



CARIAA
Collaborative Adaptation Research
Initiative in Africa and Asia

NOVEL INSIGHTS BRIEF

MIGRATION



More than one billion people live in deltas, semi-arid lands, and glacier-dependent basins in Africa and Asia, hotspot regions that are the most vulnerable to climate change.

Over 7 years, the CARIAA program supported collaborative research to strengthen resilience in these hotspots by informing policy and practice. CARIAA brought together more than 450 researchers across 15 countries through four consortia, with selected study areas based on geographic and social similarities—with the aim of sharing knowledge and experiences across disciplines, sectors and geographies.

The CARIAA Novel Insights series provides a snapshot of the key insights that emerged from this work, on the most pertinent topics for climate adaptation.

MIGRATION, MOSTLY INTERNAL, IS USED BY POPULATIONS VULNERABLE TO CLIMATE CHANGE AS AN ADAPTATION STRATEGY, BUT NEEDS APPROPRIATE POLICIES AND SERVICES BASED ON QUANTITATIVE EVIDENCE AND CHANGING REALITIES IN ORDER TO BE SUCCESSFUL.

Migration is a complex phenomenon, linked to people's perceived needs for best adapting to a dynamic environment, and to their aspirations for better well-being. Climate change is often not recognized as a primary cause of mobility, but it influences other immediate drivers of migration: economic, social, political, and demographic. Specifically:

- Often, the decision to migrate is correlated with reaching thresholds for household size, education level of family members and income. By shifting some of these critical thresholds, climate change influences who migrates and where, and when individuals or groups decide to migrate or are forced to do so. While data on temporary displacement triggered by extreme events are becoming increasingly available, quantitative data on slow-onset migration are still sparse.
- The decision to move is highly dependent on the life histories of each family and household, and on the historical sequence of economic, climate, health and social shocks it has undergone. CARIAA developed a visual analysis approach to look at life histories¹ and changes in well-being associated with possible thresholds that would lead to a migration decision in individual households.
- Internal (in-country) migration has been on the rise in climate hotspots and is far more predominant than international migration². When international migration occurs, it is mainly South-South.
- Migration can increase resilience under certain conditions, mainly when the availability of services in receiving and sending areas allows migrants to profit from their skills, and enables household members left behind to invest remittances productively. In the absence of such support services, migration can lead to the transfer of vulnerability across different groups and communities.
- The number of women migrating is increasing in hotspots, and this has been well documented in South Asia in particular. This, in turn, has environmental impacts through greater likelihood of land degradation. At the same time, women in receiving areas are exposed to different risks, which require the rethinking of education, employment, and health services for mobile groups. The starting point is measuring mobility reliably: in Orissa state, for instance, research uptake resulted in the setup of a more reliable system for tracking internal mobility in climate sensitive areas.

BACKGROUND

Migration has long been the outcome of decision-making under uncertainty and with incomplete information, based on perceived socio-economic vulnerability in sending areas and perceived opportunities in receiving areas. What is new is that recent environmental trends have contributed to changing the nature of vulnerability. This, in turn, has contributed to the evolution of migratory fluxes in terms of gender, age, wealth, and education levels. What is also new is the projected nature of future migration scenarios in the case of moderate 1.5–2 °C warming (the Paris Agreement target), or in the case of warming that exceeds this target.

In the past, the dominant narrative looked at migration in climate hotspots as a response to extreme shocks—a crisis situation—and therefore as a symptom of a problem to be solved. And, as often happens in the health sector, the focus has shifted to considering the symptom as a problem in itself. This narrative is still prominent in many national political discourses within the current debate on South-North migration.

Current research based on historical evidence has, however, shown that the link between international migration and climate change has been weak so far, while the majority of displacement and long-term migration directly or indirectly attributable to climate change has been within national borders or within regional boundaries in southern countries.

In addition to this, partially thanks to the consultative process that led to the UN Global Compact on Migration in 2018, in the Global South the discussions have widened to reflect a broader conception of human mobility. This includes a deeper understanding of the climate-migration nexus as more strongly intertwined with slow development processes than as just a simple response to crises.

The idea that human migration can represent a

legitimate adaptation strategy has now emerged, as well as higher visibility of and a focus on trapped populations. This appears to be a positive development, marked by softer tones that move away from a purely national security-oriented narrative and embed migration in a narrative centered on sustainable development.

A number of research initiatives dedicated to this topic were recently initiated, such as the United Nations University “When the Rains Fall” migration network, the TRANSRE collaboration, the Hugo Observatory on Environmental Migration and the KNOMAD initiative, as well as CARIAA itself. At the policy level, the Nansen Initiative opened a broad consultative process on international migration, which culminated in informing the work leading to the UN Global Compact on Migration. Some of the results of these research efforts are synthesized in works such as the Atlas of Environmental Migration (Ionesco et al. 2017) and the Groundswell report.

The Global Compact is a welcome evolution of this discourse. But it will be a non-binding agreement for member states, focusing mainly on the normative and regulatory aspects of human mobility. A stronger link to quantitative research, showing the connection between embracing migration as a fact and the achievement of the Sustainable Development Goals, will be of paramount importance for the Compact’s successful implementation.



NEW INSIGHTS

CARIAA research has led to key novel contributions to the discourse on migration.

MIGRATION AND ENVIRONMENTAL CHANGE

- **The primary drivers of human mobility in all climate hotspots are perceived socio-economic inequality and aspirations for better livelihood, employment and economic opportunities.** In South Asia, the single major driver is economic for 48% of households that have at least one migrant family member in deltas. This figure is 44% in river basins, 55% in semi-arid plateaus, and 82% in semi-arid plains. Only 6-10% of households recognize environmental change as the primary cause of their decision to move.
- However, when the life histories of individual households are probed, it becomes clear that **environmental degradation and extreme weather events contribute importantly to the decline of livelihoods that makes the perception of economic inequality and vulnerability more urgent.** This is more evident in semi-arid regions than in deltas and coastal areas, likely due to the fact that continuous ecosystem deterioration does not allow recovery after shocks, while this is still possible to a certain extent in more fertile lands.
- Moreover, **perception of local environmental change processes and of vulnerability to climate change is higher in migrant families than in non-migrant ones**, and

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- **The resilience level of households in the sending areas is directly correlated with migration**, provided that: remittances are sent back and conditions enable the reinvestment of remittances into social protection schemes and productive activities. In the absence of such schemes, vulnerability can simply be transferred. This is particularly true in coastal Bangladesh and Orissa state (India) where relocation away from cyclone-prone areas and highly saline agricultural regions exposes migrants to security and health hazards in peri-urban areas of fast-growing cities⁵.
- Accordingly, **migration from coastal areas is on average more cyclic and of shorter duration. Permanent migration is more prominent in those areas where deterioration is more permanent**, in particular due to soil erosion and salinization.

INTERNAL VERSUS INTERNATIONAL MIGRATION

- Migratory fluxes from climate hotspots are steadily increasing.
- **Internal and South-South international migration are increasing faster than and are numerically dominant in comparison to South-North international migration.** More than 80% of migration is internal in South Asia, varying from 61% in semi-arid plains in Pakistan to virtually 100% in semi-arid plains in the Indian sub-continent. In sub-Saharan African hotspots, more than 90% of migrants remain on the continent.
- **However, different types of migration are often correlated in space and time.** In Senegal or Bangladesh, for instance, migration to a large city can be a first step to subsequent permanent or semi-permanent international migration. In India, migration is predominantly national, but inter-state; while in Burkina Faso, international migration is mainly periodic, rural-rural, and to neighbouring countries such as Ivory Coast.

CHANGES IN WHO MIGRATES AND THE IMPORTANCE OF GENDER

- Migrants from climate hotspots are still predominantly young males in the 20- to 30-

year age category. However, **the migration rate of women is increasing faster than men's.** Female migration reaches 16% in deltas and up to 26% in semi-arid plateaus in India. Women's migration is particularly high where skills and education are available to women; or where slow-onset environmental degradation is so high that remittances are not sufficient and the whole family considers moving.

- **Women's migration has environmental impacts.** For instance, CARIAA research suggested that in mountain areas of Nepal a 1% increase in women migrating in Nepal may increase the likelihood of agricultural land contraction to 37%, because of the more efficient ways women take care of the land. This is a much larger percentage than in the case of male migration.
- **Migrants in climate hotspots belong to the medium-to-highly skilled labour force.** Between 48% (in semi-arid plateaus) and 69% (in deltas) have over 10 years of schooling or specific technical skills. This in turns means that:
 - **Migration is more effective as an adaptation strategy when skilled migrants find the conditions to be employed for their skills in the receiving areas.**
 - **Policies that encourage skill building and education in the sending areas are positive per se, but do not necessarily decrease migration, and may increase it in some cases.**
 - Within this category, migrants are increasingly willing to travel longer distances, to reach district or capital cities where prospective earnings are higher. In line with this, **there is a robust correlation between length of migration and level of remittances.**
- **Patterns of internal mobility at the household level are changing.** For example, CARIAA research shows that **rural-urban migration is not the only mobility pattern, with rural-rural migration as well as daily commuting to mega and fast-growing cities equally common.** Peri-urban populations as well as migrants from rural areas prefer to stay in peri-urban areas

and commute to cities for work rather than migrating to the cities themselves. This helps them to avoid the vulnerability traps of informal settlements with low services and poor living conditions in cities, or the consequences of climate-related events with amplified effects in urban settlements, such as heat waves.

- **In rural areas, the average critical household size that triggers migration is also lowering in many cases by one to two units on average.**

This is correlated with: i) households who deal with multiple moves within the family, and where

the push factors (like environmental degradation) are particularly strong; ii) parents who need to invest more in education of their children before sending them in search for qualified jobs, in areas where the decision to move is dominated by pull factors. This again has implications in terms of services to migrants' communities, as people's moves are driven less by demographic pressure than by other factors.

LOOKING FORWARD

Due to the fact that the gender makeup and skills of migrant populations are shifting, there is a growing need to adapt education, health, employment and legal services for migrants to their changing needs. This is of particular importance in view of the universal nature of the Sustainable Development Goals, and calls for a fundamental reconsideration of boundaries and legal restrictions that prevent mobility of services. It also presents challenges in particular for services that usually require hard infrastructure, such as good quality water and sanitation.

At the same time, however, **a changing migrant population can offer different services and skill sets.** This picture invites us to work towards a world where, contrary to considering migrants as people in search of better services, services move with people and people have the opportunity, by accessing those services, to use their skill sets optimally.

In the short term, these findings call for:

- At the international level, a stronger recognition of the importance of internal migration in the Global Compact on Migration, and of the connection between different types of migration and mobility.

- Putting more emphasis on employment and services opportunities rather than focusing solely on the regulatory and legal aspects of migration; promoting technological and social innovation in the mobile services sector.
- Improving data and analysis to provide evidence on the linkages between environmental change and migration for decision makers; regulating human population fluxes in fragile ecosystems.
- Better tracking of mobility fluxes. For example, research uptake in Orissa state saw the setup of a more reliable system for tracking internal mobility in climate sensitive areas. Such examples need to be scaled, as it is unrealistic to plan for better services for and by migrants if we do not know who and how many people move, when and where they do so.

CARIAA research has led to key novel contributions to the discourse on migration. CARIAA's new findings add quantitative robustness to previous knowledge on internal migration, and contribute to dispelling myths on migration and mobility, highlighting opportunities to provide services to people on the move, and can guide investment on adaptation and climate resilient development.

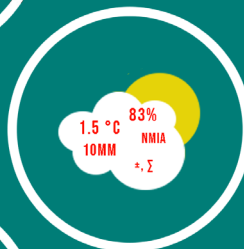
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EFFECTIVE ADAPTATION



GENDER AND SOCIAL EQUITY

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