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Colonial Connections in the Global Climate Crisis: Historical Injustices and Contemporary Inequalities

Küresel İklim Krizindeki Sömürge Bağlantıları: Tarihsel Adaletsizlikler ve Güncel Eşitsizlikler

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Abstract: *The climate crisis is influenced by various factors, as it is a multidimensional process. The colonial period represents a significant component of these factors. This study, therefore, focuses on the connection between colonialism and the climate crisis. Colonialism was driven by the efforts of colonial powers to secure resources that would sustain their expanding economies, in line with their economic and political interests. During this process, practices such as the exploitation of natural resources and the displacement of indigenous peoples left lasting impacts on the economic, social, and cultural structures of societies. As a continuation of the historical legacy of colonialism, the climate crisis has disproportionately burdened the Global South, despite its minimal contribution to global emissions. This article underscores the importance of understanding the link between the climate crisis and colonialism, explores the neo-colonial mentality, and examines the implications of these dynamics for global climate policies.*

Keywords*: Colonialism, Climate Crisis, Carbon Offsetting, Global North, Global South*

Özet: *İklim krizi, çok boyutlu bir süreç olduğundan, çeşitli faktörlerden etkilenmektedir. Sömürge dönemi, bu faktörlerin önemli bir bileşenini temsil etmektedir. Bu nedenle, bu çalışma, sömürgecilik ile iklim krizi arasındaki bağlantıya odaklanmaktadır. Sömürgecilik, sömürgeci güçlerin ekonomik ve politik çıkarlarına uygun olarak genişleyen ekonomilerini sürdürebilecek kaynakları güvence altına alma çabalarıyla şekillenmiştir. Bu süreçte, doğal kaynakların sömürülmesi ve yerli halkların yerinden edilmesi gibi uygulamalar, toplumların ekonomik, sosyal ve kültürel yapıları üzerinde kalıcı etkiler bırakmıştır. Sömürgeciliğin tarihsel mirasının bir devamı olarak, iklim krizi, küresel emisyonlara en az katkıda bulunmalarına rağmen, Küresel Güney üzerinde orantısız bir yük oluşturmuştur. Bu makale, iklim krizi ile sömürgecilik arasındaki bağlantının önemini vurgulamakta, yeni sömürgecilik zihniyetini incelemekte ve bu dinamiklerin küresel iklim politikaları üzerindeki etkilerini değerlendirmektedir.*

Anahtar kelimeler: *Sömürgecilik, İklim Krizi, Karbon Dengeleme, Küresel Kuzey, Küresel Güney*

1. Introduction

Colonialism, which has an important place in world history, is a multifaceted and complex phenomenon in terms of both its causes and consequences. Therefore, colonialism has always been the subject of intensive study and analysis by various scientists (Memmi, 1965; Rodney, 1972; Spivak, 1988; Bhabha, 1994; Césaire, 2000). In their study, Ocheni ve Nwankwo (2012) defined colonialism as a direct manifestation of the broader concept of imperialism, driven by the economic and political desires of the colonizing nations. The changing mode of production with the industrial revolution in Europe played a significant role in the rise of colonial ambitions, as the colonial powers sought to secure raw materials, markets, and labor to feed their expanding economies (Omvedt, 1973; Ocheni and Nwankwo, 2012). In other words, a global system of trade and exchange emerged during this period, in which colonial nations exploited colonial possessions to

extract resources and exert economic control. At the same time, colonialism extended far beyond the realm of economics, leaving an indelible mark on the social, political, and cultural landscapes of colonial territories (De Juan and Pierskalla, 2017).

European powers aggressively exploited natural resources during the colonial period, and as a result of this exploitation, the foundations of today's climate crisis were laid (Khaine and Woo, 2014; Varansi, 2022). With the Industrial Revolution, fossil fuel consumption increased and global CO2 emissions increased at an unprecedented rate. For example, when colonial powers such as Britain and France were at the forefront, CO2 emissions in the UK increased enormously compared to emissions in the colonies (for example, in 1990 the UK's emissions were 419.00 mtCO2e, while its colony India's emissions were 13.00 mtCO2e) (Carbon Brief, 2023c; Carrington, 2023; Vigna, Friedrich and Damassa, 2024). This result demonstrates the inequality in the contributions of both colonial powers and colonial territories to greenhouse gas emissions.

In the post-colonial era, both former colonial states and newly industrializing countries are responsible for a large share of global CO2 emissions. For example, the United States is responsible for 40% of the components of the daily climate crisis, and the European Union for 29%. In total, the Global North is responsible for 92% of global excess carbon emissions (Fields, 2005; Pardikar, 2020). The burden of the climate crisis is unequally distributed in today's global system. For example, small island developing states contribute almost insignificantly (less than 1%) to global emissions, yet they face the threat of extinction from rising sea levels and extreme weather events (Thomas *et al.*, 2020). Similarly, countries in Sub-Saharan Africa are struggling with devastating droughts, floods, and food insecurity due to the climate crisis, even though their per capita emissions are historically low (Thompson, Berrang-Ford and Ford, 2010).

As world societies continue to grapple with the repercussions of colonialism's historical legacy, the importance of understanding its dynamics and its enduring impact on global society cannot be ignored (Engerman and Sokoloff, 2005; Ziltener and Kunzler, 2013; De Juan and Pierskalla, 2017). The legacy of colonialism has had a profound social, economic, and environmental impact on the Global South. In other words, colonial practices have often included the exploitation of natural resources, the displacement of indigenous peoples, and the imposition of foreign economic and political systems (Singh, 2023). For example, Africa's responses to the constraints and opportunities of colonial rule shaped the trajectory of development there, while colonial interventions accelerated the transformation of already existing patterns of economic change on the continent (Maseland, 2018). While specific outcomes depend on the type of colony, the overall impact of colonialism on development in Africa has been largely negative. More specifically, colonial policies often impede economic progress and perpetuate inequality in Africa (Heldring and Robinson, 2012).

The climate crisis presents unprecedented challenges to global communities. Therefore, understanding the impacts of historical colonialism and developing equitable and sustainable solutions are critical to addressing these challenges. The legacies of colonialism continue to influence the power dynamics that shape contemporary climate policies. Examining the relationship between the climate crisis and colonialism not only provides a historical perspective but also informs future policy development. In this context, the study explores the impacts of historical colonial legacies on the climate crisis, how this historical process has shaped contemporary climate policies and climate justice, and the arguments through which it continues today. By addressing how environmental exploitation and resource use during the colonial period have contributed to the disproportionate climate burdens in the Global South, the study emphasizes the importance of developing equitable and sustainable climate policies. To this end, the study seeks to answer the following questions about the connection between the current impacts of the climate crisis and the historical legacy of colonialism:

1- What is the historical connection between colonialism and the emergence of the global climate crisis?

2- How does the legacy of colonialism perpetuate inequalities in global climate policies and their implementation?

3- How does the neo-colonial approach to climate solutions, such as carbon offsetting, manifest, and how does it affect disadvantaged communities?

2. Methodology

This study adopted a qualitative research method to explore the relationship between colonialism and the climate crisis. Qualitative research aims to analyze phenomena with an interpretative approach by considering events and facts within their specific contexts (Karataş, 2015). In this study, published reports from international organizations such as the World Bank and the World Meteorological Organization were systematically examined, and the data were analyzed. Quantitative data used in the study were visualized using the Matplotlib library in the Python programming language.

The study addressed issues such as climate inequality, historical responsibilities, and climate-related migration. In this context, content analysis and thematic analysis methods were employed. Content analysis involved the systematic review and interpretation of international reports (Alanka, 2024), while thematic analysis facilitated the identification of key themes such as climate migration and post-colonial inequalities (Toker, 2022). The data collected during the research process were evaluated in their respective contexts, and the ways in which these data distributions reflected inequalities were analyzed.

This methodological approach aims to develop a deeper understanding of climate dynamics by adopting an interdisciplinary and holistic perspective.

3. Theoretical Framework

As colonial powers sought to seize raw materials and resources to support their growing economies, they often destroyed the natural ecosystems of the exploited regions. These inferences ignored future generations and local people and accelerated environmental degradation and jeopardized indigenous livelihoods (Wood, 2015). The environmental consequences of resource extraction and use during the colonial era continue to manifest in the form of climate crisis, biodiversity loss, and ongoing struggles for environmental justice in many parts of the world, and the legacy of this period is still being felt (Lane, 2012; Scarlett, 2022).

While combating the climate crisis remains a major challenge, its success will require a joint and collaborative international response. However, the capacity of nations to address climate crises is deeply influenced by historical factors, particularly colonial legacies that have long shaped economic and political power structures around the World (Ghosh, Chakraborty and Das, 2022). The dichotomy between the Global North and the Global South (the term Global North refers to the United States, Canada, Europe, Israel, Australia, New Zealand, and Japan, while the term Global South refers to Latin America, Africa, the Middle East, and Asia) (Hickel, 2020) is the result of the colonial past that influences today's climate policies and actions. Therefore, understanding past and present dynamics is of great importance in developing strategies to mitigate the global climate crisis (Whyte, 2017; Sultana, 2022).

Edward Said's Orientalism (Said, 1978) analyzes how the West constructs the East and how colonial power structures support these depictions. While Said's analysis of cultural representations also helps to understand discourses on environmental justice and the climate crisis, global narratives on environmental crises are often framed in discourses that portray the Global South as passive victims, reinforcing the West's monopoly on leadership and solutions.

In his work "*The Wretched of the Earth*," Frantz Fanon provides an important foundation for understanding the psycho-political dynamics of colonial domination and its lasting effects. The theories Fanon put forward on colonialism in his work help us understand how colonial legacies are reflected in contemporary environmental policies and climate justice struggles (Gerhart, 1997; Fanon, 2001). Achille Mbembe's concept of "*necropolitics*" offers an important approach to

analyzing the historically devastating effects of colonial power on populations and regions. In this context, the fact that most marginalized communities borne the burden of the climate crisis shows a modern reflection of this politics of death (Mbembe, 2003).

In her work "*Can the Subaltern Speak?*" Gayatri Chakravorty Spivak questions how the voices of colonized and marginalized communities are suppressed in global discourses. In the context of climate justice, the participation of indigenous communities and the Global South in climate policy can be seen as a struggle to overcome these historical forms of silencing stemming from colonialism. Spivak's theory argues that environmental policymaking requires the recognition of the knowledge systems and experiences of marginalized groups (Spivak, 1988).

David Harvey's work emphasizes the relationship between capitalist relations of production, spatial injustices, and environmental exploitation. Harvey shows how the global expansion of capital has led to environmental degradation and climate crisis. In his work "*The New Imperialism*" (Harvey, 2003), he explains how the colonialist appropriation of resources continues in today's neoliberal global economy, while his work "*Justice, Nature and the Geography of Difference*" (Harvey, 1997) draws attention to how spatial planning and economic power relations increase environmental injustices.

Carbon offsetting has emerged as an important part of strategies to reduce global greenhouse gas emissions. However, one of the criticized aspects of this approach is that it ignores historical responsibility and the effects of the colonial past from an environmental justice perspective (Bachram, 2004). The fact that the Global North tries to solve the climate crisis by purchasing carbon credits in the South instead of reducing its emissions has been evaluated as a modern reflection of colonial domination. This practice can lead to environmental burdens being unfairly shifted to marginalized communities, deepening global injustices (Bumpus and Liverman, 2008).

The postcolonial approach recognizes non-Western perspectives and values, integrates indigenous knowledge systems, and prioritizes the input and experiences of the Global South in climate policymaking and implementation. This theoretical approach is critical to achieving global justice and equity in addressing the climate crisis (Amorim-Maia *et al.*, 2022; Arndt, Halikiopoulou and Vrakopoulos, 2022; Wilkens and Datchoua-Tirvaudey, 2022; Redvers *et al.*, 2023).However, the structures and institutions that drive global climate policy are often criticized for perpetuating colonial power Dynamics (Ebaye, 2010; Peace Direct, 2020). For example, the principle of common but differentiated responsibilities and respective capabilities in the United Nations Framework Convention on Climate Change (UNFCCC) recognizes the unequal historical contributions to the climate crisis (IBFCR, 2019). However, implementation of this principle is challenging because developed countries are generally reluctant to shoulder a larger share of the mitigation and adaptation burden.

This theoretical framework helps us understand the systemic inequalities stemming from colonialism, how these inequalities are reflected in the fight against the climate crisis, and how more just and equitable solutions can be produced to combat this crisis.

4. Literature Review

The effects of colonialism on the climate crisis have been examined in light of various academic studies and theoretical approaches. In this context, the existing literature focusing on the psycho-cultural, economic, and environmental effects of colonialism has been presented as evidence that in-depth research has been conducted in the study.

Addressing the redefinition of sovereignty in the face of globalization and environmental concerns, Chung (2014) analyzed how globalization transformed the perception of the sovereignty of nation-states and the effects of this transformation on environmental policies. Similarly, Holland (1985) analyzed the decline of the European system of exploitation and the complexity of relations between states that emerged in the aftermath. Abdi (2012) examined the psycho-cultural and philosophical-epistemological effects of colonialism and investigated how colonialism affected the

mental structures of individuals and societies and the reflections of these effects on today's social and cultural dynamics. In parallel, Agboka (2014) examined the role of scientific research in colonial history and investigated how colonial powers controlled the production and dissemination of knowledge through science and technology.

Hamouchene (2023) studied a region with favorable conditions for energy transformation but was left behind by resource-grabbing and neocolonialist agendas. He examined how energy policies were shaped after colonialism and the impacts of these policies on local peoples. Gonzalez (2020), who addressed the relationship between the climate crisis, racial subordination, and the capitalist world economy, critically examined the laws, institutions, and ideologies that contribute to the maintenance of racial capitalism. The climate crisis has deepened racial and economic inequalities. Itawan (2023), who examined the history of Dutch colonization in Indonesia, examined in detail the destructive effects of colonialism and mercantile capitalism on nature and environmental changes such as deforestation. Reibold (2023) emphasized that the climate crisis has revealed colonial injustices and therefore the importance of decolonizing the concept of self-determination for a just response. He particularly emphasized the importance of decolonized approaches to climate justice struggles.

Rodney (1972) examined the negative impact of colonialism on the economic development of Africa in his work titled "*How Europe Underdeveloped Africa*". In this context, he analyzed the long-term effects of economic systems imposed by colonial powers on local economies. Nkrumah (1965) discusses the economic and political dependencies that continued in the post-colonial period in his work titled "*Neocolonialism: The Last Stage of Imperialism*" and addresses how former colonizers continued the colonial order. In this literature review, colonial studies were examined over a wide range. Thus, the study is enriched through different disciplines and helps to understand the economic, historical, cultural, and environmental effects of colonialism.

5. The Global Climate Crisis: Deepening Inequalities

The climate crisis, with both its causes and the effects it generates, remains one of the greatest challenges in human history. Since the Industrial Revolution, rising greenhouse gas emissions have intensified global warming and irreversibly disrupted the planet's natural balances. This crisis extends beyond being merely an environmental issue, as it profoundly impacts economic, social, and political systems. In particular, underdeveloped and developing countries, referred to as the Global South, are disproportionately affected by the severe consequences of the climate crisis. Factors such as poverty, environmental fragility, and limited capacity for adaptation render these regions more susceptible to climate-related disasters. Therefore, comprehensively evaluating the effects of the climate crisis is crucial not only for understanding existing global inequalities but also for devising equitable and sustainable solutions.

According to the World Meteorological Organization (WMO) 2024 report (WMO, 2024a), the year has witnessed record-breaking changes in the global climate system (Table 1). For instance, the global average temperature increased by 1.54°C compared to the pre-industrial period during January–September 2024, with temperatures breaking records for the past 16 months due to the influence of El Niño. While global emissions have risen by 51% since 1750, reaching 420 ppm, the absorption of heat in the atmosphere continues to grow. This leads to the oceans absorbing an average of 3.1 million TWh of energy per year, causing ocean temperatures to rise. The rate of sea level rise has accelerated, reaching 4.77 mm per year, which is more than double the rate observed between 1993 and 2002.

Glaciers are experiencing the greatest loss in terms of cumulative mass loss in recent years, with glaciers in regions such as Switzerland losing 10% of their volume in the last two years. Antarctic sea ice is also recorded at the second lowest level in satellite measurements, while Arctic sea ice coverage continues its downward trend. Extreme climate events affect millions of people worldwide, with heavy rainfall and floods causing infrastructure losses and forced migration, while

droughts and heat waves threaten agricultural production. The intensification of tropical cyclones has caused great destruction in coastal areas.

Table 1. Global climate status and key indicators (2024).

Category	Data and Findings
Global Average Temperature	January–September 2024 period recorded 1.54°C (±0.13) above pre-industrial levels.
Greenhouse Gas Levels	CO_2 concentration increased from 278 ppm in 1750 to 420 ppm in 2023, with a continued rise in 2024.
Ocean Warming	Ocean heat content reached record levels in 2023, with oceans absorbing 3.1 million TWh of heat annually between 2005 and 2023.
Sea Level Rise	Sea levels rose by 4.77 mm per year between 2014 and 2023, doubling the rate of the previous decade.
Glacial Loss	In 2023, glaciers lost 1.2 meters of water-equivalent ice, while Swiss glaciers lost 10% of their volume over the last two years.
Sea Ice Extent	Antarctic sea ice reached its second-lowest level, and Arctic sea ice recorded its seventh-lowest minimum in 2023.
Weather and Climate Extremes	Heavy rainfall, floods, droughts, heatwaves, and wildfires caused severe economic and humanitarian losses.
Early Warning Systems	It is aimed to protect everyone with early warning systems by 2027, with 108 countries currently having multi-hazard warning systems.

Source: (WMO, 2024a)

These data once again demonstrate that the climate crisis is not solely an environmental crisis but also an economic and humanitarian one. UN Secretary-General António Guterres has emphasized that the climate disaster exacerbates inequalities and undermines sustainable development, while WMO Secretary-General Celeste Saulo has stressed the urgent need to reduce greenhouse gas emissions and enhance early warning systems (WMO, 2024b). Consequently, 2024 has been a year that has vividly exposed the increasingly severe impacts of the climate crisis.

The climate crisis is deeply intertwined with global inequalities. While the poorest and most vulnerable groups—such as women, children, people with disabilities, indigenous peoples, migrant workers, and other socially excluded communities—bear the greatest burden of the climate crisis, they are also the least responsible for causing it. These groups disproportionately endure the impacts of extreme weather events, health challenges, loss of livelihoods, and forced migration. In other words, the climate crisis is not only an environmental crisis but also a social crisis. It exacerbates inequalities between poor and rich countries, between genders, within nations, and across generations (Ivers, 2023). In this context, the Intergovernmental Panel on Climate Change (IPCC) emphasizes the need for equitable and inclusive solutions in its report *Climate Change 2022 – Impacts, Adaptation and Vulnerability* (IPCC, 2023). Poorly designed policies, however, may further exacerbate the challenges faced by vulnerable groups, including poor households and indigenous communities (Ivers, 2023).

The Global Climate Risk Index (Eckstein, Künzel and Schäfer, 2021) eveals that the poorest countries, despite having the lowest carbon emissions, are the most vulnerable to the impacts of the climate crisis. This exacerbates existing global inequalities and undermines efforts to reduce poverty. According to the World Bank (World Bank, 2020), the ecological crisis could push 135 million people into poverty by 2030.

These deepening global inequalities are directly linked to climate-induced migration, one of the most visible consequences of the climate crisis. Crises such as extreme weather events, drought, sea level rise, and agricultural productivity loss are forcing millions of people to migrate from their homes (Gürçam, 2023). In particular, the most vulnerable communities—women, children, indigenous peoples, and migrant workers—face a heightened risk of forced displacement. Climate-induced migration is not only an environmental consequence but also a multifaceted crisis with economic, social, and political dimensions.

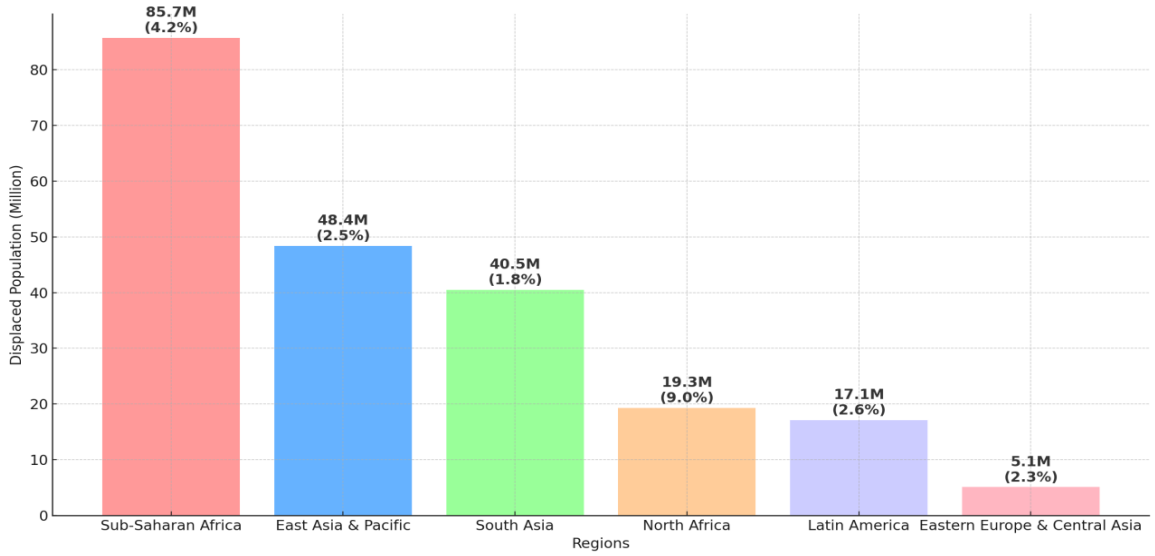

Figure 1. Climate-induced internal migration projections by 2050 across different regions. Source: (World Bank, 2021)

Figure 1 illustrates climate-related internal migration projections in different regions up to 2050, based on the "*Groundswell*" report published by the World Bank in 2021. Sub-Saharan Africa is projected to have the highest number of internal migrants, with 85.7 million people, representing 4.2% of the region's population. Drought and loss of agricultural productivity are the primary drivers of migration in this region. East Asia and the Pacific are expected to account for 48.4 million people (2.5%) displaced by rising sea levels and floods. In South Asia, 40.5 million people (1.8%) are anticipated to migrate due to water stress and heat waves. North Africa, with one of the highest percentages of affected populations, is projected to have 19.3 million people (9%) migrating due to water scarcity and desertification.

In Latin America, 17.1 million people (2.6%) are expected to migrate, largely driven by drought and deforestation in the Amazon. Eastern Europe and Central Asia are projected to experience internal migration affecting 5.1 million people (2.3%), with water resource depletion and extreme weather events being the main contributing factors.

As a result, the climate crisis impacts a wide range of areas, from the natural ecosystems of our planet to the socio-economic structures of human societies, while simultaneously intensifying these effects. Poor and vulnerable communities in the Global South are among those most severely affected by this crisis, yet they are also the least responsible for its creation. Climate-induced migration, one of the most visible human consequences of this phenomenon, continues to displace millions of people.

6. Colonial Origins of the Climate Crisis

Although the global climate crisis is often treated as a universal problem affecting all humanity, its roots lie in historical processes that have disproportionately disadvantaged certain regions and peoples, namely the enduring legacy of colonialism. The title "*Colonial Origins of the Climate Crisis*" emphasizes that these deep historical roots must be acknowledged and confronted to fully understand and effectively address current environmental problems.

Colonialism has played a major role in shaping the ecological map of the world. This system includes the exploitation of natural resources, agriculture for export, and the commodification of land under colonial rule, while creating an environmental model that is fragile in the face of the current climate crisis (Alam, 2000; Wood, 2015).Moreover, the carbon-intensive development model adopted by colonial powers and the consequences of this practice laid the

foundation for today's inequality in greenhouse gas emissions, which has historically deepened the gap between industrialized countries and colonized regions (Wijaya, 2021; Singh, 2023).

The colonial era saw the large-scale transformation of local and regional ecosystems to serve the demands of imperial powers, leading to the depletion of natural resources, disruption of indigenous land management practices, and destabilization of local communities. This process of resource extraction and environmental degradation is closely linked to the expansion of industrial capitalism and the increasing demand for raw materials and energy resources that would fuel the industrialization of the Global North (Wood, 2015).

Table 2. Colonial countries (Emissions from countries with a history of colonization).

Country	2023 Population (million)	Regional $GtCO_2$	Colonial $GtCO_2$	Consumption $GtCO_2$	2023 Per Capita tCO_2	Cumulative Per Capita tCO_2
United States	340	528	530	540	1,560	3,999
EU+UK	517	375	478	506	926	1252
United Kingdom	68	76	130	136	1,922	2,869
Germany	83	92	92	97	1,105	1,288
France	65	37	56	59	857	1,209
Netherlands	18	13	35	36	2,014	5,105
Japan	123	72	73	80	593	685
Canada	39	60	59	59	1,524	3,914
Australia	26	32	29	28	1,088	2,196
Italy	59	25	25	29	432	481
Spain	47	22	24	25	475	710
Portugal	10	7	8	8	702	1,049

Source:(Carbon Brief, 2023c)

The countries in Table 2 can be classified as countries that have colonized or influenced other countries in the past, while the countries in Table 3 can be classified as countries that have been used as colonies in the past or whose resources have been exploited through external interventions.

When interpreting these two tables, the concept of "*colony*" historically refers to powers that exploit the resources, labor force, and lands of other countries for their own benefit (Kohn and Reddy, 2023).In the process of colonization, Europe and other major empires (England, France, Netherlands, Portugal, etc.) took control of and exploited the wealth, labor force, and natural resources of many countries or regions in Asia, Africa, and Latin America. These colonial actions led to a rapid increase in industrialization and emissions.

Table 3. Colonized countries (Emissions from historically colonized or exploited countries).

Country	2023 Population (million)	Regional $GtCO_2$	Colonial $GtCO_2$	Consumption $GtCO_2$	2023 Per Capita tCO_2	Cumulative Per Capita tCO_2
China	1,426	307	309	284	217	218
India	1,429	87	74	71	52	81
Brazil	216	115	115	116	533	1,421
Indonesia	278	91	69	68	248	386
South Africa	60	27	27	22	439	1,016
Mexico	128	31	31	32	425	727
Argentina	46	25	25	25	543	2,678
Philippines	113	20	18	17	177	209
Vietnam	100	18	17	16	160	204
Nigeria	223	17	15	14	75	99

Source: (Carbon Brief, 2023c)

In the comparison of the two tables, cumulative per capita carbon emissions are significantly higher in colonial countries than in exploited countries. For example, the cumulative per capita emissions of colonial countries such as the United States (3,999), Canada (3,914), and

the Netherlands (5,105) are at high levels due to industrialization- and consumption-oriented economic policies that have been going on for years. In contrast to colonial countries, cumulative emissions are relatively lower in countries that were previously exploited (China: 281, India: 81, Nigeria: 99). It can be said that the main reason for this proportional change is the delay in the industrialization process and the control of economic resources by external interventions.

In terms of per capita emissions, countries with colonial pasts still have much higher per capita carbon emissions than many exploited countries. For example, countries with a colonial past, such as the United States (1,560 tCO_2), the United Kingdom (1,922 tCO_2), and the Netherlands (2,014 tCO_2), have higher emissions due to both their high consumption rates and industrialized structures. On the other hand, countries with a history of exploitation, such as India (52 tCO_2), Nigeria (75 tCO_2), and Indonesia (248 tCO_2), have lower per capita emissions. The low per capita emissions of these exploited countries are closely linked to developing economies and limited industrial infrastructure.

Countries like China and India, although not colonial, have very high regional carbon emissions due to their economic growth, industrialization, and rapid urbanization (China: 307 $GtCO_2$, India: 87 $GtCO_2$). However, in Western Europe and North America, regional carbon emissions are also high. For example, the main reason for the emissions caused by colonial powers (528 $GtCO_2$ in the USA and 375 $GtCO_2$ in the European Union) is due to historically large waves of industrialization and intensive energy consumption that have continued to this day.

Historical colonialism deepens inequalities of power, wealth, and capabilities between former colonial powers and colonies, leaving the Global South a passive actor in international climate negotiations and policy-making processes (Roberts and Parks, 2006).This historical context, which is central to climate justice, calls for more equitable and ethical decision-making processes, taking into account the past suffering of the Global South and the historical emissions debt of the Global North. In this context, reconsidering and updating the principles of international climate agreements is crucial. For example, principles such as "*common but differentiated responsibilities*", which pose great challenges in their practical application, often fail to effectively address power differentials or provide adequate support to vulnerable nations (Thomas *et al.*, 2020).

The history of the climate crisis dates back to the colonial powers that designed the modern world, their legacies, and the unequal development models they implemented (Humphreys, 2014, p. 134). Postcolonial scholars who have examined the human figure in the Anthropocene era have argued that the concepts of a citizen with rights and a subject in danger of erasure are inadequate for understanding the complexity of this period. In this context, they have argued that human beings should be examined in more depth and a comprehensive and multidimensional manner, and they have stated that a more nuanced understanding is needed. In this context, local studies in particular emphasize that the climate crisis, the oppression imposed on indigenous peoples by colonialism, and their experiences of environmental change should be examined in depth and re-evaluated. These studies contribute to a better understanding of the environmental and social impacts of indigenous communities are exposed to by considering the climate crisis as a way of life shaped by colonial interventions (Mbembe, 2003; Wynter, 2003; Ford, 2012; Chakrabarty, 2021; Climate Emergency Institute, 2024; United Nations, 2024).

From a different perspective, the colonial legacy of the climate crisis is also evident in the inequalities and power imbalances that exist in global economic development. For example, while powerful countries in the Global North benefit disproportionately from the benefits of carbon-intensive economic activities, historically distinct communities in the Global South experience the effects of the climate crisis most acutely. This carbon hegemony established by the Global North is sustained by the transnational transfer of polluting industries, environmental problems and burdens, and unjust policy frameworks that constrain the development of the Global South. Therefore, the rapid economic growth of many developing countries is seriously hampered by the imposition of

green standards that do not consider historical conditions and development needs (Guo, 2020; Gattey, 2021; Sultana, 2022; Vasques, Nakaoshi and Fortunato, 2022).In addition, the climate crisis not only exacerbates existing power imbalances but also leads to the expansion of victim zones and the marginalization of displaced communities, often along lines of race and class. This is because the discourses and narratives surrounding the climate crisis are largely shaped by the interests of fossil fuel industries, powerful governments, and elite allies, often ignoring the perspectives and experiences of communities on the front lines of combating the climate crisis and less powerful states dealing with loss and damage (Whyte, 2017; Daszkiewicz *et al.*, 2021; Sultana, 2022; Tinsley, 2022).

If we conduct a historical analysis of emissions that cause the climate crisis, the sharp differences in emission rates between the Global North and the Global South can be better understood. In this context, the effects of the industrialized countries of the Global North that cause anthropogenic greenhouse gas emissions have been realized through rapid industrialization and resource extraction processes (Guo, 2020).In contrast, the majority of countries in the Global South, while contributing little to historical emissions accumulation, are disproportionately affected by the impacts of the climate crisis. This unbalanced and unequal burden is a direct result of the colonial era, in which the land, resources, and labor of the Global South were exploited, enabling the economic development and technological advances of the colonial powers of the Global North (Azad and Chakraborty, 2019; Guo, 2020; Snyder, 2020).Likewise, the transfer of polluting industries requiring intensive energy use to developing countries due to unequal power dynamics and the fact that the already existing unequal emissions burden is assumed by the Global South has made this structural imbalance even more persistent (Guo, 2020).

For example, the richest 20% of the global population accounts for more than 60% of current greenhouse gas emissions, while this figure is estimated to have risen to over 80% with historical contributions (Roberts and Parks, 2009).In contrast, Sub-Saharan African countries account for only 2,8% of global emissions, yet are still exposed to the most severe climate crisis impacts, such as drought, flooding, and food insecurity. This disparity in emissions and vulnerabilities embodies the deep injustice of the global climate crisis, which is rooted in the exploitation of the Global South by colonial powers (Chapman and Ahmed, 2020; Ritchie, 2023).To give a more specific example, while the US, EU, and China account for around 59% of global CO2 emissions, Brazil accounts for only 0.9%, and the entire African continent accounts for only 3% of these emissions (Kneifl, 2024).

7. Neocolonialism: Carbon Offsetting

Although the climate crisis is accepted in the international system due to its consequences, fossil fuel companies are following a policy of denial to protect and maintain their profits and power, creating confusion in society. In this context, fossil fuel companies have shaped the climate policies discussed at the United Nations (UN) World Summit in 1992 because of their lobbying activities. The Kyoto Protocol of 1997 also set a target for Northern countries to reduce their greenhouse gas emissions by 5.2% below 1990 levels by 2012. As a result, a structure that allows carbon offsetting, carbon trading, and companies to offset their emissions through other projects has been established within the framework of combating the climate crisis (Cabello and Hartlief, 2024).

Carbon offsetting has emerged as an important means of solving the global climate crisis. However, it has been criticized by some academics, especially because it resembles a new form of colonialism (Larsson and Orvehed, 2021; Wang, 2021). However, the Paris Agreement signed in 2015 has led to the expansion of carbon markets and the adoption of afforestation-based offset projects (Cabello and Hartlief, 2024).The system, known as carbon offsetting, involves purchasing carbon credits through projects that aim to reduce or abstract greenhouse gas emissions to compensate for emissions produced elsewhere. Some (Carbon Brief, 2023a; Earthly, 2024), argue that this system, which is highly controversial from an ethical perspective, merely provides

individuals and organizations with a convenient way to cover up their emissions without addressing the root causes of the climate crisis (Monbiot, 2009, 2022; Hyams and Fawcett, 2013).In addition, new and fungible forms of property have been created to commodify carbon, displace local communities, and create land grabs (Corbera and Brown, 2010). For example, the activities of GreenResources (a large forestry plantation operator) in Uganda have caused great concern, with the company's activities alleged to have negatively impacted the livelihoods of local people, causing displacement of local people, problems with access to land, and the weakening of traditional land management practices (Lyons and Westoby, 2014; The Oakland Institute, 2023).

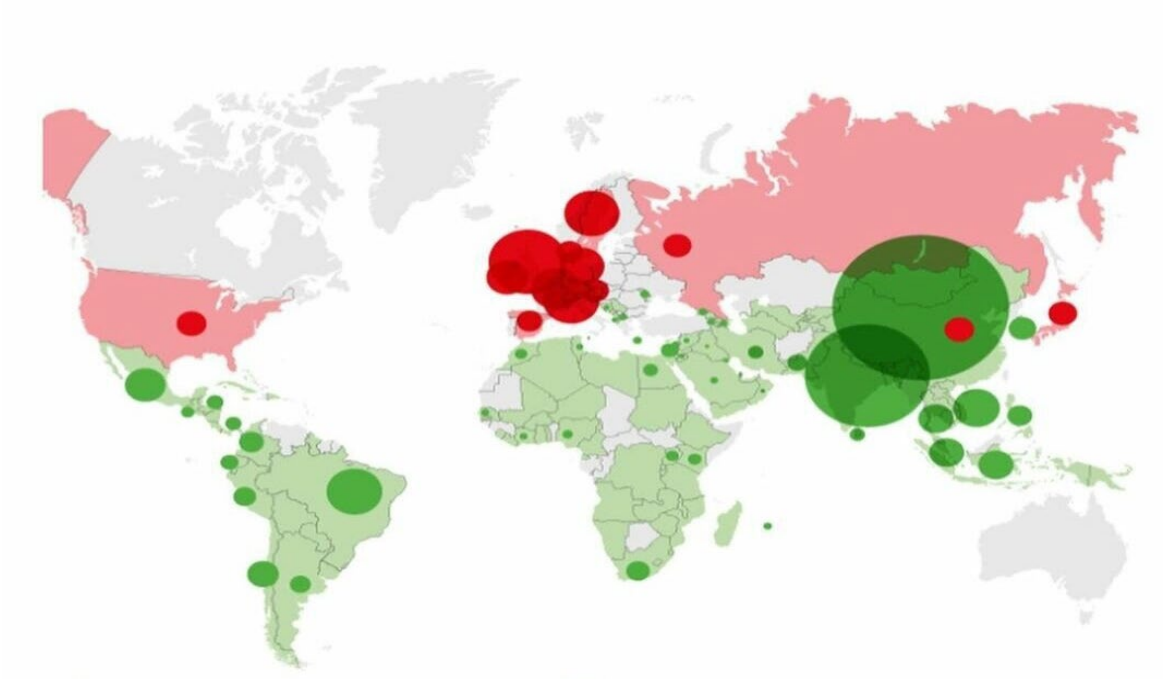

Figure 2. Red indicates the countries where the top 20 companies purchase carbon offsets, while Green represents the countries where the majority of carbon offset projects are implemented. Source: (Dagens Nyheter, 2019).

Carbon offset projects tend to be located in the Global South (Figure 2); however, these credits are often purchased by wealthy countries in the Global North. This allows developed countries to offset their emissions without fulfilling their responsibilities. In Kenya and Brazil, projects funded by major governments have forcibly displaced indigenous communities. These projects can jeopardize people's livelihoods by damaging local economies and disrupting their daily lives (Lyons and Westoby, 2014; Carbon Brief, 2023b; Marshall, 2023). For example Larsson and Orvehed (2021) made the following inferences from their findings on carbon offset projects in their study titled "*Carbon Offsetting, a new form of CO2lonialism? Local implications of tree-planting projects in East Africa*": They stated that there are differences between the discourse and reality at the global and local levels regarding carbon offsetting, that local priorities are not considered important through carbon offsetting and projects, that these projects are based on Western ontologies and epistemologies, and that carbon offsetting is a dream to compensate for the current high emission levels. They also emphasized that the burden of carbon offsetting is placed on the Global South, that the Global South can become the garbage dump of the Global North, and that although countries have been liberated from colonialism, this order can re-establish the neo-colonial order of unequal power.

Carbon offsetting may theoretically benefit nations and companies that find it difficult to reduce emissions. However, in practice, this win-win scenario does not occur. As shown in Table 4, the aspects presented as positive benefits can be considered matters that serve the prestige of companies or countries and distract the public from reality. Many developing countries, NGOs, and

indigenous people fear that carbon markets will jeopardize local livelihoods and create additional emissions gaps. For example, emissions from oil and gas companies in California have increased by 3,5% since the state implemented a cap-and-trade plan (Song, 2019; Bourke, 2022).

Table 4. Pros and cons of carbon offset.

Titles	Pros	Titles	Cons
Reducing carbon footprint	Offsetting allows businesses to compensate for unavoidable carbon emissions, thereby reducing their overall carbon footprint.	**Does not produce a solution**	Offsetting does not solve the core issue of reducing carbon emissions; it merely compensates for them.
Sustainability goals	Carbon offsetting can help businesses achieve sustainability goals and demonstrate their commitment to environmental responsibility.	**Status of carbon offset projects**	Carbon offset projects are not always effective in reducing emissions and can have negative social and environmental impacts.
Corporate reputation	Carbon offsetting may appear to reduce the environmental impact of the climate crisis, and it may be viewed as a positive action by consumers, investors, and stakeholders.	**Additivity**	The offset projects may not provide a real additional contribution due to discussions of additivity, which may cause the impact of the project to be uncertain.
Sustainability projects	By investing in carbon offset projects, businesses can support environmental projects that benefit local communities and ecosystems.	**The problem of permanence is as follows:**	There is a risk that carbon stored could be released back into the atmosphere in the future, rendering the project obsolete.
Common benefits	Carbon offset projects offer additional benefits, such as promoting biodiversity, improving air and water quality, reducing waste, and supporting local communities.	**Greenwashing**	Companies can use carbon offsets to create a misleading impression of environmental responsibility without actually reducing their emissions.

Source: (Earthly, 2024)

Carbon offsets and projects can be a legitimate way to remove historic carbon from the air and counteract a small residual of inevitable emissions. However, these projects often favor fast-growing monoculture forests. Studies have shown that mixed native forests capture the same amount of carbon and are better at supporting wildlife (Warner *et al.*, 2023). However, it can take 20 years for a newly planted tree to reach a size that can capture the promised amount of carbon (Giebelmann, 2023), creating a smokescreen for emissions growth in the critical decade to 2030.

Indigenous leaders and activists argue that carbon offset projects should be more tightly regulated. Projects must be regulated in a way that considers social justice issues, protects the rights of indigenous peoples, and supports the economic and social life of local communities. It is also emphasized that the focus should be on absolute zero emissions rather than carbon neutrality (Sen and Dabi, 2021).

8. Climate Debt and Global Inequalities

The concept of climate debt is based on the idea that historically industrialized countries owe debt to the rest of the world in the context of the climate crisis because of their disproportionate impact on global greenhouse gas emissions. The Industrial Revolution ushered in an era of carbon emissions that has driven and extraordinarily changed the global climate. The accumulated emissions of historically industrialized countries have caused great damage to the global environment, and the deep impacts of the climate crisis resulting from these emissions are most severe in developing countries, which contribute the least to emissions and are least able and equipped to deal with their consequences (Althor, Watson and Fuller, 2016; Meng *et al.*, 2018; Clements, Gupta and Lıu, 2023).

Table 5 shows the responsibilities and liabilities arising from greenhouse gas emissions. While international treaties and national laws establish the legal framework that triggers the creation of this debt, the debtor is usually the actor responsible for the emissions (states, companies, or individuals), although in some cases states can act as a proxy debtor. The creditor

has been defined as present and future generations, suggesting that climate debt is a moral and social obligation. The size of the debt depends on the carbon budget, and the costs of decarbonization constitute the financial indicator of this debt. Finally, the Table provides a framework for how responsibilities should be allocated in the context of climate justice and sustainability.

Table 5. Components of Climate Debt and Responsibility Framework

Attribute	Climate Debt
Triggering Event	International agreements, national law
Debtor	Actor emitting a greenhouse gas. The state can act as a substitute in some cases
Creditor	Present and future generations, represented by the state
Principal	Carbon budget, corresponding to the triggering event
Temporality	Explicitly created by the triggering event
Monetary Indicator	Investment costs for decarbonization

Source: (Batut, Kaiser and Surun, 2024)

The concept of climate debt is also based on the argument that countries with historical responsibility for global emissions must take measures to mitigate and adapt to the climate crisis in a way that is balanced with the emissions they cause. This responsibility recognizes that existing global inequalities are exacerbated by the negative impacts of the climate crisis. Low- and middle-income countries of the Global South, despite contributing little to atmospheric CO2 accumulation, are suffering the majority of the losses from the climate crisis (Pickering and Barry, 2012; Hallegatte, Fay and Barbier, 2018; Amoo and Layi Fagbenle, 2020).This situation is stated in Matthews's (2016) study as follows: While historical emissions and therefore climate debt increase inequalities in the global system, these debts affect global equality strategies. Therefore, it is important to calculate historical emissions fairly and compensate for these debts.

Current needs arising from the climate debt framework should be addressed with a multi-faceted approach. Namely, developed countries or countries with historical responsibilities must contribute economically to climate funds to combat the climate crisis. In particular, the approach to these contributions should not be seen as aid or development assistance but rather as debt payments to countries struggling with the heaviest burden of the climate crisis.Warlenius (2018), argues that climate debt should be seen as a violation of community rights and territories. In this context, initiatives such as the Green Climate Fund aim to finance projects implemented or planned in the Global South, but the payments made are insufficient both in terms of quantity and the appropriateness of the funds reaching those in urgent need (Care Climate Change, 2021).

Another element that needs to be addressed within the scope of climate debt is technology transfer and capacity building. This element is the need to build climate-resilient infrastructure and technologies that facilitate sustainable development, especially in developing countries. Green and Healy (2022), discussed the impact of inequalities on the climate crisis and how the Green New Deal could address these impacts, emphasizing the importance of technology transfer and capacity building. However, technology transfer mechanisms face obstacles such as intellectual property rights and a lack of adaptation to local contexts (Novak, 2009).

Another important element that needs to be addressed within the scope of climate debt is "*loss and damage*" financing, which accepts that the impacts resulting from the climate crisis cannot be overcome through adaptation alone; therefore, climate debt requires compensation. In this context, developed countries are asked to acknowledge their role in historical emissions and contribute to the compensation of irreversible damage. Sallan and Achampong (2024) have highlighted the impact of climate and debt crises on women in the Global South and the urgency of the need for such financing. However, the political resistance of developed countries to accept responsibility for the problems they cause or to contribute sufficiently to loss and damage financing continues to be a significant obstacle to the provision of loss and damage financing (Lakhani, 2023). Finally, given the impact and urgency of the climate crisis, the concept of climate debt highlights the need for a more equitable accounting of historical responsibilities and current needs.

This is essential both to minimize the impact of the climate crisis and to build a more equitable global order.

9. Discussion and Conclusion

The ongoing climate crisis is deeply connected to the historical legacy of colonialism. The greedy exploitation of nature by the Global North during the industrialization process has not only triggered today's environmental disasters, but also established a permanent system of inequality and ensured the continuation of this system. This dynamic continues to exist in the modern era through mechanisms such as carbon offset projects and can be seen as a modern extension of colonial practices. The economic power and political hegemony of the Global North are a determining factor in global climate policies, as well as directing the system. The North prioritizes its own interests and ignores its historical responsibility by using technological innovation and resource advantages. In this context, the North is not only a consumer but also an exploiter. This dominant influence on climate policies emerges as one of the greatest obstacles to a just solution process.

Frantz Fanon's views on the destructive nature of colonialism provide an effective framework for examining these dynamics. Fanon emphasized that colonialism is not limited to economic exploitation, but also leads to cultural and social destruction. Similarly, the Global North's reluctance to take responsibility for the climate crisis reflects this historical pattern. Carbon offset projects, presented as environmentalist, contribute to the perpetuation of the cycle of ecological imperialism by exporting the North's environmental responsibility to the South.

Achille Mbembe's concept of necropolitics sharpens this critique even further, emphasizing the systematic deprivation of marginalized communities from their right to life. In the context of climate policies, this concept clearly reveals the unjust effects of carbon offset projects. In particular, the deprivation of indigenous peoples of their agricultural lands under the guise of afforestation or forest protection restricts their livelihoods, that is, their living spaces. These projects transform climate action into a new form of colonial domination.

The Global South, on the other hand, is paying the heaviest price for this imbalance. Climate disasters, unjust impacts, and displacement are among the most important problems facing the South. In addition, inadequate financing and lack of technological infrastructure significantly limit the South's capacity to adapt. This creates a vicious cycle that imposes an obligation on the South to adapt. Postcolonial analysis is essential to understanding how climate policies can reinforce historical injustices.

This inequality is not accidental, but rather a continuation of historical patterns of exclusion. The same regions that were marginalized during the colonial era are now denied basic climate resilience measures, such as access to clean water, technology, and social welfare. Climate policies shaped by the North's economic interests often hinder meaningful international cooperation, making it impossible to achieve climate justice.

The 29th Conference of the Parties (COP29) in November 2024 exemplifies this contradiction. The dominance of fossil fuel interests in such meetings (1,773 fossil fuel lobbies were allowed to attend, more than most countries) (Frost, 2024) and the frequent minimization or complete withdrawal of commitments by major emitters in the North make it nearly impossible to make important decisions.

Addressing the climate crisis globally requires a fundamental reassessment of global power structures. The historical legacy of colonialism must be confronted and principles of justice and equality must be placed at the center of climate policies. A just climate response will not emerge as long as the current system perpetuates inequality under the guise of environmental responsibility. Without fundamental change, global climate action will continue to be stymied by the same forces that shaped colonial histories.

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