



# Climate Change And Human Mobility: The Defining Crisis Of 21<sup>st</sup> Century

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**Abstract :** Climate change represents, perhaps, the greatest challenge of the twenty-first century. As the effects of climate change intensify and overlap with other global crises, from pandemics and conflict to economic downturns and food insecurity, the world finds itself at a crossroads. If global average temperatures surpass 1.5°C above pre-industrial levels in coming years, climate change impacts will put unprecedented pressure on nations, societies and individuals around the world. Global patterns of human mobility will be shaped by and themselves play a part in shaping, the future climate. Human mobility must be a core part of the equation to address the implications of and design responses to climate change. And the world should be better prepared for and take actions to shape the climate mobility of tomorrow.

**Keywords** - Climate Change, Climate Migrants, Vulnerability, Free Agreement Movements.

## Introduction

Climate change is happening faster and with more complex and intersecting impacts than we are prepared for. It is the defining crisis of our times. Therefore, the world needs to act now – individually and collectively – to stop temperature rise and to ensure sustainable development for all. Today, the number of people migrating because of the adverse impacts of climate change, environmental degradation and disasters on their livelihoods, daily lives and health is rising and will continue to do so in the future.

According to IOM (International Organization for Migration, 2023), the global response to climate change and human mobility is at a crossroads. Climate change induced displacement and migration is a global reality today which perfectly reflects the deep inequalities and injustices present in our society. With each subsequent year, extreme weather events like stronger storms, increased flooding and droughts, heat waves and cold waves are becoming more frequent and intense. According to the U. N. High Commissioner for

Refugees (UNHCR, 2022), the adverse impact of climate change is felt disproportionately by the marginalized population, who are particularly vulnerable due to their location or geography, indigenous or minority status, gender, sexual orientation, age, disability etc. These segments of population are highly exposed and vulnerable to climate-related shocks as they have fewer resources, choices and support to adapt to a gradually hostile environment. IOM (2022) has also predicted that with  $2^{\circ}$ - $4^{\circ}$ C rise in global temperature, the population affected by river flooding will increase by 120-400%. According to IOM (2023), approximately 32 million people worldwide were displaced within their countries by disasters in 2022. By 2050, more than one billion people are expected to be at risk from coastal-specific climate hazards. Between 186 and 245 million people in Africa are expected to be exposed to sea-level rise by 2060 as a result of high coastal urbanization rates and climate change impacts.

### ***Objectives***

The objectives of the research work are as follows-

- To explore the concept of climate-induced migration.
- To study the extent of climate-induced vulnerability and the prospects free movement agreements.
- To find the solutions for climate mobility.

### ***Review of Related Literature***

Climate change is a global phenomenon and human activity is the root cause of the problem. Local emissions ultimately cause global damages. Green house gases are long-lived and present emissions can affect generations after hundreds of years. According to Intergovernmental Panel on Climate Change (IPCC, 2023), 'global average temperatures will surpass  $1.5^{\circ}$ C above pre-industrial levels in coming years.' The impact will be more severe and intense like more frequent and severe storms, floods, droughts, heat waves and cold waves. According to IOM (2022), in absence of effective climate action by 2050 more than 216 million people will be displaced. Since 2008, around 265 million people were displaced due to extreme weather events (Francis, 2019). While most climate migrants migrate within the border, some (especially more educated) are forced to move cross-border areas. The climate migrants are not protected under the international refugee law which safeguards the rights of refugees displaced due to social upheaval, war, political conflict, genocide, riots etc. (Francis, 2019). In the absence of any law or legal rights, climate migrants become further more vulnerable in the new geographical location.

Climate-induced migration is a multi-causal problem where ecological and socio-economic vulnerabilities act together to displace marginalized people (Jayawardhan, 2017). Climate change alone does not displace people; it exacerbates social and economic vulnerabilities which contribute to displacement (Jayawardhan, 2017). Mobility in the context of climatic and environmental change can be the outcome of the immediate

stress resulting from a natural disaster or it can also be labour migration as a strategy of income-diversification due to environmental stress (**Gioli, Khan, Bisht & Scheffran; 2014**). Climate change does not discriminate, the adverse impact is same for all. In fact, it is the complex interrelationship between different factors like climate change, marginalized section of population, lack of agency and governance. According to certain reports, without significant action on climate change, the total number of people vulnerable to migration due to extreme climatic events, may rise to one billion by the end of the century (**Kelman, 2020**). People displaced by the effects of climate change, including rising seas natural disasters, will have no choice but to move. Further, they will be forced to move without any legal protection or right to do so. Climate change induced migration/displacement can be temporary or permanent, voluntary or involuntary, within border or cross-border.

According to **IOM (2023)**, around the world, more people are living in cities than ever before. By 2050, two-third of the global population will reside in cities. Urbanization poses challenges to efforts to address climate change as urban areas are responsible for the majority of the world's carbon emissions. The increase in extreme weather events will hit cities particularly hard. For example, people who settle in low-cost or informal settlements are more likely to be exposed to environmental hazards.

### **Methodology**

The present study is qualitative in nature and has been conducted with the help of research journals, articles, data, periodicals and publications by World Bank, Intergovernmental Panel on Climate Change, International Organization for Migration, UN Office for Disaster Risk Reduction, UNHCR etc.

### **Climate Migrants or Climate Refugees**

Climate migrants are displaced due to the interplay of ecological and social vulnerability. Socioeconomic inequities exacerbate ecological vulnerability and contribute to environmental displacement. Racial and class inequities can make certain groups more vulnerable to climate change than others due to differing levels of protection and resilience. Most people displaced due to extreme climate events remain within their country and are internally displaced. There is no legal definition of climate migrant but it falls within the sub-category of environmental migrants. Climate change contributes to both rapid-onset and slow-onset environmental displacement (**Jayawardhan, 2017**). Rapid onset environmental displacement is due to natural disasters such as hurricanes, cyclones, and landslides, which render places uninhabitable. It is associated with climate change because of the effect of rising ocean temperatures on ocean movements and storms. Slow onset displacement involves peoples gradually forced out of their place of inhabitance due to factors such as drought, soil, erosion, and sea level rise, which make their way of life in that place impossible. Migration related to drought is often multicausal; due to the impacts of drought combined with

resulting political or economic crises. Slow-onset ecological events like droughts gradually deteriorate people's livelihoods to the point where they cannot sustain an adequate standard of living in their places of origin (Jayawardhan, 2017). UNHCR rejects the term 'climate refugee' because of the legal rights that it bestows upon 'refugees' (Jayawardhan, 2017). Though environmental displacement is primarily internal, cross-border displacement can be expected in low-lying island nations and in border areas.

### ***Vulnerability and Governance***

Climate change shape the developmental pathway of countries particularly smaller economies in two ways – within border impacts and cross-border impacts. (Mason et. al., 2023). Migration is often the default human expression for extreme climatic events (Kelman, 2020). According to IOM (2023), across the past decade, floods, storms, wildfire and other weather-related disasters have caused an average of 21.9 million annual displacements worldwide per year. In 2022, displacement from floods, storms, wildfire and other weather-related disasters rose to 31.8 million – over twice as many as were caused by conflict and violence. By 2030, an estimated 50 per cent of the world's population will live in coastal areas exposed to flooding, storms and tsunamis. These are expected to increase in frequency and magnitude in many regions, raising the risk of future displacement.

Effective governance can make a difference in whether a situation results in forced displacement or adaptive migration. This is because the effectiveness and equity of governance can determine whether migrants will return to their places of origin, or whether they will migrate and not return. In the immediate aftermath of rapid onset events, people are able to return to their origins based on the effectiveness of governance to recover restore social, economic, and physical characteristics of the affected area. Global cooperation and partnerships must continue and expand across different sectors and among diverse stakeholders, with the inclusion of migrants and local communities most vulnerable to climate change. The international community needs to come together to harness the power of migration for effective climate response and for climate resilience (IOM, 2023).

The **IPCC Sixth Assessment Synthesis Report (2023)** states that policy interventions can remove barriers and expand the alternatives for safe, orderly and regular migration that allows vulnerable people to adapt to climate change. An extensive array of international agreements and frameworks attest to the urgency of addressing climate change and human mobility together. Linkages between climate change and human mobility have been made in the context of the United Nations Framework Convention on Climate Change (UNFCCC), notably the Paris Agreement, and in the Sendai Framework for Disaster Risk Reduction. In 2023, Conference of Parties 28 (COP 28), acknowledged that preparedness, prevention, risk reduction and sustainable development are fundamental adaptation efforts that offer vulnerable people the choice to live with dignity and safety in their residences.

### ***Free Movement Agreements (FMA)***

The study finds that treaty formation is easier under conditions of mutual vulnerability. Countries are more likely to agree to a cross-border displacement treaty with each other when each is somewhat equally vulnerable. This is because they have similar assets and securities to lose or gain from a treaty (Jayawardhan, 2017).

Free movement agreements are regional and sub-regional economic integration and rehabilitation schemes which liberalize migration restrictions among the participating states or countries (Francis, 2019). The EU (European Union) serves as the best classic example. Africa has adopted the largest number of FMAs (Francis, 2019), for example, the East Africa Community (EAC), the Southern Africa Development Community (SADC), and the Economic Community of Central African States (ECCAS) etc. different studies have found that FMAs increase economic resilience at both the structural and individual level, which can reduce the need for migration in the first place. The EU, for example, has harnessed significant gains through its regional economic integration scheme (Francis, 2019). Migration can also increase economic resilience at a community and individual level. Remittances play a key role in increasing community resilience in countries of origin, with payments supporting investments in housing, health, education, and daily subsistence needs. Some countries have signaled a willingness to leverage FMAs in the climate context.

### ***Climate Mobility: Solutions for The Future***

Loss and damages of lives and property can be reduced and addressed by anticipating and preparing for disasters with increased intensity and frequency. Promoting sustainable development measures, building community resilience and preventing and reducing disaster risks can help people adapt to climate impacts. Early warning mechanisms can contribute to faster delivery of disaster response. Secondly, broad-based partnerships are another prerequisite for the success of the proposed solutions. Their development and operationalization require bringing together public and private sectors and stakeholders with expertise in a range of thematic areas in the migration, climate as well as humanitarian, development and peace sectors and different levels from local to global. More access needs to be given to youths to participate in policy discussions and decision-making bodies that will impact their future over coming decades.

Insecurity and climate variability have led to shifts in seasonal pastoralist movements in various areas of the world, notably in West and Central Africa. Not only national but also transnational responses to anticipate and address local conflicts linked to dwindling resources will be key in regions where the adverse climate impacts destabilize communities. Community-based disaster risk management (CBDRM) initiatives can be used to empower local actors to develop a disaster management action plan. Diaspora groups can be key to

mobilizing knowledge and resources for climate change mitigation and adaptation efforts in their countries of residence and origin. Green diaspora bonds could be a way to rapidly mobilize funds for infrastructure projects that increase resilience of communities to climate change effects and support adaptation.

## Conclusion

According to UNHCR (2021), millions of stateless people are denied a nationality and face considerable vulnerabilities due to climate change. Stateless people are often excluded from critical support services like healthcare, disaster relief and rehabilitation. Global action on climate change and related displacement has to be proactive and forward-looking. It has to anticipate the changes that are coming and most obvious, identify vulnerable communities and prepare a blueprint of actions and steps to be taken. Climate action and climate funding must consider climate mobility or climate induced displacement as an urgent issue.

Policy makers should address climate change induced displacement by targeting the inequitable enjoyment of human rights. They must take a human rights approach to lessen vulnerability to climate change before disasters and establish requirements for permanent and sustainable resettlement of climate migrants after disasters. States can lower vulnerability by improving adaptation and resilience. Policies to make vulnerable communities economically less vulnerable should invest in and develop industries that are not ecologically sensitive. International legal remedies are unable to address the underlying social inequities that cause displacement, but they can provide sustainable assistance options for those who have been displaced.

## References

1. Costa, M. M., Máñez, K. S., & Paragay, S. H. (2013). Adaptation to Climate Change under Changing Urban Patterns: The Climatic Perspective of Migration. In O. C. Ruppel, C. Roschmann, & K. Ruppel-Schlichting (Eds.), *Climate Change: International Law and Global Governance: Volume II: Policy, Diplomacy and Governance in a Changing Environment* (1st ed., pp. 785–798). Nomos Verlagsgesellschaft mbH. <http://www.jstor.org/stable/j.ctv941vsk.33>
2. Francis, A. (2019). Climate-Induced Migration & Free Movement Agreements. *Journal of International Affairs*, 73(1), 123–134. <https://www.jstor.org/stable/26872782>
3. Gioli, G., Khan, T., Bisht, S. & Scheffran, J. (2014). Migration as an Adaptation Strategy and its Gendered Implications: A Case Study from the Upper Indus Basin. *Mountain Research and Development*, 34(3), 255–265. <http://www.jstor.org/stable/mounresedeve.34.3.255>
4. Intergovernmental Panel on Climate Change (IPCC) (2022). *Technical Summary, Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge and New York, pp. 37–118.

5. International Organization for Migration (IOM). (2022). *Migration Governance Indicators Data and the Global Compact for Safe, Orderly and Regular Migration: A Baseline Report*.
6. Intergovernmental Panel on Climate Change (IPCC). (2023). *Synthesis Report of the IPCC Sixth Assessment Report (AR6)*.
7. Jaswal, P. S., & Jolly, S. (2013). Climate Refugees: Challenges and Opportunities for International Law. *Journal of the Indian Law Institute*, 55(1), 45–58. <http://www.jstor.org/stable/43953626>
8. Jayawardhan, S. (2017). Vulnerability and Climate Change Induced Human Displacement. *Consilience*, 17, 103–142. <http://www.jstor.org/stable/26188784>
9. Kelman, I. (2020). Does climate change cause migration? In E. Fiddian-Qasmiyah (Ed.), *Refuge in a Moving World: Tracing refugee and migrant journeys across disciplines* (pp. 123–136). UCL Press. <https://doi.org/10.2307/j.ctv13xprt1.15>
10. Marchiori, L., & Schumacher, I. (2011). When nature rebels: international migration, climate change, and inequality. *Journal of Population Economics*, 24(2), 569–600. <http://www.jstor.org/stable/41488318>
11. Martin, S. (2010). Climate Change, Migration, and Governance. *Global Governance*, 16(3), 397–414. <http://www.jstor.org/stable/29764954>
12. Mason, N., Keane, J., Miller, M., Agarwal, P., Chen, Y., & Gilmour, A. (2023). The cross-border effects of climate change. In *The prospects for development in a climate-changed world: Anticipating cross-border effects of climate change and climate action* (pp. 8–17). ODI. <http://www.jstor.org/stable/resrep53041.5>
13. Ramos, E. P. (2013). Climate Change, Disasters and Migration: Current Challenges to International Law. In O. C. Ruppel, C. Roschmann, & K. Ruppel-Schlichting (Eds.), *Climate Change: International Law and Global Governance: Volume II: Policy, Diplomacy and Governance in a Changing Environment* (1st ed., pp. 739–760). Nomos Verlagsgesellschaft mbH. <http://www.jstor.org/stable/j.ctv941vsk.31>
14. Tol, R. S. J. (2009). The Economic Effects of Climate Change. *The Journal of Economic Perspectives*, 23(2), 29–51. <http://www.jstor.org/stable/27740523>
15. United Nations Framework Convention on Climate Change (2023). *Technical dialogue of the first global stocktake Synthesis report by the co-facilitators on the technical dialogue*, UNFCCC/SB/2023/9.
16. Warren, P. D. (2016). Forced Migration After Paris Cop21: Evaluating The “Climate Change Displacement Coordination Facility.” *Columbia Law Review*, 116(8), 2103–2144. <http://www.jstor.org/stable/44028186>
17. World Bank (2021). *Groundswell Part 2: Acting on Internal Climate Migration*. World Bank, New York.