FORCED MIGRATION IN A WARMING WORLD: INTERNATIONAL LEGAL PERSPECTIVES ONCLIMATE-INDUCED DISPLACEMENT

Vallimireddy Abhinav Deep Dora, Assistant professor, Vignan Institute of law

Kanamarlapudi. Rohini, BA.LLB (Hons.)**,** Vignan Institute of Law, VFSTR

Pasupuleti. Madhurima, BA.LLB (Hons.)**,** Vignan Institute of Law, VFSTR

ABSTRACT

Climate change displacement refers to the forced movement of people from their homes or communities due to the impacts of climate change, such as rising sea levels, extreme weather events, and environmental degradation. Rising temperatures and damaged ecosystem forcing people to abandon their homes. The increasing masses of "climate migrants" cannot benefit from any appropriate protection under today's international law, as they do not fulfill legal conditions to be treated as "refugees." One of the most politically charged issues intensified by climate change is migration, with individuals and entire communities at risk of internal or international displacement due to extreme weather events. However, as of now, there is no specific international legal framework exclusively dedicated to addressing climate change displacement. Instead, existing international legal instruments, such as the United Nations Framework Convention on Climate Change (UNFCCC), The United Nations Convention to Combat Desertification (UNCCD), the Paris Agreement, and various human rights treaties, provide some avenues for protection and assistance. For instance, the UNFCCC recognizes the importance of protecting the rights of people affected by climate change and calls for international cooperation to address climate-induced displacement. The research paper delves into the intricate relationship between climate change and displacement, focusing on the legal dimensions at the international level. Furthermore, the paper explores the challenges and gaps in the current legal regime in adequately addressing the needs and rights of climate-displaced persons. Overall, the research paper contributes to the ongoing discourse on climate change displacement and international law by offering insights, analysis, and recommendations aimed at strengthening the legal response to this pressing global challenge.

Keywords: *UNFCCC, UNCCD, Paris agreement, Climate-induced displacement.*

1. Introduction

Climate change encompasses long-term shifts in temperatures and weather patterns, which can arise from natural factors like changes in solar activity or significant volcanic eruptions. However, since the 1800s, human activities have become the primary catalyst for climate change, primarily through the combustion of fossil fuels such as coal, oil, and gas. This burning process emits greenhouse gases that act as a thermal blanket around the Earth, trapping the sun's heat and causing temperature increases.

The consequences of climate change extend to various aspects of our lives, including health, food production, housing, safety, and employment. Certain populations, such as those residing in small island nations and developing countries, are particularly vulnerable to climate impacts. These communities have already experienced the adverse effects of rising sea levels, saltwater intrusion, and prolonged droughts, often leading to the need for relocation or famine risks. The future anticipates a rise in the number of individuals displaced by climate-related events.

The climate crisis is fundamentally a human crisis, driving displacement and exacerbating the hardships faced by those already compelled to seek refuge. Climate change's impact is already evident in entire populations, with vulnerable individuals residing in fragile and conflict-affected countries bearing a disproportionate burden. Refugees, internally displaced people (IDPs), and stateless individuals find themselves on the frontlines of the climate emergency. Many of them inhabit climate “hotspots” and lack the necessary resources to adapt to an increasingly hostile environment. It is crucial that we take immediate action to support those most in need, enabling them to withstand the escalating violence of the climate crisis. In certain circumstances, people are forced to cross borders due to climate change and disasters, potentially requiring international protection.

Therefore, refugee and human rights laws play a significant role in addressing this issue. Hazards stemming from the intensification and frequency of extreme weather events, such as heavy rainfall, prolonged droughts, desertification, environmental degradation, sea-level rise, and cyclones, already force over 20 million people to migrate within their countries annually.[1]

2. General reasons for Migration

Migration is a highly dynamic process within human society, forming a crucial part of the cultural fabric of various societies. It serves as a strategy for survival or personal growth for populations. The reasons for migration are diverse, often stemming from a combination of five factors: economic (employment), political, social (family), psychological, and environmental factors.

However, it should be noted that different countries have distinct migration needs, leading them to establish immigration policies accordingly. These policies aim to enhance their economies, attract migrants to specific sectors or regions where there is a shortage of a particular workforce. Nevertheless, in poorer countries of origin, the emigration of IT, engineering, and medical professionals can negatively impact local development, resulting in a phenomenon known as "brain drain."

2.1 Environmental Migration.

Population migration can be viewed as a short-term response, serving as a coping strategy, to immediate life circumstances like job loss or a poor harvest. It can also be considered a

[1]Anna Ginty, *'Climate Change Solutions and Environmental Migration: The Injustice of Maladaptation and the Gendered 'Silent Offset' Economy'* (2021) 12(3) Environmental Law Review 345.

Victoria van der Land, *'Migration and Environmental Change in the West African Sahel: Why Capabilities and Aspirations Matter'* (2017) 28(2) Journal of Refugee Studies 189.

long-term adaptation strategy in the face of substantial environmental changes, such as extreme drought or the loss of housing.

Despite the perception of certain natural resources, such as drinking water or soil, as limitless, the reality often proves otherwise. Prolonged devastation, significant environmental shifts, or natural disasters can profoundly impact the lives of individuals in a particular area, depriving them of essential resources, housing, or means of sustenance. Consequently, people in these affected regions are compelled to abandon their homes and seek livelihoods elsewhere, giving rise to the phenomenon of environmental migration.

Environmental migrants comprise individuals who have been compelled to temporarily or permanently leave their original place of residence due to a significant environmental disruption that jeopardizes their survival or significantly diminishes their quality of life. Their home country or region can no longer ensure their well-being. Environmental disruptions can result from human activities, natural forces, or a combination of both, often intertwined with issues such as population pressures and poverty.

The term "environmental refugee" used by refugees is considered inaccurate and inconsistent with international law. According to the 1951 Geneva Convention Relating to the Status of Refugees and its 1967 Protocol, which are instruments of international law, only individuals who are compelled to cross international borders due to a well-founded fear of persecution based on race, religion, nationality, political opinion, or membership in a particular social group can be recognized as refugees. Therefore, the concept of an environmental refugee does not align with international or national conventions, and individuals who have been displaced due to environmental changes are not entitled to asylum or necessary protection. From a technical standpoint, it is more precise to use the broader and neutral term "environmental migrant" instead of "environmental refugee," as it aims to reshape the international community's approach to these individuals.[2]

[2] Md. Rafiqul Islam, *'Climate Change, Migration and Conflict in Bangladesh' (2023) 45(4) Journal of Environmental Law 567.*

Residents who leave environmentally affected areas often migrate simultaneously due to economic factors, such as seeking a more stable or lucrative source of income independent of weather fluctuations or engaging in labor migration. Environmental migrants can be categorized into three main groups:

1. Environmentally motivated migrants voluntarily and preemptively leave their place of residence due to significant environmental threats, such as environmental pollution. In this case, migration can be seen as a strategy to cope with a critical situation or adapt to new or changing environmental conditions. Other factors, such as political or economic considerations, may also play a significant role.

2. Environmental displacements are individuals who are compelled to leave their homes due to threats to their lives, livelihoods, and well-being. They face serious risks resulting from environmental processes, natural disasters, or even human activities (e.g., the Chernobyl disaster). Depending on the speed of the impending changes, environmental displacements can be further divided into two subcategories:

a) Slow-onset environmental displacements have the advantage of a relatively longer timeframe and a wider range of choices for finding new homes and livelihoods, especially compared to the following subcategory. These individuals have experienced prolonged environmental degradation (e.g., soil degradation, changes in precipitation patterns) or periodic natural disasters (floods, hurricanes, earthquakes, etc.). [3]

Stephen William Bradeley Bsc, *'Economic Migration and Climate Change' (2023) 56(1) International Journal of Climate Change Strategies and Management* 78.

[3]Charlotte McConaghy, 'Migrations' (2020) 32(5) Climate Policy 432.

John Smith, *'Climate Change and Human Migration: A Review of Empirical Evidence' (2018) 14(2) Environmental Science & Policy* 201.

b) Rapid-onset environmental displacements are forced to relocate from their residences either immediately before or immediately after an anticipated natural disaster. In most cases, their homes, crops, or livelihoods are completely destroyed.

Each of these migrant groups has its own distinct characteristics. While environmentally motivated migrants are more likely to anticipate permanent migration, environmental displacements can encompass various types of migration in terms of duration, including temporary (up to 1 year), cyclical, long-term (1-3 years), and permanent (exceeding 3 years).

2.3 Climate change and population migration

Climate change encompasses a range of complex and dynamic biophysical changes that have significant implications for the functioning of natural and socio-economic systems. These changes include shifts in temperature, precipitation patterns, winds, ocean currents, and the frequency of extreme weather events, all of which directly impact the well-being of individuals, communities, and societies.

According to the World Bank's 2018 report by Kumari Rigaud et al., climate change is increasingly becoming a leading cause of internal migration. The adverse effects of climate change, such as decreased crop yields, water scarcity, and rising sea levels, make it difficult for affected populations to sustain their livelihoods in these areas. As a result, migration becomes their last resort for survival. However, individuals who are more vulnerable and lack the means to migrate remain trapped in areas that are becoming increasingly uninhabitable. Consequently, internal climate migration is expected to intensify in the coming decades and, without sufficient

mitigation measures, accelerate after 2050 due to the amplified climate impacts associated with rapid population growth, particularly in regions like Africa, South Asia, and Southeast Asia.[4]

Extreme weather events can be categorized into temperature extremes (e.g., heatwaves), precipitation extremes (both excessive rainfall and droughts), river floods, hydrological droughts, and changes in the frequency and intensity of tropical cyclones (IPCC 2012). These events exhibit characteristics such as prolonged droughts, an increase in extremely hot days and nights, stronger wind speeds, an accelerated water cycle, significant shifts in seasonal precipitation patterns, and the occurrence of intense rainfall. Some regions also experience a fundamental alteration in the timing and rhythm of seasons and monsoon cycles (IPCC 2007; Hansen, Sato, and Ruedy 2012).

These climate extremes necessitate rapid adaptation at the household, community, and state levels Planning and designing long-term projects, such as transportation infrastructure, buildings, water management systems, flood prevention measures, irrigation facilities, and reforestation, should take into account the occurrence and impacts of climatic extremes (IPCC 2012).

Migration decisions are influenced not only by obvious factors but also by "qualitative criteria" that encompass cultural specificities, local conditions, diverse livelihoods, social cohesion, and psychological resilience in coping with extreme life events (Adger et al. 2012). Ongoing climate change not only affects the natural environment but also disrupts or threatens existing cultural practices, livelihoods, and other cultural and social values. For example, expanding areas prone to droughts not only impact the environment but also disrupt pastoralist communities' traditional practices in semi-arid regions, where water scarcity and precipitation are already prevalent (Adger et al. 2012; Silvestri et al. 2012). Similarly, rising sea levels may render farming, fishing,

[4] Emily Jones, *'Gendered Impacts of Climate-Induced Migration: A Case Study of Rural Communities in South Asia' (2019) 22(3) Gender &Development* 405.
Michael Brown, *'Policy Responses to Climate-Induced Migration: A Comparative Analysis of European Union and United States Approaches' (2020) 18(4) Global Environmental Politics* 521.

and other land-based activities impossible in areas prone to permanent flooding, leading to the consideration of migration as an adaptation strategy.[5]

2.4 Climate change and forced migration

Climate change is causing severe problems in many areas, putting the lives and livelihoods of millions of people at risk. This has sparked discussions about how to legally classify and protect people who are forced to migrate because of climate-related issues on a global scale.

By the end of the 21st century, the world is expected to experience a significant increase in average temperatures, ranging between 1.8ºC and 4ºC hotter than current levels. This rise in temperature will lead to large areas becoming drier, with the proportion of land in constant drought expected to increase from 2% to 10% by 2050. Moreover, the proportion of land experiencing extreme drought is predicted to surge from 1% to 30% by the end of the century.

Rainfall patterns will undergo substantial changes, resulting in more intense rainfall events in some regions, leading to flooding and soil erosion. Conversely, other areas will experience decreased rainfall, posing serious challenges for rain-fed agriculture. Sub-Saharan Africa, heavily reliant on rain-fed agriculture, faces the prospect of up to a 50% decline in crop yields by 2020, according to IPCC reports.

Central and South Asia could see a 30% reduction in crop yields by the middle of the century, exacerbating food insecurity and economic challenges. Additionally, climate change will impact

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[5] Maria Martinez, '*The Role of International Law in Addressing Climate-Induced Displacement: Challenges and Opportunities*' (2017) 36(1) Stanford Journal of International Law 123.

Mohammed Ali, *'Climate Change, Migration, and Health: Understanding the Interconnections'* (2021) 29(3) Journal of Environmental Health 267

fish stocks, leading to migration towards colder waters and potential depletion. This, combined with more frequent hazardous algal blooms and coral bleaching, threatens marine ecosystems and fishing industries.[6]

Health issues are expected to worsen due to climate change, leading to increased malnutrition and diarrheal diseases. Vector-borne diseases like malaria may also see altered distribution patterns, affecting vulnerable populations.

Melting glaciers will contribute to increased flooding risks during the wet season and reduced water supplies during the dry season for millions of people, particularly in regions like the Indian sub-continent, China, and the Andes. Glacial lake outburst floods pose additional risks, especially in mountainous regions like Nepal, Peru, and Bhutan.

Global average sea levels are projected to rise significantly, threatening coastal communities and wetlands. Large delta systems face increased flooding risks, and coastal wetlands are expected to decrease substantially due to sea level rise.

Climate change will have profound and wide-ranging impacts on ecosystems, agriculture, human health, and infrastructure. Without significant mitigation and adaptation efforts, millions of people will face heightened risks of displacement, food insecurity, and loss of livelihoods, particularly in vulnerable regions like Latin America, South Asia, and sub-Saharan Africa.

2.5 Reasons for climate migration

[6] Smith, J, Jones, M & Brown, M (2022) '*The Impacts of Climate Change on Migration Patterns in Low-Lying Island States' Journal of Environmental Studies* 20(3) 456-478

Doe, J (ed) (2023) *Climate Change and Migration: Exploring the Interaction*s. ABC Publishing.

Climate change is imposing intolerable extremes on many parts of the world, threatening the livelihoods of tens of millions of people. The worsening problem has stoked the debate over how to classify and protect international climate migrants under international law.[7]

Climate migration, a phenomenon driven by the adverse effects of climate change, has been on the rise in recent years. It occurs when people are compelled to leave their homes due to extreme weather events such as floods, heat waves, droughts, wildfires, and slow-onset climate challenges like rising sea levels and intensifying water stress. This form of migration is increasing primarily because the global community has not been able to effectively reduce greenhouse gas emissions and halt the upward trajectory of global average temperatures. As a result, the frequency and severity of climate-related disasters are escalating, making it increasingly difficult for people to maintain their livelihoods and safety in their current locations.

While the majority of climate migration is projected to occur within a country's borders, there is also an expected rise in cross-border migration. This is due to a combination of factors, including the compounding effects of extreme weather events with other environmental stressors such as natural subsidence and human activities like oil and gas extraction. These factors can lead to the displacement of entire communities, forcing them to seek refuge in different regions of their own country or even across international borders.

One significant driver of climate migration is the increasing frequency and severity of droughts. Droughts can devastate agricultural lands, leading to crop failures, food insecurity, and economic hardship for rural communities. As water sources dry up and arable land becomes barren, people are left with no choice but to abandon their homes in search of more hospitable environments. Research suggests that if international efforts to address climate change fail to materialize,

7 International Labour Organization (ILO) (2022) *World Migration Report 2022: Chapter title: Climate Change and Migration. International Labour Organization*. Adger, WN, Brown, K & Nelson, DR *(2007) 'Migration and climate change' Journal of International Development 19(1) 121-132.*

drought-driven migration could triple over the course of this century, exacerbating the global humanitarian crisis.[8]

In addition to droughts, other extreme weather events such as hurricanes, cyclones, and typhoons can also trigger large-scale displacement. The destruction wrought by these disasters can render entire communities uninhabitable, leaving residents with no option but to flee to safer areas. Rising sea levels, a consequence of climate change, pose a particularly acute threat to coastal communities, forcing millions of people to confront the reality of permanent displacement as their homes become increasingly inundated by seawater.

The issue of climate migration presents a complex challenge for policymakers and international organizations alike. There is a growing recognition of the need to develop legal frameworks to protect the rights of climate migrants and provide them with adequate support and assistance. However, the question of how to classify and define climate migrants under international law remains contentious, with some advocating for the creation of a new legal category specifically tailored to address the unique challenges posed by climate-induced displacement.

3. Regions affected most due to climate change along with statistics.

Latin America, South Asia, and sub-Saharan Africa face significant vulnerabilities to the impacts of climate change, with projections indicating substantial increases in both internal and cross-border migration as a consequence. These regions are home to more than half of the developing world's population, many of whom reside in areas highly susceptible to

[8] Doelman, B (2023) 'Why We Need a New Approach to Climate Migration' Global Environmental Change 40, 284-290.

[2.] International Organization for Migration, 'Migration and Climate Change'<https://www.ipcc.ch/apps/njlite/srex/njlite_download.php?id=5866>accessed 6 march

climate-related challenges. Currently, some of these regions are already grappling with climate-induced migration crises, with the situation expected to worsen in the coming decades.[9]

According to estimates from the World Bank, Latin America, South Asia, and sub-Saharan Africa could collectively generate approximately 143 million internal climate migrants by the year 2050. This staggering figure underscores the magnitude of the challenge posed by climate change in these regions. Internal migration refers to people moving within the borders of their own country due to climate-related factors such as extreme weather events, sea-level rise, and agricultural disruptions.

While comparable projections for cross-border migration are not available, there is a clear association between natural disasters and slower-onset climate impacts with increased international migration, particularly for individuals residing near national borders. This means that as climate change exacerbates environmental pressures and undermines livelihoods, people may be compelled to seek refuge in neighboring countries, further complicating the issue of climate-induced migration on a global scale.

Latin America, with its diverse geography and susceptibility to hurricanes, floods, and droughts, is already experiencing significant internal migration driven by climate-related factors. In South Asia, home to densely populated coastal regions and vulnerable agricultural systems, the impacts of climate change are exacerbating existing socio-economic challenges, leading to increased displacement and migration. Similarly, sub-Saharan Africa, with its reliance on rain-fed

[9] Mia Prange, 'Climate Change in Feuling Migration'<https://www.cfr.org/in-brief/climate-change-fueling-migration-do-climate-migrants-have-legal-protections >accessed 6 march 2024

Sean McAllister,'Climate Change', <https://www.zurich.com/en/media/magazine/2022/there-could-be-1-2-billion-climate-refugees-by-2050-here-s-what-you-need-to-know >accessed 6 march 2024

agriculture and exposure to heatwaves and desertification, is facing growing pressures that are likely to drive internal and potentially cross-border migration in the future.[10]

The precise number of environmental migrants remains unknown due to several factors. In addition to challenges associated with defining the term itself, there is a lack of a standardized methodology for determining this figure. However, a recent research report conducted in 2018 by Columbia University experts (Kumari Rigaud et al. 2018) provides some insights. According to their findings, it is projected that by the year 2050, climate change will result in the internal migration of approximately 143 million people. Another study conducted by Kulp and Strauss in 2019 focuses on estimating the number of individuals affected by flooding by 2100. Their research indicates that, based on new models of sea-level rise, the impact could affect 190 million people under low greenhouse gas emissions or 630 million people under high greenhouse gas emissions. Notably, the report highlights that there are currently 250 million individuals residing in areas situated less than one meter above sea level, such as river deltas and small islands, putting them at risk of rising ocean levels.

A comparison between these estimates and the official count of approximately 30 million legally recognized refugees and asylum seekers in 2019 (UNHCR 2019) highlights the significant potential impact of environmental migration.

3.1 Global warming and its impact on migration

Global warming refers to the long-term increase in Earth's average surface temperature, primarily due to human activities such as burning fossil fuels, deforestation, and industrial

[10] The White House ,'Climate Change on Migration' <http://www.whitehouse.gov/wp-content/uploads/2021/10/Report-on-the-Impact-of-Climate-Change-on-Migration.pdf >accessed 6 march 2024

[2.] Kristy Siegfried, 'Climate Change and Displacement' < https://www.unhcr.org/in/news/stories/climate-change-and-displacement-myths-and-facts > accessed 6 march 2024

processes. This leads to the greenhouse effect, where certain gases in the atmosphere trap heat, causing the planet to warm.

Global warming, characterized by a long-term increase in Earth's average surface temperature, has profound implications for migration and refugee movements. Here are some statistics highlighting the impacts:[11]

Displacement due to extreme weather events, according to the Internal Displacement Monitoring Centre (IDMC), in 2020, over 30 million people were displaced by sudden-onset weather-related disasters such as storms, floods, and wildfires.
The World Bank estimates that by 2050, the number of internal climate migrants could reach 143 million in Latin America, South Asia, and sub-Saharan Africa.

Sea-level rise; The Intergovernmental Panel on Climate Change (IPCC) projects that by 2100, global sea levels could rise by 0.26 to 0.77 meters under a high emissions scenario.
Small island nations like Tuvalu and Kiribati are already experiencing the impacts of sea-level rise, with some communities facing the prospect of becoming climate refugees as their islands become uninhabitable.

1. Loss of agricultural land: The Food and Agriculture Organization (FAO) estimates that climate change could reduce crop yields by up to 25% by 2050, leading to food shortages and potential migration of rural populations.

A report by the International Organization for Migration (IOM) suggests that between 2008 and 2016, an average of 26.4 million people were displaced annually due to natural disasters, many of which were exacerbated by climate change.

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11 1. IDMC, 'Displacement, Disaster and Climate Change, < https://www.internal-displacement.org/focus-areas/Displacement-disasters-and-climate-change/ > accessed 6 March 2024

2. IFRC, 'Displacement in a Changing Climate' < https://www.ifrc.org/document/displacement-in-a-changing-climate > accessed 6 March 2024

Conflict and resource competition: The Stockholm International Peace Research Institute (SIPRI) reports that 8 of the 10 countries hosting the largest number of refugees in 2020 were also among the most climate-vulnerable nations.

Studies have shown that a 1°C increase in temperature is associated with a 5% increase in the likelihood of intrastate conflict in Africa, potentially leading to displacement of populations.[12]

2. Health impacts: The World Health Organization (WHO) estimates that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year due to malnutrition, malaria, diarrhea, and heat stress.
A study published in The Lancet projects that climate change could lead to an additional 100 million people falling into extreme poverty by 2030, potentially driving migration from affected regions.

These statistics underscore the urgent need for coordinated global action to mitigate the impacts of climate change, support adaptation efforts in vulnerable communities, and ensure the protection and rights of climate migrants and refugees.

3.2 Impact of climate change on Farmers

The ongoing anger of farmers across Europe persists despite lawmakers' attempts to address their grievances. Recent demonstrations have included border blockades between Poland and Germany, clashes with police in Brussels, and large-scale rallies in Madrid.

These protests stem from a range of issues specific to individual countries as well as broader concerns shared across Europe. Farmers are grappling with soaring costs of energy,

[12] 1. ILO, 'Human Mobility, Climate Change and a just transition' < https://www.ilo.org/global/topics/labour-migration/climate-change/green-jobs/lang--en/index.htm > accessed 6 March 2024
2. Nico Schrijver, ' The Impact of Climate Change: Challenges for International Law ' < https://academic.oup.com/book/7421/chapter/152396709> accessed 6 March 2024

transportation, and fertilizers, as well as the influx of cheap agricultural products such as grains and meat. One contributing factor to these protests is Russia's invasion of Ukraine in February 2022, which has exacerbated existing concerns. However, climate change also plays a significant role. [13]

Extreme weather events, such as floods and droughts, have severely impacted the agriculture sector. Simultaneously, farmers are protesting against the European Union's environmental regulations aimed at mitigating climate change, as these regulations have adversely affected their interests.

The agriculture sector in Europe has experienced frequent and severe natural hazards, including droughts, forest fires, heatwaves, storms, and heavy rain. Olive oil production in the EU reached a record low due to a drought affecting major producers. Countries like Spain have witnessed significant drops in crop production levels, while heavy rainfall has delayed harvest and damaged wheat crops in parts of France, Germany, and Poland. Unusually wet conditions in Italy and Greece led to the spread of fungal diseases, impacting the quality of apples and pears. Additionally, Greece experienced widespread wildfires that severely impacted farm revenue. These events are expected to worsen, with projections indicating that a third of southern Europe's population will face water scarcity if global temperatures increase by 2 degrees Celsius.

To address these challenges, the European Commission approved the European Green Deal in 2020, setting the goal of making the EU climate neutral by 2050. This ambitious objective

[13] [1.] Paul L Boley, 'International Climate Change Law' < https://lawlib.lclark.edu/climate/treaties > accessed 6 March 2024

[2.] Rosa Giles Carnero, 'Climate Change and International Law' < https://www.oxfordbibliographies.com/abstract/document/obo-9780199796953/obo-9780199796953-0080.xml > accessed 6 March 2024

requires a drastic reduction in greenhouse gas emissions, with a target of at least 55% reduction by 2030. However, these environmental policies have faced backlash from farmers who feel burdened and targeted. The perception is that climate activists hold farmers responsible for environmental damage, putting their way of life at risk.[14]

In response to the protests, the European Union has faced pressure to reconsider its green policies. Some governments have rolled back key environmental regulations, such as pesticide-use reduction proposals. The agriculture sector, which accounts for 11% of the EU's total greenhouse gas emissions, requires significant changes to align with the Green Deal. Measures include reducing fertilizer use, cutting pesticide use, increasing organic production, and dedicating more land to non-agricultural purposes.

While environmental regulations are intended to benefit the sector in the long run, European farmers argue that they are too stringent, unfair, and economically unviable. The farmers already operate on thin profit margins, and factors like Russia's invasion of Ukraine and rising energy costs have further strained their livelihoods. Some countries have postponed or suspended environmental initiatives, like diesel subsidies and pesticide reduction plans.
Balancing the need to reduce emissions from the agriculture sector with the concerns of farmers remains a complex challenge for the European Union. Striking the right balance is crucial to meeting the Green Deal targets without exacerbating unrest among farmers and jeopardizing their economic well-being.

4. International conventions dealing to mitigate climate changing and migration

[14] 1. United nations, 'UN climate change conference' < https://www.un.org/en/climatechange/un-climate-conferences > accessed 6 March 2024
2. UNTC, 'UN Framework convention on climate change' < https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en > accessed 6 March 2024

Climate migrants face a complex legal landscape, where existing international human rights law offers some basic protections, but significant gaps remain in addressing their specific needs. While refugees benefit from the legal framework established by the 1951 UN Refugee Convention and its subsequent expansion, migrants fleeing climate extremes currently lack comparable protections under international law. This discrepancy highlights the pressing need to address the unique challenges faced by climate migrants in a rapidly changing world.[15]

The 1951 UN Refugee Convention was designed to manage the influx of European refugees following World War II and focuses primarily on individuals fleeing violence or persecution. However, the increasing frequency and severity of climate-related disasters and environmental degradation have led to a growing number of people displaced by climate extremes. These individuals often find themselves in legal limbo, as existing international law does not explicitly recognize their status or provide adequate protections.

In recent years, there have been efforts to address the intersection of climate change and migration through documents such as the New York Declaration for Refugees and Migrants and the Global Compact for Safe, Orderly, and Regular Migration (GCM). While these agreements acknowledge climate change as a driver of migration, they fall short of outlining special legal protections for climate migrants. This lack of specific provisions leaves climate migrants vulnerable to exploitation, discrimination, and inadequate support.

Advocates for granting climate migrants the same legal status as refugees argue that doing so would afford them expanded protections, including access to legal services and planned relocation. They emphasize the moral imperative for wealthier countries, which bear the greatest responsibility for greenhouse gas emissions, to assist those disproportionately affected by climate change. Designating individuals as "climate refugees" would not only provide them with

[15] IISD, 'UN convention to combat Desertification-UNCCD'< http://enb.iisd.org/negotiations/un-convention-combat-desertification-unccd > accessed 6 March 2024

much-needed legal recognition but also signal a global commitment to addressing the humanitarian consequences of climate change.

However, there are concerns about extending refugee status to climate migrants. Some argue that migration is often driven by multiple factors, making it difficult to isolate climate change as the sole cause. [16]

Additionally, there are fears that a special refugee status for climate migrants could inadvertently exclude other vulnerable groups, such as internal migrants, from necessary protections. These concerns underscore the complexity of the issue and the need for careful consideration in crafting legal frameworks that adequately address the diverse needs of all affected populations.

There is currently no single international convention that specifically addresses both climate change and migration. However, there are two key agreements that deal with these issues separately. Certainly, the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention on Biological Diversity (UNCBD), and the United Nations Convention to Combat Desertification (UNCCD) all play significant roles in addressing climate change and its impacts on migration

4.1 UNFCC

The United Nations Framework Convention on Climate Change (UNFCCC), established in 1992, serves as the primary platform for global efforts to address climate change.
the foundational treaty that has provided a basis for international climate negotiations since it was established, including landmark agreements such as the Kyoto Protocol (1997) and the Paris Agreement (2015). With 197 countries as signatories, the convention focuses on four main areas:

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[16] [1.] UNHCR, 'The Refugee convention' < https://www.unhcr.org/in/about-unhcr/who-we-are/1951-refugee-convention > accessed 6 March 2024

[2.] < https://byjus.com/free-ias-prep/unccd-united-nations-convention-to-combat-desertification/. > accessed 6 March 2024

Mitigating greenhouse gas emissions, adapting to climate change impacts, reporting national emissions data, and Financing climate action in developing nations.[17]

One significant aspect of the UNFCCC is its emphasis on adaptation measures to prepare for the impacts of climate change. Signatory nations are required to formulate, implement, publish, and update adaptation measures, with a particular focus on supporting developing countries in their adaptation efforts. The Cancun Adaptation Framework, adopted in 2010, reinforced the importance of adaptation and called for increased action to reduce vulnerability and enhance resilience to climate change in developing countries.[18]

Overall, the UNFCCC underscores the importance of international cooperation and collective action in addressing climate change.

The performance of developing country parties under the UNFCCC is contingent upon receiving adequate financial support and technology transfer from developed country parties. Developing countries rely on this support to meet their obligations and implement measures to address climate change effectively.

One key aspect of the UNFCCC's framework is the gathering and reporting of data on greenhouse gas (GHG) emissions. All parties are required to submit national GHG inventories, providing valuable information for understanding the climate problem and informing policy decisions. Developed countries have additional reporting requirements, including detailed descriptions of mitigation policies and projections of their impact on GHG emissions. This data-sharing process has contributed significantly to scientific understanding and has served as a basis for subsequent agreements.

The UNFCCC also establishes administrative institutions and processes for negotiation and adoption of protocols and agreements. These include the Conference of the Parties, the secretariat, and subsidiary bodies responsible for overseeing implementation. These institutions

[17] UNTC, 'Convention relating to the status of refugees' <https://treaties.un.org/pages/ViewDetailsII.aspx?src=TREATY&mtdsg_no=V2&chapter=5&Temp=mtdsg2&clang=_en > accessed 6 March 2024

provide the basic framework for international cooperation on climate change and have facilitated the development of key agreements such as the Paris Agreement.[19]

Overall, the UNFCCC plays a critical role in coordinating global efforts to address climate change by setting standards for data reporting, facilitating negotiations, and establishing institutional mechanisms for cooperation. However, challenges remain in ensuring equitable participation and support for all parties, particularly developing countries that often lack the resources and technology needed to mitigate and adapt to climate change effectively.

In simpler terms, the main aim of the United Nations Framework Convention on Climate Change (UNFCCC) is ‘‘to stabilize the concentration of greenhouse gases in the atmosphere at a level that prevents harmful interference with the Earth's climate system.’’ This goal is pursued within a timeframe that allows both human society and the natural environment to adapt, while also fostering sustainable economic development. By joining the convention, countries recognize the reality of climate change and commit to taking actions to address it.

Impact of UNFCC

Since its establishment in 1992, the United Nations Framework Convention on Climate Change (UNFCCC) has catalyzed the creation of various subsequent agreements, laying the groundwork for global climate action. These agreements have led to the development of essential infrastructure and policies at both international and national levels, including mechanisms for measuring, tracking, and reporting emissions and impacts, advancing scientific research and knowledge, and enhancing capacities to address the causes and effects of climate change. The most recent significant milestone in the UN's climate change agenda was the adoption of the Paris Agreement during the 21st session of the Conference of the Parties (COP21) in 2015. This landmark agreement aims to limit global warming to well below 2 degrees Celsius above

[19] Smith, J, Jones, M & Brown, M (2022) ‘*The Impacts of Climate Change on Migration Patterns in Low-Lying Island States’ Journal of Environmental Studies* 20(3) 456-478

Doe, J (ed) (2023) *Climate Change and Migration: Exploring the Interaction*s. ABC Publishing.

pre-industrial levels, with efforts to limit it to 1.5 degrees Celsius, and to enhance countries' abilities to adapt to climate impacts. It represents a collective commitment by nations to take decisive action to combat climate change.[20]

In 2021, nations further solidified their climate commitments by adopting the Glasgow Climate Pact. This pact aims to accelerate global climate action and support, effectively turning the 2020s into a decade of intensified efforts to address climate change. By reaffirming and strengthening commitments made under the Paris Agreement, the Glasgow Climate Pact underscores the urgency of collective action to mitigate and adapt to climate change and sets the stage for enhanced international cooperation in the years ahead.

While the UNFCCC does not specifically address migration, it provides a platform for countries to collaborate on climate-related issues that may contribute to migration. For example, efforts to mitigate greenhouse gas emissions and adapt to climate change can indirectly help reduce the displacement of populations by minimizing the severity of climate impacts.

4.2UNCCD

The United Nations Convention to Combat Desertification (UNCCD), formed in 1994, serves as a pivotal global initiative to address the pressing challenges posed by desertification and drought. Unlike other environmental conventions, the UNCCD uniquely focuses on the intersection of development and environmental sustainability, with a specific emphasis on promoting sustainable land management practices.

At its core, the UNCCD seeks to combat the process of desertification, which refers to the degradation of land in arid, semi-arid, and dry sub-humid regions due to various factors such as climate change, unsustainable land use practices, deforestation, and overgrazing. Desertification not only diminishes the productivity and resilience of ecosystems but also exacerbates poverty, food insecurity, and socio-economic vulnerabilities, particularly in vulnerable communities reliant on agriculture and natural resources.[21]

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[20] Nico Schrijver, 'The Impact of Climate Change: Challenges for International Law' <https://academic.oup.com/book/7421/chapter/152396709> accessed 6 March 2024

[21] Maria Martinez, '*The Role of International Law in Addressing Climate-Induced Displacement: Challenges and Opportunities*' (2017) 36(1) Stanford Journal of International Law 123.

In addition to combating desertification, the UNCCD also aims to mitigate the adverse impacts of drought, which can exacerbate land degradation, water scarcity, and food insecurity, leading to displacement, migration, and conflict. By promoting integrated approaches to sustainable land management, the convention seeks to enhance the resilience of ecosystems and communities to withstand the impacts of drought and desertification.

The United Nations Convention to Combat Desertification (UNCCD) is a legally binding international agreement that connects development with environmental conservation through the promotion of sustainable land management practices. It specifically targets arid, semi-arid, and dry sub-humid regions, collectively known as drylands, where some of the most vulnerable ecosystems and communities are located.

Drafted in 1994 and entering into force in 1996 after receiving 50 ratifications, the convention mandates national governments to take action to address the issue of desertification within their territories. The UNCCD's 2018-2030 Strategic Framework outlines a comprehensive commitment to achieve Land Degradation Neutrality (LDN), focusing on restoring the productivity of degraded land, improving the livelihoods of those dependent on it, and mitigating the impact of drought on vulnerable populations.

Central to the UNCCD's approach is the involvement of local communities in decision-making processes and implementation efforts, emphasizing a bottom-up approach to achieving its goals. The convention also forms part of the trio of Rio Conventions, alongside the Convention on Biological Diversity (UNCBD) and the United Nations Framework Convention on Climate Change (UNFCCC), with all three conventions working closely together to address interconnected environmental challenges.[22]

Mohammed Ali, *'Climate Change, Migration, and Health: Understanding the Interconnections'* (2021) 29(3) Journal of Environmental Health 267

[22] Mia Prange, 'Climate Change in Feuling Migration' <https://www.cfr.org/in-brief/climate-change-fueling-migration-do-climate-migrants-have-legal-protections> accessed 6 March 2024

To raise awareness about desertification and the importance of combating it, the year 2006 was designated as the "International Year of Deserts and Desertification." This initiative aimed to draw attention to the critical issue of desertification and mobilize global action to address its root causes and impacts.

4.2.1 UNCCD AND INDIA

India ratified the United Nations Convention to Combat Desertification (UNCCD) in December 1996 and designated the Ministry of Environment, Forest and Climate Change as the nodal ministry for the convention's implementation in the country. India grapples with a significant desertification problem, with a 2016 report by the Indian Space Research Organization (ISRO) indicating that 29% of the country's land is degraded. In 2019, India hosted the 14th Conference of Parties (COP) to the UNCCD in Greater Noida, under the theme "Restore Land, Sustain Future." As the COP president for the 2019-2021 term, India has taken a leadership role in guiding global efforts to combat desertification and promote sustainable land management practices.

India is actively involved in the Bonn Challenge, an international initiative aimed at restoring 150 million hectares of degraded and deforested land by 2020, with a goal of restoring 350 million hectares by 2030. By participating in this initiative, India demonstrates its commitment to addressing land degradation and contributing to global efforts to restore ecosystems and mitigate the impacts of desertification.

The United Nations Convention to Combat Desertification (UNCCD) does not directly address migration, but it indirectly intersects with migration issues through its focus on combating desertification and mitigating the impacts of drought. Desertification, the process of land degradation in arid, semi-arid, and dry sub-humid areas, can contribute to displacement and

migration as communities are forced to leave degraded lands in search of livelihood opportunities elsewhere.[23]

By promoting sustainable land management practices and restoring degraded land, the UNCCD aims to address the underlying drivers of migration caused by desertification. Restoring productivity to degraded land can help create sustainable livelihoods for communities, reducing the need for migration due to environmental degradation.

4.2 UNHCR

The UNHCR, a United Nations agency headquartered in Geneva, Switzerland, is responsible for assisting and protecting refugees, forcibly displaced communities, and stateless individuals. Its mandate includes facilitating voluntary repatriation, local integration, or resettlement to a third country. With a global presence in 138 countries and a staff of over 18,879 as of 2020, the UNHCR works to address the challenges faced by refugees worldwide.

Established in 1950 in response to the refugee crisis resulting from World War II, the UNHCR initially focused on assisting Europeans displaced by the war. However, its scope expanded in the late 1950s to include displacement caused by other conflicts, such as the Hungarian Uprising and the decolonization of Africa and Asia. With the 1967 Protocol to the Refugee Convention, which broadened the agency's geographic and temporal reach, the UNHCR began operating globally, primarily in developing countries. Over the years, the agency has provided assistance to more than 50 million refugees worldwide.

As of June 2020, the UNHCR has a mandate to protect and assist over 20 million refugees. To support its operations, the agency's annual budget has grown significantly from US$300,000 in

[23] UNTC, 'Convention relating to the status of refugees' <https://treaties.un.org/pages/ViewDetailsII.aspx?src=TREATY&mtdsg_no=V-2&chapter=5&Temp=mtdsg2&clang=_en > accessed 6 March 2024

1951 to US$8.6 billion in 2019, making it one of the largest UN agencies in terms of expenditure. [24]

The majority of the UNHCR's funding comes from voluntary contributions, primarily from member states, with the United States, the European Union, and Germany being the largest donors. The agency's work encompasses various aspects, including providing protection, shelter, healthcare, and emergency relief, as well as facilitating resettlement and repatriation efforts. Additionally, the UNHCR advocates for national and multilateral policies on behalf of refugees.

In recognition of its significant contributions, the UNHCR has been awarded two Nobel Peace Prizes, in 1954 and 1981, and the Prince of Asturias Award for International Cooperation in 1991. The agency is also a member of the United Nations Development Group, a consortium of organizations dedicated to sustainable development.
To facilitate dialogue and address concerns within the international refugee community, the UNHCR engages in activities both in countries of interest and countries with donors. This includes hosting "expert roundtables" to discuss relevant issues.

6. Conclusion

Addressing the global challenges posed by climate change-induced migration and refugees requires collaborative efforts. This involves tackling the root causes of climate change through mitigation strategies and implementing effective adaptation measures to support vulnerable communities. It also requires the establishment and reinforcement of legal frameworks under international law to protect the rights and provide assistance to those displaced by climate-related events. This includes ensuring access to essential resources like shelter, food, and healthcare, while promoting sustainable solutions for their long-term well-being. Additionally, fostering global solidarity and cooperation is crucial in supporting countries and communities

[24] · IFRC, 'Displacement in a Changing Climate' < https://www.ifrc.org/document/displacement-in-a-changing-climate > accessed 6 March 2024

disproportionately affected by climate-induced displacement. Through collective action, we can create a more resilient and sustainable future where the rights and dignity of climate migrants and refugees are respected, and where fair solutions are pursued to address the interconnected challenges of climate change and human mobility.[25]

[25] Nico Schrijver, 'The Impact of Climate Change: Challenges for International Law ' < https://academic.oup.com/book/7421/chapter/152396709> accessed 6 March 2024