social life becomes disordered and this deteriorates the socio-political structure.[38] For example, the Darfur Problem[39] between Arab Sudanese and Black Sudanese in the west of Sudan in 2013, over the threats mostly caused by climate change. The factors such as ethnicity, oil, population growth, uncontrolled armament, and terrorism, totally are caused the conflict, but the researchers or politicians called the case the first case of "*conflict caused*

[37] Dalby, "Environmental Security and Peace ", Journal of Human Security, 3 (1), (2007),4-16.
[38] Myers, 1987, 48.
[39] Sudan's Darfur region is an ethnically populated area in western Sudan where Muslim Arabs and predominantly Black Muslims live. The Darfur problem is an example based on the existence of the relationship between climate change and conflict. The problem is complex and on the axis of security-climate change is the first case study of this century. (BBC. War in Sudan's Darfur 'is over'. August 27, 2009. http://news.bbc.co.uk /2/hi/africa/8224424.stm The problem has many variables such as ethnicity, climate change-related factors (drought, decreased cultivated areas, population growth, water scarcity, lack of equal and fair management), and the impact of valuable natural resource assets such as oil on welfare sharing in domestic government. Sudan is an ethnic mosaic country of African and Arab descent, where 134 ethnic languages are spoken, with Muslim Arabs in the north and Christian Blacks in the south. Oil from South Sudan is exported from the port in North Sudan to countries such as Japan, the United Kingdom, and the United States, especially China. Khartoum's government in the north, where Muslim Arabs live heavily and the government is from this ethnic group, manages most of the oil revenues. Darfur borders Chad, where groups of ethnically populated Muslim Black residents in the west of the country are engaged in agriculture and livestock. Therefore, Darfur is a densely populated area of anti-government militias in Chad and insurgent groups made up of Black Muslims who rebel against the Sudanese government. The conflict in Darfur, between livestock farmers and farmers engaged in agriculture, water resources and cultivated land, grasslands, and rainfall in the region decreased by 40% due to climate change in the past 25-30 years. Khartoum's government-supported Arab militias in the region and the conflict became ethnic cleansing of Black Muslims. According to the U.N. Report in 2007, it is estimated that two million people have been displaced in the region between 200,000 and 500,000 people have died in the conflict. As John Ashton, the UK Special Representative on Climate Change, said in 2007: "The link of climate change to security is greater than we thought 2-3 years ago. We see the effects of this situation in Darfur." Although the intensity of the conflict in Darfur decreased in 2010 and reconciliation was reached between the Khartoum government and the Black tribes, there are still conflicts between the tribes at the local level due to the sharing of water and cultivated areas. (Gaafar K. Ahmed," Chinese Stance on the Darfur Conflict", September 2010, South African Institute of International Affairs, https://media.africaportal.org/ documents/SAIIA_Occasional_ Paper_67.pdf , (05.02). 2022).

by climate change" in the domestic policy dimension of the world.[40] According to this event, it can be said that there are many important links between environmental insecurity and violence, as also conflict and poverty. Therefore, it is necessary to determine the ways to ensure environmental security by analyzing the factors caused by environmental insecurity.

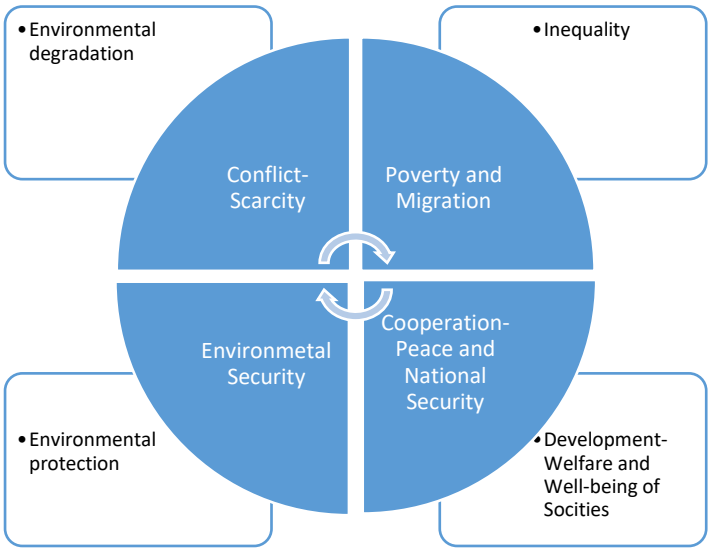


Figure 1. The Relations between Security and Insecurity Dimensions

In 1992, The Rio Declaration on Environment and Development in Article 25 (Nations 1992) emphasized that "Peace, development and environmental protection are interdependent and indivisible".[41]

Nevertheless, this article referred to the gateway to achieving environmental security to achieve peace. Additionally, it points out that environmental security is a prerequisite for national security. In contrast, achieving environmental security for the whole of the world is a complex issue by the variabilities of threats. The main difference between environmental threats and national security threats perceived by traditional national security theories is; It is the variability in terms of space and time and the uncertainty of the severity of the threat. For example, the green energy exported by the Kingdom of Bhutan at the foot of the Himalayas decreases global warming locally. However, the danger of the melting of the Himalayan glaciers continues due to the carbon gas emissions of other countries due to global warming, and the country is faced with a flood disaster.[42] The kingdom of Bhutan reflects on the

[40] Mazo, 2009, 78.
[41] UN, Rio Declaration on Environment and Development, Conference on Environment and Development (Agenda 21) (1992)
[42] Ben Orlove, "Two Days in the Life of a River:Glacier Floods in Bhutan", Anthropologica, 58(2), (2017): 229.

aftermath of the floods it faced between 1994 and 2015. Because only 2700 Himalayan glaciers are on the territory of this country and Bhutan can't solve this problem without the support of international cooperation.[43] In the early 2000s, it is understood that it is impossible to solve the environmental issues caused by global warming with short-term policies. Since these problems spread over a long-term process, interstate cooperation is inevitable both in terms of financial and resource management.[44] A common budget or a supranational authority has not been established between states on this issue. The developed countries are to maintain their economic welfare in terms of GDP is that they still giving priority to the development goal between growth targets and carbon emission reduction.[45] Countries such as the United States, Australia, and Canada gave up their participation in the 2005 Kyoto Protocol, which is one of the important agreements on this subject and was considered to prevent global warming in the early 2000s. It has shown that these countries, which have a significant share in global warming due to carbon emissions, are far from clear and long-term growth targets. It is seen that the avoidance of these countries from joint ventures creates hopelessness for underdeveloped countries and it is a political attitude devoid of sincerity in terms of international cooperation.

The attitude of states toward environmental security threats, as we mentioned before, determines the structure and management of societies and the value-threat relationship of states.[46] Therefore, it is seen that states are hesitant to take precautions for the future if there is no urgency in terms of security or if they do not pose a regional threat due to the possibility of environmental threats. The inability to determine the severity and time of the threat or to predict its geographical limit, as well as the lack of sufficient knowledge and equipment, make international cooperation difficult. In addition, in emergencies where intervention is difficult, factors such as the low level of impact of the threat of some countries or the possibility of the threat are also factors that make international cooperation difficult.

Today, national security is regarded to be analyzed from a new perspective, from national sovereignty to identity, equality, justice, and sustainability of natural life and development, considering the environmental threats arising from environmental degradation.

[43] Thsering Tobgay, “This country isn't just carbon neutral-it is carbon negative”. Youtube-Ted Talks, 2016, (12.11). 2021).https://www.youtube.com/watch?v=7Lc_dlVrg5M&t=355s
[44] Giddens, The Nation-State and Violence. (California, USA: University of California Press, 1992)
[45] Millennium Development Goals and Beyond 2015, ”News on Millennium Development Goals”,. https://www.un.org/millenniumgoals/,(20.05). 2021)
[46] Michael E. Smith, International Security: Politics, Policy, Prospects. (Palgrave Macmillan, London, U.K., 2010)

Today, the threats are no longer from other countries, terrorist groups, and other non-state organizations, but from uncontrolled migration, poverty, epidemics, environmental pollution, food scarcity, water scarcity, etc. It has been included in the security discussions from the problems in which the sustainability of the ecosystem becomes difficult and the human-environment balance deteriorates.[47]

3.2 A New Approach to National Security in Terms of Environmental Security

It has been argued that all environmental risks that threaten well-being within the definition of national security would drain the terms of its meaning before the 1990s. However, the traditional definition of national security expanded both in national and international security issues in also cross-border economic priorities caused by global issues.[48] Environmental security is not limited to national security but consists of political, social, and economic issues observed by societies and nations in many ways. However, there is an overlapping process in both national and environmental security on the well-being of societies and economies.

In 1986, the Norwegian Ministry of Defense conducted a workshop with the participation of the Stockholm International Peace Research Institute, Oslo Peace Research Institute, Frankfurt Peace, and the Conflict Research Foundation. In that workshop, the environment-security relationship was examined with multiple factors, and as a consequence, five factors that could be the source of conflict and endanger security were defined.[49] Those are environment-society relationships, cultural infrastructure, economic situation, political system, and the capability of natural resources. The lack of natural resources determines the cause of the conflict as well as the level and duration of the conflict. Two of the five important factors here are related to the level of social stabilities (the effect of the environment on education, culture, religious elements, tradition, and custom), and the other three are related to political stability and economic stability depending on the state governance.

Environmental security addresses two distinct issues; the impact of environmental degradation has a potentially violent conflict and it affects the well-being of societies and the welfare of economies. Nevertheless, environmental degradation is a security issue that is a cause of violent conflict and appears to be consistent with the traditional definition of a security

[47] Ursula Oswald Spring, Earth at Risk in 21th Century. (Cham, Springer, Switzerland, 2020).
[48] Porter ,1995, 218.
[49] Matthew, 2011, 54.

issue.[50] Although it is necessary for global security that non-state actors are involved in cooperation on environmental issues that threaten environmental security, the main policymakers are states. The organizational abilities of the states, institutional identity, maintaining social justice, and sustaining economic efficiency and welfare by using their resources, primarily pointing out the state as the solution center for the problems arising from climate change.

The environmental security components are also identified as the sustainability of human needs (*water, food, shelter, etc.).* These are serious issues that can ultimately lead to disasters, regional tensions, and violence and also affect both human and social life fields. From one perspective, sustainability is possible not only with the policies determined in way of global development goals but also with the sustainability of the environment and environmental policy. Sustainability must be based primarily on common environmental and social policies. Hence, sustainable life has focused on human security and the sustainability of social life in recent discussions.[51] Therefore, while global environmental issues continue, the state should implement human-centered policies with a new management understanding of sustainability, and maintain social welfare through ethical values and perception of sustainable security rather than power and hegemony.[52]

On September 6-8, 2000, the UN Millennium Declaration (MDGs) was signed by 189 countries, including Turkey, to ensure lasting peace worldwide. This declaration is based on the aim of "transforming globalization into a positive outcome for all humanity", which is the most fundamental global issue.[53] To reduce the vulnerability of states against the threats caused by climate change, multilateral security cooperation on environmental issues is vital to regional security, stability, and development.[54] To achieve these goals, states have adopted a common future goal faced with a common threat to the framework of international partnership.[55] However, the diversity of environmental issues, the level of development, social structure, and regional differences of states cannot keep up with the problems caused by climate change. A

[50] Porter, 1995, 218.
[51] Dalby, 2008, 180.
[52] Giddens, 2011, 72.
[53] UN, World Leaders Adopt "United Nations Millennium Declaration at Conclusion of Extraordinary Three Day Summit", https://www.un.org/press/en/2000/20000908.ga9758.doc.html, (22.05). 2021).
[54] MillenniumDevelopment Goals and Beyond 2015, "News on Millennium Development Goals", : https://www.un.org /millenniumgoals/, (20.05).2021)
[55] Ban Ki-Moon, "Millennium Development Goals Report 2015".. https://www.un.org/ millenniumgoals/2015 _MDG_Report/pdf/MDG%202015%20Summary%20web_english .pdf, (20.04).2021)

powerful state can decide how to be protected from environmental threats in terms of national security and what kind of measures should be taken with resources. However, a state has not the capacity yet alone to manage all security issues effectively and can not manage all the possible environmental issues equally.[56] Therefore, while states take place in the security policies of global environmental issues as a threat, using the resources that will serve the purpose in terms of partnership and cooperation efficiently, primarily at local, regional, and global levels will contribute to the solution of global environmental issues. However, since each country or region will be affected differently in terms of security threats caused by climate change, perceiving these problems from a security perspective limits the solution of environmental issues at the national level by many states.

Among the other states the USA has been regularly reporting climate change as an environmental security issue since 1991 as a national security threat. In the report named "National Security Strategy" in 1991, a "national security strategy" analysis of environmental degradation was made on various criteria.[57] In a report dated 1998, increasing population, new infectious diseases, and uncontrollable refugee migration were identified as significant environmental issues for US National Security.

Environmental security includes protecting human populations, wildlife, biodiversity, natural resources, and ecosystem from curbing harmful practices that contribute to environmental degradation.[58] With the government's increasing role as a security provider, the U.S. military will most likely support an expanding role to protect national interests against threats to environmental security. After 2007, on climate change and national security, the United States has been preparing for both direct threats to the homeland and indirect threats to the country's overseas interests. In particular, it has included climate change as an environmental security threat in its strategic planning. In these reports, the United States plans its strategies, from military preparation to humanitarian aid, with threats in both homeland and overseas.[59] In other words, the U.S. government has attempted to securitize climate change to

[56] W. Douglas Smith, "The Connection Between Environment, Conflict and Security",. MAHB: May 1, 2018, https://mahb.stanford.edu/blog /environment-conflict-security/, (03.06. 2021)
[57] Paul Benjamin, "Green Wars: Making Environmental Degradation A National Security Issue Puts Peace and Security at Risk" Policy Analysis, 369, (April, 2000):15.
[58] Katsos, "The U.S. Government's Approach to Environmental Security", JPQ, 2018, 132
[59] Busby, "Sustainable Security: Rethinking American National Security Strategy",Suri, Jeremi, and Benjamin Valentino (eds), Sustainable Security: Rethinking American National Security Strategy (New York, 2016; online edn, Oxford Academic,2016)

figure out how to get U.S. decision-makers to care about this environmental issue. Two points refer to environmental security as national security for the U.S. One of them is uncertain threats on U.S. territories and the other is also for the U.S. alliances which the U.S. settled military and economic instruments abroad.[60] Furthermore, environmental security is not only national security issue but also for developed countries international security issue. In a 1999 report, on the instability and possibility of conflict caused by climate change, then-president Bill Clinton mentioned that international cooperation is necessary for the efficient use of resources and preventing instability. However, Vice President Al Gore argued that the social impacts of climate change would be greater and launched an application called "Greening the Government" dated April 21, 2000.[61] Gore listed the measures that the federal government should take against the risks it will face on a provincial basis.

This situation requires interstate cooperation. However, this cooperation should be built on common benefits, and necessary practices should be developed in line with the principle of common ownership. Therefore, some states are more fragile in terms of economy or administrative structure, and some of them are more flexible in terms of meeting the problems. Here, we can mention two possibilities. First, a country weakened by environmental issues resulting from climate change may be attacked by neighboring countries.[62] The second is that states enter armed conflicts to find new resources as a result of demand exceeding supply. Both possibilities will lead to the deterioration and a reduction of resources. Thus, states can re-nationalize the management of resources through a policy of protectionism or make conflict an option due to the lack of resources.

As a problem-solving way to sustain national security in peace and stability if most of the states are taking some precautions by struggling with the environmental threats, the states could manage the threats with their resources (*population, technological and territorial opportunities*). However, the weakened states would be in deep trouble from these environmental issues so the international demand for sustainable development would turn into sustainable security. The background of sustainable development indicates the natural resources

[60] Carolyn Pumphrey, Global Climate Change: National Security Implications, U.S. Army Report, 2008, 398.
[61] Al Gore, "Greening the Government- A Guide to Implementing the Executive Order" White House Task Force for Recycling, https://p2infohouse.org/ref/43/42876.pdf, (15.05). 2022).
[62] Giddens, 2011, 80.

that are affected by environmental degradation; however, in the future, the security of natural resources or the environment will be substantially important for the survival of the state.

5. Conclusion

Environmental issues arising due to climate change are variable and dynamic for states. Struggling with these problems, the military or economic power of the state or both solely may not be sufficient. The population, which states mentioned as a factor of power policy during and before the Cold War, now in contrast, is at the forefront of the population's quality due to the level of education, level of knowledge, and awareness instead of its residual size. Because in the future, the quality of the population and population growth will be important factors that the state should control to ensure environmental security. Resource scarcity will lead states to seek new resources with the increase in demand. If there is a lack of resources in the country, or the population growth rate is increased and technological opportunities are limited, it will not be able to take part in the sharing of scarce resources as a vulnerable state. If the state is both in balance with its population and economy, it can reach scarce resources geographically close or with its technological, economic, and military opportunities. If the resources are in their territory they will be able to dominate the resource and avoid resource sharing. In this case, a conflict may arise between the countries due to national security concerns. Nevertheless, the two cases indicate security concerns for the states. The first one is insecurity that occurs as a result of the deterioration of the environment driving conflict and insecurity, and the second one is the insecurity that arises as a result of the conflict destroying the natural resources and public services provided by the environment. Both cases indicate that the link between conflict and the environment is related to security.

It is significant for states to avoid conflict for the sustainability of the environment. It is vital in terms of social and economic welfare and the sustainability of societies. Therefore, the concept of sustainability refers to international peace and cooperation. Hence, it is difficult for states to cope with scarce resources and cross-border issues alone, regardless of their level of development or resilience.

The long-term process of global environmental issues and the impact of threats are unpredictable, and the cross-border effects of the problems are complicated. Within the framework of classical security approaches, the most important difference between global environmental threats and other security threats is the unpredictable way of threats. These

threats emerge with the reaction of nature, so the uncertainty of the threats will be another factor that causes solicitude concern for the states. Environmental issues, which are increasingly confronting international society, cause not only economic but also political and social uncertainties if they are not resolved. For example; while population growth was seen as an important environmental problem economically at the state level in the 1990s, the famine and scarcity experienced at the regional level in the 2000s caused migration movements in the Sub-Saharan region. So the migration problem affected the surrounding countries and confronted the states as an important issue at the international level. Migration is a significant issue not only will be solved by the states but also should be solved in cooperation.

Today, security policies should be evaluated through a sustainable national security approach. Because the relationship between power and hegemony is being reshaped by the existence of variable and uncertain threats in international relations. After the 1990s, the significant issue faced by states is global environmental issues. The policy of state security should certainly be supported by the necessary efforts in the society-environment relationship. Hence, it is vital for adopting a new understanding of security that is related to political, economic, and social threats that will cause vulnerability regarding environmental issues. Because the social vulnerability of the state causes economic vulnerability and thus political vulnerability. For this reason, any application that will support the state's existence will increase its resilience of the state. For this, a state administration that will support the struggle for human survival will display a more resilient and flexible structure on global environmental issues.

As a result, states are the most important institutional structures in the struggle for the survival of communities in the face of global environmental issues. However, there is a need for international efforts to support international cooperation in the fight against problems such as hunger, famine, resource scarcity, population growth, and epidemics, especially migration. Therefore, for this kind of cooperation, very well-organized state structures should support it. In addition, this cooperation will enable developed countries to maintain their resilient structures and create cumulative benefits and will prevent conflicts on time and in place by activating cooperation at the regional level.

Bibliography

Arends, M.J. Frederick," From Homeros to Hobbes and Beyond – Aspects of 'Security' in the European Tradition", Globalization and Environmental Challenges Reconceptualizing Security in the 21st Century, ed. Hans Günter Brauch, (Berlin, Springer-Verlag,, 2008), 263-272.

BBC. *War in Sudan's Darfur 'is over'.* August 27, 2009. http://news.bbc.co.uk/2/hi/africa/8224424.stm.

Benjamin, Paul. "Green Wars: Making Environmental Degradation A National Security Issue Puts Peace and Security at Risk." *Policy Analysis* 369 (April 2000): 1-25.

Bentham, Jeremy. Theory of Legislation. London: Trübner and Company, 1871, Googlebooks, https://books .google.je/books?id=F53AxEX-jEUC&printsec=frontcover&hl=tr#v=onepage &q&f=false, (18.05). 2022)

Brauch, Hans Günter. "From a Security Towards A Survival Dilemma." In *Globalisation and Environmental Challenges*, by Hans Günter Brauch, Ursula Oswald Spring, Czeslaw Mesjasz, John Grin and Pal Dunay, 537-552. New York: Springer, 2007.

Brauch Hans Günter. "Introduction: Globalization and Environmental Challenges: Reconceptualizing Security in the 21st Century", Globalization and Environment Challenges: Reconceptualizing Security in the 21st, Berlin, Springer-Verlag, 2008.

Brauch Hans Günter. *Threats Challenges, Vulnerabilities and Risks in Environmental and Human Security.* Bonn, Germany: UNU-EHS, 2005.

Brown, Lester. "Redefining National Security." *Challenge*, Vol:29, Issue:3, July-August 1986, 25-32

Busby, Joshua. "Environmental Security." In *The Oxford Handbook of International Security*, ed. Alexandra Gheciu and William C. Wohlworth, 471-487. Oxford, London: Oxford University Press, 2018.

Busby, Joshua William. "Climate Change and U.S. National Security: Sustaining Security Amidst Unsustainability." Chap. 7 in *Sustainable Security: Rethinking American National Security Strategy*, by Jeremy Suri and Benjamin Valentino, 196-230. Oxford University Press, 2016.

Callicott, J. Baird. "Non-Anthropocentric Value Theory and Environmental Ethics." *American Philosophical Quarterly*, 1984: 299-308.

Dalby, Simon. "Security and Environment Linkages Revisited"." In *Globalization and Environmental Challenges*, by Hans Günter Brauch, John Grin, Czeslaw Mesjasz, Pal Dunay and Navnita Chadha Behera, Springer, 2008.163-172.

Dalby, Simon. "Environmental Security and Climate Change." *International Studies* (Oxford Press), 2020. , doi:10.1093/acrefore/9780190846626.013.168, (accessed April 28, 2022)

Dalby, Simon. "Environmental Security and Peace." *Journal of Human Security. Vol:* 3, no. 1 (2007): 4-16.

Elliott, Lorraine. "human security/environmental security." *Contemporary Politics* (Routledge) 21, no. 1 (2015): 11-24. doi:https://doi.org/10.1080/ 13569775.2014.993905, .(accessed May 5, 2022)

Falk, Richard A. *This Endangered Planet: Prospects and Proposals for Human Survival.* NY, USA: Random House, 1972.

Giddens, Anthony. *The Nation-State and Violence.* California, USA: the University of California Press, 1992.

Giddens Anthony. T*he Politics of Climate Change.* Polity Press, 2011.

Goldstone, Jack A. "Population and Security: How Demographic Change Can Lead to a Violent Conflict." *Journal of International Affairs* (Columbia University) 56, no. 1 (Fall 2002): 3-21.

Gore, Al. "Gore says climate change "not a political issue"." *Reuters*, October 2007.

Gore Al. "Greening the Government- A Guide to Implementing the Executive Order" White House Task Force for Recycling, https://p2infohouse.org/ref/43/42876.pdf, (accessed May 15, 2022).

Thomas Hobbes, Leviathan (Longman Library of Primary Sources in Philosophy). (New York: Routledge., 2008), doi:https://doi.org/10.4324/9781315507613

Homer-Dixon, Thomas. *Environment Scarcity and Violence.* Princeton New Jersey: Princeton University Press, 1999.

Homer-Dixon, Thomas. "Environmental Scarcities and Violent Conflict: Evidence from Cases." *International Security* 19, no. 1 (1994): 5-40.

"Initiatives-Al Gore." *Clinton White House Archives.* 2001. https://clintonwhitehouse3.archives.gov/WH/EOP/OVP/initiatives_bottom.html (accessed May 15, 2021).

Kagan, Robert. *The Return of History and the End of Dreams.* Londra, U.K.: Atlantic, 2008.

Kaplan, Robert. "The Coming Anarchy." *Atlantic Monthly* 273, no. 2 (1994): 57-58.

Katsos, George E. *The U.S. Government's Approach to Environmental Security.* Vol. 89. Prod. JFQ. 2018.

Ki-Moon, Ban. *Millennium Development Goals Report 2015.* 2015. https://www.un.org/millennium goals/2015_MDG_Report/pdf/MDG%202015%20Summary%20web_english.pdf.

Latin-English Dictionary. 11 10, 2020. https://latin.english-dictionary.help/english-to-latin-meaning-environment.

Lomborg, Bjorn. *The Skeptical Environmentalist: Measuring the Real State of the World.* New York: Cambridge UP, 2001.

Matthew, Richard A. "Is Climate Change a National Security Issue?" *Issues in Science and Technology* 27, no. 3 (Spring 2011): 49-60.

Mazo, Jeffrey. "Chapter Three: Darfur: The First Modern Climate-Change Conflict." *Adelphi Papers* (The Adelphi Papers) 49, no. 409 (2009): 73-86. doi:10.1080/19445571003755538

Meadows, Donella H., Dennis L. Meadows, Jorgen Randers, and William W. Behrens III. *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind.* New York: Universe, 1972.

Meadows Donella H., Dennis L. Meadows, Jorgen Randers, and William W. Behrens III.et al., Beyond the Limits, (Post Mills, Vt., Chelsea Green Publishing, 1992

MYers, Norman. "Linking Environment and Security." *Bulletin on the Atomic Scientist*, 1987: 46-48.

Orlove, Ben. "Two Days in the Life of a River: Glacier Floods in Bhutan." *Anthropologica*, Vol:58, no. 2 (2017): 227-242.

Owen, Taylor. "Challenges and Opportunities for Defining and Measuring Human Security." *Disarmament Forum* 3 (2014): 15-24.

Piper, Don C. "This Endangered Planet: Prospects and Proposals for Human Survival." *American Political Science Review* 69, no. 1 (March 1975): 370-372.

Porter, Gareth. "Environmental Security as a National Security Issue." *Current History, Vol:* 94, no. 592 (1995): 218-246.

Pumphrey, Carolyn. *Global Climate Change: National Security Implications.* Strategic Studies Institute, U.S. Army, 2008, 1-454.

Purvis, Ben, Yong Mao, and Daren Robinson. "Three pillars of sustainability: in search of conceptual origins." *Sustainability Science* 14 (2019): 681-695. doi:https://doi.org/10.1007/s11625-018-0627-5, (accessed April 9, 2022)

Ravallion, Martin. "Good and Bad Growth: The Human Development Reports." *World Development* (Elsevier) 25, no. 5 (1997): 631-638.

Salehyan, Idean. "From Climate Change to Conflict? No Consensus Yet." *Journal of Peace Research* 45, no. 3 (2008): 315-326.

Smith, Michael E. *International Security: Politics, Policy, Prospects.* London: Palgrave Macmillan, 2010.

Smith, W. Douglas. "The Connection Between Environment, Conflict, and Security." *MAHB.* May 1, 2018. https://mahb.stanford.edu/blog/environment-conflict-security/ (accessed June 3, 2021).

Spring, Ursula Oswald. *Earth at Risk in the 21st Century.* Prod. Springer. Cham: Springer, 2020.

"Sudan National Drought Plan." *UN Convention for Combat Desertification.* November 21, 2018. https://knowledge.unccd.int/sites/default/files/country_profile_documents/1%2520FINAL_NDP_Sudan.pdf.

Tobgay, Tshering. *This country isn't just carbon neutral-it is carbon negative.* 2016. https://www .youtube.com/watch?v=7Lc_dlVrg5M&t=355s.

Ullman, Richard H. "Redefining Security." *International Security* (MIT Press) Vol:8, Issue: 1 (1983): 129-153.

UN. Rio Declaration on Environment and Development, *Conference on Environment and Development (Agenda 21).* Rio: UN, 1992. https://sustainabledevelopment.un. org/content/documents/Agenda21.pdf, (accessed May 5, 2021)

U.N. *World Leaders Adopt "United Nations Millennium Declaration at Conclusion of Extraordinary Three Day Summit.* September 8, 2000. https://www.un.org/press/en/2000/20000908 .ga9758.doc.html (accessed May 22, 2021).

U.N. "The Rio Declaration on Environment and Development." The United Nations Conference on Environment and Development, Rio, 1992.

UND. "News on *Millennium Development Goals", Millennium Development Goals and Beyond* 2015. https://www.un.org/ millenniumgoals/ (accessed May 20, 2021).

Uvin, Peter. "A Field of Overlapps and Interactions." *Security Dialogue* 35, no. 3 (2004).352-353.