

# GLOBAL RISKS RELATED TO INVOLUNTARY MIGRATION

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**Abstract.** *The aim of the research is to analyse the topic of involuntary migration to identify relevant global risks that may be associated. The Global Risks Report 2024 place involuntary migration in top 10 risks over the next decade. Understanding how systems are interconnected is important for policy makers to choose the right strategy and to set investment priorities, including for the purpose of increasing resilience. To analyse the interference relationship between global risks associated with involuntary migration we proposed a new analytical tool "GRiNLoc-GpESTE (Global, Regional, National, Local - Geopolitical, Economic, Societal, Technological, Environmental)." The main factors leading to involuntary migration are related to internal or inter-state conflicts; natural disasters and extreme weather events, including the impact of climate change; man-made disasters; and lack of opportunities for economic advancement. Our analytical process highlighted that the phenomenon of involuntary migration needs to be addressed more carefully in the next decade from an interconnected perspective because of the risks associated with critical changes in the earth systems, lack of economic opportunities, illicit economic activity, and the cyber insecurity. Given that concurrent shocks, deeply interconnected risks, and eroding resilience can result in the development of polycrisis or cascading crises, we consider that addressing the risks associated with involuntary migration requires early identification of solutions to increase resilience at local, national, regional, and global levels, analysed from a cross-cutting perspective, interconnected with global risks. We appreciate that the strategic decision should be based on modern analytical techniques, including multi-risk analysis.*

**KEYWORDS:** global risks, involuntary migration, climate change, natural disaster, international conflicts.

## INTRODUCTION

*"We live in a world full of interconnected risks."* (UNU-EHS, 2023, p.83)

Our world is intrinsically interconnected, entwining us as individuals as well as the world community in a web of complex relationships. This interconnectivity, which is spreading across our world through the growth of globally interconnected systems, including economic markets, communication systems and global supply chains, offers us remarkable opportunities and advantages. However, it equally presents existential challenges which reverberate around the world.

As these systems grow in complexity and scale, so do their vulnerabilities as well as potential points of failure. Simply translated: *"as we become increasingly interconnected, so do the risks we share"* (UNU-EHS, 2023, p.9).

We are currently in a period of transition towards a new set of geostrategic, technological, climatic, and demographic parameters that tend to manifest themselves globally, generating a series of *interconnected risks*.

The research aimed to deepen the results of recent studies carried out by international organizations and European institutions, on the one hand, and academia, on the other hand, related to the *drivers and trends of involuntary migration* and the *global risks associated with this phenomenon*.

This study is addressed to strategic-level government decision-makers with an active role and responsibility in the management of threats, risks, and crises at national and local level, as well as to the analysts, mainly to those dealing with risks with a security impact.

The research question is: *What are the drivers of involuntary migration and the interconnected global risks associated with this phenomenon?* The main hypotheses considered in this research are: (1) *the involuntary migration is a phenomenon with global impact*; (2) *emerging global risks interconnected with involuntary migration are related to the geopolitical, economic, societal, technological, and environmental factors*.

## Literature review

### Key elements defining involuntary migration

The study of *forced or involuntary migration* - often referred to as *involuntary displacement* or *forced* - makes often a distinction between *disaster-induced* and *conflict-induced displacement*. *Displacement* caused by conflict is usually described as human-induced, while natural causes usually underlie displacement caused by disasters.

The concepts' definitions are useful, but the lines between them can be blurred in practice, as conflicts can occur because of disputes over natural resources while human activity can trigger natural disasters, like landslides (Migration Data Portal, 2023).

In the International Organization for Migration (IOM), understanding, *forced migration* refers to *"a migratory movement which, although the drivers can be diverse, involves force, compulsion, or coercion"* (IOM, 2019, p.77). Although there is no international legal concept, this term has been used to designate *"the movements of refugees, displaced persons (including those displaced by disasters or development projects), and, in some instances, victims of trafficking"* (IOM, 2019, p.77).

At the international level, the use of the term of *forced migration* is debated because of the widespread recognition that a continuum of agency exists rather than a voluntary/forced dichotomy and that it might undermine the existing legal international protection regime" (IOM, 2019, p.77).

In the context of this analysis, we have taken the definitions of the terms *forced migration* and *displacement* proposed by Clement, V.et. al. (2021), in the study *"Groundswell Part 2: Acting on Internal Climate Migration."*

*Forced migration* is defined as *"Migratory movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes (for example, movements of refugees and internally displaced persons as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine, or development projects)." In their approach the authors considered that "forced migration generally implies a lack*

of volition concerning the decision to move, though in reality motives may be mixed, and the decision to move may include some degree of personal agency or volition” (Clement, V. et. al., 2022, p.ix).

With regard to displacement, this term is interpreted as *”Forced removal of people or people obliged to flee from their places of habitual residence”*(Clement, V. et. al., 2022, p.ix).

### ***The global impact of involuntary migration - related issues in academic research***

The research highlighted that both the World Bank and the European Union and international and intergovernmental organisations such as the International Organisation for Migration (IOM) and the United Nations High Commissioner for Refugees (UNHCR), the International Centre for Migration Policy Development (ICMPD), as well as other non-governmental organisations (NGOs), including the Internal Displacement Monitoring Centre (IDMC), have included the issue of involuntary/forced migration as a topical issue, addressing the associated risks in different ways, from a social, economic or security perspective.

To identify the topics of interest linked to the research theme - global risks associated to involuntary migration - explored in journal articles, book chapters and encyclopaedias, it has been carried out a bibliometric analysis in the *ScienceDirect* database, the target period being 2020 - March 2024 (Table 1).

**Table 1. Bibliometric research in the ScienceDirect database on global risks associated with involuntary migration**

| Years                     | 11 March 2024                                    | 2023                                    | 2022                                     | 2021                                     | 2020                             |
|---------------------------|--------------------------------------------------|-----------------------------------------|------------------------------------------|------------------------------------------|----------------------------------|
| <b>Article type</b>       |                                                  |                                         |                                          |                                          |                                  |
| <b>Review articles</b>    | 2                                                | 55                                      | 37                                       | 35                                       | 30                               |
| <b>Research article</b>   | 12                                               | 87                                      | 65                                       | 86                                       | 73                               |
| <b>Encyclopaedia</b>      | 3                                                | 13                                      | 8                                        |                                          | 4                                |
| <b>Book chapters</b>      | 4                                                | 40                                      | 20                                       | 41                                       | 33                               |
| <b>Total</b>              | <b>69</b>                                        | <b>205</b>                              | <b>140</b>                               | <b>172</b>                               | <b>148</b>                       |
| <b>Main subject areas</b> | Environmental Science (9)                        | Social Sciences (17)                    | Social Sciences (9)                      | Social Sciences (20)                     | Earth and Planetary Sciences (6) |
|                           | Social Sciences (6)                              | Earth and Planetary Sciences (12)       | Environmental Science (7)                | Environmental Science (11)               | Environmental Science (6)        |
|                           | Biochemistry, Genetics and Molecular Biology (2) | Environmental Science (12)              | Medicine and Dentistry (4)               | Economics, Econometrics and Finance (7)  | Social Sciences (6)              |
|                           | Business, Management and Accounting (2)          | Business, Management and Accounting (5) | Agricultural and Biological Sciences (3) | Agricultural and Biological Sciences (4) |                                  |
|                           | Earth and Planetary Sciences (2)                 | Energy (3)                              | Business, Management and Accounting (2)  | Energy (2)                               |                                  |

Source: Authors’ own research results on the ScienceDirect dates

The research results reveal an increasing trend of interest in further research related to this topic.

Research conducted in the context has shown that few researchers have observed and discussed about the global impact of involuntary migration and/or the associated cascading risks.

In terms of fields related to the issue of involuntary migration, it is found that most studies address the issue of involuntary migration from the perspective of social sciences; environmental sciences; earth and planetary sciences; business, management, and accounting; and energy.

## METHODOLOGY

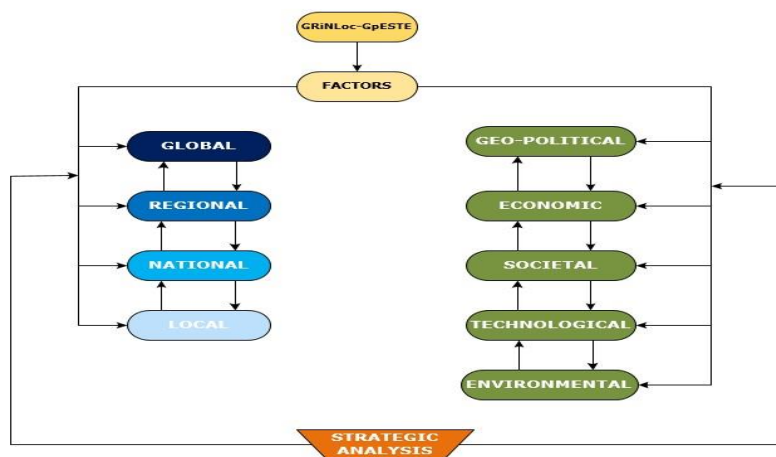
As regards the qualitative and quantitative methods, we have drawn on recent databases as well as research results published between 2023 and March 2024.

The process of documentation also included a bibliometric search of electronic scientific sources posted on the *ScienceDirect* platform.

With the title of the research topic, global risks related to involuntary migration, as key words, the analytical approach aimed to identify the period 2020 - March 2024.

In terms of the analytical technique used, the novelty lies in the adaptation of the PEST (Political-Economic-Societal-Technological) analytical tool in the process of identifying global risks associated with *involuntary migration*.

Our proposed tool, presented in **Figure 1**, GRiNLoc-GpESTE, aims to address this risk from the perspective of impacts at the Global, Regional, National and Local levels, focusing on five factors: Geopolitical, Economic, Societal, Technological and Environmental.



**Figure 1. GRiNLoc-GpESTE analysis framework**

Source: Authors' own research contribution

## Results and discussions

### *Statistics on internal displacement*

According to the United Nations "Guiding Principles on Internal Displacement", internal displaced persons are that "persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border" (UN, 1998, p.5).

Although this *Guiding* are not mandatory, they become a reference point for how states should address to internal displacement (IOM, 2019, p.109).

On the international level, *forced migration* data are collected and/or compiled mainly intergovernmental organizations, such as the International Organisation for Migration (IOM), the United Nations High Commissioner for Refugees (UNHCR) and, as well as non-governmental organizations (NGOs), like the Internal Displacement Monitoring Centre (IDMC).

The DMC "*Global Report on Internal Displacement*" (GRID) is one of the most important sources of data and analysis on internal displacement worldwide. The 2023 edition focused specifically on the complex relationships between food security, disasters, violence, and conflicts, as well as on the internal displacement in 2022. The conclusion of the *2023 Global Report on Internal Displacement* indicate that rapidly escalating of the violence and conflict in countries like Democratic Republic of Congo (DRC) and Ukraine, as well as the significant disasters as flooding in Pakistan have forced millions of people to flee during 2022. „*They joined the tens of millions of people already living in prolonged displacement as a result of protracted conflict, repeated disasters and a lack of durable solutions.*”

About three quarters of countries facing food security crises, in 2022, faced internally displaced populations. In figure 2, we present a picture of the global disaster- and conflict-related displacement situation at the end of 2022.

### Internal displacements by conflict and disasters in 2022

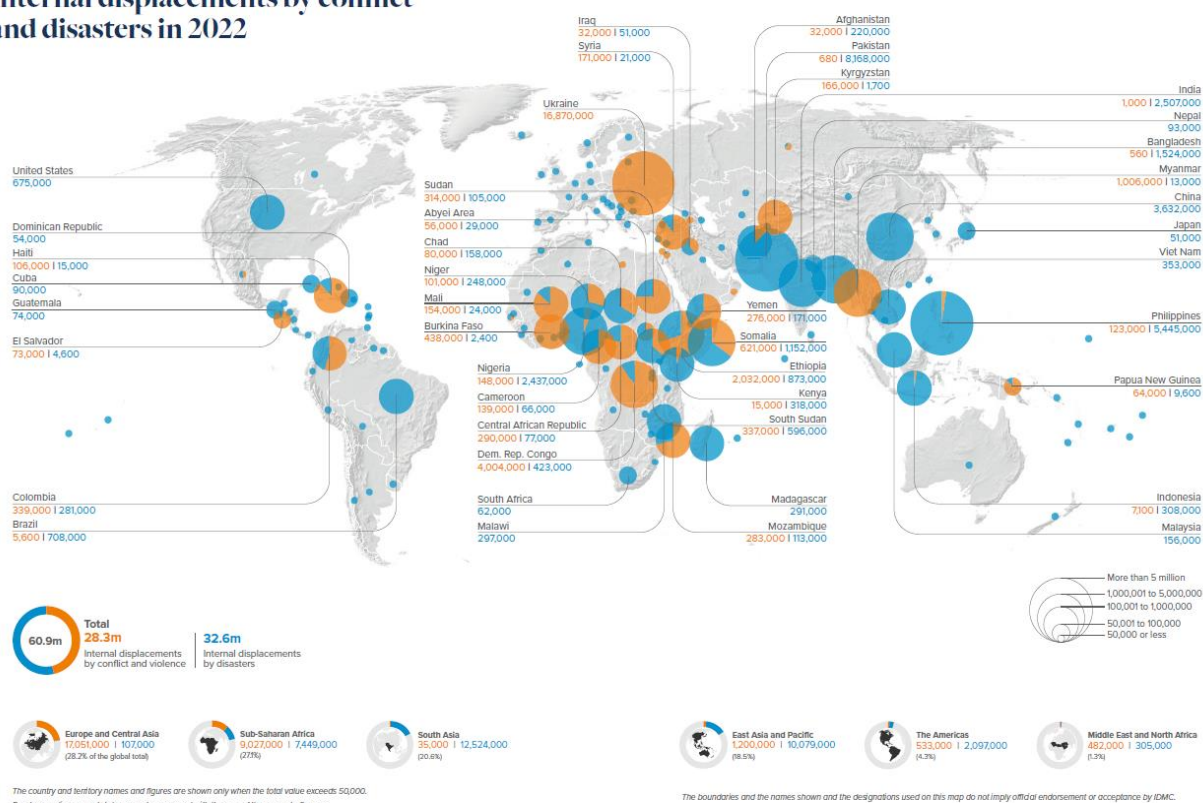


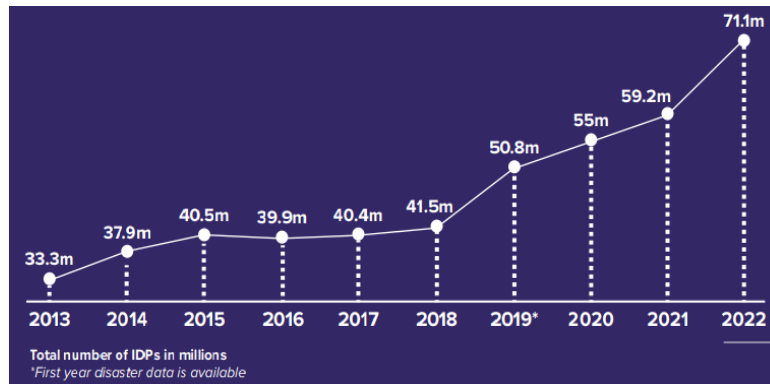
Figure 2. Internal displacements by conflict and disasters in 2022

Source: IDMC, 2023, pp. 2-3

The IDMC report pointed out that internal displacement on this scale has never been recorded before.

At the same time, as a conclusion, we can note that the phenomenon of internal displacement caused by disasters and/or conflicts is present on almost all continents.

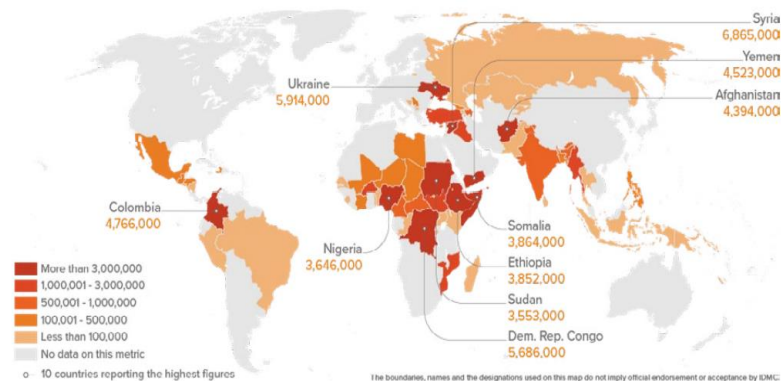
At the end of 2022, there were 71.1 million internally displaced people worldwide (Figure 3), of which 62.5 million because of violence and conflict and 8.7 million as a result of disasters.



**Figure 3. The dynamic of internal displaced persons between 2013-2022**

Source: IDMC, 2023, p. 8

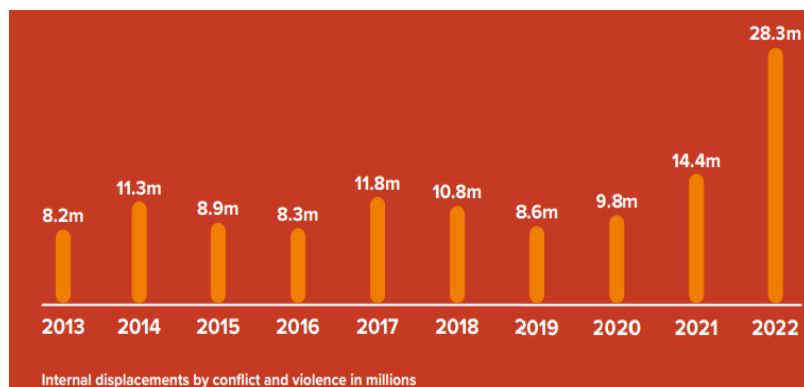
Displacements associated with violence and conflict have almost doubled to 28.3 million (Figure 4.1 & 4.2). The war in Ukraine has claimed 16.9 million lives, the highest number ever reported for any country.



**Figure 4.1 People displaced by violence and conflict at the end of 2022**

Source: IDMC, 2023, p.8

Conflict displacements in 2022 were about 3 times higher than the annual average reported over the past ten years. About 60% of conflict-induced displacement worldwide was recorded in Ukraine as people repeatedly fled the frontline (IDMC, 2023, p. 10).

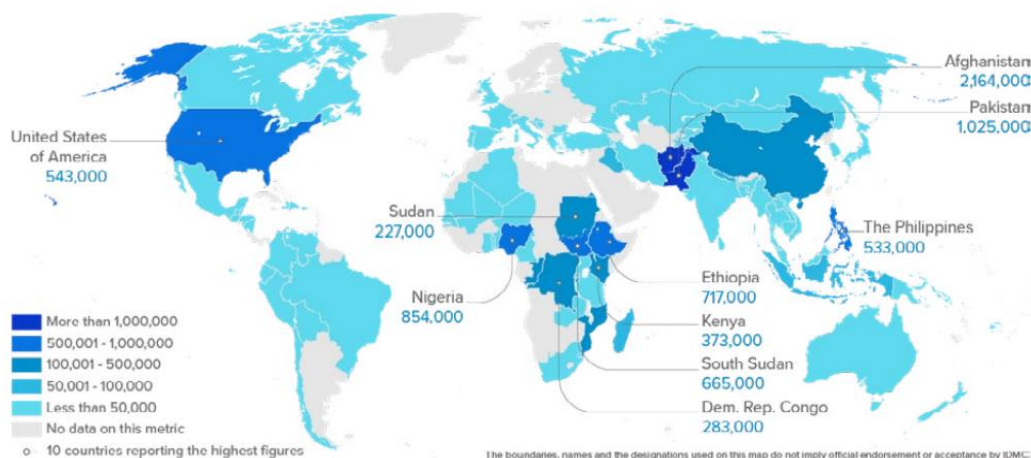


**Figure 4.2. Dynamics of global internal displacement caused by violence and conflict, 2013-2022**

Source: IDMC, 2023, p.10

By the end of 2022, disasters affected 8.7 million people in 88 countries as well as territories - 45% increase in the number of people internally displaced by disasters since 2021 (IDMC, 2023, p. 8).

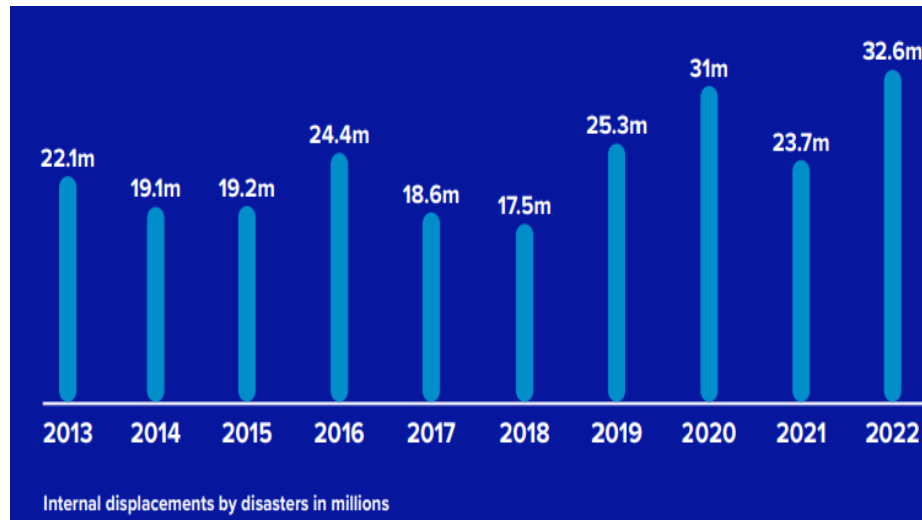
During 2022 (Figure 5.1), the meteorological phenomenon *El Niño* has continued, causing record levels of flooding in countries such as Pakistan, Brazil, and. Nigeria. At the same time, it fuelled the worst drought ever recorded in Ethiopia, Somalia, and Kenya, causing 2.1 million movements (IDMC, 2023, p.6).



**Figure 5.1. People displaced by disasters at the end of 2022**

Source: IDMC, 2023, p.8

Disaster displacement in 2022 were 41% (Figure 5.2) higher than the annual average of the past 10 years. About 25% of global disaster displacements were driven by monsoon flooding across Pakistan (IDMC, 2023, p. 9).



**Figure 5.2 Dynamics of global internal displacement caused by disasters, 2013-2022**

Source: IDMC, 2023, p.9

Statistics on the situation of internally displaced persons recorded in the period 2013-2022 show a fluctuating dynamic of this phenomenon caused by violence and conflicts as well as disasters. It should also be noted that the highest number of internally displaced persons was recorded in 2022.

### ***Drivers associated with involuntary migration***

” *Voluntary migration*” relies on free choice of place to live, often for educational opportunities or economic, while” forced migration” is migration forced by threat to safety, force or violence.

Around the world, there are millions of people forced to leave their homes because of threats from environmental disasters, governments, terrorist groups or gangs.

To understand and identify the interconnected risks generated by this phenomenon, our research set out to further investigate the associated causes and effects.

*”The individual migration decision and the ability to put it in practice are the fruits of an interaction between a variety of factors that are shaped by a broader economic, political and social context”* (Latek, M., 2019, pp. 3-4).

The distinction between *push factors* (why people leave their country) and *pull factors* (why people move to a particular country) is a hot topic of debate in the context of increasing areas affected by climate fluctuations, and countries affected by hunger.

According to Johan Wets, (2007), as a rule, in the case of migration for reasons of necessity or constraint, *push factors* are dominant, especially in situations of natural disasters, famine, oppression, violence, persecution, unemployment, poor development or bleak economic prospects. It is important to note that these 'push' factors can not only combine to force people to migrate, but can also repeat or persist to force people to migrate again, as in the case of victims of human trafficking, refugees or other categories of migrants who, when they return to their country of origin, find the same or similar 'push' factors that motivated them to migrate in the first instance. In the case of migration by choice, 'pull' factors generally play a more important role (they attract people to the destination country), with particular attention being paid to the motivation and decision, generally unforced, of the migrant (Higher, J.W., 2007, p.5).

Based on the above definitions, in our understanding, forced migration defines involuntary displacement of people who fear death or harm. These threats can be caused either by disasters or conflicts.

Disaster threats are caused by natural hazards such as drought, natural disasters, or famine. For example, the major floods may destroy communities and homes, displacing people. Sometimes these events can even be man-made.

According to the World Bank,” the *climate migration trends projected through 2050 may be just a starting point for much greater flows in the second half of the century in some regions*” (Rigaud, Kanta Kumari, et.al, 2018, p.111).

As estimated the World Bank,” by 2050, up to 143.3 million people or 2.8 percent of the population of Sub-Saharan Africa, South Asia and Latin America could be internal climate migrants under the pessimistic reference scenario” (Rigaud, Kanta Kumari, et.al, 2018, p.181). In the same time, it expected that ”the number of climate migrants is projected to reach a high of 85.7 million in Sub-Saharan Africa, 40.5 million in South Asia, and 17.1 million in Latin America by 2050.” Also, it is appreciated that” in the more inclusive development scenario, internal climate migration could drop to between 65.1 million and 105.3 million across the three regions” (Rigaud, Kanta Kumari, et.al, 2018, p.181).

These projections, shown in Table 2, indicate that the largest declines could occur in South Asia and Sub-Saharan Africa, followed by a smaller decline in Latin America. These results represent the lower-bound estimates of the probable overall impact of the climate change on migration. Also, it should be noted that, this analysis focuses only on climate-induced migration in countries within three regions focusing on slow-onset climate impacts (crop productivity sea level rise and water availability) rather than on the rapid-onset events such like hurricanes and floods.

**Table 2. Projected numbers and shares of internal climate migrants by 2050 for the three regions of focus—Sub-Saharan Africa, South Asia and Latin America**

|                                                               | Scenario              |          |                            |          |                       |         |
|---------------------------------------------------------------|-----------------------|----------|----------------------------|----------|-----------------------|---------|
| Region                                                        | Pessimistic reference |          | More inclusive development |          | More climate-friendly |         |
| Sub-Saharan Africa                                            |                       |          |                            |          |                       |         |
| Average number of internal climate migrants by 2050 (million) | 71.1 million          |          | 53.3 million               |          | 28.3 million          |         |
| Minimum (left) and Maximum (right)                            | 56.6 mn               | 85.7 mn  | 42.1 mn                    | 64.7 mn  | 17.4 mn               | 39.9 mn |
| Internal climate migrants as percent of population            | 3.49%                 |          | 3.01%                      |          | 1.39%                 |         |
| Minimum (left) and Maximum (right)                            | 2.71%                 | 4.03%    | 2.33%                      | 3.58%    | 0.91%                 | 2.04%   |
| South Asia                                                    |                       |          |                            |          |                       |         |
| Average number of internal climate migrants by 2050 (million) | 35.7 million          |          | 21.1 million               |          | 16.9 million          |         |
| Minimum (left) and Maximum (right)                            | 30.9 mn               | 40.5 mn  | 18.1 mn                    | 24.1 mn  | 11.4 mn               | 22.4 mn |
| Internal climate migrants as percent of population            | 1.56%                 |          | 0.89%                      |          | 0.74%                 |         |
| Minimum (left) and Maximum (right)                            | 1.35%                 | 1.77%    | 0.76%                      | 1.02%    | 0.50%                 | 0.98%   |
| Latin America                                                 |                       |          |                            |          |                       |         |
| Average number of internal climate migrants by 2050 (million) | 10.6 million          |          | 10.5 million               |          | 5.8 million           |         |
| Minimum (left) and Maximum (right)                            | 4.3 mn                | 17.1 mn  | 4.9 mn                     | 16.2 mn  | 2.2 mn                | 9.4 mn  |
| Internal climate migrants as percent of population            | 1.61%                 |          | 1.50%                      |          | 0.88%                 |         |
| Minimum (left) and Maximum (right)                            | 0.65%                 | 2.56%    | 0.70%                      | 2.31%    | 0.33%                 | 1.42%   |
| Total                                                         |                       |          |                            |          |                       |         |
| Average number of internal climate migrants by 2050 (million) | 117.5 million         |          | 85.1 million               |          | 51.1 million          |         |
| Minimum (left) and Maximum (right)                            | 91.8 mn               | 143.3 mn | 65.1 mn                    | 105.3 mn | 31.2 mn               | 71.7 mn |
| Internal climate migrants as percent of population            | 2.36%                 |          | 1.75%                      |          | 1.02%                 |         |
| Minimum (left) and Maximum (right)                            | 1.81%                 | 2.80%    | 1.33%                      | 2.14%    | 0.64%                 | 1.47%   |

Source: Rigaud, K.. K., p.109

Climate in- as well as out-migration projections do not take into consideration technological advances and development responses which could allow to the cities or the rural areas to support larger populations. (Rigaud, Kanta Kumari, et.al, 2018, pp.181-182) The conclusions of this *Report* estimate that these migrants *"will migrate from less viable areas with lower water availability and crop productivity and from areas affected by rising sea level and storm surges. The poorest and most climate vulnerable areas will be hardest hit. These trends, alongside the emergence of "hotspots" of climate in- and out-migration, will have major implications for climate-sensitive sectors and for the adequacy of infrastructure and social support systems"* (Rigaud, Kanta Kumari, et.al, 2018, p. xix).

According to the European Parliament Report, elaborated by Martha Latek, M. (2019, p.4), these persons *"will be pushed by climate change stresses to migrate within their countries in the first instance, with possible further consequences for onward movement."*

Thus, *"it is estimated that 8 % of the African population in 2100 will be affected by prolonged periods of heat, and over 13 % by prolonged periods of drought."* (F. Natale, S. Migali, R. Munz, 2018, p.29)

It is difficult to predict the effect of these changes on international migration. *"Some see millions of 'climate refugees' moving south to north, while others underline that affected communities may become 'trapped populations', much too poor to move farther"* (Latek, M., 2019, p.5).

In line with Michał Burzynski et.al (2022, pp.1145-1146), we consider that ” *it is unlikely that climate shocks will induce massive international flows of migrants, except under combined extremely pessimistic climate scenarios and highly permissive migration policies. In contrast, poverty resulting from climate change is a real threat to all of us.*”

The causes of conflict stem from human conflicts that may escalate into war, violence or persecution motivated by ethnicity or religion. These conflicts could originate from criminal organizations or political institutions. Political conflicts, like wars between countries, coups, and civil wars, may cause dangerous conditions for people.

People forced to migrate in these conditions are looking for safer conditions to survive. *Forced migration* can take place either internationally regionally or locally. There are different statuses that people can get. These depend on if people have crossed international borders or stayed in the country facing the conflict. There are many different causes of *forced migration*. Several interlinked political, environmental, social, economic, and cultural factors can lead to tragic situations that may displace people.

For example, since Russia's invasion of Ukraine, a massive refugee crisis has been registered in Europe (Quinn, S. & Ruiz, I. 2022, pp. 403-404). Economic sectors, shipping and transport were targeted by shelling and bombing, creating dangerous conditions for doing business or for daily life. Millions of Ukrainians have fled or are internally displaced. As a result, millions of Ukrainians have fled the war or been internally displaced.

The above arguments show that, in the case of involuntary migration, push factors are mainly related to climate change and disasters on the one hand, and conflict and violence on the other. Often these factors, which initially manifest themselves internally, intertwine and combine with other socio-economic factors, favouring involuntary movements externally, having a regional and global impact.

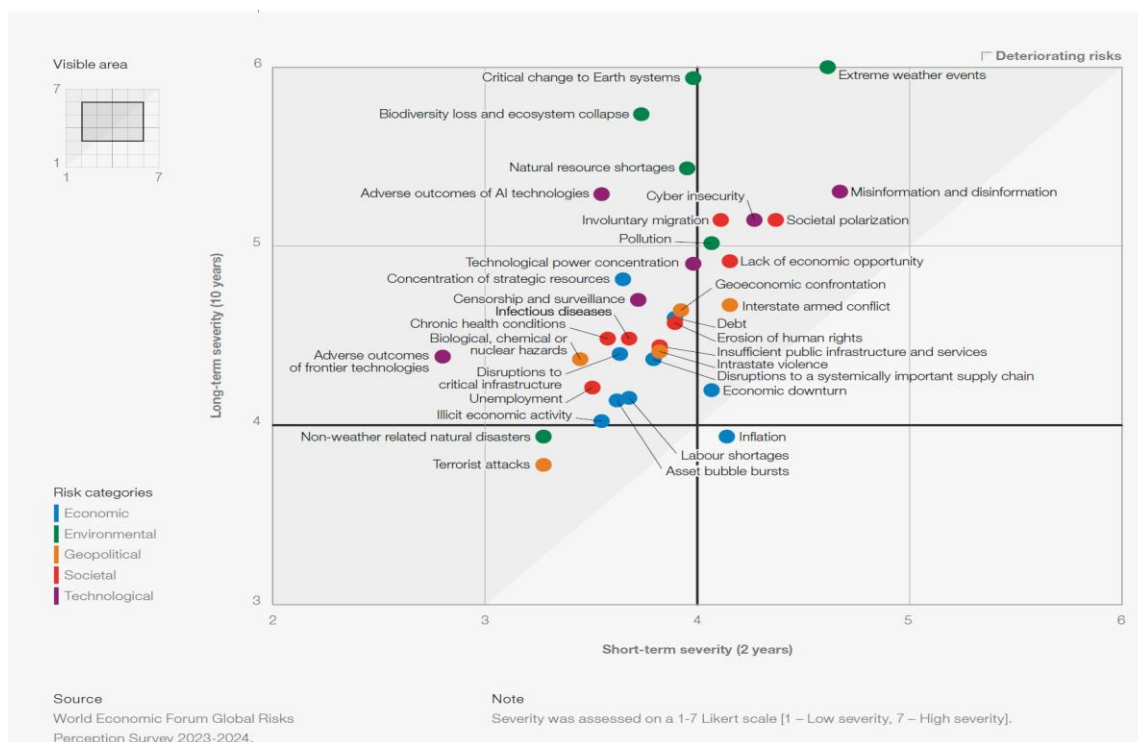
Long-term projections to 2050 indicate that climate change will affect all regions of the world, particularly Sub-Saharan Africa and South Asia, leading to increased migration, initially internally and then externally. These predictions should act as a warning to policy makers.

At the same time, we believe that these forecasts should provide a basis for short-, medium- and long-term scenarios, which should be used to inform policy decisions to manage crisis situations associated with increased involuntary migration, including funding to increase resilience and prevent associated 'cascading' risks and threats.

Given these findings, we believe that the first hypothesis of our research, that involuntary migration has a global impact, is confirmed.

### ***Main global risks expected in the short and medium term***

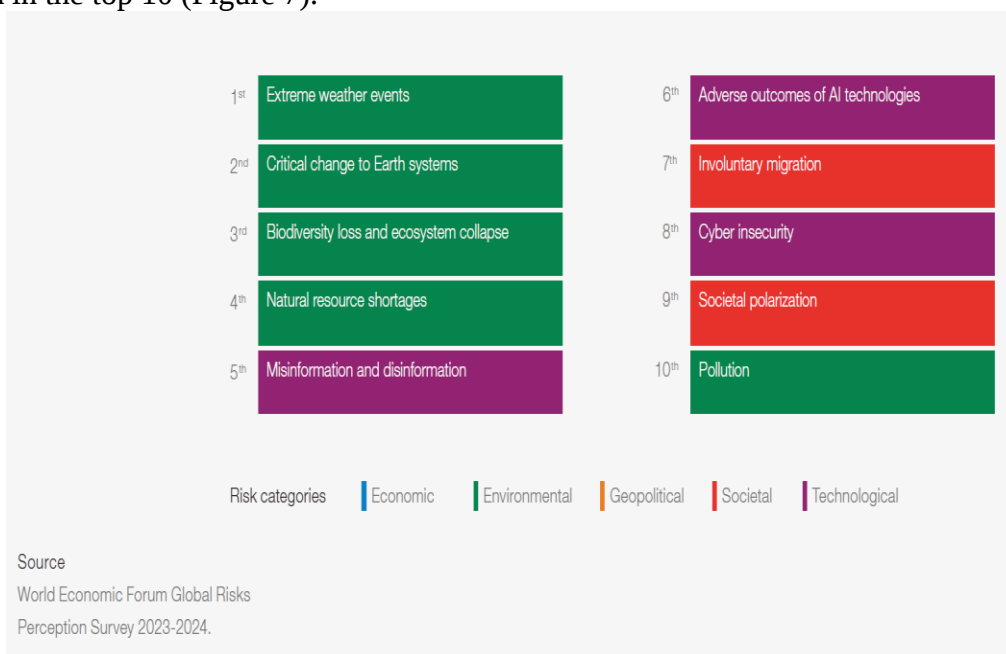
The strategic analysis elaborated by World Economic Forum, *Global Risks Report 2024*, revealing a long-term deterioration of the global risks landscape. Thus, as shown in Figure 6 in the long term, 33 of the 34 global risks will increase in severity score, a situation that reflects respondents' concerns regarding the increased intensity or frequency of these risks over a 10-year horizon.



**Figure 6. Relative severity of risks over a 2 and 10-year period**

Source: World Economic Forum, 2024, p.37

On the long term (10 years), namely until 2032, almost all environmental risks are included in the overall risk ranking, sorted by severity. Among these global risks, involuntary migration ranks 7th in the top 10 (Figure 7).



**Figure 7. Global risks ranked by severity until 2032**

Source: World Economic Forum, 2024, p.38

The perception of *involuntary migration* as a long-term global risk indicates a common view among the interviewees in the study, who come from civil society, international organisations, academia, government, and not least from the private sector (Figure 8).



**Figure 8. Severity risks by stakeholder over until 2032**

Source: World Economic Forum, 2024, p.39

### **Global risks scenarios based on structural forces**

To analyse global risks in the next decade, the *Global Risks 2024* report introduces as a novelty, the concept of “*structural forces*”.

The Report analysts define these *structural forces*” as *the long-term shift in the arrangement of, and relation between, the systemic elements of the global landscape. These forces have the potential to materially impact the speed, spread or scope of global risks, and will be influenced in turn by each other*” (World Economic Forum, 2024, p.40).

The research identifies *four structural forces* that could have a strategic materially influential to the global risks landscape: *climate change*; *geostrategic shifts*; *technological acceleration*; and *demographic bifurcation*. Even though all four forces involve worldwide ramifications, a few of them, like climate change, involve a multi-directional evolution - situation that is likely to lead to *several possible futures*.

The following summarizes four scenarios on the evolution of structural forces impacting on involuntary migration over the next decade, *processed based on data contained in the publication "Global Risks Report 2024 19th Edition Insight Report"* (pp. 37-76).

**Climate change:** Climate change encompasses the full spectrum of possible global warming trajectories and their associated impacts on earth systems. According to recent studies, „*climate change is characterized as a systemic shift in this year's analysis because the threshold of 1.5°C above pre-industrial temperatures, specified in the 2015 Paris Agreement, is anticipated to be crossed by the early to mid-2030s*” (World Economic Forum, 2024, p.40). At the same time, the degradation of environmental systems is expected to accelerate the projected trajectories.

**Technological acceleration:** Technology acceleration refers to the development paths of the emerging technologies. „*A subset of key technologies, including general-purpose AI, is anticipated to experience significant, accelerated development over the next 10 years*” (World Economic Forum, 2024, p.40).

**Geostrategic shifts:** Geostrategic changes relate to the evolution of sources and the concentration of the geopolitical power. That in turn influences geopolitical order alignment, having an impact on alliances and related dynamics, and on both the defensive and offensive projection of soft and hard power, in the next decade. At the same time, economic power is expected to become more diffuse, reflecting, among other things, changes in energy sources, the size of consumer markets, available capital, or currency dependence. Concentrations of military and economic power also have a strong connection to the technological as well as resource assets. The current geopolitical configuration shows that „*while alternate futures are possible, an array of powers will likely assert their dominance on the global stage in a multipolar world*” (World Economic Forum, 2024, p.40).

**Demographic bifurcation:** The demographic bifurcation describes the changes in the size, growth and structure of the populations worldwide. The demographic gap is getting wider. It is anticipated that „*polarizing growth at the top and bottom end of population pyramids, and between countries and regions, will have material implications for related socioeconomic and political systems.*” Asia will continue to dominate in the absolute population growth. „*Most countries will continue to grapple with an ageing population, combining a long term rise in life expectancy with declining fertility rates.*” By contrast, Africa faces a very distinct policy challenge: „*by 2030, young Africans are expected to constitute 42% of global youth*” (World Economic Forum, 2024, p.40).

A cross-cutting analysis of these scenarios indicates shows that *climate change* encompasses the entire range of developments related to the global warming and its consequences on Earth systems. As a direct consequence, we could consider that involuntary migration is a global risk whose dynamics can influence several specific risks directly associated with three of the four structural forces, namely: *Earth systems - Critical change to Earth systems; Human development: Lack of economic opportunity; Organized crime: Illicit economic activity.*

### ***Forecasts on global risks related to involuntary migration***

Based on the research findings presented above, as well as the conclusions of the studies conducted in the context of the *Global Risks 2024*, our analysis aimed to identify the interlinked risks related to involuntary migration in the medium (2 years) and long term (10 years).

In this context, as an analytical tool, we used GRiNLoc-GpESTE analysis - an analytical model, as presented in the Methodology chapter, used to highlight the relationship between GpESTE factors and the spatial framework (Global, Regional, National, Local).

In the graph below (Table 3) we have summarized all these interconnections risks issues related to involuntary migration.

**Table 3. Interconnected global risks related to the involuntary migration over the next decade**

| Emerging global risks                                 | Geopolitical                                                                | Economic                                                                                                                                                                                                                    | Societal                                                                                                                                                                                                | Technologic                                                                                                                                                                                                               | Environmental                                                                                                                                             |
|-------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Critical change to earth systems</b>               |                                                                             | - Economic downturn                                                                                                                                                                                                         | - Chronic health conditions<br>- Infectious diseases                                                                                                                                                    |                                                                                                                                                                                                                           | - Critical change to Earth systems<br>- Natural resource shortages<br>- Biodiversity loss and ecosystem collapse<br>- Pollution<br>Extreme weather events |
| <b>Lack of economic opportunity</b>                   | - Intrastate violence                                                       | - Economic downturn<br>- Illicit economic activity<br>- Inflation<br>- Debt<br>- Labour shortages<br>- Concentration of strategic resources<br>- Asset bubble bursts                                                        | - Lack of economic opportunity<br>- Societal polarization<br>- Unemployment<br>- Insufficient infrastructure and services<br>- Chronic health conditions<br>- Unemployment<br>- Erosion of human rights | - Technological power concentration                                                                                                                                                                                       |                                                                                                                                                           |
| <b>Illicit economic activity and cyber insecurity</b> | - Intrastate violence<br>- Terrorist attacks<br>- Geoeconomic confrontation | - Economic downturn<br>- Illicit economic activity<br>- Disruptions to critical infrastructure<br>- Disruptions to a systemically important supply chain<br>- Inflation<br>- Debt<br>- Concentration of strategic resources | - Societal<br>- Polarization<br>- Lack of economic opportunity<br>- Unemployment                                                                                                                        | - Misinformation and disinformation<br>- Cyber insecurity<br>- Censorship and surveillance<br>- Adverse outcomes of frontier technologies<br>- Technological power concentration<br>- Adverse outcomes of AI technologies |                                                                                                                                                           |

Source: Authors' own research results on the basis of **Global Risks Report 2024**, pp.37-76

The results of this cross-sectional analysis show that involuntary migration is perceived as

a societal risk with different geo-political, economic, technological, and environmental implications. At the same time, the diverse range of risks of involuntary migration demonstrates the need for a multidisciplinary, joined-up and integrated approach to the associated global risks in order to increase resilience in the short, medium and long term. From this perspective we can conclude that global risks require global resilience measures.

**Earth systems:** It is likely that the thresholds for large-scale, self-perpetuating changes to the planetary systems will be exceeded in the next decade. The pace and extent of efforts to adapt to the climate change are becoming increasingly ineffective. In the face of these challenges, "societies increasingly exposed to environmental impacts to which they may be unable to adapt, fuelling displacement and migration" (World Economic Forum, 2024, p.42). Corollary, the emerging mitigation technologies - attractive in certain respects - are likely to have unintended social and environmental consequences, which could have implications for geopolitical dynamics, the climate agenda, and legal responsibilities. Environmental risks are closely interlinked, with bilateral connections to critical changes in Earth systems. These risks could include extreme weather events as well as pollution, which could lead to natural resource scarcity; possible socio-economic implications, including involuntary migration, economic recession, infectious diseases, and chronic health conditions; loss of biodiversity and collapse of ecosystems. Thus, „climate tipping points could result in a socio-environmental crisis, intensifying current risks" (World Economic Forum, 2024, p.44).

**Organized crime:** Fragility of states, fuelled by conflict, climate change and economic hardship, is likely to widen or create a governance gap - a context in which transnational organized crime could thrive (World Economic Forum, 2024, pp. 67-75).

**Human development:** Human development as well as prosperity can stagnate, considering the barriers that can arise to economic mobility due to geopolitical, climatic, or technological constraints. Deeply bifurcated labour markets can accentuate inequalities between the developed and the developing economies and, as a result, can create additional risks, given differences in job demand supply labour, and demographic structures. Living standards could fall for people suffering from entrenched unemployment as well as economic hardship - a situation that could seriously reshape political dynamics. Alongside unemployment, the lack of economic opportunities may stem from a complex mix of other global risks. These would encompass short-term economic risks, which could include inflation and economic downturn, as well as societal risks, such as intra-state violence, polarization of society and erosion of human rights. Over the coming decade, the climate transition, geopolitical dynamics, advances in AI, and demographic shifts could interact. This could be reflected on the cementing the mismatch between the demand and supply of labour between and within countries - a situation that may strongly become push factors of migration. In the absence of adequate social protection systems displaced workers who are struggling to reintegrate into the labour market could be facing higher rates of hunger, poverty, and homelessness, if the costs and the inflation remain higher for a longer period. Without awareness on the part of policy makers and adequate measures to provide safe pathways and livelihoods, more people are likely to be pushed towards criminality, radicalization, or militarization. "Forced economic displacement could become more common, with individuals migrating in search of better economic opportunity and,

*possibly, social assistance – yet even this may be a pathway that some individuals cannot afford”* (World Economic Forum, 2024, p.65).

Taking into account the issues presented in this second part of the research, we estimate that in the next decade emerging global risks interlinked with involuntary migration will be linked to geopolitical, economic, societal, technological and environmental factors. From this perspective, we appreciate that the strategic decision related to the management of involuntary migration should be based on adequate analytical techniques, including multi-risk analysis.

## CONCLUSIONS

The main contribution of the paper is to highlight the importance of the risks associated with involuntary migration from the perspective of the associated global risks, given the fact that few researchers to date have observed and discussed the global impact of involuntary migration and/or the associated cascading risks.

Given the findings of the studies mentioned in this article, as well as the scenarios, we believe that risk analysis from a multidisciplinary and interlinked perspective is an important topic to be further explored both from a geopolitical and socio-economic point of view and from the perspective of the need to identify appropriate strategic management solutions.

Also, given the dynamics of pull factors related to involuntary migration, mainly those associated with the effects of climate change and conflict situations, we believe that risk prevention strategies need to be reviewed and adapted from the perspective of a multidisciplinary approach, interlinked with the associated global risks.

Related to the addressing the risk of critical changes in the Earth systems, we consider that it is necessary to develop an integrated approach to climate risk management, corelated to the whole decision-making process.

As far as the strategic decision to prevent cascading crises generated by involuntary migration is concerned, we consider that this should be based on multi-risk and multi-hazard analyses, approached from the perspective of the global, regional, national, and local impact of the phenomenon of involuntary migration, elaborated on the basis of variables and composite indicators, adapted dynamically to the evolution of the risks associated with this phenomenon.

At the same time, we believe that addressing global risks requires adequate global resilience measures. From this perspective, we believe that the research process should also focus on the identification and implementation of appropriate strategies, supported by financial measures, at both local and national level, to contribute to increasing resilience and provide an adequate response to the interlinked risks and threats posed by involuntary migration.

The limitations of the present research are related to the limited number of studies related to the research topic as well as in terms of statistical data on involuntary migration abroad.

## REFERENCES

### BOOKS

Clement, V.; Rigaud, K. K.; de Sherbinin, A.; Jones, B.; Adamo, S.; Schewe, J.; Sadiq, N.; Shabahat, E. (2021). Groundswell Part 2: Acting on Internal Climate Migration. Washington, DC: The World Bank.  
<https://openknowledge.worldbank.org/entities/publication/2c9150df-52c3-58ed-9075d78ea56c3267>

### ONLINE JOURNAL WITH DOI

Klepp, S. (2017). Climate Change and Migration - an overview, *Oxford Research Encyclopedia of Climate Science*, January 2017, (pp.1-37). DOI: 10.1093/acrefore/9780190228620.013.42

Natale, F., Migali, S. and Münz, R. (2018). Many more to come Migration from and within Africa, 2018 04-16, EUR 29106 EN, *Publications Office of the European Union*, Luxembourg, 2018, ISBN 97892-79-79363-9, doi:10.2760/1702, JRC110703.

<https://publications.jrc.ec.europa.eu/repository/handle/JRC110703>

ONLINE-ONLY JOURNAL WITHOUT DOI

Higher, J.W. (2007). L'importance du lien entre migration et développement et l'opposition entre la migration par choix et la migration par nécessité, Foundation Roi Baudoin, *Global Forum on Migration & Development* (GFMD), *Institute for Labour Studies*, University of Leuven Belgique

[https://www.gfmd.org/sites/g/files/tmzbd1801/files/documents/gfmd\\_brussels07\\_csd\\_session\\_6\\_fr.pdf](https://www.gfmd.org/sites/g/files/tmzbd1801/files/documents/gfmd_brussels07_csd_session_6_fr.pdf)

Karpych, A.YU & Sitnicki, M.V. (2016). Fundamental analysis versus LONG PESTLE analysis: the common and the different.

[https://www.researchgate.net/publication/350819922\\_Strategicna\\_osnova\\_dla\\_vprovadzennia\\_genderno\\_orientovanogo\\_pidhodu\\_v\\_budzetnij\\_proces\\_Ukraini](https://www.researchgate.net/publication/350819922_Strategicna_osnova_dla_vprovadzennia_genderno_orientovanogo_pidhodu_v_budzetnij_proces_Ukraini)

Quinn, S. & Ruiz, I. (2022). Forced migration: evidence and policy challenges. *Oxford Review of Economic Policy*, Volume 38, Issue 3, Autumn 2022, Pages 403–413, Published: 15 September 2022. <https://doi.org/10.1093/oxrep/grac025>

WEBSITE

Migration Data Portal (2023). Forced migration or displacement, 28 June 2023.

<https://www.migrationdataportal.org/themes/forced-migration-or-displacement>

(Accessed on 27 February 2024)

ON-LINE ARTICLE

Burzynski, M.; Deuster, C.; Docquier, F.; de Melo, J. (2022). Climate change, inequality, and human migration, *Journal of the European Economic Association* 2022 20(3):1145–1197

<https://doi.org/10.1093/jeea/jvab054>

Latek, M. (2019). Interlinks between migration and development, *European Parliament*, Members' Research Service PE 630.351 – January 2019

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/630351/EPRS\\_BRI\(2019\)63\\_0351\\_EN.pdf?fbclid=IwAR2-Jjgawww4ii85p4xC1\\_ldfydEbKZCsaJO1eFRSKC2eez2xgJvDleC9m8](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/630351/EPRS_BRI(2019)63_0351_EN.pdf?fbclid=IwAR2-Jjgawww4ii85p4xC1_ldfydEbKZCsaJO1eFRSKC2eez2xgJvDleC9m8)

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/630351/EPRS\\_BRI\(2019\)63\\_0351\\_EN.pdf?fbclid=IwAR2-Jjgawww4ii85p4xC1\\_ldfydEbKZCsaJO1eFRSKC2eez2xgJvDleC9m8](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/630351/EPRS_BRI(2019)63_0351_EN.pdf?fbclid=IwAR2-Jjgawww4ii85p4xC1_ldfydEbKZCsaJO1eFRSKC2eez2xgJvDleC9m8)

Rigaud, K. K.; de Sherbinin, A.; Jones, B.; Bergmann, J.; Clement, V.; Ober, K.; Schewe, J.; Adamo, S.; McCusker, B.; Heuser, S.; Midgley, A., 2018. Groundswell: Preparing for Internal Climate Migration. © World Bank, Washington, DC. <http://hdl.handle.net/10986/29461> License: [CC BY 3.0 IGO](https://creativecommons.org/licenses/by/3.0/)

<https://openknowledge.worldbank.org/entities/publication/2be91c76-d023-5809-9c94-d41b71c25635>

INSTITUTION REPORT

Internal displacement and food security (IDMC) (2023). GRID 2023 - Internal displacement and food security 2023.

[https://api.internaldisplacement.org/sites/default/files/publications/documents/IDMC\\_GRID\\_2023\\_Global\\_Report\\_on\\_Internal\\_Displacement\\_LR.pdf](https://api.internaldisplacement.org/sites/default/files/publications/documents/IDMC_GRID_2023_Global_Report_on_Internal_Displacement_LR.pdf)

International Displacement Monitoring Centre (IDMC) (2023). Global Report on Internal Displacement

<https://www.internal-displacement.org/global-report/grid2023/>

(Accessed on 01 March 2024)

International Organization for Migration (IOM) (2019). Glossary on Migration, No 34, *International migration law*, Geneva/Switzerland. ISSN 1813-2278

[https://publications.iom.int/system/files/pdf/iml\\_34\\_glossary.pdf](https://publications.iom.int/system/files/pdf/iml_34_glossary.pdf)

United Nations (UN), Economic and Social Council (1998). Further promotion and encouragement of human rights and fundamental freedoms, including the question of the programme and methods of work of the commission, Human Rights, Mass Exoduses and Displaced Persons, Report of the Representative of the Secretary-General, Mr Francis M. Deng, Submitted Pursuant to Commission Resolution 1997/39, *Addendum Guiding Principles on Internal Displacement*, GE.98-10493 (E), (11 February 1998) UN Doc E/CN.4/1998/53/Add.2, Annex, p.5.

<https://www.refworld.org/legal/otherinstr/unchr/1998/en/18487>

United Nations University– Institute for Environment and Human Security (UNU-EHS) (2023). *Interconnected Disaster Risks: Risk Tipping Points*. Eberle, C.; O’Connor, J.; Narvaez, L.; Mena Benavides, M.; Sebesvari, Z. (authors). Bonn: *United Nations University – Institute for Environment and Human Security*. DOI: 10.53324/WTWN2495

World Economic Forum (2024). *Global Risks Report 2024 19th Edition Insight Report*, Cologny/Geneva Switzerland, ISBN: 978-2-940631-64-3

[https://www3.weforum.org/docs/WEF\\_The\\_Global\\_Risks\\_Report\\_2024.pdf](https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2024.pdf)