



Capitalism and Ecological Disasters: An Eco-Socialist Reading of Caryl Churchill's *Escaped Alone*

Kapitalizm ve Ekolojik Felaketler: Caryl Churchill'in
Escaped Alone Adlı Oyununun Ekososyalist Okuması

Yalçın Erden*
Abdul Serdar Öztürk**

Abstract

This study aims to analyse *Escaped Alone* by Caryl Churchill from an eco-socialist perspective. The devastating consequences of the impairment of ecological balance are considerably felt in the contemporary world, and several literary works are not indifferent to current ecological predicaments that constitute an existential threat to humanity. *Escaped Alone* is no exception, and the play presents potential ecological and social risks awaiting humanity unless eco-indifferent capitalist practices are halted. Accordingly, this essay examines the eco-catastrophic incidents such as

Geliş tarihi (Received): 11-11-2023 Kabul tarihi (Accepted): 10-05-2024

* Lecturer, Ph.D. Gendarmerie and Coast Guard Academy School of Foreign Languages. Ankara-Türkiye/ Öğr. Gör Dr. Jandarma ve Sahil Güvenlik Akademisi Yabancı Diller Yüksekokulu. YALCIN. ERDEN@jsga.edu.tr. ORCID ID: 0000-0002-6790-6486

** Prof. Dr. Karabük University Faculty of Letters Department of Western Languages and Literatures. Karabük-Türkiye/ Prof. Dr. Karabük Üniversitesi Edebiyat Fakültesi Batı Dilleri ve Edebiyatları Bölümü. asozturk@karabuk.edu.tr. ORCID ID: 0000-0002-7780-7107

rockfalls, aridity, chemical leaks, pandemics, and unstoppable fires that ravage both humans and nonhumans in *Escaped Alone* to discuss the role of the capitalist system in ecological crises. After demonstrating the basic tenets of eco-socialism by referring to noteworthy critics, the study displays how capitalism exacerbates social inequality and devastates planetary resources by scrutinising the systematic overexploitation of nature, the unlimited desire for profit, eco-indifferent mass production and consumption processes, and humans' lost bond with nature in the play. It seeks to argue that ecological crises are not independent of socioeconomic problems triggered by the capitalist system. Most importantly, it highlights that the eco-catastrophic narration prevalent in the play not only enables the playwright to demonstrate the source of ecological problems but also prompts the eco-indifferent audience to gain eco-consciousness.

Keywords: *eco-socialism, ecological disasters, Caryl Churchill, dystopia*

Öz

Bu çalışma Caryl Churchill'in *Escaped Alone* adlı oyununu eko-sosyalist bir perspektiften incelemeyi amaçlamaktadır. Günümüz dünyasında ekolojik dengenin bozulmasının yıkıcı sonuçları ciddi manada hissedilmekte ve insanlık için varoluşsal bir tehdit oluşturan çeşitli ekolojik çıkmazlara birçok edebi eser yer vermektedir. *Escaped Alone* isimli tiyatro eseri de bir istisna değildir. Bu eser ekolojiyi dikkate almayan kapitalist uygulamalar durdurulmadığı ve ekolojik bilince sahip olunmadığı takdir-de insanlığı bekleyen olası ekolojik ve sosyal riskleri gözler önüne sermektedir. Bu bağlamda bu çalışma kapitalizmin ekolojik krizlerin oluşmasındaki rolünü tartışmak adına kayaların kayması, kuraklık, kimyasal sızıntı, pandemi ve söndürülemeyen yangınlar gibi hem insanları hem de insandıışı varlıkları tahrip eden ekolojik felaketleri incelemektedir. Bu makale eko-sosyalizmin temel özelliklerini ifade ettikten sonra tiyatro eserindeki doğal kaynakların sistematik sömürsünü, sınırları olmayan kâr ar-zusunu, ekolojiyi dikkate almayan kitlesel üretim ve tüketim süreçlerini ve insanların kapitalist sistemle birlikte yitirdikleri doğayla olan bağlarını mercek altına alarak ka-pitalizmin sosyal eşitsizliği nasıl daha da derinleştirdiğini ve gezegene ait kaynakları harap ettiğini ortaya koymaktadır. Bu çalışma ekolojik krizlerin kapitalist sistem ta-rafından tetiklenen sosyoekonomik problemlerden bağımsız olmadığını vurgulamaya çalışmaktadır. En önemlisi de bu çalışma tiyatro eserindeki ekolojik felaketlerle dolu anlatımın ekolojik sorunların kaynağını ortaya koymaya ve çevre bilinci olmayan se-yircinin bilinçlenmesine önemli bir katkı sunduğunu vurgulamaktadır.

Anahtar sözcükler: *eko-sosyalizm, ekolojik felaketler, Caryl Churchill, distopya*

Introduction

The earth is confronting a major and fatal disease. What has not been experienced for thousands of years in the earth's ecological system seems to have peaked within this century. Most importantly, most of these abnormal changes are triggered by humanity, and the ecological balance of the planet appears to be disrupted irreversibly due to the irresponsible deeds of humanity. As Paul J. Crutzen (2006) emphasises, humanity is experiencing an epoch called the Anthropocene in which "human beings have become a significant global geophysical force,

causing massive environmental problems across the planet” (13-18). Humans’ meddlesome role, then, has become more troublesome in line with their ability to harness science and technology in the Anthropocene, and various ecological disasters humanity has witnessed and is still suffering from are clear proof of it. Accordingly, several disciplines, including climatology, have endeavoured to detect the source of ecological problems and offered solutions to retain a liveable world. Likewise, eco-anxiety resulting from the overwhelming threat of ecological calamities has found a significant place in literary theories and literary studies recently. A literary theory called ecocriticism that scrutinises literary texts from an ecocentric perspective to raise ecological awareness, for instance, has become one of the most prominent literary theories with various subfields, ranging from ecofeminism to eco-socialism.

Focusing on published major literary texts, Glotfelty (1996) emphasises that it was possible to observe that various issues such as class, race, and gender were largely employed in literature, whereas environmental threats were mostly disregarded in literary texts until the end of the 20th century (xvi). Thus, compared to many other literary theories such as Marxism, ecocriticism is a newly-born literary theory of the new century. It mainly flourished in the 1990s as a result of acutely felt environmental problems and raised voices against extreme exploitation of the earth. In ecocriticism, the interaction between society and nature is one of the most significant focal points, and the barriers that cloud this interaction are traced. Ecocriticism strives to reshape the perspectives of humans with the aim of rectifying this interaction. As Oppermann (1999) notes, “ecocriticism is directly concerned with both nature (natural landscape) and the environment (landscape both natural and urban)” (30). Thus, ecocriticism does not only examine nature itself but also interrogates how nature and the environment are shaped by humans. In this way, the problematic aspects of the prevalent human and nature interaction resulting in severe ecological threats are unearthed.

Ecocritical studies aim to encourage the masses to face the environmental problems of the century and to awaken humanity against the current ecocide put on stage by humans. Despite her reservations concerning a literary text’s transformation into a political tool, Opperman (1999) also acknowledges that “ecocriticism actually launches a call to literature to connect issues of today’s environmental crisis” (30). Accordingly, ecocriticism, similar to other politically fed literary theories such as postcolonialism, adopts a didactic and highly political strategy with the aim of informing the masses and prompting them to avoid the catastrophic end that awaits the planet.

The awareness-raising function of ecocriticism prevails, yet the focal point of ecocriticism shifts over time considering various waves of ecocriticism outlined by several critics, such as Lawrence Buell and Scott Slovic. Moreover, there are diverse approaches regarding the reasons for the environmental problems in ecocriticism, and eco-socialism is one of these significant approaches. It fundamentally correlates the current ecological problems with the capitalist system, and it attempts to raise awareness about the hazards of the capitalist system to the planetary resources, as will be discussed further before reading the play closely in this article.

Ecological disasters and eco-anxiety triggered by those disasters have not only led to the rise of ecocritical approaches but also triggered an increase in the number of dystopian works that lean on ecological problems both in novels and theatrical plays of Western literature. To illustrate, many plays ranging from *Pastoral* (2011) by Thomas Eccleshare and *Ten Billion* (2012)

by Stephen Emmott to *Oil* (2016) by Ella Hickson and *The Children* (2016) by Lucy Kirkwood have been on stage for the last decade to raise ecological awareness by drawing the audience's attention to varied potential eco-catastrophic results of humans' ecologically irresponsible deeds.

Escaped Alone by Caryl Churchill, initially performed at the Royal Court in 2016, can be regarded as a prominent example of unorthodox eco-dystopian plays in which the characters' conversations about mundane matters such as shopping clash with catastrophic visions indicated by one of the characters in the play called Mrs Jarret. Churchill mainly highlights throughout the play that humanity is heading towards irreversible ecological disasters, which she directly or indirectly associates with the capitalist system. Worst of all, none of the characters except for Mrs Jarret is conscious of this acute fact. Nonetheless, Churchill's eco-socialist voice that regards the overthrow of the capitalist system as a solution to the current ecological problems resonates in all the scenes of the play, and this voice fosters the audience to gain eco-consciousness.

1. An Eco-Socialist Approach to Ecological Crises

Eco-socialism, different from other eco-centric approaches such as deep ecology, does not renounce the human-centred perspective. Human life is still prioritized in eco-socialism. Nevertheless, it acknowledges the fact that the current insurmountable ecological crises are the result of humans' deeds in the Anthropocene. As can be discerned from the term eco-socialism, it is highly interconnected with Marxism. In particular, the perspective of Marxism on nature and humans plays a significant role in eco-socialism. According to Marx (1867/1976), the capitalist production cycle exploits and devalues not only the labourer but also the earth (637-638). Nature is, then, commodified according to the Marxist perspective. Additionally, Marx (1867/1976) points out that "capitalist production... disturbs the metabolic interaction between man and the earth," which ultimately alienates humans from nature (637). Although the dominion of humans on nature is not denied or demonized in Marxism, nature, as the shelter of humanity, is highly respected and the overexploitation of nature for the sake of capitalist goals is rejected. Consequently, Marxist criticism of the capitalist system reappears from an environmental perspective in eco-socialism (Löwry, 2018: 1-5; Pepper, 2010: 34; Foster, 2000:158). In other words, eco-socialist critics form and manifest their principles based on the Marxist contention that capitalism disrupts the close connection between nature and humans and that it constantly overexploits natural resources. Accordingly, various environmental problems such as "global warming, destruction of the ozone layer, removal of tropical forests, . . . extinction of species, loss of genetic diversity, the increasing toxicity of our environment and our food, desertification, shrinking water supplies, lack of clean water, and radioactive contamination" are attributed to capitalism (Foster, 2002: 12). Thus, the negative impact of capitalism on the ecological balance of the earth and social justice is extensively questioned in eco-socialism.

Capitalism, the global economic system, deteriorates the ecological balance of the earth in many ways. Firstly, it is argued in the eco-socialist approach that the capitalist mode of production that exalts "surplus value" over "use value" is one of the fundamental agents that trigger the current ecological crises (Kovel, 2007: 142). Furthermore, it is underlined that it deepens the anthropocentric mentality by constructing barriers between nature and humanity. Not only nature itself but also the perception of nature in people's minds is thought to have

changed drastically through capitalist indoctrination. Humans are disconnected from nature through capitalist lifestyles in urban residential areas, the meaning of nature is transformed into a source to be exploited for surplus value, and the binary between humans and nature is fortified. Consequently, human-nature interaction is hampered, and humanity is forced to be alienated from nature, according to several eco-socialist critics (Foster, Clark, and York, 2010: 18; Pepper, 1993: 91; Foster, 2002: 31). Therefore, capitalist operations are blamed for desensitising humans and aggravating the environmental crises cumulatively in eco-socialism.

Additionally, the class conflict apparent in the capitalist order is regarded as one of the factors that not only consolidates social inequality but also aggravates environmental problems for eco-socialists. Kovel (2007), for instance, underlines that while natural resources are exploited to satisfy “the affluent class,” the majority of the world suffers from the negative consequences by facing “debris” following the destruction of the earth (67). In other words, the ecological balance is disregarded for the sake of the capitalist minority’s desire for unlimited profit. Foster, Clark, and York (2010) also state that nature is sacrificed “for the sake of class-based profits and accumulation” (157). The class-oriented social system is, then, viewed as one of the prominent catalysts of ecological problems.

The constant desire to accumulate and to gather more surplus value in Marxist terms is the driving force of capitalism, yet this force retains detrimental impacts on the environment from the eco-socialist perspective. Several eco-socialist critics argue that the profit and expansion-oriented system disregards the ecological balance of the planet (e.g. Kovel, 2007: 121; Foster, Clark, and York, 2010: 17), and they consider this very basic mentality of capitalism to be another significant reason for ecological problems.

Eco-socialist critics not only display the source of the problem but also point out their solution suggestions to tackle the environmental aggravation. What eco-socialists desire is an egalitarian social order that does not impair the ecological balance. They are also aware of the fact that the first and probably the most significant step to be taken to achieve this order is raising consciousness. Most environmental efforts will be pointless without recognising capitalism as the primary agent of ecodestruction (Foster, 1999: 12; Foster, 2002: 9), without altering the conviction that capitalism is an innate system (Kovel, 2007: 121), or without persuading people to “create and maintain” an eco-friendly order (Pepper, 1993: 234). Hence, several eco-socialists, ranging from Pepper (1993) to Kovel & Löwry (2001), argue that the capitalist system cannot be rectified, and a new social structure needs to be constructed. In this sense, the replacement of capitalism with a communal system that values not only human welfare but also ecological welfare is considered to be the foremost viable step in the eco-socialist approach.

2. Interrogating Ecological Disasters from an Eco-Socialist Perspective in *Escaped Alone*

Caryl Churchill does not provide specific solutions to the prevalent social and ecological issues in *Escaped Alone*, as eco-socialist critics do. Nevertheless, she demonstrates the imminent future awaiting humanity. The playwright indicates through eco-apocalyptic visions in the play that humanity will be in great trouble unless the capitalist system is overthrown. Accordingly, she contributes significantly to the primary purpose of eco-

socialism by endeavouring to raise consciousness about environmental problems which are not independent of social ones. The playwright seeks to awaken the audience from eco-indifference, and the inclusion of an eco-catastrophic narration throughout the play carries considerable significance to this end.

Escaped Alone is set in Sally's backyard in a summer afternoon, and the plot is moved forward through the conversations of four women: Sally, Vi, Lena, and Mrs Jarret. Neither an action nor tension is witnessed throughout the play apart from women's ordinary dialogues. The women talk about their daily lives in eight short scenes. All the women in the play are over 70, and most of them suffer from profound psychological problems. To illustrate, Sally, a retired NHS worker, is terrified of cats, and her phobia affects even her quality of life. Cats can be everywhere for her, and she needs "someone to say there's no cats" (Churchill, 2016:26). Likewise, Lena, a former office worker, suffers from serious depression and agoraphobia. She wants to be far away from everyone and cannot even go shopping freely although she attempts to soften her phobia by saying "I do get out it's just difficult" (Churchill, 2016, 11). Vi is a woman who has killed her husband as an act of self-defence, but she also feels guilty for this act and for losing her son's affection. Her son never forgives Vi, and she laments for it. Mrs Jarret can also be described as a psychologically unsound character who repeats the phrase "terrible rage" (Churchill, 2016, 42) several times towards the end of the play. After the audience witnesses these four women's friendly conversations about varied but ordinary topics, Mrs Jarret leaves the garden, thanks for the never-served tea, and the play ends. In this way, the audience is left alone with an open-ended play in which resolution lacks.

The catastrophic incidents described in the play help Churchill to display the clash of two different realities vividly from the very beginning of the play. After Mrs Jarret arrives in Sally's backyard, the audience finds a chance to learn what matters to the characters in the play. As the typical individuals of contemporary society, Sally, Vi, Lena, and even Mrs Jarret seem to have plunged into mundane matters and pursuits that are not directly correlated to each other. They, for example, discuss where to put keys. Sally thinks that the ideal place to put keys is a "teapot," whereas Vi "hang[s] them on a nail" (Churchill, 2016, 6). In the fourth scene, they start to discuss the number of zeros in high numbers. Vi argues that "a billion has nine," but Sally counters her by saying "a billion has twelve" (Churchill, 2016: 18). In another scene, they express their kitchen preferences and talk about their kitchens:

LENA: I do love a kitchen

SALLY: my grandmother's kitchen

LENA: mine's more of a cupboard

SALLY: mine needs a coat of paint [. . .]

VI: I can't love a kitchen. (Churchill, 2016:40)

Their kitchen preferences or attitudes toward kitchens reveal some of the characters' traumas. Vi, for instance, is known to have killed her husband in a kitchen, and that's why she cannot love kitchens. Nevertheless, none of the topics that the characters discuss are related to the ecological disasters that Mrs Jarret describes in her long monologues. Lena, Sally, and Vi make neither positive nor negative comments on Mrs Jarret's eco-dystopian visions. They are totally indifferent.

The horrific incidents narrated by Mrs Jarret such as the burial of the current settlements as a result of a constructed landslide, dead bodies that provide nourishment for survivors, a new compulsory lifestyle under the ground, floods in the tunnels as a result of sudden and heavy rains, drowned innocents or psychologically unsound survivors are of no importance for Sally, Vi, and Lena who are in a safe sphere. The eco-apocalyptic world that Mrs Jarret indicates cannot be noticed or discerned by these characters sitting in the garden covered with fences, as is the case in contemporary human society. The juxtaposition of apocalyptic visions and mundane matters creates a contradiction, and this contradiction heightens the ironic tone of the play.

The characters' indifference prevails ironically throughout the play despite the eco-catastrophic visions reflected by Mrs Jarret. In the third scene, they talk about science fiction, TV series, and some solutions to Sally's fear of cats, but they are utterly unconscious of the chemical leaks that threaten human society. Mrs Jarret states at the end of the scene that neither humans nor nonhumans like foxes had the chance to live after "the chemicals leaked through cracks in the money" (Churchill, 2016: 17), but nobody asks when or how it happened. The women criticise the racist attitude of human beings in the next scene but know nothing about the widespread hunger that impairs the sufferers. Unfortunately, despite sparing some time to speculate about having superpowers, they never seem to be concerned about the wind created by property developers. Furthermore, they do not refrain from singing together or revealing their anxiety disorders and phobias such as agoraphobia but fail to notice the pandemic that occurred after the exploitation of nonhumans and the ravaging wildfires. Briefly, the clash of realities is observed throughout the play. Churchill displays that the characters are so busy with their mundane pursuits and personal problems that they are not able to realise the ecological disasters which are likely to devastate humanity. This paradox functions to mirror their pathetic state in the face of ecological disasters, and the ironic portrayal of this paradox underscores that the characters in the play are not different from most contemporary humans disregarding the imminent ecological crises.

The disasters narrated at the end of each scene also serve another significant purpose in the play. Unfortunately, it is observed that neither Sally nor Lena nor Vi hears Mrs Jarret's cry in the play. However, the successive disasters enable Churchill to make her eco-socialist voice heard by the audience. Churchill, who questions the systematic degradation of the planet under the capitalist system through varied catastrophic and apocalyptic speculations, actualises one of the most prominent goals of eco-socialism: raising consciousness. Although she cannot be heard by the majority of the characters in the play, her eco-socialist cry definitely resonates in the audience's mind. Thus, she takes a significant step to awaken the masses from their deep sleep and highlights that the agents of the capitalist order not only threaten the natural balance of the planet but also aggravate social crises, as eco-socialist critics put forward.

Caryl Churchill considers the current social and environmental problems interrelated. Accordingly, none of the disasters she describes in the play are natural; they are highlighted to have stemmed from social inequality triggered by capitalism. Similar to James O'Connor (1988) who highlights that the mechanism of capitalism leads to serious ecological problems and eventually damages human society (13), Churchill underlines that social injustice led by capitalism is responsible for ecological disasters. Furthermore, she indicates that these disasters

are likely to contribute to a massive catastrophe. For instance, various disasters, ranging from landslides and wildfires to floods and pandemics, in the play are highlighted to be induced by the decisions taken by politicians in favour of the capitalist market, the arrangements of capital owners, the profit-seeking mechanism of capitalism, or the unwise distribution of the planetary sources (Churchill, 2016: 8, 12, 28, 29, 37). Most importantly, the ecological disasters in the play are indicated to bring the doom of humanity nearer. As can be seen, the playwright does not isolate ecological problems from social predicaments and capitalist practices.

Capitalism is viewed in the eco-socialist approach as a destructive system that disregards the ecological or social cost of its operations because it is highly concerned with accumulating more profit. Foster (2002) clarifies this fact with these lines:

Capitalist economies are geared first and foremost to the growth of profits, and hence to economic growth at virtually any cost... This rush to grow generally means rapid absorption of energy and materials and the dumping of more and more wastes into the environment—hence widening environmental degradation. (10)

In the eco-socialist sense, humanity, then, faces the consequences of overlooking the ecological balance for the sake of economic growth. Furthermore, eco-socialists highlight that the negative impacts of capitalist operations are not limited to the ones on natural resources. As Harvey (1997) states, capitalism does not take “the social, political, geopolitical or ecological consequences” into consideration to “achieve an expansion of growth” (180). The capitalist system is blamed for devaluing all the planetary and social assets for the sake of exponential growth and for not taking any responsibility for the severe damage caused by its blind mechanism.

Churchill also draws the audience’s attention to this problematic system metaphorically at the very early stage of the play through Mrs. Jarret’s statement: “The chemicals leaked through cracks in the money” (Churchill, 2016: 17). The playwright symbolically employs the word “money” to indicate the capitalist system and underlines that chemicals stem from the use of capital. In other words, the capitalist system and its paradoxical dysfunction are highlighted to be the main reasons for the spread of detrimental substances. Furthermore, her choice of the verb “leak” can be considered intentional. She prefers to use this verb rather than a verb like spread or disseminate, and this verb reminds the audience of the contamination of the earth through the unconscious use of agricultural products and the release of industrial waste. It needs to be remembered that chemicals utilised to acquire more profit in the capitalist mode of production are one of the primary disruptors of the ecological balance. Carson (1964) exemplifies their impact as follows:

Chemicals sprayed on croplands or forests or gardens lie long in soil, entering into living organisms, passing from one to another in a chain of poisoning and death. Or they pass mysteriously by underground streams until they emerge and, through the alchemy of air and sunlight, combine into new forms that kill vegetation, sicken cattle, and work unknown harm on those who drink from once pure wells. (5)

As can be discerned, following the leak of chemicals into the earth, the wilderness is threatened. Consequently, the ecological balance of the planet is broken. Moreover, they harbour some “unknown” effects on both nonhumans and humans. Therefore, Churchill attempts to indicate how chemicals, which have leaked due to the contradictions or “cracks”

in the capitalist system, are likely to harm the planet and destroy human society. In other words, the playwright strives to highlight that the eco-indifferent and profit-oriented mentality of capitalism can potentially deteriorate the earth and devastate human life in the long run. Romero (2015) validates Churchill's implication by highlighting the fact that the use of chemicals seemingly has a positive impact on production processes, but these chemicals induce "the pollution and degradation of the ecosystem, harmful effects on consumers and farm workers, and large greenhouse emissions" (1). In this case, it is understood that the steps taken for the sake of advantageous consequences in the production and profit-making process result in devastation. Thus, the playwright associates the leak of chemicals with the cracks of the capital and cautions the audience against the imminent destructive consequences of it by narrating apocalyptic incidents.

The playwright implies the reason for the chemical leak with her choice of words but also provides various details concerning its ultimate impact on society as follows:

The first symptoms were irritability and nausea. Domestic violence increased and there were incidents on the underground. school absenteeism tripled and ninety-seven schools were taken into special measures. . . Miscarriages were frequent, leading to an increase of opportunities in grief counselling. Birth deformities outpaced the immigration of plastic surgeons. Gas masks were available on the NHS with a three month waiting time and privately in a range of colours. Sometimes the cancer began in the lungs. Sometimes on the fingerprint or laptops. The remaining citizens were evacuated to camp in northern Canada, where they were sprayed and victimised, And the city was left to six foxes, who soon abandoned it for lack of dustbins. (Churchill, 2016: 17)

She highlights that various physical health problems, such as birth miscarriages, deformities, and cancer, have occurred as a result of the use of chemicals that function as an indispensable ally of the capitalist production process. In this way, she describes the negative impact of capitalist practices on human beings. Furthermore, similar to Albritton (2019) who points out that a great number of people suffer from mental problems such as depression at alarming rates in countries like the USA ruled by the capitalist system (116-117), Churchill displays in the play that the impact of capitalism is not limited to the physical health of humans by indicating some prevalent psychological problems such as extreme rage. The negative effect of the chemical leak on human health might seem to be detached from its effect on nature. However, it should not be forgotten that humans cannot be separated from nature. Humanity is an indispensable part of nature. Accordingly, the disastrous impacts of capitalist practices on humans should be read as the ones on nature because humans, as one of the significant components of nature like nonhumans, both affect nature and are affected by it.

Additionally, Churchill unearths that capitalism does not take the environmental or social impacts of its agents into consideration and attempts to maintain a profit-making process. For instance, the playwright describes that the chemicals in the cracks of the capital leak into the earth and disrupt the ecological balance, and this disruption seems to be overlooked for the maintenance of the capitalist order no matter what the consequences are. After all, capitalism is notorious for turning destruction into a chance to acquire more profit (Kovel, 2007: 21). Thus, as a playwright who is aware of this fact, Churchill criticises this destructive mechanism of capitalism. She

indicates the increasing number of counsellors and plastic surgeons that provide new markets for the system even at the time of crisis. She demonstrates that the capitalist system is concerned with creating a mask business, but it is not interested in meeting people's essential mask needs. The playwright thereby reveals that capitalism not only engenders a health crisis resulting from its disregard for the ecological balance but also turns the crisis into an opportunity.

The playwright consequently points out through Mrs Jarret that the exploitative and profit-seeking desire of capitalism contributes to a sort of post-apocalyptic world in which nonhumans and humans will not be able to survive. The leak in the capital, which symbolises the detriments of the capitalist system on the ecological balance, firstly devastates humans' health and social life. Nonetheless, when the ecological balance is utterly disrupted, all the survivors are dislocated and ultimately massacred. Most importantly, Churchill displays that the chemical leak not only drives humans away from their habitats but also deprives nonhumans of their right to life. In this way, the playwright interrogates how the capitalist system paves the way for the disruption of the ecological balance through the excessive use of chemicals, and she masterfully draws the audience's attention to a probable chain of devastating ecological and social risks triggered by the capitalist mentality.

After exploring how Churchill associates the source of the ecological and social crises with "capital" and after clarifying her conviction that the capitalist system will devastate the planet and human society, it would be wise to discuss how Churchill demonstrates the role of capitalist agents and vehicles in aggravating the ecological and social balance. Both in Marxist and eco-socialist terms, the capitalist system is regarded as a system that not only regulates the vicious cycle of production and consumption but also controls how societies are governed. As Fraser (2009) highlights, capitalist markets commence subduing politics following the transition process of capitalism from a state-organised version to a neoliberal one (107). Governance systems are, then, thought to function as the enforcers of capitalist operations in today's world, where neoliberalism is celebrated. Therefore, eco-socialists do not expect these systems to act eco-consciously. On the contrary, 'the political forces committed to the capitalist "market economy"' are regarded as the source of the problem (Löwry, 2018: 7), and Churchill questions the role of pro-capitalist rulers in ecodestruction by presenting two distinct catastrophic events: a massive landslide and an unstoppable fire.

Following the characters' conversations about the trivia of everyday life such as lost keys, the children's problems, the choice of hats, and calculation skills, Churchill (2016) makes Mrs Jarret describe the landslide that she can see outside the fences providing women with a safe sphere:

Four hundred thousand tons of rock paid for by senior executives split off the hillside to smash through the roofs, each fragment onto the designated child's head. Villages are buried and new communities of survivors underground developed skills of feeding off the dead where possible and communicating with taps and groans. . . Time passed. Rats were eaten by those who still have digestive systems, and mushrooms were traded for urine. Babies were born and quickly became blind. . . Stories of those above the ground were told and retold till there were myths . . . Torrential rain leaked through cracks and

flooded the tunnels enabling screams at last before drownings. (8)

The apocalyptic incidents narrated by Mrs Jarret may seem irrelevant to the capitalist system, and one may argue that rulers' decisions cannot be attributed to capitalist operations. However, tracing the steps taken by "governmental agencies under the influence of capital's force field" is one of the most effective ways to unearth "capital's responsibility for the ecological crisis" (Kovel, 2007: 51). Therefore, the acts of the rulers within the neoliberal phase of capitalism cannot be viewed as independent of capitalist pressure. George W. Bush's withdrawal from the Kyoto Protocol, which aims to reduce carbon emission rates, for the sake of economic progress (Foster, 2002: 13; Kovel, 2007: 175) or Donald Trump's withdrawal from the Paris Climate Conference agreement which encourages countries to "reduce their greenhouse gas emissions" (Löwry, 2018: 7-8) can be given as significant examples that verify the capitalist market's influence on governors' eco-indifferent decisions. Likewise, the decision made by the "senior executives" cannot be regarded as an individualistic preference in *Escaped Alone*. It is indicated that they have bought "tons of rock," and their action not only devastates "the hillside" which represents the natural world but also exterminates the lives of innocent individuals after impairing their living quarters for the sake of satisfying the capitalist market. Thus, it is possible to argue that Churchill severely criticises the eco-destructive cooperation between governance and the capitalist market in the play.

Most importantly, Churchill reveals the close interrelation between social inequality and ecological crises, similar to eco-socialists. She highlights that the disaster experienced by these people is not natural but constructed. An unconscious decision made without considering ecological consequences by "senior executives" is indicated to trigger the landslide. Furthermore, the playwright displays that the decision which satisfies the capitalist market induces a devastating chain of social problems. The constructed landslide first forces people to abandon their habitual lifestyles. Then it causes deaths and inhuman life conditions under the ground. Finally, it leads to more catastrophic incidents when people are drowned after sudden and heavy rains. As humans are not independent of nature, such decisions affect their habitat and determine their fate. Therefore, it is possible to argue that Churchill displays that not only the ecological balance of the earth is threatened systematically but also human society is devastated due to the capitalist agents such as executives serving the capitalist market.

Churchill continues to question the interrelation between ecological and social problems through another disaster narrated by Mrs Jarret. She informs the audience about a "fire" that "broke out in ten places at once" and vividly displays that this disaster is also triggered by unnatural factors as follows:

Four cases of arson by children and politicians, three of spontaneous combustion of the markets, two of sunshine, one supposed by believes to be a punishment by God for gender dysphoria. It swept through saplings, petrol stations, prisons, dryads and books. Fires were lit to stop the fires and consumed squirrels, firefighters and shoppers. Cars sped from one furnace to another. Houses exploded. Some shot flaming swans, some shot their children. Finally, the wind drove the fire into the ocean, where salt water made survivors faint. The blackened area was declared a separate country with zero population, zero

growth and zero politics. Charred stumps were salvaged for art and biscuits. (37)

As is the case in the incident of the landslide, most of the fires are induced by human beings. She highlights that they are mainly caused either by the politicians or the markets. In other words, the representatives of the capitalist system are implied to be responsible for the disaster. In this way, she indicates the close connection between politics and capitalism, as she does while describing the aforementioned disaster. She thereby canalises the audience to question how the political actions taken under the control of capitalism have the potential to devastate the planet.

It is even possible to argue that the fires caused by “sunshine” cannot be considered natural. It is an undeniable fact that fire incidents, particularly wildfires, have started to occur more often all over the world as a result of climate change. The Climate Science Special Report prepared by Wehner, M.F., Arnold, J.R., Knutson, T., Kunkel, K.E., & LeGrande, A.N. (2017) shows that drying triggered by climate change increases wildfire risks considerably (para. 14). The bushfire that ravaged Australia in 2020 and the unstoppable fires in Türkiye, Greece, and the United States of America in 2021 can be given as concrete proof that verifies this fact. Undoubtedly, climate change paves the way for widespread fires, but it should also be acknowledged that humans have mainly led to such a change. As Wall (2010) states, “climate change and the other ecological problems that threaten us are, above all, products of economic growth” (15), and planetary limits are rarely taken into consideration in the capitalist system (Foster, 2000: 40). As a result, eco-socialists argue that excessive burden is systematically put on the earth through capitalist operations. Likewise, Churchill displays that the fire incidents that devastate the earth are directly or indirectly connected to capitalist agents. She indicates that the decisions made by politicians, the actions of capitalist markets, and the extreme heat resulting from eco-indifferent practices of humanity are responsible for the wildfire. Therefore, she draws a close connection between the practices driven by the capitalist market and the ravaging fire.

The playwright also reveals that the capitalist agents not only destroy humans’ social life and institutions but also impair ecological assets such as “saplings” and “squirrels” (Churchill, 2016: 37). The fire is described to be so tremendous and extreme that nonhuman beings such as “swans” and some humans’ children are “shot” to control it. In this way, the playwright highlights that humans and nonhumans are likely to suffer from capitalist practices profoundly. Despite all the efforts, survivors are eventually displaced and face a “blackened world” (Churchill, 2016: 37). Accordingly, Churchill masterfully points out the probable end awaiting the planetary system and human society as long as no immediate and eco-conscious action is taken.

Additionally, the last line Mrs Jarret articulates demonstrates how the system maintains its exploitative mentality even after an apocalyptic incident. One should remember that “the market sees forests, not as ecosystems, but as consisting of so many million or billion board feet of standing timber” (Foster, 2002: 33), and the playwright reveals this problematic mentality of capitalism by displaying how the burned trees are eventually regarded as functional tools to be commodified. To put it simply, Churchill signifies that the capitalist system engenders ecological disasters that will consequently destroy humanity, and she demonstrates how

capitalism attempts to turn such crises into a sort of profit-making opportunity. She thereby makes the audience conscious of the eco-destructive mindset of the capitalist market and leaves at least a little spark in the conscience of the masses.

Eco-socialism advocates questioning capitalist organisations leading to environmental problems rather than the individuals' roles in ecodestruction. According to the eco-socialist perspective, the ecological responsibility is attempted to be loaded on individuals by encouraging them to alter their consumption habits, yet "a green lifestyle" will not be as effective as anticipated since "corporations" that cause much of the ecocide are the real agents responsible for the ecological threats (Wall, 2010: 38). These corporations should not be viewed as merely commercial organisations. In fact, these capitalist corporations are so powerful within the current world that they may intimidate various countries in Europe and the US into aligning with their demands (Pepper, 2010: 36-37). Therefore, it is possible to conclude that the world is mostly controlled by capital owners whom Kovel (2007) calls "the capitalist class" (48). The playwright is likewise aware of this class and considers their decisions to be one of the catalysts of ecological destruction. Therefore, she decides to describe how the preferences of the wealthy class lead to a severe disaster through Mrs Jarret's narration:

The wind developed by property developers started as breezes on cheeks and soon turned heads inside out. The army fired net to catch flying cars but most spun by with dozens clinging and shrieking, dropping of slowly. Buildings migrated from London to Lahore, Kyoto to Kansas City, and survivors were interned for having no travel documents. Some in the whirlwind went higher and higher, the airsick families taking selfies in case they could ever share them. Shanty towns were cleared. Pets rained from the sky. A kitten became famous. (Churchill, 2016: 28)

As can be observed, the wind turns into a storm, and it is so powerful that it ruins people's lives and hurls not only cars but also buildings across the world. Most importantly, the wind is not natural; on the contrary, it is constructed by a group of people who trade properties or decide on building sites. All these details, thus, signify that the ecological balance is ignored by the intervention of a circle of capital owners, and above all, the ecology of the earth is sacrificed for the sake of economic profit when their profession is taken into consideration. No matter how ironic or funny statements are utilised, such as survivors' obsession with "taking selfies" and their being "interned for having no travel documents" (Churchill, 2016: 28), the gravity of the problem is underlined successfully by the playwright. In particular, she draws attention to the chaos induced by this constructed wind by highlighting buildings in motion and swirling individuals. She metaphorically underlines that the ecological and social order will possibly be disrupted if the eco-indifferent desire of the capitalist class is not hampered. Above all, the playwright achieves to demonstrate how capitalist operations which may look like a "breeze" result in massive "whirlwinds," and she finds an opportunity to highlight the systematic impairment of the earth from another aspect.

Capitalism never takes human or nonhuman life into account. It needs to be remembered that "capital must expand without end in order to exist" even if it damages "the conditions of its own production" (Kovel, 2007: 38). Therefore, all the assets of the planet are prone to be overexploited within the capitalist system. Wall (2010) also highlights how the obsession of capitalism with

growth and obtaining more profit impairs social and ecological balance as follows:

We need no more proof of the barbarity of capitalism, the parasitical system that exploits humanity and nature alike. Its sole motor is the imperative toward profit and thus the need for constant growth. It wastefully creates unnecessary products, squandering the environment's limited resources and returning to it only toxins and pollutants. Under capitalism, the only measure of success is how much more is sold every day, every week, every year – involving the creation of vast quantities of products that are directly harmful to both humans and nature, commodities that cannot be produced without spreading disease, destroying the forests that produce the oxygen we breathe, demolishing ecosystems, and treating our water, air and soil like sewers for the disposal of industrial waste. (120)

Like Wall, Churchill attempts to reveal that the nonhuman world and humanity are threatened by the capitalist production process. She draws attention to a pandemic caused by the exploitation of monkeys for the sake of capitalist goals with the help of the Cassandra figure^{***}, Mrs Jarret:

The illness started when children drank sugar developed from monkeys. Hair fell out, feet swelled, organs atrophied. Hairs blowing in the wind rapidly passed round the world. When they fell into the ocean cod died and fishermen blew up each other's boats. Planes with sick passengers were diverted to Antarctica. Some got into the bed with their dead, others locked the doors and ran till they fell down. Volunteers and conscripts over seven nursed the sick and collected bodies. Governments cleansed infected areas and made deals with allies to bomb each other's capitals. Presidents committed suicide. The last survivors had immunity and the virus mutated, exterminating plankton. (Churchill, 2016: 29)

The playwright displays that neither the lives of the members of the nonhuman world such as monkeys nor human health is valued when capitalist goals are involved. In fact, what the playwright reveals is not a secret, particularly both for the ones who are exposed to the COVID-19 pandemic and for the sufferers who are aware of the gradual negative impact of the food industry on human health and the environment. As the report published by The Food and Agriculture Organisation of the United Nations (2017) indicates, mass production, indeed, leads to a chain of disasters that are similar to the extreme ones described by the playwright:

The evolution of food systems has both responded to and driven changing dietary preferences and patterns of overconsumption, which is reflected in the staggering increases in the prevalence of overweight and obesity around the world. Expanding food production and economic growth have often come at a heavy cost to the natural environment. Almost one half of the forests that once covered the Earth are now gone. Groundwater sources are being depleted rapidly. Biodiversity has been deeply eroded. Every year, the burning of fossil fuels emits into the atmosphere billion of tonnes of greenhouse gases, which are responsible for global warming and climate change. (4)

As can be observed, humanity is already in the middle of an ecological disaster, but it prefers to ignore this reality like the characters in the play. Nevertheless, the playwright

^{***} Cassandra is a mythological figure in Greek mythology, but the term is used to refer to a person who cautions people against impending disasters even if she is not believed.

unearths the source of the problem by implying the mass production cycle and extreme exploitation of the nonhuman world. The product acquired through the exploitation of monkeys is firstly indicated to harm human health. However, the following pandemic, which initially devastates humans' lives, ultimately devastates the ecological balance because humans cannot be detached from nature or the greater ecology. Ocean life is exterminated as a result of the pandemic, and this destruction upsets the lives of humans in turn. Churchill also intensifies the severity of the disaster by making the audience imagine a pandemic that results in dramatic death cases, bombarded cities, and irreversible contagion. Accordingly, Churchill highlights the essential interdependence between humans and nature, and she illustrates how catastrophic consequences are experienced when one of these components is disregarded. Most importantly, depicting catastrophic incidents triggered by the exploitation of nonhumans, the playwright cautions humanity that unless the capitalist mode of production is disrupted, the planet and humanity are likely to confront apocalyptic destruction.

Churchill continues to interrogate the eco-destructive consequences of the excessive use of planetary sources through another disaster that sweeps away all the recreational institutions and products:

First the baths overflowed as the water was deliberately wasted in a campaign to punish the thirsty. Swimming pools engulfed the leisure centers and coffee ran down the table legs. . . . Yawls, ketches, kayaks, canoes, schooners, planks, dinghies, lifebelts and upturned umbrellas, swimming instructors and lilos, rubber ducks and pumice stone floated on the stock market. Waves engulfed ferris wheels and drowned bodies were piled up to block doors. Then the walls of water came from the sea. (Churchill, 2016: 12)

The playwright attributes the reason for the massive flood to the intentional wasting of water and highlights that the capitalist mentality eventually causes ecological disasters. The indicated reason for the disaster may seem weird. Nonetheless, according to a report by WHO, UNICEF, and World Bank (2022),

An estimated two billion people, one quarter of the world's population, still go without [safely managed drinking water]. Unsafe drinking water is a driving factor behind the more than 1.5 million people who die every year from diarrhoea, most of them infants and small children. (8)

As can be discerned, whereas a limited number of people enjoy the resources of the earth, a great number of people cannot meet their basic needs. Most importantly, such social inequality is likely to induce an environmental crisis, as Churchill implies. After all, capitalist practices mostly disregard the risks that might disrupt the ecological balance. Hence, the playwright's depiction of a flood that stems from wasting water intentionally in a capitalist order enables her to indicate how socially unjust practices under the rule of the capitalist market have the potential to cause ecological disasters and how these emergent ecological problems threaten the future of humanity.

Conclusion

The consequences of the disruption of the ecological balance have been severely

experienced since the start of the Anthropocene, and more ecological calamities are likely to happen unless the degradation of the ecological balance is avoided or at least decelerated. Consequently, not only literary works that attempt to raise ecological awareness but also ecocritical approaches that question the current and impending ecological threats have started to become prevalent since the 20th century. Several perspectives such as eco-socialism under the umbrella of ecocriticism have strived to detect the reasons for ecological issues and offer solutions to prevent further ecological catastrophes. Likewise, dystopian works that caution the masses against impending ecological disasters have started to take an important place in literary studies, and Caryl Churchill's *Escaped Alone* can be regarded as one of the prominent examples of these works.

This article scrutinised the role of social injustice and capitalism in disrupting the ecological balance and devastating human lives after outlining the fundamental principles of eco-socialism. Eco-socialism regards the capitalist system as an agent that deteriorates social inequality and devastates planetary resources. The systematic exploitation of natural resources, the relentless pursuit of profit, and eco-indifferent mass production and consumption processes in the capitalist system are considered the main factors that induce the disruption of the ecological balance. This study argued that eco-catastrophic visions in *Escaped Alone* underline the role of capitalism in environmental degradation. In this sense, it analysed Churchill's play from an eco-socialist perspective and alleged that Churchill's eco-socialist voice resonates throughout the play.

The study underscored that the inclusion of various eco-catastrophic events, such as landslides, floods, pandemics, devastating storms, and unstoppable fires, serves two main purposes. Firstly, the ecological disasters narrated by Mrs Jarret are juxtaposed with the mundane pursuits of characters like Lena, Vi, and Sally throughout the play. This juxtaposition consolidates the ironical tone of the play. In this way, contemporary humans' tragicomic indifference in the face of grim ecocatastrophic realities is criticized. Furthermore, it is demonstrated in the play that all the aforementioned ecological disasters directly or indirectly are induced by capitalist actions, which highlights the role of capitalism in damaging the ecological balance and aggravating the existing ecological crises. Therefore, ecological disasters included in the play not only function to reveal the current eco-indifference ironically but also serve to interrogate capitalism as a leading agent of ecological degradation.

The study demonstrated that capitalist goals and practices are the primary reasons for the ecological disasters witnessed in the play. The landslide that leads humans to a subterranean lifestyle and death is not natural but constructed by the senior executives to meet the demands of the capitalist market. The unstoppable fire that ravages not only humans but also nonhumans is implied to have resulted from the indifferent acts of pro-capitalists. The wind that destroys residential areas and exterminates the lives of nonhumans living in the forests is developed by capital owners. The pandemic that destroys marine ecosystem outbreaks as a result of the overexploitation of nonhumans for the capitalist goals. The flood occurs as water resources are not properly managed, and hunger becomes prevalent as a result of the unequal distribution of food supplies. All these details underscore that there exists a close

connection between ecological problems and capitalist practices, and the article argued that submissive executives, the profit-oriented mentality of capitalism, the prevalent production and consumption cycle, and social injustice stemming from the capitalist system are all responsible for ecological disasters witnessed in Mrs Jarret's eco-apocalyptic monologues. Consequently, the study highlighted that capitalist practices depicted in the play trigger long-term environmental and social disasters despite offering some short-term benefits, and that the playwright takes a significant step towards awakening the unconscious masses through her catastrophic narration in *Escaped Alone*.

Araştırma ve yayım etiği beyanı: Bu makale, yazarın *Eko-Kıyamet Habercileri* başlıklı doktora tezinden üretilmiştir. Thomas Eccleshare, Stef Smith, Caryl Churchill ve Lucy Kirkwood'un Seçilmiş Oyunlarına Ekoeleştirel Bir Yaklaşım (2023) başlıklı doktora tezine dayanmaktadır.

Yazarların makaleye katkı oranları: Birinci yazar %60, ikinci yazar %40.

Etik komite onayı: Çalışmada etik kurul iznine gerek yoktur.

Finansal destek: Çalışmada finansal destek alınmamıştır.

Çıkar çatışması: Çalışmada çıkar çatışması bulunmamaktadır.

Research and publication ethics statement: This paper is based on the corresponding author's PhD dissertation titled *Eco-Apocalyptic Harbingers: An Ecocritical Approach to Selected Plays by Thomas Eccleshare, Stef Smith, Caryl Churchill, and Lucy Kirkwood* (2023).

Author contribution: The author independently composed the entirety of the article.

Contribution Rates of Authors to the Article: First author %60, second author %40.

Ethics committee approval: This study does not require approval from an ethics committee.

Financial support: This study received no financial support whatsoever.

Conflict of interest: There are no known conflicts of interest in this study.

References

- Albritton, R. (2019). Conclusion: "Time and tides wait for no one". *Eco-socialism for now and the future*. Palgrave Macmillan, Cham. Retrieved from https://link.springer.com/chapter/10.1007/978-3-030-05183-9_9
- Carson, R. (1964). *Silent spring*. Fawcett Publications. (Originally published 1962).
- Churchill, C. (2016). *Escaped alone*. Nick Hern Books Limited.
- Crutzen, P. J. (2006). Albedo enhancement by stratospheric sulfur injections: a contribution to resolve a policy dilemma? *Climate Change*, 77, 211–219. <https://doi:10.1007/s10584-006-9101-y>
- FAO. (2017). *The future of food and agriculture: Trends and challenges*. Food and Agriculture Organisation of the United Nations.
- Foster, J. B. (1999). *The vulnerable planet: A short economic history of the environment*. Monthly Review Press.
- Foster, J. B. (2000). *Marx's ecology: Materialism and nature*. Monthly Review Press.
- Foster, J. B. (2002). *Ecology against capitalism*. Monthly Review Press.
- Foster, J. B., Clark, B., & York, R. (2010). *The ecological rift: Capitalism's war on the earth*. Monthly

Review Press.

- Fraser, N. (2009). Feminism, capitalism, and the cunning of history. *New Left Review*, 56, 97-117.
- Glotfelty, C. (1996). Introduction: Literary studies in an age of environmental crisis. In C. Glotfelty & H. Fromm (Eds.) *The ecocriticism reader: Landmarks in literary ecology* (pp. xv- 2). University of Georgia Press.
- Harvey, D. (1997). *The condition of postmodernity: An enquiry into the origins of cultural change*. Blackwell.
- Kovel, J., & Löwry, M. (2001, September). An ecosocialist manifesto. *Environment and ecology*. Retrieved from <http://environment-ecology.com/political-ecology/436-an-ecosocialist-manifesto.html>
- Kovel, J. (2007). *The enemy of nature: The end of capitalism or the end of the world*. Zed Books.
- Löwry, M. (2018, October). Why ecosocialism: For a red-green future. *Great Transition Initiative*. Retrieved from <https://greattransition.org/publication/why-ecosocialism-red-green-future>.
- Marx, K. (1976). *Capital* (Vol. 1). Vintage. (Original work published in 1867).
- O'Connor, J. (1988). Capitalism, nature, socialism a theoretical introduction. *Capitalism Nature Socialism*, 1(1), 11-38, <https://doi.org/10.1080/10455758809358356>
- Oppermann, S. (1999). Ecocriticism: Natural world in the literary viewfinder. *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi*, 16(2), 29-46.
- Pepper, D. (1993). *Eco-socialism: From deep ecology to social justice*. Routledge.
- Pepper, D. (2010). On contemporary eco-socialism. In Q. Huan (Ed.), *Eco-socialism as politics: Rebuilding the basis of our modern civilisation* (pp. 33-44). Springer.
- Romero, A. M. (2015). The alchemy of capital: Industrial waste and the chemicalization of United States agriculture. *UC Berkeley*. Retrieved from <https://escholarship.org/uc/item/2rh0d4df>
- Wall, D. (2010). *The rise of the green left: Inside the worldwide ecosocialist movement*. Pluto Press.
- Wehner, M.F., Arnold, J.R., Knutson, T., Kunkel, K.E., & LeGrande, A.N. (2017) Droughts, floods, and wildfires. In Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, & T.K. Maycock (Eds.) *Climate Science Special Report: Fourth National Climate Assessment*. Retrieved from <https://science2017.globalchange.gov/chapter/8/>.
- WHO, UNICEF, World Bank. (2022). *State of the world's drinking water: an urgent call to action to accelerate progress on ensuring safe drinking water for all*. World Health Organization. Retrieved from <https://www.who.int/publications/i/item/9789240060807>



Bu eser Creative Commons Atıf 4.0 Uluslararası Lisansı ile lisanslanmıştır.

(This work is licensed under a Creative Commons Attribution 4.0 International License).