ADVANCES IN DATA COLLECTION ON THE ENVIRONMENTAL CHANGE-MIGRATION NEXUS

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Data collection methodologies for mobilities influenced by environmental factors still grapple with the multicausality of movement, the differentiation between forced and voluntary instances, the outcomes of migration, and the inclusion of immobile populations. This Policy Brief argues for further developing recent advances in data collection, such as large-scale tracking tools, alongside mixed methods approaches, to address persistent blind spots and develop well-informed policies.

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Over the past decade, methodologies for exploring the role of environmental factors in human mobility have significantly advanced. Nonetheless, there remains a lack of comprehensive insights into the scale of mobility and immobility in the context of climate and broader environmental change. We highlight challenges in data collection, including the facts that these phenomena are multicausal as well as located on a continuum of voluntariness and (im)mobility. Additionally, the risks and chances for adaptation related to (im)mobilities remain difficult to assess, which impedes evidence-based planning and policymaking. However, recent methodological innovations and new data collection tools offer advances, as we discuss in this Policy Brief.

Challenges in Data Collection

Migration is always multicausal. Given the intricate interplay of economic, social, and political migration drivers alongside the environmental ones, it is complex to link human mobility to environmental change. Current data collection techniques often fail to capture the nuanced decision-making processes behind movements, leading to an incomplete understanding of the role of environmental change in migration. Rapid data collection in emergency situations typically focuses on immediate triggers, potentially overlooking underlying environmental influences. Moreover, practical constraints in data collection, particularly in at-risk populations and volatile areas, hinder comprehensive assessments.
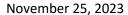
Moreover, collecting data on human mobility grapples with adequately representing the continuum from voluntary to forced movements. While sudden disasters often prompt immediate forced displacement, gradual environmental shifts pose challenges in categorizing movements. Seasonal migrations, influenced by livelihood constraints, exemplify the nuanced nature of mobility decisions. Capturing these complexities requires assessing the interplay between environmental constraints, individual agency, and evolving vulnerabilities, demanding a comprehensive, longitudinal approach that combines quantitative and qualitative methods.

Finally, policies and programs, along with the data collection they rely on, predominantly focus on large-scale mobility but fail to consider the full spectrum of outcomes in the face of environmental challenges, including immobility. Understanding immobility still poses significant challenges as current data collection studies often focus on transit and destination areas, neglecting the motivations and situations of those who remain behind. Longitudinal studies examining different mobility trajectories are crucial for comprehending how environmental risks affect people's mobility options over time. Enhancing data collection to include information on those who stay could enhance the comprehension of the various factors influencing mobility decisions and inform more effective policies and programs, promoting resilience-building measures and facilitating both in-place adaptations and planned movements in response to environmental changes and disasters.

Responses from the Field

The common practices of classifying internally displaced persons by a single reason for displacement have limitations. To better capture multicausality, the Displacement Tracking Matrix (DTM) team at the International Organization for Migration (IOM) has proposed the introduction of a scale-based system to capture multiple reasons for displacement, enabling a better understanding of the interlinkages between environmental changes and other factors. While this approach may slow the quick production of actionable data for humanitarian assistance, it allows for a more comprehensive database of reasons for

displacement. The example of the multicausality approach in Honduras' dry corridor demonstrates the influence of environmental impacts and risk on migration intentions, with factors such as previous migration history and economic losses due to droughts playing a significant role. This adaptation of tools used for humanitarian assessments showcases a way forward for IOM to incorporate more nuanced approaches in understanding the drivers of population movements in operational contexts.

For distinguishing between voluntary migration and involuntary displacement as well as assessing the outcomes of such dynamics, IOM's MECLEP research project provided valuable insights. It combined household surveys and qualitative interviews in six countries, analyzing the impacts of migration, displacement, and planned relocation on adaptive capacities and vulnerability. While the project's quantitative approach allowed for cross-country comparisons, challenges such as funding constraints and limitations in data collection methods were encountered. The study also emphasized the need for follow-up interviews and qualitative research to understand the complexity of adaptation outcomes. The MECLEP approach informed operational responses, particularly in cases of planned relocation and the monitoring of displaced populations' return and adaptation outcomes.

Other tools championed by international organizations are relevant for these questions. For example, the use of the Displacement Tracking Matrix (DTM) facilitated data collection and operational responses in various humanitarian contexts. Similarly, efforts by the Internal Displacement Monitoring Center have highlighted distinctions among traditional nomadic movements, adaptive migration, and displacement, emphasizing the increasing vulnerability associated with involuntary mobility. The Transhumance Tracking Tool (TTT) has facilitated the monitoring of pastoralist movements in West and Central Africa, aiding in the identification of environmental and social consequences and potential conflicts arising from these movements.

MECLEP also showed the importance of capturing data on those who choose not to migrate. It gathered household survey data on non-migratory populations, which provided valuable insights into the multifaceted context influencing decisions related to mobility, emphasizing the need for comprehensive data collection. Additionally, incorporating qualitative interviews to explore the factors influencing decisions to remain despite environmental challenges further enhanced understanding of individuals' agency and the dynamic nature of vulnerability over time, including the consequences of immobility.

Policy Recommendations

Data collection methodologies still grapple with complexities arising from multicausality, the differentiation between forced and voluntary movements, the outcomes of migration, and the capturing of immobile populations. By implementing the recommendations below, concerned stakeholders can gain a deeper understanding of the complexities of human (im)mobility in the context of environmental change and develop well-informed policies.

- Further develop methodologies that consider the complex and multicausal nature of human (im)mobility, accounting for both forced and voluntary movements and immobility.

- Incorporate household surveys and qualitative interviews in mixed methods approaches to gather nuanced insights into the underlying factors driving mobility decisions, including the reasons for not moving.

- Invest in longitudinal research approaches that facilitate more comprehensive and comparable analyses, aiding in the understanding of (im)mobility patterns and environmental impacts over time.

- Deploy tools such as the Displacement Tracking Matrix (DTM) and the Transhumance Tracking Tool (TTT) to efficiently capture data on movements, causes, and outcomes.

- Strike a balance between the rapid deployment of data collection tools like DTM and the production of actionable data, ensuring an immediate response to urgent humanitarian needs while maintaining methodological rigor.

- Prioritize the inclusion of internal mobility and other blind spots in research, for example by triangulating census and environmental data.

Conclusion

Longitudinal and mixed methods approaches yield nuanced perspectives on mobility decisions, including for those who choose not to move, and their short- and long-term adaptation outcomes. In addition, data collection tools like the DTM and the TTT offer faster and more efficient data collection than traditional surveys, providing timely insights into causes and outcomes of human mobility. Integrating these methods can inform more effective policies and interventions.

Endnotes

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[ii] Nicoletti, A., Melde, S., Guadagno, L. & Bilsborrow, R.E. (2023) Human mobility in the context of environmental and climate change: Recent data collection tools from the International Organization for Migration to address key methodological and conceptual issues. *International Migration*, 61, 47–59. Available from: https://doi.org/10.1111/imig.13043.