SCIENTIFIC REPORT ON THE RESULTS OF THE LITERATURE CONTENT ANALYSIS CONDUCTED WITHIN THE RESEARCH PROJECT IP-2025-02-5454: "CLIMATE MIGRATION IN EDUCATION: INNOVATIVE TEACHING MEDIA FOR UNDERSTANDING INTERSECTIONAL CRISES (KLIMED)"

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1. Introduction

This scientific report presents a comparative synthesis of the results of a systematic content analysis of academic books, scholarly articles, and other scientific publications conducted within the project *Climate Migration in Education: Innovative Teaching Media for Understanding Intersectional Crises (KlimEd)* (hereinafter: KlimEd). The aim of the report is to integrate, synthesise, and compare the findings of two separately conducted research processes: a content analysis of relevant international academic books and a content analysis of recent scholarly articles. The purpose is to identify dominant patterns, theoretical approaches, methodological trends, and educational implications related to the intersections between climate change, migration, and education. The content analysis of books was conducted by the project leader, Mirela Holy, who analysed a total of 14 titles, and project team members Marija Geiger Zeman, who analysed 12 titles, and Marko Turk, who analysed ten titles. The content analysis of scholarly articles and other publications was conducted by Marek Mikuš, who analysed 18 publications, Dubravka Petrović Štefanac, who analysed 13, and Irena Martinović Klarić, who analysed ten articles. One limitation of the literature analysis is that no cross-validation or systematic comparison of findings among the researchers was conducted using an approach in which all researchers would analyse the same corpus of publications. Such a procedure would have enabled an assessment of the intersubjective reliability of the analysis. In the case of the book analysis, after the researchers had completed their analyses, artificial intelligence (AI) was employed to analyse the same books, after which the results of the human and AI analyses were compared. The comparison revealed an exceptionally high degree of convergence between the findings, while the identified differences were not substantive in nature. This provides additional support for the robustness of the analytical procedure.

The KlimEd project is based on the premise that climate change represents one of the key intersectional crises facing contemporary society, with climate-induced migration becoming an increasingly significant social, political, educational, and ethical challenge. In this context, the development of educational content for secondary education requires an in-depth understanding of existing scientific knowledge concerning the interconnections between climate change, migration processes, social inequalities, and educational responses to the climate crisis. For this reason, the project included an extensive analysis of relevant international literature encompassing both theoretical and empirical contributions from a range of disciplines, including sociology, migration studies, environmental studies, educational sciences, political science, law, geography, communication studies, and ethics. The

comparative perspective adopted in this report is based on the assumption that academic books and scholarly articles, although situated within the same broad field of research, often perform different functions in the production of knowledge. While books and edited volumes tend to provide broader theoretical and conceptual frameworks, interdisciplinary syntheses, and normative and policy-oriented discussions, scholarly articles more frequently offer empirical insights, methodological innovations, and evidence of recent research trends. Comparing the results of the analyses of these two corpora makes it possible to identify more precisely areas of convergence, conceptual similarities and differences, research gaps, and potential contributions to the development of educational materials within the KlimEd project.

The following literature was analysed:

BOOKS

1. Ajibade, I. J., & Siders, A. R. (Eds.). (2022). *Global views on climate relocation and social justice*. CRC Press.
2. Alkış Küçükaydın, M., Ulum, H., & Ulum, Ö. G. (Eds.). (2025). *Climate change, migration and education*. Routledge.
3. Alston, M., & Whittenbury, K. (Eds.). (2013). *Research, action and policy: Addressing the gendered impacts of climate change*. Springer.
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6. Azeiteiro, U. M., Leal Filho, W., & Aires, L. (Eds.). (2018). *Climate literacy and innovations in climate change education*. Springer.
7. Banks, J. A. (Ed.). (2017). *Citizenship education and global migration: Implications for theory, research, and teaching*. American Educational Research Association.
8. Banks, J. A. (Ed.). (2023). *Global migration and civic education: Research, policy and practice*. Routledge.
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11. Cardarelli, R., & Pomper, H. (2024). *Children and the climate migration crisis: A casebook for global climate action in practice and policy*. Emerald Publishing.
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15. Gerrard, J., & Sriprakash, A. (Eds.). (2019). *Migration, borders and education: International sociological inquiries*. Routledge.
16. Hulme, M. (2022). *Climate change*. Routledge.

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19. Leal Filho, W., & Hemstock, S. L. (Eds.). (2019). *Climate change and the role of education*. Springer.
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21. Mayer, B., & Crépeau, F. (Eds.). (2017). *Research handbook on climate change, migration and the law*. Edward Elgar Publishing.
22. Mayer, B., Nicholson, C., & Ruadh, C. (Eds.). (2024). *Climate migration: Critical perspectives for law, policy, and research*. Bloomsbury Publishing.
23. McLeman, R., & Gemenne, F. (Eds.). (2018). *Routledge handbook of environmental displacement and migration*. Routledge.
24. Piguet, É., Pécoud, A., & de Guchteneire, P. (Eds.). (2011). *Migration and climate change*. Cambridge University Press.
25. Piper, N., & Datta, K. (Eds.). (2024). *The Elgar companion to migration and the sustainable development goals*. Edward Elgar Publishing.
26. Reimers, F. M. (Ed.). (2020). *Education and climate change: The role of universities*. Springer.
27. Rosignoli, F. (2022). *Environmental justice for climate refugees*. Routledge.
28. Scott, M. (2020). *Climate change, disasters, and the Refugee Convention*. Cambridge University Press.
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30. Simonelli, A. C. (2016). *Governing climate-induced migration and displacement: IGO expansion and global policy implications*. Palgrave Macmillan.
31. Singh, V. (2024). *Teaching climate change: Science, stories, justice*. Routledge.
32. Smets, K., Leurs, K., Georgiou, M., Witteborn, S., & Gajjala, R. (Eds.). (2019). *The SAGE handbook of media and migration*. SAGE Publications.
33. Teräs, M., Osman, A., & Eliasson, E. (Eds.). (2023). *Migration, education and development: Perspectives from the Global South*. Routledge.
34. Walsh, E. M. (Ed.). (2022). *Justice and equity in climate change education: Exploring social and ethical dimensions*. Routledge.
35. Wilson, R., & Stevenson, R. B. (2015). *Promoting climate change awareness through education*. Routledge.
36. Windschitl, M. (2023). *Teaching Climate Change: Fostering Understanding, Resilience, and a Commitment to Justice*. Harvard Education Press.

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The book analysis covered a total of 36 relevant books, predominantly published during the past decade, with academic monographs, edited volumes, handbooks, and interdisciplinary collections of scholarly contributions representing the most common types of publications. The analysis of scholarly articles included 41 publications, predominantly recent studies published between 2020 and 2025 in internationally relevant journals indexed in databases such as *Scopus* and *Web of Science*. Both corpora were selected according to their relevance to understanding the relationships between climate change, migration, climate justice, and education, with particular emphasis on their potential application in the development of teaching content for secondary education.

The methodological framework for both analyses was based on a predefined analytical matrix that enabled structured, systematic, and comparable data collection. The analytical matrix consisted of eleven interconnected segments covering bibliographic information and publication classification; thematic focus and the relationship between climate change and migration; conceptual and theoretical frameworks; the educational dimension; representations of migrants and climate migrants; issues of vulnerability and inequality; legal and policy aspects; methodological approaches; implications for secondary education; innovative media and pedagogical approaches; and critical evaluation of the analysed sources. This common analytical structure enabled not only the systematic mapping of content but also a direct comparison of the results obtained from the analysis of books and scholarly articles. Both research processes employed a qualitative interpretative approach based on close reading, with researchers keeping structured notes in accordance with the common analytical matrix and entering the data into analytical tables. Nevertheless, certain differences in research potential are evident between the two corpora. Owing to their greater length and interdisciplinary breadth, books more frequently allow for detailed theoretical elaboration, historical and conceptual interpretations, and normative discussions of climate justice, responsibility, and social transformation. Scholarly articles, by contrast, more often provide empirical findings, methodologically specific studies, and recent insights into educational practices, climate literacy, student attitudes, and the development of teaching methods. It is precisely the combination of these two types of sources that enables a more comprehensive understanding of climate migration as a complex interdisciplinary phenomenon.

The central objective of this report is not merely to provide a descriptive synthesis of the findings of the two analyses, but to systematically compare them across all eleven common segments of the analytical matrix. Particular emphasis is placed on identifying similarities and differences between books and scholarly articles and examining how each corpus shapes the understanding of climate migration, education, social vulnerability, climate justice, and the development of educational strategies. Such an approach enables a more precise understanding of the current state of research in the field and the identification of scientific and educational gaps that the KlimEd project can address through the development of innovative teaching media and interdisciplinary educational content. The remainder of the report presents a comparative analysis of all eleven segments of the analytical matrix, with particular emphasis on convergences, differences, and the educational implications of the findings for the development of secondary education on climate migration.

2. Bibliographic Data and Classification of Publications: A Comparative Analysis of Books and Scholarly Articles

The analysis of bibliographic data and the basic classification of publications shows that the literature corpus used within the KlimEd project is characterised by a high degree of interdisciplinarity, recency, and international relevance, while also revealing certain differences between books and scholarly articles in terms of publication type, temporal patterns of publication, geographical focus, publishing patterns, and potential applicability to secondary education. The comparative analysis suggests that both corpora address the same broad field of inquiry, but from partly different epistemological and research perspectives, which represents an important advantage

for the development of interdisciplinary educational content within the KlimEd project.

2.1. Type and Structure of Publications

One of the most evident differences between the analysed books and scholarly articles concerns the nature of the publications themselves. The book analysis reveals a predominance of academic monographs, edited volumes, interdisciplinary handbooks, collections of scholarly contributions, and textbook-oriented publications. These types of publications allow for broader theoretical interpretations, conceptual discussions, and the integration of different perspectives within a common analytical framework. A significant proportion of the analysed books bring together authors from different disciplines, enabling comparisons between legal, sociological, educational, environmental, and political approaches to climate migration and climate justice. Edited volumes are particularly prominent, providing interdisciplinary syntheses and facilitating connections between different regional and theoretical perspectives. By contrast, the analysed scholarly articles predominantly fall into the categories of empirical studies, review articles, meta-analyses, policy analyses, and curriculum studies published in international academic journals. Compared with books, articles are characterised by a more pronounced methodological focus, more precisely defined research problems, and a greater tendency to address specific research questions. While books frequently seek to provide broad interpretations of climate migration as a social phenomenon, articles more often examine specific aspects such as students' climate literacy, attitudes towards climate migrants, migration patterns, or climate change-related educational curricula. Despite these differences, both corpora share a strong interdisciplinary orientation. In neither corpus is climate migration approached as an isolated phenomenon; rather, it is treated as a subject that requires the integration of environmental, social, political, legal, and educational perspectives. This confirms interdisciplinarity as one of the defining characteristics of the research field of climate migration and education.

2.2. Recency and Temporal Distribution of Publications

The analysis of temporal distribution reveals certain differences between the two corpora. The book corpus comprises 36 publications, predominantly published during the past ten to fifteen years, while also including older theoretically relevant titles published between 2011 and 2017. The highest concentration of books was recorded in 2024, indicating an intensification of scholarly interest in climate migration and the educational implications of the climate crisis in recent years. By contrast, the corpus of scholarly articles is markedly recent and predominantly concentrated in the period between 2020 and 2025. A total of 41 articles were analysed, with the largest number published in 2020 and 2023. This temporal concentration suggests an intensified scholarly engagement with climate migration and education, particularly in the context of increasingly pronounced global climate crises and growing international debates on climate justice and education for sustainable development. Historical and conceptual foundations are considerably less prominent in the articles, which are dominated by recent empirical findings and contemporary research trends. In other words, books provide a more longitudinal and conceptually stable overview of the development of the field, whereas articles offer a more up-to-date insight into recent scholarly debates, educational innovations, and methodological developments.

2.3. Publishing Patterns and Academic Relevance

The comparative analysis of publishing patterns also reveals certain differences between books and articles. In the case of books, there is a clear predominance of major international academic publishers, particularly Routledge and Springer, alongside a significant presence of Cambridge University Press, Oxford University Press, and Edward Elgar Publishing. These publishers specialise in interdisciplinary research on social, educational, and environmental issues, confirming the international academic relevance of the analysed corpus. The predominance of major academic publishers also suggests that climate migration and education have become established as a recognised field of research with a high degree of institutional legitimacy. In the case of scholarly articles, internationally relevant journals indexed in databases such as *Scopus* and *Web of Science* predominate, with many articles published in first-quartile (Q1) journals, particularly in the fields of education, geography, climate studies, and the social sciences. Publishers such as Springer, Elsevier, Wiley, Taylor & Francis, Nature, and Oxford University Press are particularly well represented, further confirming the high academic credibility of the corpus. Notably, both corpora demonstrate a strong international orientation and reliance on highly relevant academic sources, further enhancing the credibility of the findings generated by the analysis.

2.4. Geographical Focus of the Publications

In terms of geographical focus, both books and articles predominantly approach climate migration as a global and transnational phenomenon. Both corpora include comparative perspectives encompassing Europe, sub-Saharan Africa, Asia, Latin America, Pacific island communities, and various contexts across the Global South. Climate migration is predominantly interpreted in relation to global inequalities, climate vulnerability, and uneven development capacities. Nevertheless, there is an important difference between the two corpora. Books more frequently provide macro-level and global interpretations that connect multiple geographical regions and analyse international patterns of climate mobility, whereas articles more often include regional and local case studies. Scholarly articles contain detailed studies of individual countries, educational systems, or local communities, enabling a more illustrative and context-specific understanding of the educational and social consequences of climate change.

2.5. Relevance to Secondary Education

One of the most important criteria for selecting the literature was its relevance to the development of educational content within the KlimEd project. The analysis shows that both books and articles are highly relevant to secondary education, although this relevance is not always equally direct. The book corpus contains a notable number of publications addressing climate literacy, citizenship education, curriculum development, and interdisciplinary approaches to learning about climate change and migration. However, some books are relevant more indirectly, through their theoretical contributions to understanding climate justice, migration, and social inequalities. Scholarly articles demonstrate a somewhat more direct connection with secondary education, particularly those addressing climate literacy, teaching strategies, curriculum development, student attitudes, and education for sustainable development.

Articles more frequently present concrete pedagogical models, empirical evaluations of teaching approaches, and proposals for innovative methods of working with young people. Owing precisely to this more operational dimension, scholarly articles represent a particularly important source for the development of teaching materials within the KlimEd project.

2.6. Comparative Synthesis of the Segment

The comparative analysis of bibliographic data and publication classification demonstrates a high degree of convergence between books and scholarly articles in terms of interdisciplinarity, international relevance, and the thematic interconnections between climate change, migration, and education. At the same time, important differences are evident. Books predominantly provide broader theoretical and conceptual frameworks, interdisciplinary syntheses, and normative discussions, whereas articles offer more recent empirical insights, methodological precision, and more concrete educational implications. While books enable an in-depth understanding of the structural dimensions of climate migration, articles provide more immediate insight into current educational challenges and opportunities for the development of teaching approaches.

3. Thematic Focus and the Relationship Between Climate Change and Migration: A Comparative Analysis of Books and Scholarly Articles

The analysis of the thematic focus and the ways in which climate change and migration are connected reveals a strong degree of convergence between the corpora of books and scholarly articles in their fundamental understanding of climate migration as a complex and multidimensional social phenomenon. At the same time, differences are evident in their emphases, research priorities, and the level of elaboration devoted to particular topics. While books predominantly offer broader interdisciplinary interpretations of climate migration and its social consequences, scholarly articles more frequently address specific aspects of the relationship between climate change and migration, including empirical research on migration patterns, educational responses, and climate literacy. In both corpora, climate migration is interpreted as a phenomenon requiring the integration of environmental, social, political, and educational dimensions, although the ways in which these relationships are operationalised differ according to the type of publication.

3.1. Dominant Thematic Patterns in the Analysed Books and Articles

The analysis of books shows that the majority of publications address climate migration as a central interdisciplinary issue associated with climate change, environmental degradation, social inequalities, and global patterns of mobility. Within this corpus, there is a strong tendency to integrate climate change, migration, legal regimes, education, and issues of social justice within a common analytical framework. Books frequently present climate migration as one of the major social challenges of the twenty-first century and connect it with global economic inequalities, geopolitical transformations, and the crisis of existing development models. Particularly prominent are publications that link climate mobility with climate justice, education, civic competences, and sustainability policies. By contrast, the analysis of scholarly articles reveals greater thematic fragmentation and specialisation. Although

climate migration, climate literacy, and climate change education are also prominent topics in the articles, a larger proportion of studies focus on individual research questions or specific empirical problems. Some articles primarily examine migration patterns associated with droughts, sea-level rise, or environmental degradation; others focus on educational strategies and climate change-related curricula; while a third group explores social perceptions of climate migrants, climate literacy, or the political implications of climate mobility. Unlike books, which more frequently provide a synthetic overview of different dimensions of the issue, articles tend to offer an in-depth examination of narrower thematic areas. Despite this difference, both corpora share the underlying assumption that climate change and migration cannot be understood in isolation but must instead be approached as interconnected processes requiring an interdisciplinary perspective.

3.2. Ways of Connecting Climate Change and Migration

One of the key findings of the comparative analysis concerns the ways in which the publications explain the relationship between climate change and migration. In both books and scholarly articles, there is a predominant rejection of the simplified assumption that climate change directly and automatically causes migration. Instead of a linear model of causality, the prevailing interpretation conceptualises climate migration as the outcome of interactions among multiple factors, including poverty, political instability, conflict, inequality, institutional weaknesses, and access to resources. Climate change is predominantly interpreted in this context as a "threat multiplier", that is, as a factor that intensifies existing social vulnerabilities and increases migration pressures. However, certain nuances in the interpretation of these relationships can be identified between the two corpora. Books provide more extensive theoretical and conceptual elaboration of multiple causality, with authors discussing in greater detail environmental determinism, social structures, and the conceptual challenges involved in defining climate migration. Books also more frequently warn against the risks of oversimplifying climate migration and criticise security-oriented discourses that frame migration as a threat to social stability. In doing so, they emphasise the need to understand migration decisions as the outcome of complex social and political circumstances. Multiple causality also predominates in scholarly articles, but it is more frequently operationalised through empirical research, statistical models, and comparative analyses of specific regions. Research focusing on sub-Saharan Africa is particularly prominent, especially studies of countries in the Sahel region (Senegal, Mauritania, Burkina Faso, Mali, Niger, Chad, Sudan, and Eritrea), as well as island communities and other climate-vulnerable areas in which climate change is analysed as one of the factors contributing to increased population mobility. Scholarly articles also demonstrate greater interest in modelling migration trends and empirically measuring the influence of climate change on migration decisions. Articles thus provide highly illustrative insights into the mechanisms linking climate change and migration, whereas books more frequently offer theoretical interpretations of these processes.

3.3. Climate Migration as an Educational Topic

A significant difference between the analysed books and articles concerns the place of climate migration within educational debates. In the book corpus, education frequently appears as an integral component of broader interdisciplinary discussions

concerning climate change, migration, and social justice. Climate migration is interpreted as a topic particularly suitable for the development of citizenship education, interdisciplinary learning, and a critical understanding of global inequalities. Numerous books emphasise the need to develop educational content that connects ecology, sociology, geography, migration processes, and human rights. In scholarly articles, the educational dimension is often more pronounced, although climate migration is not always directly integrated into climate education. A considerable number of articles address climate literacy, teaching methods, student attitudes, and curriculum development without explicitly incorporating migration issues. In other words, climate education is increasingly developing as a distinct field, but climate migration has yet to be systematically integrated as a specific area of educational content. This gap represents an important finding for the KlimEd project, as it demonstrates the need to develop educational models that more strongly integrate climate mobility into climate change education.

3.4. Terminology and Conceptualisation of Climate Migration

The analysis of terminology reveals strong convergence between books and scholarly articles. In both corpora, the most frequently used terms include *climate migrants*, *environmental migration*, *human mobility*, *environmental displacement*, and *climate-induced migration*. The term *climate refugees* occurs less frequently and is almost always accompanied by a critical discussion of its legal and conceptual imprecision. Authors in both corpora point out that people affected by climate change do not formally fall within the existing definition of refugees under international law and that the use of the term “climate refugees” can therefore be politically and legally problematic. Nevertheless, books more frequently engage in normative and ethical discussions of terminology, problematising the ways in which climate migrants are represented in political and media discourses. Scholarly articles, particularly empirical studies, more often treat terminological distinctions operationally, that is, as research categories required for measuring migration patterns or social attitudes.

3.5. Levels of Analysis of Climate Migration

Both corpora demonstrate a predominance of macro-level approaches, with climate migration frequently analysed through global patterns, international policies, and geopolitical processes. However, books more often integrate micro-, meso-, and macro-level perspectives within a common interpretative framework. Alongside global processes, they therefore also discuss the experiences of individuals, communities, schools, and local systems of climate change adaptation. Scholarly articles demonstrate greater polarisation between levels of analysis. Some studies focus predominantly on macro-level processes such as migration trends or climate scenarios, while others examine in detail local educational systems, student perceptions, or specific communities affected by climate change. The micro level, particularly the experiences of young people and the everyday realities of climate-affected communities, remains relatively underrepresented, which was identified as an important research gap.

3.6. Comparative Synthesis of the Segment

The comparative analysis of the thematic focus and the relationship between climate change and migration reveals a strong degree of convergence between books and scholarly articles in their understanding of climate migration as a multidimensional social phenomenon that cannot be reduced to simple linear causality. In both corpora, a multifactorial approach predominates, interpreting climate change as a factor that intensifies existing social vulnerabilities and migration pressures. At the same time, books provide broader conceptual and interdisciplinary interpretations of climate migration, whereas articles offer more empirically precise and methodologically specific insights. A particularly important finding is that climate migration has yet to be sufficiently integrated into education-oriented research, especially within the literature on climate literacy and teaching practices.

4.1. Climate Justice and Environmental Justice as Dominant Theoretical Frameworks

One of the strongest areas of convergence between the books and scholarly articles concerns the prominence of the concepts of climate justice and environmental justice. In both corpora, climate change is interpreted not exclusively as an environmental or technological problem, but primarily as an issue of the unequal distribution of risks, resources, and responsibilities. Climate migration is presented in this context as a social manifestation of existing global inequalities, with the consequences of the climate crisis disproportionately affecting populations that have contributed the least to its emergence. Particular emphasis is placed on the disparity between the responsibility of developed industrialised countries and the vulnerability of countries in the Global South. Nevertheless, certain differences are evident between the two corpora in the ways in which this concept is elaborated. Books more frequently develop climate justice as a broad normative framework connecting climate change, migration, colonial history, global economic inequality, and the moral responsibility of states. Climate migration is often interpreted as a manifestation of structural injustice embedded within the global political and economic system. Such approaches frequently include philosophical, ethical, and political discussions concerning the responsibility of wealthier countries towards climate-affected communities. In scholarly articles, climate justice also occupies an important position, but is more frequently operationalised through empirical research on climate vulnerability, attitudes towards migrants, access to education, or capacities for climate change adaptation. This means that articles more often examine concrete manifestations of injustice than develop broader normative theories of social responsibility, thereby empirically complementing the theoretical interpretations found in books.

4.2. Human Rights and Normative Approaches to Climate Migration

A second important shared conceptual framework concerns human rights and normative approaches to climate migration. In both corpora, climate change is interpreted as a threat to fundamental human rights, including the rights to security, a healthy environment, education, housing, and a life of dignity. Migration is frequently presented as a strategy of adaptation or survival under conditions in which basic conditions of existence are threatened. Particular attention is devoted to the legal uncertainty faced by people displaced in the context of climate change and to the absence of a clearly defined international legal status for climate migrants. Books generally engage more deeply with legal, philosophical, and normative debates

concerning the rights of climate-affected populations, including questions of international responsibility, climate reparations, and institutional mechanisms of protection. They more frequently discuss the need to redefine international law in ways that would accommodate climate-induced human mobility. Scholarly articles, by contrast, more often analyse concrete institutional challenges, educational implications, or policy responses related to the realisation of the rights of climate-affected groups. Particularly noteworthy is that some recent articles connect human rights with education and advocate human rights-based models of education as a response to the needs of climate-displaced students and young people, especially in countries of the Global South. In this respect, scholarly articles demonstrate a somewhat stronger orientation towards the educational operationalisation of normative principles.

4.3. Sustainable Development, Climate Literacy, and Transformative Education

One of the most important differences between books and scholarly articles concerns the position of sustainable development and climate literacy within theoretical discussions. In the book corpus, Education for Sustainable Development and climate literacy appear as components of a broader interdisciplinary discussion concerning social transformation, civic responsibility, and climate justice. Books more frequently emphasise the need to connect climate change with issues of social equality, migration, and civic engagement, and advocate interdisciplinary curricula that integrate ecology, the social sciences, and human rights. In scholarly articles, sustainable development and climate literacy represent dominant conceptual frameworks, particularly in education-oriented research. A considerable number of articles draw on approaches related to Education for Sustainable Development (ESD), climate literacy, and transformative education, interpreting climate change as a complex societal challenge, a *wicked problem,* that requires the development of critical thinking, emotional resilience, media literacy, and democratic participation among young people. An important distinction is that scholarly articles more frequently operationalise these concepts through research on student attitudes, evaluations of teaching methods, curriculum development, and the testing of innovative educational approaches. Books, by contrast, more often remain at the level of normative argumentation and conceptual reflection concerning the need for the transformation of educational systems.

4.4. Critical Pedagogy, Postcolonial Approaches, and Intersectionality

Both corpora include theoretical approaches that connect climate change and migration with power relations, social inequalities, and historical patterns of domination. Particularly important in this regard are the concepts of critical pedagogy, postcolonial theory, and intersectionality. Authors in both corpora emphasise that the climate crisis is not a politically neutral phenomenon, but is deeply connected with colonial legacies, the global exploitation of resources, and economic inequality. Countries of the Global South are frequently presented as experiencing the greatest climate vulnerability despite having contributed minimally to greenhouse gas emissions. Nevertheless, books develop postcolonial and intersectional interpretations considerably more extensively. They discuss in detail the interplay of gender, class, ethnicity, geographical location, and migration status in shaping climate vulnerability. Particular emphasis is placed on the multiple and intersecting vulnerabilities

experienced by women, children, Indigenous communities, and economically disadvantaged populations. Critical pedagogy is interpreted in this context as a tool for social transformation and for developing political awareness among young people. These approaches are also present in scholarly articles, although they tend to appear more selectively or in connection with specific research questions. For example, some studies investigate the emotional consequences of the climate crisis for students, others develop models of citizenship education, while still others analyse perceptions of climate migrants or the effects of social marginalisation.

4.5. Security and Policy Frameworks

Both corpora also include security approaches (*security framing*) that connect climate migration with political stability, border security, and geopolitical change. Interestingly, however, the majority of authors in both corpora adopt a critical stance towards the securitisation of climate migration, warning that framing migration as a security threat may further stigmatise climate-affected populations and legitimise restrictive migration policies. Books more frequently provide extensive political and philosophical discussions of the relationship between security and human rights, whereas scholarly articles more often analyse specific policy mechanisms, institutional responses, and international climate strategies.

4.6. Comparative Synthesis of the Segment

The comparative analysis of conceptual and theoretical frameworks demonstrates a high degree of convergence between books and scholarly articles in terms of their dominant theoretical orientations. In both corpora, climate justice, human rights, sustainable development, critical pedagogy, and intersectionality constitute prominent conceptual frameworks. Climate migration is therefore not interpreted as an isolated environmental phenomenon, but as the outcome of complex interactions between climate change, social inequality, and political structures of power. At the same time, significant differences are evident. Books predominantly provide extensive theoretical and normative syntheses and develop broad interpretative models of climate mobility, whereas scholarly articles more frequently operationalise theoretical concepts through empirical research, evaluations of educational practices, and policy analyses. A particularly important finding is that climate literacy and Education for Sustainable Development are operationalised considerably more extensively in scholarly articles than in books. Scholarly articles therefore constitute an especially important source for the development of concrete educational interventions within the KlimEd project.

5. Educational Dimension: A Comparative Analysis of Books and Scholarly Articles

The educational dimension represents one of the central elements of the analysed literature and is of particular importance to the KlimEd project, as it demonstrates how climate change, migration, and climate justice can be integrated into educational processes. The comparative analysis of books and scholarly articles reveals a high degree of convergence in the normative assumption that education plays a key role in developing societal resilience to the climate crisis, while simultaneously identifying significant differences in how education is conceptualised, the degree to which teaching proposals are concretised, and the extent to which climate migration is

integrated into educational content. While books predominantly emphasise the strategic and transformative role of education in developing climate awareness and social responsibility, scholarly articles more frequently provide empirical insights into educational practices, evaluations of teaching methods, and concrete models for developing climate literacy among young people.

5.1. Education as a Response to the Climate Crisis

One of the most evident shared findings is that both books and scholarly articles interpret education as a key societal mechanism for responding to climate change. In both corpora, the climate crisis is presented not merely as an environmental problem requiring technological or political solutions, but as a profound societal challenge requiring changes in knowledge, values, behaviour, and civic competences. Education is understood in this context as a space for developing critical thinking, understanding global interdependencies, and empowering young people to participate actively in societal responses to climate change. Nevertheless, books and articles differ in the ways in which this role is conceptualised. Books more frequently adopt a normative and transformative perspective according to which education should actively contribute to social change, climate justice, and democratic responsibility. In this sense, education is understood not merely as the transmission of information about climate change, but as a process of developing critically aware citizens capable of understanding the relationships between environmental change, migration, and social inequalities. Many of the analysed books particularly emphasise the need for an interdisciplinary and values-sensitive approach to education that integrates ecology, migration, human rights, and sustainable development. Scholarly articles, by contrast, more frequently approach education from an operational and empirical perspective. Rather than providing broader theoretical arguments concerning social transformation, a considerable number of articles investigate specific issues such as students' climate literacy, the effectiveness of teaching methods, curriculum development, teachers' attitudes, and young people's emotional responses to the climate crisis. In this way, scholarly articles provide more concrete insights into the practical possibilities for implementing educational content and the barriers encountered in this process.

5.2. Climate Migration in Educational Content

One of the most important findings for the KlimEd project concerns the extent to which climate migration is integrated into educational debates. The analysis shows that climate migration has yet to be systematically integrated as a distinct area of educational content in either books or scholarly articles, although both corpora recognise its importance for understanding the climate crisis. Within the book corpus, climate migration more frequently appears as part of a broader interdisciplinary discussion concerning climate change, social inequalities, and global justice. Authors emphasise that migration represents an important dimension of the climate crisis that can serve to connect different subject areas, including geography, sociology, politics, ethics, ecology, and citizenship education. Despite this conceptual relevance, however, relatively few books provide concrete teaching models or curriculum recommendations that would systematically integrate climate migration into educational programmes. Climate migration often remains an implicit or secondary topic within broader discussions of climate justice and sustainability. The situation in scholarly articles is somewhat paradoxical. Although recent educational research

increasingly addresses climate literacy, sustainable development, and climate change education, climate migration remains a relatively marginal topic. A considerable number of articles examine in detail students' attitudes towards climate change, curriculum approaches, or the development of civic competences, yet migration is often mentioned only in passing or is entirely absent from teaching models. This finding suggests the existence of a significant educational gap: although climate mobility constitutes one of the major societal consequences of climate change, it remains insufficiently recognised and, consequently, insufficiently represented in the educational literature.

5.3. Climate Literacy and Competence Development

Climate literacy is highly prominent in both corpora, although with different emphases. In books, climate literacy is predominantly interpreted as a broader societal and civic capacity encompassing an understanding of the causes and consequences of climate change, the ability to think critically, and a readiness to act under conditions of climate uncertainty. Particular emphasis is placed on the importance of interdisciplinary education that connects scientific knowledge with the social, political, and ethical implications of the climate crisis. Special attention is also devoted to developing empathy, solidarity, and an understanding of climate inequality. In scholarly articles, climate literacy represents one of the dominant areas of research. Numerous studies empirically examine students' knowledge of climate change, their attitudes, emotional responses, and willingness to engage in civic action. A significant proportion of the articles address the evaluation of educational programmes, the effectiveness of teaching interventions, and the development of competences required to respond to the climate crisis. Particular emphasis is placed on critical thinking, media literacy, the ability to understand complex societal problems, and students' active participation in sustainability processes. Compared with books, scholarly articles therefore provide a more concrete and operationalised understanding of climate literacy.

5.4. Interdisciplinarity in Education

One of the strongest areas of convergence between books and scholarly articles concerns the emphasis placed on an interdisciplinary approach to education. Both corpora stress that climate change and climate migration cannot be adequately understood within the boundaries of a single discipline or school subject. Instead, they advocate the integration of the natural and social sciences alongside the ethical, political, geographical, communication-related, and cultural dimensions of the climate crisis. Books more frequently advocate interdisciplinarity at the strategic and philosophical level, emphasising the need to transform educational systems and redefine curricula. Education is viewed as a space for developing a holistic understanding of the climate crisis and societal interconnectedness. Scholarly articles, by contrast, more frequently operationalise interdisciplinarity through concrete teaching models, curriculum proposals, and evaluations of educational practices. In doing so, they provide empirical support for the potential of interdisciplinary approaches to enhance students' understanding of the complexity of climate-related challenges.

5.5. The Emotional Dimension of Education

An interesting finding of the comparative analysis concerns the emotional dimension of climate change education. In books, this dimension is present mainly implicitly, through discussions of empathy, solidarity, and social responsibility towards climate-affected populations. The emotional dimension of the climate crisis is frequently connected with the moral obligation to act and the development of a sense of global responsibility. In scholarly articles, the emotional dimension is considerably more prominent and more frequently investigated empirically. Some recent studies address climate anxiety, feelings of insecurity, concerns about the future, and students' emotional responses to the climate crisis. Authors emphasise that education should not be limited to the transmission of knowledge, but should also foster emotional resilience and a sense of agency among young people. This dimension is particularly important for the KlimEd project, as it highlights the need to develop educational content that simultaneously informs and emotionally empowers students.

5.6. Comparative Synthesis of the Segment

The comparative analysis of the educational dimension reveals a high degree of convergence between books and scholarly articles in their understanding of education as a key societal response to the climate crisis. A particularly important finding is that climate migration remains insufficiently integrated into the educational literature despite its growing societal relevance.

6. Representations of Migrants and Climate Migrants: A Comparative Analysis of Books and Scholarly Articles

The ways in which migrants and climate migrants are represented constitute an important issue within the analysed literature, as they significantly shape understandings of climate migration, societal perceptions of mobility, and potential educational interpretations of the topic. The comparative analysis of books and scholarly articles reveals a high degree of convergence in rejecting simplified and stereotypical representations of migrants, while also identifying certain differences in dominant perspectives, terminology, and levels of interpretation. While books more frequently offer normative and critical interpretations of representations of climate migrants, scholarly articles more often examine the empirical dimensions of migration experiences, societal perceptions, and institutional responses. Both corpora particularly emphasise the need for a nuanced understanding of climate mobility that avoids security-based stigmatisation and reductive interpretations of migrants as homogeneous or passive groups.

6.1. Climate Migrants Between Vulnerability and Agency

One of the strongest areas of convergence between books and scholarly articles concerns the rejection of representations of climate migrants exclusively as passive victims of climate change. In both corpora, migration is predominantly interpreted as a strategy of adaptation, survival, and active response to changing environmental and social conditions. Migrants are presented not merely as victims of climate-related disasters, but as actors who, despite limited resources, develop various strategies for coping with climate-related uncertainty. Such an approach enables a more complex understanding of climate mobility and avoids paternalistic interpretations of migrants as entirely helpless groups. Nevertheless, certain differences in emphasis are evident.

Books more frequently problematise the ways in which political, media, and institutional discourses construct climate migrants as either a threat or a humanitarian problem. Authors warn that dominant public narratives often frame climate migration through the language of crisis, threats to borders, or mass migration flows, thereby obscuring the actual complexity of migration experiences. Books therefore strongly advocate more humanised and socially sensitive representations of migrants that acknowledge their individual histories, experiences, and adaptive capacities. Scholarly articles, although similarly critical of simplified representations, more frequently focus on empirical research into migrants' experiences or attitudes towards climate mobility. Some articles examine public perceptions of climate migrants, societal acceptance of migration, or patterns of migration behaviour, while others analyse specific groups of displaced people and their adaptation strategies. In this respect, articles provide more concrete insights into lived experiences of climate mobility, whereas books more frequently develop broader critical interpretations of the ways in which migrants are represented in the public sphere.

6.2. Terminological and Conceptual Differences in Representations of Climate Migrants

Both corpora demonstrate a high degree of sensitivity to terminological issues, which significantly influence how climate migrants are represented. The most frequently used terms include *climate migrants*, *environmental migrants*, *human mobility*, *environmental displacement*, and *climate-induced migration*, while the term *climate refugees* is used considerably less frequently and almost always with conceptual or legal reservations. Authors in both corpora point out that the term "climate refugees" lacks a clear basis in international law and may oversimplify complex migration processes. Nevertheless, books more frequently discuss the symbolic and political effects of terminology. Some authors argue that the term *climate refugees* may have a mobilising effect by increasing the visibility of climate vulnerability and international responsibility, while others contend that its legal imprecision may generate additional political tensions and stigmatisation. Such discussions in books frequently incorporate the ethical dimension of language and examine how terminology shapes societal understandings of climate migration. In scholarly articles, terminological issues more frequently serve an operational function. Terms are used to classify research categories, model migration patterns, or analyse public attitudes. Although authors are aware of the conceptual controversies involved, the discussion tends to be more methodologically precise and less normative than in books.

6.3. Vulnerability, Dignity, and the Heterogeneity of Migrant Groups

A significant shared finding concerns the rejection of homogenised representations of climate migrants. In both corpora, authors emphasise that climate migration does not affect all groups equally and that migration experiences depend on gender, age, socioeconomic status, geographical location, education, political context, and access to resources. Particular emphasis is placed on the fact that climate migrants do not constitute a single, uniform category, but rather a highly heterogeneous group of people experiencing different forms of vulnerability and possessing different capacities for adaptation. Books more frequently emphasise the moral and political dimensions of vulnerability, particularly in relation to women, children, Indigenous communities, economically disadvantaged rural populations, and people living in the

Global South. Migrants are represented as groups affected by multiple and intersecting consequences of both the climate crisis and existing social inequalities. Particular attention is devoted to the concept of climate injustice, emphasising that those who have contributed the least to climate change often bear the greatest burden of its consequences. In scholarly articles, authors analyse specific groups affected by climate change, patterns of mobility, and barriers to adaptation. Some articles also examine public attitudes towards migrants, levels of societal support, or perceptions of threat associated with climate migration. In this way, scholarly articles provide more detailed insights into the actual social mechanisms that shape experiences of climate mobility.

6.4. Media and Political Representations of Climate Migrants

One of the most pronounced differences between books and scholarly articles concerns the extent to which media and political representations of migrants are analysed. Books considerably more frequently provide critical analyses of the ways in which the media, political institutions, and security discourses represent climate migrants. Particular attention is devoted to problematising the tendency to portray migrants as a security threat, a demographic burden, or a source of political instability. Authors warn that such discourses may legitimise restrictive migration policies and further marginalise climate-affected populations. Many books emphasise the need to develop alternative narratives that represent climate migration through the lens of human rights, solidarity, and global responsibility. The analysis of representations is also present in scholarly articles, although it less frequently constitutes their central research focus. When it does appear, it is usually associated with empirical studies of attitudes towards migrants, analyses of political rhetoric, or evaluations of public discourse on climate mobility. Scholarly articles provide more concrete data on perceptions of migrants, whereas books offer critical interpretations of the broader societal context in which these representations are produced.

6.5. Educational Potential of Representations of Climate Migrants

The analysis of both corpora demonstrates that the ways in which climate migrants are represented have significant educational implications. Books emphasise the need to develop educational content that enables students to understand the complexity of climate migration, develop empathy, and critically examine media and political discourses. Particular emphasis is placed on avoiding sensationalist representations and the security-based stigmatisation of migrants. Scholarly articles, although less frequently explicitly connected with teaching about migration, provide empirically useful insights into young people’s perceptions, social stereotypes, and educational approaches that may support the development of teaching materials. They therefore constitute an important source for designing educational content that simultaneously informs students and fosters social sensitivity towards climate-affected populations.

6.6. Comparative Synthesis of the Segment

The comparative analysis of representations of migrants and climate migrants reveals a high degree of convergence between books and scholarly articles in rejecting stereotypical, homogenising, and security-oriented representations of climate mobility. In both corpora, climate migrants are predominantly represented as heterogeneous

groups whose experiences are shaped by complex interactions among environmental, social, economic, and political factors. At the same time, important differences are evident. Books more frequently provide normative and critical analyses of political and media representations of migrants and advocate a humanised approach grounded in rights and solidarity, whereas scholarly articles more often investigate the empirical dimensions of migration experiences and societal perceptions. A particularly important finding is that education can play a key role in deconstructing stereotypes about climate migrants and in developing empathy, critical media literacy, and an understanding of climate justice among secondary-school students.

7. Vulnerability and Inequalities: A Comparative Analysis of Books and Scholarly Articles

Issues of vulnerability and social inequality occupy a central position in both analysed corpora and represent one of the most consistently developed common themes in the literature on climate change, migration, and education. The comparative analysis reveals a strong degree of convergence between books and scholarly articles in understanding climate migration as a phenomenon that arises not solely from environmental change, but from its interaction with existing social, economic, and political inequalities. Climate vulnerability is predominantly interpreted as socially produced and unevenly distributed, rather than as a universal experience affecting all populations equally. At the same time, significant differences between books and articles are evident in the level of theoretical elaboration, methodological approaches, and the ways in which vulnerability is operationalised. While books more frequently offer normative and structural interpretations of social inequality, scholarly articles more often empirically investigate specific forms of vulnerability and their consequences for individuals, communities, and educational systems.

7.1. Climate Vulnerability as a Socially Structured Phenomenon

One of the strongest areas of convergence between books and scholarly articles concerns the rejection of the idea that climate change affects all social groups equally. In both corpora, climate vulnerability is interpreted as the outcome of interactions between environmental threats and social inequalities, with climate risks disproportionately affecting economically disadvantaged communities, countries of the Global South, migrant populations, and other socially marginalised groups. Authors emphasise that the consequences of climate change depend on access to resources, the quality of institutions, economic opportunities, political stability, and the adaptive capacities of individual communities. Books place particularly strong emphasis on the structural dimension of climate vulnerability. Climate migration is frequently interpreted as a consequence of historically produced power relations, colonial legacies, development inequalities, and the global distribution of wealth. Climate change is presented as a process that further exacerbates existing social inequalities, particularly in regions already characterised by poverty, political instability, and limited access to education, healthcare, and infrastructure. In this sense, vulnerability is not merely a consequence of environmental change, but a reflection of deeply rooted social relations of inequality. Scholarly articles share a similar interpretation but more frequently investigate specific patterns of vulnerability and adaptation empirically. For example, some studies analyse the effects of climate change on migration decisions in climate-sensitive areas, others examine

socioeconomic barriers to mobility, while still others investigate the educational and health consequences of climate-related insecurity. Scholarly articles thus provide more concrete evidence of the ways in which social inequality shapes experiences of climate vulnerability.

7.2. The Global South, Climate Injustice, and the Geopolitics of Vulnerability

One of the most consistent patterns across both corpora concerns the Global North–Global South divide as a key framework for understanding climate vulnerability. Authors of both books and scholarly articles emphasise that the consequences of climate change are most severe in countries that have historically contributed the least to greenhouse gas emissions. Climate migration is interpreted in this context as a consequence of global inequalities in access to resources, technology, and adaptation capacities. Books more frequently develop a broader geopolitical interpretation of climate injustice, linking vulnerability to colonial histories, the exploitation of natural resources, and unequal economic relations between developed and developing countries. They frequently raise questions concerning the moral responsibility of developed societies towards climate-affected populations and emphasise the need for international solidarity and redistributive policies. Scholarly articles more often operationalise global inequalities through empirical data on migration, climate sensitivity, or access to education and social protection. In this way, they provide more concrete insights into how global inequality manifests itself in the everyday lives of climate-affected communities.

7.3. Gender, Age, and Intersectional Vulnerability

One of the most important shared themes in both corpora concerns the intersectional nature of climate vulnerability. Authors emphasise that climate change and migration do not affect all groups equally and that women, children, older people, economically disadvantaged communities, Indigenous Peoples, and migrant populations are exposed to multiple and intersecting forms of inequality. Climate vulnerability is shaped by the interplay of gender, class, ethnicity, geographical location, migration status, and educational opportunities. Books develop the gender dimension of climate vulnerability particularly extensively. In many publications, women are presented as a group disproportionately affected by climate change because of the combined effects of economic inequalities and limited access to land, education, and political decision-making. Children and young people are also frequently represented as groups whose futures become particularly uncertain under conditions of climate destabilisation. In this context, education is interpreted as an important tool for reducing vulnerability and strengthening societal resilience. Intersectional vulnerability is also present in scholarly articles, but is more frequently investigated empirically through specific populations and concrete social contexts. For example, some studies analyse the educational needs of climate-displaced children, others investigate the effects of climate insecurity on young people's health and well-being, while still others examine the socioeconomic conditions that increase the migration potential of particular communities. Scholarly articles therefore provide more detailed insights into the mechanisms through which vulnerability is produced at the micro level.

7.4. "Trapped Populations" and Unequal Access to Mobility

A particularly noteworthy finding in both corpora concerns the concept of "trapped populations", which challenges the assumption that climate change necessarily results in migration. Across books and scholarly articles, there is growing recognition that some populations remain in climate-affected areas not because they wish to stay, but because they lack the economic, political, or infrastructural means to migrate. In other words, the inability to migrate may itself constitute a form of vulnerability. Books more frequently interpret "trappedness" through broader structural relations of inequality and unequal access to resources, whereas scholarly articles provide empirical evidence concerning the socioeconomic conditions that determine opportunities for mobility. This finding is particularly important because it challenges the dominant representation of climate migration as mass mobility and demonstrates that the climate crisis can also produce involuntary immobility.

7.5. Education as a Tool for Reducing Vulnerability

One of the important areas of convergence between books and scholarly articles concerns the understanding of education as a key mechanism for reducing climate vulnerability. In both corpora, education is interpreted as a means of developing knowledge, resilience, social participation, and adaptive capacities. Particular emphasis is placed on the importance of climate literacy, the development of critical thinking, and young people's ability to understand climate risks. Books more frequently attribute a transformative and emancipatory function to education, emphasising its potential to reduce social inequality and advance climate justice. Scholarly articles, by contrast, empirically investigate specific educational interventions and their effectiveness in strengthening the resilience of students and communities.

7.6. Comparative Synthesis of the Segment

The comparative analysis of vulnerability and inequalities reveals an almost complete convergence between books and scholarly articles in understanding climate migration as a process deeply shaped by existing social inequalities. In both corpora, climate vulnerability is predominantly interpreted as a socially structured phenomenon that disproportionately affects countries of the Global South, economically disadvantaged communities, women, children, and other marginalised groups. At the same time, important differences are evident. Books more frequently develop structural, normative, and geopolitical interpretations of vulnerability, linking climate injustice with colonial legacies and global power relations, whereas scholarly articles provide more empirically precise insights into specific forms of vulnerability, adaptation, and educational needs. A particularly important finding is the recognition of education as a key tool for reducing climate vulnerability and the consequent need to develop educational content that enables young people to understand the interconnections between climate change, migration, and social inequalities.

8. Legal and Policy Aspects: A Comparative Analysis of Books and Scholarly Articles

The legal and policy aspects of climate migration constitute one of the most extensively developed thematic areas in the analysed literature and, at the same time, one of the areas in which some of the most pronounced differences between books

and scholarly articles are evident. The comparative analysis shows that both corpora recognise climate migration as a serious challenge to existing international legal frameworks and public policies, particularly because climate-induced human mobility is not clearly regulated within the existing system of international protection. However, while books predominantly offer broad normative, conceptual, and legal-policy discussions concerning the need to redefine international regimes for governing climate migration, scholarly articles more frequently provide empirically grounded and policy-oriented analyses of specific institutional responses, adaptation mechanisms, and challenges related to policy implementation. In other words, books predominantly problematise "what should be changed", whereas articles more frequently examine "what is currently happening" and "what works in practice".

8.1. Legal Status of Climate Migrants

One of the strongest areas of convergence between books and scholarly articles concerns the recognition of a legal protection gap associated with the status of climate migrants. Both corpora emphasise that people displaced in the context of climate change generally do not meet the criteria established by the 1951 Convention relating to the Status of Refugees, as climate-related reasons for migration are not formally recognised as grounds for refugee status under the Convention. As a result, climate migrants often remain outside existing international legal protection mechanisms, despite the fact that their living conditions may be seriously threatened. Books approach this issue from a distinctly normative and theoretically elaborated perspective. A considerable number of publications discuss possibilities for redefining international law, including proposals to expand the existing refugee protection regime, develop new international conventions, or establish specific protection mechanisms for people displaced in the context of climate change. Authors frequently problematise the growing discrepancy between the increasing significance of climate-induced mobility and the slow pace at which international institutions are developing appropriate legal responses. Particular emphasis is placed on the need to recognise climate mobility as an issue of human rights, international responsibility, and global justice. Scholarly articles similarly emphasise the existence of a legal protection gap but focus more frequently on the concrete consequences of institutional inadequacy. Some articles examine existing national and regional mechanisms of migration governance, others analyse the effectiveness of international initiatives, while still others investigate policy instruments that may mitigate the consequences of climate mobility. Scholarly articles therefore provide more detailed insights into the operational challenges involved in implementing legal protection.

8.2. Climate Policies and Migration Governance

Both corpora demonstrate a strong awareness of the need for coordination between climate policies and migration governance. Authors emphasise that climate change and migration are too often treated as separate areas of public policy, resulting in institutional gaps and fragmented responses to climate mobility. Climate migration is increasingly interpreted as a cross-cutting challenge requiring the integration of environmental, migration, development, and education policies. Books more frequently provide broad policy discussions and strategic recommendations. Particular emphasis is placed on the importance of international cooperation, preventive climate change adaptation measures, and the development of institutional capacities for

managing human mobility. In many publications, climate migration is presented as a phenomenon requiring long-term transformations of existing governance systems, including the development of new forms of international solidarity and resource redistribution. Such publications frequently advocate a shift from crisis-oriented migration management towards preventive and development-oriented approaches. Scholarly articles, by contrast, more frequently examine specific institutional models and public policies related to climate mobility. For example, some articles analyse the effectiveness of social protection in reducing migration pressures, others investigate national climate change adaptation strategies, while still others examine education and development policies as mechanisms for strengthening societal resilience. Consequently, scholarly articles more frequently evaluate existing policy responses rather than advance normative proposals for new institutional regimes.

8.3. Security Discourse and the Securitisation of Climate Migration

One of the important shared findings concerns the critique of the securitisation of climate migration. In both corpora, authors warn that political and media discourses frequently portray climate migration as a threat to national security, political stability, or social cohesion. Such approaches may generate moral panic and legitimise restrictive migration policies, framing climate migrants as a potential threat rather than as people affected by global climate processes. Books are particularly critical of security-oriented interpretations of climate migration, warning that securitisation may contribute to the stigmatisation of migrants and obscure the structural causes of climate mobility. Authors emphasise that a focus on security frequently marginalises issues of human rights, social justice, and international responsibility. Instead, they advocate approaches grounded in solidarity, community resilience, and the global redistribution of resources. Scholarly articles also problematise security discourse but more frequently investigate its consequences empirically, for example through analyses of public attitudes towards migrants, political narratives, or the effects of restrictive policies. In this way, scholarly articles provide more concrete insights into how security framing shapes societal understandings of climate migration.

8.4. The Role of International Organisations and Global Governance

In both corpora, international organisations are presented as key actors in the governance of climate migration, but also as institutions whose capacities are often insufficient in relation to the growing challenges posed by climate mobility. The United Nations, the International Organization for Migration (IOM), the Office of the United Nations High Commissioner for Refugees (UNHCR), and various international climate agreements are particularly frequently identified as important, albeit often fragmented, mechanisms of action. Books more frequently discuss the need to reform the global governance system and establish new international institutional mechanisms capable of responding to the complexity of climate migration. Scholarly articles, by contrast, more often analyse existing initiatives and assess their practical effectiveness.

8.5. Education Policy and the Development of Competences for Climate Resilience

Interestingly, although both corpora predominantly focus on migration and climate policies, they increasingly recognise education as an important policy instrument for strengthening societal resilience. In books, education is interpreted as a long-term strategy for advancing climate justice, strengthening social cohesion, and developing the capacity to understand complex migration processes. Scholarly articles establish a more concrete connection between education policies and the development of climate literacy, civic competences, and adaptive capacities in the context of climate change. Education thus becomes not only a pedagogical issue but also an important instrument of preventive public policy.

8.6. Comparative Synthesis of the Segment

The comparative analysis of legal and policy aspects reveals strong convergence between books and scholarly articles in recognising the existing institutional and legal limitations associated with climate migration. Both corpora clearly identify a legal protection gap affecting people displaced in the context of climate change, the need for greater coordination between climate and migration policies, and the limitations of security-oriented approaches to migration governance. At the same time, important differences are evident. Books predominantly provide broader normative and theoretical-policy discussions concerning the need to transform the international protection system and develop new institutional models, whereas scholarly articles offer more empirically precise insights into existing policies, their effects, and the operational challenges involved in their implementation. A particularly significant finding is the growing recognition of education as a key policy instrument for strengthening climate resilience, developing civic competences, and enhancing understanding of migration processes, thereby creating opportunities for a stronger integration of education and climate mobility within secondary-school curricula.

9. Methodological Approaches: A Comparative Analysis of Books and Scholarly Articles

Methodological approaches represent the segment in which the differences between books and scholarly articles are particularly pronounced, while at the same time being highly complementary. The comparative analysis demonstrates that both corpora share an interdisciplinary research framework and a tendency to combine different epistemological perspectives, yet they differ in the degree of methodological formalisation, the types of data employed, and their dominant research strategies. While books more frequently provide theoretical syntheses, interpretative approaches, and conceptual discussions based on secondary literature analysis, scholarly articles predominantly employ empirical methodologies, quantitative and qualitative research designs, and various forms of evaluative and comparative analysis. Books primarily synthesise and interpret existing knowledge, whereas scholarly articles more frequently generate new empirical evidence.

9.1. The Dominance of Qualitative and Interpretative Approaches in Books

The analysis of books demonstrates the predominance of qualitative and interpretative methodological approaches. A substantial number of publications are based on theoretical syntheses of the literature, interdisciplinary integration of existing research, policy analyses, normative discussions, and conceptual interpretations of climate

migration. Particularly prominent are approaches that combine sociological, legal, educational, and environmental perspectives in order to understand climate migration as a complex social phenomenon. Many books demonstrate methodological pluralism, whereby theoretical argumentation is complemented by case studies, comparative analyses, and discursive interpretations of political and media narratives. Books also more frequently employ methods such as *close reading*, qualitative content analysis, and interpretative approaches aimed at understanding meanings, representations, and the normative implications of climate migration. Particular attention is devoted to the analysis of conceptual frameworks, political discourses, legal definitions, and the social consequences of climate change. In this respect, books enable an in-depth understanding of the complexity of climate mobility but less frequently provide methodologically standardised empirical procedures or precise measurements of social effects. At the same time, a considerable number of edited volumes and interdisciplinary collections bring together diverse methodological approaches within a single publication, thereby further expanding the theoretical breadth of the analysed corpus. Individual publications therefore often combine legal analyses, ethnographic approaches, comparative studies, policy evaluations, and theoretical reflections on climate justice and migration.

9.2. Empirical Orientation and Methodological Diversity of Scholarly Articles

Unlike books, scholarly articles demonstrate a considerably stronger degree of methodological elaboration and empirical orientation. The analysed corpus encompasses a wide range of methodological approaches, including quantitative research, statistical modelling, meta-analyses, systematic literature reviews, comparative studies, qualitative interviews, surveys, evaluation research, and mixed methods approaches. This methodological diversity reflects not only the interdisciplinary nature of climate migration and education as a research field but also the strong tendency of recent literature towards the empirical verification of findings. Meta-analyses and review articles synthesising existing empirical evidence on the relationship between climate change and migration are particularly well represented, alongside studies employing large datasets to model migration trends associated with climate change. Some articles use statistical methods to examine the effects of droughts, environmental degradation, or climate insecurity on migration decisions, while others investigate educational outcomes, students' attitudes, or levels of climate literacy among young people. Within educational research, evaluation studies are particularly prominent, examining the effectiveness of teaching methods, digital tools, virtual simulations, and interdisciplinary curricula related to climate change. Scholarly articles therefore provide methodologically precise answers to questions concerning how students understand the climate crisis and which educational interventions can enhance climate literacy and societal resilience.

9.3. Levels of Analysis and Types of Data

The comparative analysis demonstrates that books and scholarly articles also differ according to their dominant levels of analysis and the types of data employed. Books more frequently integrate micro-, meso-, and macro-level perspectives within a single interpretative framework. Climate migration is simultaneously examined through the experiences of individuals, the functioning of communities, educational systems, international policies, and global patterns of inequality. Such multilevel analysis

enables a more comprehensive understanding of climate migration, although it may sometimes come at the expense of methodological precision and empirical detail. Scholarly articles more frequently concentrate on one dominant level of analysis. Some studies investigate macro-level patterns of climate mobility using international databases and climate projections, whereas others examine the meso level through research on schools, communities, or national policies. The micro level is particularly prominent in studies exploring students' attitudes, perceptions of climate change, and the experiences of individuals affected by climate insecurity. This focused approach enables greater empirical precision but may sometimes make broader interdisciplinary integration of findings more challenging. Differences are also evident in the types of data employed. Books predominantly rely on secondary sources, policy documents, particularly international legal documents, theoretical literature, case studies, and comparative interpretations, whereas scholarly articles more frequently utilise primary empirical data obtained through surveys, interviews, experimental approaches, programme evaluations, and statistical models.

9.4. Methodological Challenges and Research Limitations

An interesting shared finding across both corpora concerns the methodological challenges associated with researching climate migration. Authors emphasise the difficulty of clearly distinguishing climate migration from economic, political, or security-related drivers of mobility, resulting in research categories that are often conceptually ambiguous. A particular challenge concerns the operationalisation of the concept of the "climate migrant" and the measurement of the actual influence of climate change on migration decisions. Books more frequently interpret these challenges conceptually and epistemologically, critically examining environmental determinism and the limitations of existing migration classifications. Scholarly articles, by contrast, devote greater attention to methodological issues related to data collection, sample comparability, and the reliability of empirical models. Within educational research, an additional challenge concerns the difficulty of measuring the long-term effects of educational interventions on changes in students' attitudes and behaviour, an issue particularly emphasised in recent evaluation studies of climate literacy.

9.5. Methodological Complementarity and Implications for KlimEd

One of the most important findings of the comparative analysis is that the methodological differences between books and scholarly articles are not contradictory but complementary. Books provide the theoretical depth, conceptual breadth, and normative reflection required to understand climate migration as a complex social phenomenon, whereas scholarly articles offer empirical precision, methodological rigour, and concrete evidence concerning educational practices and social processes. The combination of these methodological approaches is particularly valuable because it enables the integration of theoretical understandings of climate migration with empirically grounded educational interventions. Books provide the conceptual framework for the development of educational content, while scholarly articles offer practical insights into how such content can be effectively implemented and evaluated within teaching and learning processes.

9.6. Comparative Synthesis of the Segment

The comparative analysis of methodological approaches demonstrates a strong complementarity between books and scholarly articles. Books predominantly employ qualitative, interpretative, and interdisciplinary approaches and provide theoretical syntheses and normative discussions of climate migration, whereas scholarly articles demonstrate greater methodological elaboration, empirical precision, and diversity of research methods. Both corpora recognise the methodological complexity of researching climate migration, particularly because of the difficulty of distinguishing climate-related drivers of migration from other economic, political, and social causes of human mobility. For the KlimEd project, a particularly important finding is that the combination of theoretical insights derived from books and empirical evidence generated by scholarly articles enables the development of educational content that is simultaneously scientifically grounded, methodologically robust, and pedagogically applicable within secondary education.

10. Implications for Secondary Education: A Comparative Analysis of Books and Scholarly Articles

The implications for secondary education represent one of the most important segments of the analysed literature, as they enable theoretical and empirical insights into climate change, migration, and social vulnerability to be connected with concrete educational practices. The comparative analysis of books and scholarly articles reveals a high degree of convergence in the view that secondary education represents a key level for developing climate literacy, civic responsibility, and an understanding of the interconnectedness of environmental and social processes. At the same time, important differences between the two corpora are evident in the formulation of educational recommendations, the degree to which teaching content is concretised, and the understanding of the role of schools in responding to the climate crisis. While books predominantly offer strategic and normative visions for the transformation of education, scholarly articles more frequently provide concrete, empirically evaluated proposals for the development of teaching methods, curricula, and educational competences. Taken together, both corpora provide a strong scientific foundation for the development of educational content within the KlimEd project.

10.1. Secondary Education as a Key Level for Action

One of the strongest shared findings across both corpora is the recognition of secondary education as a particularly important developmental stage for understanding climate change and its societal consequences. Authors emphasise that adolescence represents a period of intensive development of civic competences, political awareness, and the ability to understand complex social processes. Climate change and migration are interpreted in this context as topics that enable the development of interdisciplinary thinking, ethical reflection, and the ability to connect local and global social challenges. Books place particularly strong emphasis on the transformative potential of secondary education. Schools are presented not merely as places for transmitting information about climate change, but as spaces for developing social responsibility, democratic participation, and critical reflection on the relationships between the climate crisis, migration, and social inequality. In this sense, education is understood as a tool for long-term social change and the development of more resilient communities. Scholarly articles share a similar normative assumption but more frequently examine actual educational outcomes empirically. Particularly

prominent are studies of students' attitudes, levels of climate literacy, young people's emotional responses to the climate crisis, and the effectiveness of different teaching approaches. Scholarly articles therefore provide a more precise understanding of how students actually comprehend climate processes and which teaching methods can enhance their capacity to respond to climate-related uncertainty.

10.2. The Need to Integrate Climate Migration into Curricula

One of the most important findings for the KlimEd project concerns the fact that climate migration, despite its growing societal significance, has yet to be systematically integrated into secondary-school curricula. Both corpora demonstrate an implicit or explicit awareness that educational systems predominantly address climate change through environmental and natural science content, while the societal consequences of the climate crisis, including migration, climate justice, and global inequalities, are often marginalised or entirely absent. Books more frequently advocate the strategic integration of climate migration into broader educational frameworks of citizenship education, sustainable development, and human rights. Climate migration is interpreted as an ideal interdisciplinary topic that enables connections between geography, sociology, politics, ethics, ecology, and media literacy. However, most books remain at the level of normative recommendations and rarely provide concrete curriculum models. Scholarly articles, by contrast, although still relatively rarely addressing climate migration as a distinct educational topic, provide useful insights for its integration. Particularly important are studies of climate literacy, interdisciplinary learning, and Education for Sustainable Development that can be adapted to the development of teaching content on climate mobility. This finding points to the need to address an important curriculum gap through the development of systematic educational materials on climate migration for secondary-school students.

10.3. Competence Development: Critical Thinking, Empathy, and Civic Responsibility

The analysis of both corpora demonstrates that secondary education on climate change should not be limited to the acquisition of factual knowledge but should instead focus on the development of broader social and civic competences. Particular emphasis is placed on critical thinking, the ability to understand complex social processes, media literacy, ethical reflection, and civic participation. In the context of climate migration, empathy, an understanding of social inequalities, and the ability to recognise stereotypes and discriminatory discourses are also considered particularly important. Books place particular emphasis on the normative dimension of education and the need to develop climate-responsible citizens capable of understanding the interconnectedness of global challenges. They frequently stress the importance of education for climate justice, social responsibility, and international solidarity. Schools are therefore interpreted as spaces for empowering young people for active citizenship and social action. Scholarly articles provide more concrete insights into competence development. Some studies indicate that students often have a fragmented understanding of climate change, while others highlight the importance of active, participatory, and problem-oriented teaching methods. Particular emphasis is placed on developing a sense of agency among students so that the climate crisis does not result in feelings of helplessness or climate anxiety.

10.4. Interdisciplinarity and a Cross-Curricular Approach

One of the strongest areas of convergence between books and scholarly articles concerns the need for an interdisciplinary approach to secondary education. In both corpora, climate change and climate migration are presented as complex social phenomena that transcend the boundaries of individual school subjects. The integration of the natural sciences with geography, sociology, politics, ethics, media literacy, and citizenship education is therefore strongly advocated. Books more frequently advocate broader curriculum reforms and the transformation of educational systems towards interdisciplinary models of learning, whereas scholarly articles more often test specific interdisciplinary teaching interventions and assess their educational outcomes. This finding confirms that climate migration can function as an "integrative theme" connecting multiple subject areas and enabling the development of a more holistic understanding of the climate crisis.

10.5. Emotional Resilience and the Psychosocial Dimension of Education

A particularly interesting finding in recent literature concerns the emotional dimension of secondary education. Both corpora demonstrate an awareness that the climate crisis can generate feelings of fear, insecurity, anxiety, or helplessness among young people. However, this dimension is considerably more developed in scholarly articles than in books. Books more frequently connect the emotional dimension with the development of empathy and social responsibility towards climate-affected populations. Scholarly articles, by contrast, empirically investigate climate anxiety among young people and emphasise the need to develop educational approaches that simultaneously increase knowledge and strengthen students' sense of agency. Education thus becomes an important tool not only for informing students but also for their psychosocial empowerment.

10.6. Comparative Synthesis of the Segment

The comparative analysis of implications for secondary education reveals a strong degree of convergence between books and scholarly articles in understanding schools as key spaces for developing climate literacy, civic responsibility, and an understanding of climate migration. Both corpora emphasise the importance of interdisciplinary approaches, the development of critical thinking and empathy, and the capacity to understand global inequalities. At the same time, important differences are evident. Books predominantly offer strategic and normative visions for transforming education towards climate justice and societal resilience, whereas scholarly articles provide more concrete, empirically grounded insights into effective teaching methods, student competences, and educational challenges. The analysis demonstrates that climate migration has yet to be systematically integrated into secondary-school curricula, creating an opportunity for the development of innovative teaching content that connects climate change, migration, and social justice within an interdisciplinary educational framework.

11. Innovative Media and Pedagogical Approaches: A Comparative Analysis of Books and Scholarly Articles

Innovative media and pedagogical approaches constitute a segment of the analysed literature that is particularly relevant to the KlimEd project, as it directly connects scientific knowledge about climate change and migration with opportunities for developing contemporary educational content. The comparative analysis of books and scholarly articles reveals strong convergence in the view that traditional teaching models are no longer sufficient for understanding the complexity of the climate crisis and that interdisciplinary, participatory, and media-diverse educational approaches need to be developed. At the same time, significant differences between books and scholarly articles are evident. While books predominantly advocate the transformation of educational paradigms and provide normative arguments for the need for innovative approaches, scholarly articles more frequently empirically test and evaluate specific teaching methods, digital tools, and participatory learning models. Scholarly articles therefore provide more operational guidance for the development of educational interventions, whereas books offer a broader theoretical framework for understanding their societal and pedagogical relevance.

11.1. From a Transmission Model to Transformative Learning

One of the strongest shared findings across both corpora concerns the critique of the traditional transmission model of education based on the reproduction of factual knowledge and passive learning. Authors of both books and scholarly articles emphasise that climate change and climate migration constitute complex and multidimensional societal challenges requiring the development of critical thinking, the ability to integrate different sources of knowledge, and active civic participation. Books particularly strongly advocate transformative learning as a model that enables the development of reflexivity, ethical responsibility, and an understanding of global interdependence. Climate migration is interpreted in this context as a topic that can encourage students to critically reflect on the relationships between environmental change, social justice, and global inequalities. Education is understood not merely as the transmission of knowledge, but as a process of developing socially responsible citizens capable of taking action under conditions of climate uncertainty. Scholarly articles share a similar assumption but more frequently assess the effectiveness of transformative educational approaches empirically. Numerous studies indicate that participatory learning models, problem-based learning, and interdisciplinary projects can enhance climate literacy, student engagement, and the capacity to understand complex societal problems. A particularly important finding is that active forms of learning can strengthen students' sense of agency and reduce feelings of helplessness associated with the climate crisis.

11.2. Digital Tools and Multimedia Learning

One of the important differences between books and scholarly articles concerns the degree to which media innovations are concretised. In books, digital tools and media technologies are primarily discussed as part of a broader debate concerning the need to modernise education and develop digital climate literacy. Particular emphasis is placed on critical engagement with media and the ability to understand how media representations shape perceptions of climate change and migration. Climate migration is interpreted in this context as a topic particularly susceptible to stereotyping and manipulation, making it important for students to develop the capacity to critically analyse media content. Scholarly articles provide considerably more concrete analyses

of the use of digital technologies in education. Particularly prominent are studies examining the effectiveness of digital simulations, virtual environments, educational platforms, interactive visualisations, video content, and multimedia tools in climate change education. Some of the literature indicates that digital tools can improve understanding of complex climate processes, enhance student engagement, and facilitate interdisciplinary connections between the natural and social dimensions of the climate crisis. The analysis suggests that contemporary digital media enable the development of educational content through which climate migration can be presented using narratives, simulations, interactive maps, data visualisations, and experiential learning scenarios, thereby enhancing secondary-school students' understanding of the complexity of migration processes.

11.3. Participatory and Experiential Learning Methods

Both corpora place strong emphasis on the importance of participatory and experiential learning. Authors argue that climate change and migration cannot be adequately understood through teacher-centred instruction and the memorisation of information, but require methods involving active student participation, reflection, and problem-solving. Books more frequently advocate methods such as project-based learning, civic engagement-based learning, deliberative discussions, simulations of international negotiations, and interdisciplinary research assignments. Particular emphasis is placed on creating educational environments that enable students to understand different perspectives and develop empathy towards climate-affected communities. Scholarly articles provide more concrete evaluations of such approaches. Numerous studies indicate that students develop a better understanding of climate processes when they participate in simulations, debates, problem-oriented assignments, and experiential forms of learning. Approaches that connect local experiences with global climate processes are particularly effective because they enable students to perceive climate change not as an abstract phenomenon but as a social reality affecting everyday life.

11.4. Narratives, Empathy, and the Development of Social Sensitivity

A particularly important finding across both corpora concerns the role of narrative and emotional dimensions of education. In the analysed literature, climate migration is frequently interpreted as a topic requiring the development of empathy and an understanding of other people's experiences. Books emphasise the importance of personal stories, testimonies, and accounts of migrants' lived experiences in enabling students to develop an emotional understanding of climate vulnerability and global inequality. Scholarly articles confirm the importance of narrative approaches through studies examining the educational effects of stories, video materials, and experiential scenarios in climate change education. Particular emphasis is placed on the finding that students' emotional engagement can increase their motivation to learn and foster civic responsibility, provided that educational content simultaneously develops a sense of agency and the capacity for meaningful social action. This finding suggests that educational media focusing on climate migration should simultaneously provide scientifically grounded information and enable students to engage emotionally with the experiences of climate-affected populations.

11.5. Critical Media Literacy and Challenging Stereotypes

Both corpora strongly emphasise the need to develop critical media literacy. Climate migration is frequently represented through sensationalist, security-oriented, or stereotypical media narratives that may intensify fear, social polarisation, and the stigmatisation of migrants. Books more frequently problematise the ideological and political effects of media representations and advocate educational approaches that enable students to critically identify stereotypes and manipulative narratives. Scholarly articles, by contrast, empirically investigate students' media literacy and the effects of different media approaches on understandings of climate change and migration. These findings confirm the importance of developing innovative teaching materials that not only inform students but also empower them to critically examine media representations of climate mobility.

11.6. Comparative Synthesis of the Segment

The comparative analysis of innovative media and pedagogical approaches reveals strong convergence between books and scholarly articles in recognising the need to transform traditional educational models towards participatory, interdisciplinary, and media-innovative approaches to learning. Books predominantly provide the normative and theoretical framework for transformative education, whereas scholarly articles offer empirically grounded evidence concerning the effectiveness of specific teaching methods, digital tools, and participatory models of working with students. An important finding is that climate migration represents a particularly suitable topic for the development of innovative teaching media because it enables the integration of climate literacy, citizenship education, empathy, critical media literacy, and an interdisciplinary understanding of global societal challenges.

12. Critical Evaluation of the Literature: A Comparative Analysis of Books and Scholarly Articles

The comparative analysis demonstrates that both corpora provide highly valuable insights into the relationships between climate change, migration, and education, while simultaneously revealing certain conceptual, methodological, and curriculum-related limitations. Books and scholarly articles complement each other to a considerable extent: books predominantly provide theoretical breadth, normative reflection, and interdisciplinary interpretations of climate mobility, whereas scholarly articles offer recent empirical insights, methodological precision, and evaluations of specific educational approaches. However, neither corpus yet provides a fully integrated educational framework that systematically connects climate migration, climate justice, and secondary education.

12.1. Strengths of the Analysed Literature Corpus

One of the major strengths of the analysed literature is its interdisciplinarity. Across both corpora, climate migration is not reduced to an environmental or security issue but is interpreted as a complex phenomenon requiring the integration of geographical, sociological, legal, political, educational, and ethical perspectives. Such an approach enables a more comprehensive understanding of climate mobility and avoids reductive interpretations that present climate change as the sole cause of migration.

Books make a particularly important contribution to the theoretical and conceptual depth of the research field. They provide broad interpretative frameworks related to climate justice, global inequalities, human rights, and social transformation, thereby enabling climate migration to be understood within a broader historical and political context. Particularly important is their capacity to connect education with issues of ethics, civic responsibility, and international solidarity. Scholarly articles provide an important empirical complement to the theoretical breadth of books by offering empirically verifiable insights into migration patterns, climate vulnerability, educational practices, and levels of climate literacy among young people. Their methodological diversity, including evaluation research, statistical modelling, and empirical analyses of educational interventions, enables a more precise understanding of the specific challenges associated with education on climate change and migration. A further strength of both corpora lies in their critical approach to stereotypical representations of migrants and dominant security discourses. Across most of the analysed literature, climate migrants are represented as heterogeneous groups affected by structural inequalities rather than as a threat to social stability. Such an approach constitutes an important educational resource for developing critical thinking and empathy among secondary-school students.

12.2. Key Limitations and Research Gaps

Despite their significant contributions, the comparative analysis reveals several important limitations in the literature. One of the most evident gaps concerns the insufficient integration of climate migration into educational research. Although both corpora recognise the importance of education for understanding climate change and strengthening societal resilience, climate migration has yet to be systematically developed as a distinct area of educational content, particularly within the context of secondary education. In books, climate migration frequently remains part of broader discussions of climate justice and sustainability, without sufficiently concrete curriculum proposals or pedagogical models. Scholarly articles, although considerably more specific in their evaluation of teaching approaches, more frequently investigate climate literacy in general than the specific issue of climate mobility. This results in fragmented educational knowledge and a lack of systematically developed teaching materials connecting climate change, migration, and social inequalities. A second important limitation concerns the geographical unevenness of the research. Both corpora predominantly feature studies focusing on the Global South and highly climate-vulnerable regions, while European educational contexts, including secondary education systems, are considerably less represented. This constitutes an important research gap, particularly given the need to develop locally relevant teaching content. A third limitation concerns the relative under representation of young people's perspectives. Although some scholarly articles examine climate anxiety, students' attitudes, and climate literacy, young people's experiences and their perceptions of climate migration remain insufficiently explored. Books, meanwhile, more frequently discuss young people as a target group for education than incorporate their voices or experiences. Methodological challenges also represent an important limitation. Climate migration is difficult to distinguish clearly from economic, political, or security-related forms and drivers of mobility, which complicates both conceptual precision and the empirical measurement of the phenomenon. Consequently, different definitions of climate migration are employed across the literature, making the comparison of findings more difficult.

12.3. Concluding Comparative Synthesis

The comparative analysis of the findings from the content analyses of books, scholarly articles, and other publications conducted within the KlimEd project reveals a high degree of convergence between the two corpora in understanding climate migration as a complex, interdisciplinary, and multidimensional phenomenon. Across both corpora, climate migration is predominantly interpreted as resulting from interactions between environmental change, social inequalities, political structures, and economic conditions, with climate change acting as a factor that intensifies existing vulnerabilities rather than as an isolated cause of migration. At the same time, climate mobility is consistently linked to issues of climate justice, human rights, global inequality, and the need to transform educational systems. Despite this high degree of convergence, the analysis also reveals significant differences between books and scholarly articles. Books predominantly provide broader theoretical and conceptual interpretations of climate migration, normative discussions of climate justice and international responsibility, and strategic reflections on the role of education in strengthening societal resilience. Scholarly articles, by contrast, provide more empirically precise insights into migration patterns, climate vulnerability, climate literacy, and the effectiveness of educational interventions. While books predominantly address the question of *why* climate migration constitutes an important educational topic, scholarly articles provide more concrete answers to the question of *how* it can be integrated into educational practice. According to the literature content analysis, climate migration, despite its growing social and political relevance, has yet to be systematically integrated into secondary-school curricula or dominant models of climate education. The analysis indicates that educational literature predominantly addresses climate change through environmental and natural science content, while migration, social inequalities, and climate justice remain relatively marginalised. The findings of the comparative analysis also confirm the importance of an interdisciplinary approach to education. Climate migration emerges as a particularly suitable integrative theme through which geography, sociology, politics, ecology, ethics, media literacy, and citizenship education can be connected. Such an approach enables the development not only of climate literacy but also of empathy, critical thinking, civic responsibility, and an understanding of global social inequalities among secondary-school students. In conclusion, the combination of books and scholarly articles has proved to be a particularly valuable research foundation for the KlimEd project, as it enables theoretical depth and normative reflection to be combined with empirically grounded educational approaches. The analysis clearly demonstrates the need for innovative teaching media and interdisciplinary educational content capable of introducing young people to climate migration in a scientifically grounded, socially sensitive, and pedagogically relevant manner. In this respect, the KlimEd project has the potential to make an important contribution to the development of secondary education on climate change and the societal consequences of the climate crisis.