

## Bridging the science–policy gap in the climate migration field

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*While the scientific understanding of climate migration is advancing, major gaps prevail in addressing the related humanitarian and socio-economic challenges. Drawing from recent research, this Policy Brief discusses key challenges and presents recommendations for enhancing the science-policy interface to more effectively tackle the complexities of climate-related movements of people. The outlined suggestions aim to foster inclusive representation, improve the accuracy of assessments, leverage public data sources, and broaden the scope of research and policy initiatives.*

This Policy Brief is an abridged version of a contribution to the KNOMAD-sponsored Special Issue in the Journal International Migration titled [“Environmental \(Im\)mobilities: Improving the Evidence Base for Effective Policy Making”](#). For a more comprehensive understanding of the issue and detailed references, [please refer to the original contribution](#).<sup>ii</sup>



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Significant gaps persist in addressing the links between climatic events and human migration, despite increasing public attention, improving scientific understanding, and certain policy developments.<sup>iii</sup> We examine five pivotal challenges in enhancing the nexus between science and policy: (i) politically contentious contexts and the securitization of human migration, (ii) oversimplified narratives and approaches, (iii) disparities in the production and dissemination of knowledge, (iv) limitations in data and analytical capacities, and (v) narrow scope of topics and methodologies. Finally, we propose strategies to surmount these challenges.

### **The Science-Policy Gap**

Critical gaps exist in the science-policy interface, impeding the effective translation of scientific knowledge into policy and evidence-based decision-making on climate migration. These include fragmented institutional arrangements at both national and international levels, resulting in weak cooperation between different actors in the field. Existing policies often lack specificity, hindering concrete actions despite the recognition of the need for targeted interventions and enhanced policy frameworks (e.g., in form of a better protection of displaced and refugee populations, or the establishment of legal migration pathways). The absence of a standardized definition of 'climate migration' further complicates the identification of at-risk populations and tailored solutions, exacerbated by political debates and xenophobic sentiments. Moreover, limited funding on issues related to migrants and displaced people, coupled with a shortage of resources for climate adaptation, poses implementation challenges. Translating scientific research into tangible policies is further hindered by insufficient incentives and capacities among scientists, policymakers, and practitioners to support a stronger integration of the different spheres.

### **Five Challenges for Enhancing the Science-Policy Interface**

First, contentious public debates on climate change and migration can hinder objective and thorough engagement with the topic. In many countries, related discussions have become highly polarized, leading to the securitization of migration and the propagation of value-laden narratives that often disregard the complex realities of affected populations. Such politicization has resulted in biased perspectives on migration, thereby impacting the production of knowledge and policy decisions. The securitization of migration is frequently used to justify stringent border controls and measures aimed at curbing movement, which can hinder comprehensive policies for those affected. This has implications for research, often emphasizing the role of climate as a driver of migration while neglecting the needs and motivations of affected communities.

Second, simplistic narratives about climate migration are still largely present in the academic and policy debates influencing how we think about and engage with the topic. Recent research has shifted focus towards contextual factors shaping migration decisions, acknowledging the multi-causal nature of migration outcomes. While some emphasize migration as an adaptive strategy and a means of reducing vulnerabilities, critics argue that this narrative overstates the agency of those compelled to move, placing undue responsibility on affected communities. The 'climate mobilities' perspective has evolved as a concept emphasizing the complexities of mobility and immobility due to climate change, accounting for diverse experiences and contextual patterns. Despite these conceptual advancements, public and political discussions often oversimplify the climate-migration relationship, often portraying migration as a security threat, intending to restrict transnational movement. A comprehensive conceptualisation and

understanding of climate migration is crucial for informed policymaking, underscoring the need to recognize the diverse dimensions of human mobility.

Third, the uneven production and dissemination of knowledge also pose significant challenges to a more efficient science-policy interface in this field. Research efforts, typically led by scholars from industrialized countries, tend to focus on specific regions, leaving others underrepresented due to political priorities, funding disparities, and restricted data access. Inclusivity concerns arise not only in terms of geographic representation and gender balance but also concerning the insufficient involvement of affected populations in research and policymaking. Moreover, a disciplinary bias persists, with certain fields dominating the literature, potentially resulting in fragmented analyses. Emphasizing a more inclusive and diverse approach to knowledge production and policy formulation is vital for a comprehensive understanding of climate migration dynamics.

The fourth challenge concerns data availability and intricacies of studying the climate-migration relationship. Obtaining accurate migration data is complex, often leading to underrepresentation, particularly in publicly administered data sources like censuses and surveys. Efforts to collect more comprehensive data are impeded by ethical concerns surrounding data privacy and protection. Additionally, the intricate interplay of climatic events and local livelihoods poses further complexity, necessitating a nuanced understanding of the temporal and contextual influences on migration decisions. This complexity underscores the challenge of translating evidence across different contexts and underscores the need for coherent analytical frameworks to inform effective policymaking.

Lastly, knowledge production often prioritizes superficial assessments of relationships, neglecting in-depth insights into underlying processes. Researchers often focus on topics where data and methodological tools are readily available, potentially overlooking crucial aspects relevant to affected communities. Recognizing the multifaceted drivers and contextual influences on climate migration is essential for a more comprehensive understanding of migration dynamics and for effective policy formulation.

### **Policy Recommendations**

Addressing the multifaceted challenges related to climate migration requires a more cohesive and integrated approach. Below, we synthesize policy recommendations that can serve as a roadmap for establishing a robust science-policy interface that fosters informed decision-making and promotes sustainable solutions. In doing so, balancing a more robust integration of science and policy with the preservation of scientific independence is paramount for achieving progress.

Integration efforts: Achieving a more diverse representation:

- Promote diversity and representation by including researchers from the Global South for comprehensive insights and local policy connections.
- Provide inclusive funding of interdisciplinary research, facilitating collaboration and knowledge exchange.
- Promote regular exchanges and multi-stakeholder platforms to define policy-relevant research agendas and integrate scientific knowledge effectively into policymaking.

Towards a more accurate assessment of climate migration:

- Utilize integrated scientific assessments involving diverse stakeholders for comprehensive and accurate policy-relevant information.
- Foster a scenario-based approach to assess the practical implications of policy responses and their feedback loops.
- Promote the development of regional and global-level integrated scientific assessments to advance multi-level understanding and address gaps in the science-policy interface concerning climate migration.

Improving data access by leveraging public sources:

- Foster collaboration between researchers, policymakers, and practitioners to improve data accessibility and usability, utilizing both existing and novel data sources.
- Encourage public organizations and policy actors to provide access to data sources that are not readily available, particularly those in paper format or maintained by local communities.
- Facilitate capacity building for policymakers to recognize the potential of data sources and effectively integrate them into strategic planning and decision-making processes.
- Utilize available novel data sources<sup>iv</sup> and gridded databases for comprehensive analyses.

Broadening the research scope and focus:

- Foster interdisciplinary research and local engagement for a comprehensive understanding of the climate-related migration cycle.
- Encourage policies that consider systemic connections and involve various stakeholders for resilience and sustainability.
- Facilitate collaboration across disciplines to address under-researched areas at the intersection of climate migration, urban planning, health, and social inequalities.
- Promote co-production of knowledge and policies with the involvement of experts and local communities.
- Establish partnerships and participatory approaches for comprehensive policy development.

## **Conclusion**

Implementing these recommendations can significantly contribute to the development of evidence-based policies that effectively address the challenges posed by climate migration. By fostering inclusive representation, accurate assessments, improved data access, and a broadened research scope, we can establish a robust science-policy interface that fosters informed decision-making and promotes sustainable solutions in the context of climate change and migration.<sup>v</sup>



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## Endnotes

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<sup>ii</sup> Hoffmann, R., Vinke, K. & Šedová, B. (2023) Strengthening the science–policy interface in the climate migration field. *International Migration*, 00, 00–00. Available from: <https://doi.org/10.1111/imig.13125>.

<sup>iii</sup> Please also refer to our paper: Hoffmann, Roman & Sedova, Barbora & Vinke, Kira. (2021). Improving the evidence base: A methodological review of the quantitative climate migration literature. *Global Environmental Change*. 71. 102367. <https://doi.org/10.1016/j.gloenvcha.2021.102367>. An earlier version of this paper was prepared for the working paper series of KNOMAD.

<sup>iv</sup> Please refer to our original paper for examples.

<sup>v</sup> Please also refer to Vinke, K., Einsporn, H., Schirwon, D. & Thomas, M. (2023): [Migration in the Context of Climate Foreign Policy](#). DGAP Policy Brief No. 7, April 13, 2023, 10 pp.