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COMMUNICATION BRIEF

BUILDING NEXUS RESILIENCE: ADDRESSING MIGRATION AND CONFLICTS IN WATER-ENERGY-FOOD SYSTEMS

WEBINAR 1

INTRODUCTION TO MIGRATION AND WATER-ENERGY-FOOD (WEF) SYSTEM INTERCONNECTIONS

MAY 30, 2024

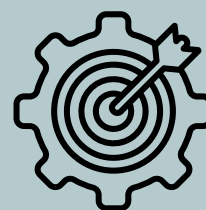
BACKGROUND

According to the International Organization for Migration, there were over 280 million international migrants in 2020, a number influenced by both global crises such as conflicts, economic instability, and disasters, and positive factors like labor migration and free movement agreements. Migration drivers include water stress, extreme water events, energy poverty, and food insecurity. This surge in migration trends also challenges host nations, particularly in regions already facing resource scarcity challenges. Anticipated climate change and population growth will exacerbate these challenges, causing nonlinear impacts across water, energy, and food systems. Migration can also contribute positively to all aspects of economic, environmental, and social development and is key to achieving the Sustainable Development Goals (SDGs). The 2030 Agenda for Sustainable Development recognizes the intricate interdependencies among these resource systems, but their complex relationships with migration (forced, economic, rural-urban, internal, cross-border) remain insufficiently addressed. Understanding the connections between migration and key environmental resources (e.g., water, energy, and food) including how resource scarcity influences migration needs further study.

Existing Water-Energy-Food nexus models often fail to capture the nuanced interplay with conflicts and migration. Nexus communities from across the globe search for better tools to understand these trends and interconnections and guide anticipatory action toward improving the resilience of communities facing these pressures. Moreover, there is a need to understand the impact of the various underlying conditions and vulnerabilities on amplifying disaster risks related to water, energy, and food systems that contribute to migration. Also, connecting the vulnerability and resilience of resource systems (primarily water, energy, and food) with the nexus still needs to unravel solutions for long-term sustainable development. The webinar series aims to fill this gap.

OBJECTIVES

This webinar series aims to catalyze cross-disciplinary, cross-institutional, and international dialogues toward understanding the knowledge gaps and opportunities in taking a holistic, systems approach to addressing these tightly interconnected challenges. With a focus on water, energy, and food systems, the webinar series will also consider other key environmental resources like climate, land, and ecosystems.



OUTCOMES

The webinar series is envisioned to facilitate the development of a common framework and road map for integrating migration in nexus assessment tools. This would contribute to exploring and developing anticipatory tools and strategies incorporating migration dynamics into nexus assessments, aiming to guide policymakers, researchers, and practitioners toward evidence-based, sustainable, and resilient solutions.



WEBINAR 1 PROGRAM

• Introduction

Bassel Daher, Texas A&M University, SustainFood Network, IWRA

• Panel and Moderated Discussion

- People on the move in a changing climate - how does it relate to the water, energy and food systems?

Christina Daszkiewicz, International Organization For Migration (IOM)

- Unveiling the WEF Nexus For Exploring Migration Dynamics and Interconnected Challenges

Nidhi Nagabhatla, UNU-CRIS

- Systems Approaches to Migration and WEF Resource Management

Bassel Daher, Texas A&M University

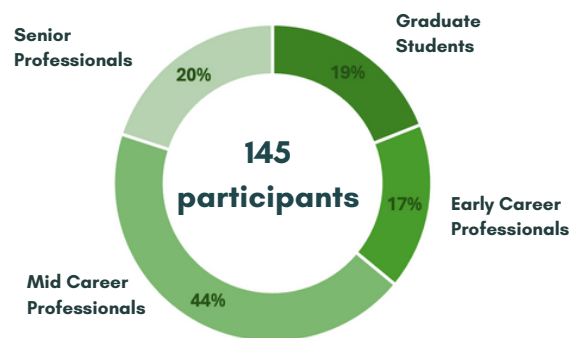
• Dialogue Reflections

Ali Rhouma, PRIMA

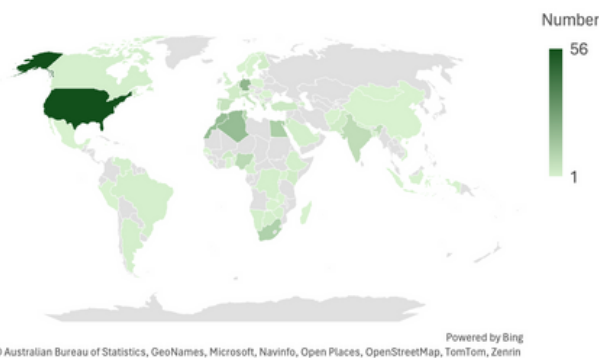
• Next Steps

Floor Brouwer, UNU-FLORES

WEBINAR STATS



from 70 Countries



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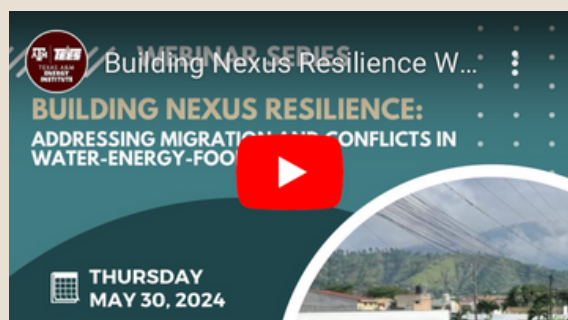
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WEBINAR 1

KEY TAKEAWAYS



Key Definitions and Trends



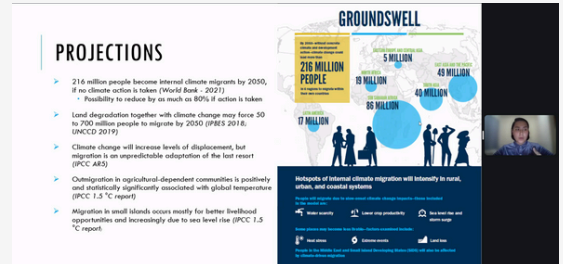
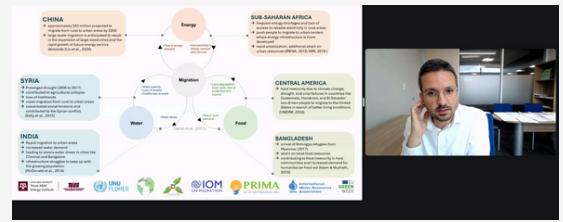
Human mobility is a term encompassing “displacement”, “migration” and “planned relocation”.



Migration is a complex phenomenon with no internationally agreed definition. According to IOM, migration is “the movement of persons away from their place of usual residence, either across an international border or within a State.” It encompasses any kind of movement of people, whatever its length, composition, and causes. It includes the migration of refugees, displaced persons, migrant workers, and persons moving for other purposes, including family reunification.



No legal definition for persons on the move due to environmental drivers exists to date and neither is an internationally accepted one. However, many actors work on these links, including IOM, and have developed conceptual frameworks to work with.



Challenges in Migration Data

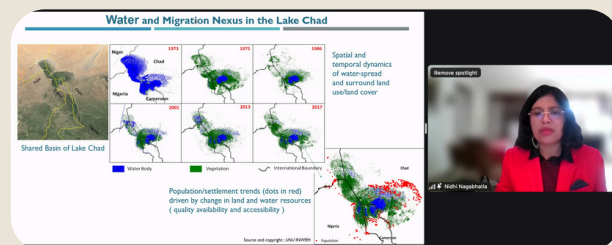
- There are **significant data gaps** on both internal and international migration, especially regarding scale, duration, and remittances. While most data on disaster displacement pertains to internal movements, information on cross-border displacement remains scarce. This poses challenges as the overall number of people moving in response to slow-onset environmental and climate events is not well documented, and records of disaster- and conflict-related movements often overlap. Additionally, **data on movement trajectories** and the **duration of displacement** is frequently incomplete, hindering a comprehensive understanding of migration patterns and associated vulnerabilities.
- Some countries **lack institutions that regularly collect migration data**, and even some developed countries do not include internal migration in their census. Cross-border movements, especially irregular ones, are often not captured, and free movement in regions like the EU and ECOWAS further complicates accurate data collection.
- There is a **lack of long-term historical data on migration** that aligns with the slow timescales of environmental change. Household panel surveys, which provide detailed information over long periods, are rare, and existing data often varies in quality and comparability, particularly regarding seasonal and annual migration data.
- A **shared database** is crucial for addressing migration issues as it provides comprehensive, real-time information, facilitating the coordination and implementation of effective policies.



Projections

- 216 million people** across six regions in the world are projected to become internal climate migrants by 2050, if no climate action and inclusive development is taken forward (World Bank - 2021)
- Land and environmental degradation** together with **climate change** may force **50 to 700 million people** to migrate by 2050 (IPBES 2018; UNCCD 2019); **Climate change** will increase levels of displacement, but migration is an unpredictable adaptation of the last resort (IPCC AR5)
- Outmigration in agricultural-dependent communities** is positively and statistically significantly associated with global temperature (IPCC 1.5 °C report)
- Migration is influenced by five key factors: **environmental** (disasters, environmental degradation, availability of ecosystem services), **political** (discrimination, persecution, policies, land tenure, freedom of movement, corruption), **demographic** (population density and size, interacting with other factors), **social** (cultural norms, gender norms, pursuit of education), and **economic** (high wages, stable income, unemployment). Economic factors are often interlinked with environmental factors, such as declining land productivity and reducing rural incomes.
- These **drivers are interrelated and dynamic**, changing gradually or suddenly, and individual or community perceptions of these factors can also shift. Importantly, the presence of migration drivers does not guarantee that migration will occur; it is contingent on various intervening individual or institutional factors.

- **Increasing water stress** in the Congo Region, driven by **climate change** and **population growth**, leads to water scarcity, impacting food production and income generation, and contributing to both internal and cross-border migration.
- **Effective governance** of the Congo River Basin is essential for sustainable water management, equitable water allocation, and conflict mitigation, especially in areas like the Sahel and Lake Chad regions, involving collaborative frameworks among neighboring countries.
- **Large-scale hydropower projects** can negatively impact local ecosystems, agriculture, and fisheries, necessitating a balanced approach to WEF-Nexus resilience, with a focus on the Transaqua project between the Congo Basin and Lake Chad.
- **Sustainable agriculture** can play a role in mitigating migration. Agriculture, heavily dependent on water resources, is a key economic activity in the Congo Region. Promoting sustainable practices, efficient water use, and resilient farming systems is crucial to enhance food security, adapting to climate change, and reducing migration driven by agricultural losses.
- **Migration** in the region (Congo basin and Sahel) is influenced by **water stress**, **food insecurity**, **conflict**, and **economic opportunities**. Addressing these interconnected challenges through a WEF Nexus approach can help develop holistic strategies for sustainable development and resilient communities.



Migration and Water-Energy-Food systems

- Tackling **water, energy, food security and ecosystem** challenges requires integrated and collaborative approaches that consider their impact on migration dynamics, socioeconomic fragmentation, sociocultural dynamics, and sociopolitical volatility.
- There is a need for:
 - **System-level understanding** of the interconnected challenges to explore and leverage currently untapped potential and opportunities and mitigate unintended consequences.
 - **Novel context specific tools** to **understand and quantify** the interconnections between decisions made across different sectors, and to evaluate the trade-offs and synergies associated with different pathways.
 - **Interdisciplinary research** that cuts across these research disciplines, requires enabling environments and platforms to allow for that to happen.
 - **Enabling environments** for partnerships between public, private, society, and academia across different sectors and disciplines.
 - Implementing **adaptation strategies** to ensure that migration remains a choice, by building people's resilience and addressing drivers, while understanding that migration can be a positive adaptation strategy if safe, orderly and regular. Regions already struggling with resource scarcity and ineffective resource management are more vulnerable to migration pressures. Implementing robust adaptation strategies is essential to mitigate these impacts and enhance regional stability.
 - Transformative approaches like the **Water-Energy-Food-Ecosystems (WEFE) Nexus** to address the complex interdependencies between socio-economic factors, the environment, and migration. Nexus planning helps us understand these connections and guide decisions towards sustainable solutions.
 - **Enhancing agricultural development** in rural communities by adopting climate-smart farming practices, improving access to water and irrigation, and supporting local farmers with education and resources. These efforts can increase food security, boost local economies, and create sustainable livelihoods, making it less necessary for communities to migrate and ensure well-being (physical and psychosocial health).

Research Gaps & Future Opportunities

- **Develop** new decision tools and methodologies for holistic risk assessment, facilitating the evaluation of trade-offs and synergies between migration dynamics and WEF system transformation pathways.
- **Understand** how shortages or access issues in water, energy, and food resources drive migration decisions in different regions.
- **Understand** what are the socio-economic consequences of WEF resource-driven migration on both migrants and host communities, particularly in terms of employment, health, and social cohesion?
- **Investigate** novel and multilevel governance structures and policy frameworks that foster integrated approaches to migration and WEF resource management, optimizing outcomes across sectors.

For more information, check out:

[WEBINAR SERIES WEBPAGE](#)