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Brent Sandtke, Julia van den Berg, Pieter Offereins, Celine Hermann, Doeke Meijer

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The Netherlands

Issue editors:

Brent Sandtke, Julia van den Berg, Pieter Offereins, Celine Hermann, Doeke Meijer

Editorial board:

Bishawjit Mallick, Femke van Noorloos, Katharina Hölscher, Romain Dittgen

Cover Page Design:

Shapla Singha, Khulna University, Bangladesh

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Foreword

As debates over global development intensify, the need for critical, context-specific engagement has never been more pressing. In a world shaped by shifting political, social, cultural, and ecological landscapes, understanding the intricate dynamics of development requires more than just broad generalizations or simplistic solutions. It calls for nuanced approaches that recognize the diversity of lived experiences and respect the agency of individuals and communities, especially those facing significant constraints.

With great enthusiasm, we present the second Development Around the World (DAW) volume, which explores these complexities through various case studies and insights. Across its chapters, this volume emphasizes key themes of inclusion, resilience, sustainability, and justice. These contributions do not merely examine the challenges of development; they engage with the very processes through which individuals, communities, and institutions navigate and negotiate the dynamics of development. Together, they underscore the necessity of critical reflection, informed action, and the role of policy and practice in shaping more equitable and resilient futures.

From migration and environmental justice to food systems and health equity, the volume illustrates the importance of context-sensitive approaches to development—inclusive, equitable, and resilient approaches. It challenges us to reflect deeply on the lessons presented here and to consider how this knowledge can inform future research, policy, and practice.

Special thanks to Annelies Zoomers for her invaluable contribution through her farewell lecture, which initiated this endeavor, and to the student editors, colleagues, and everyone at IDS for their support and collaboration.

We invite you, the reader, to engage with these contributions in the spirit of reflection and action. This volume is not just a scholarly compilation but a call to action that urges us to work collaboratively towards a more just, inclusive, and sustainable world.

Bishawjit, Femke, Katharina, & Romain

Editorial Note

As debates over global development intensify, the need for critical, context-specific engagement has never been more pressing. As editors of *Development Around the World*, we invite readers to consider the intricate interplay of political, social, cultural, and ecological factors that shape prospects for more equitable and resilient futures. The chapters in this volume do not aim to provide universal solutions or quick fixes. Rather, they call for attentiveness to local circumstances, recognition of diverse forms of knowledge, and an understanding that individuals and communities—despite significant constraints—exercise meaningful agency in shaping their own lives

With great enthusiasm, we present the second volume of *Development Around the World (DAW)*, which offers a diverse range of studies addressing urgent questions in contemporary development. These contributions engage with the complexities and nuances of global challenges, demonstrating how individuals, communities, and institutions navigate and negotiate development processes in various settings. Across its chapters, this volume underscore's themes of inclusion, resilience, sustainability, and justice, providing a foundation for critical reflection and informed action among scholars, practitioners, and policymakers.

The volume opens with H. Osman's "The Role of Social Networks in the Integration of Eritrean Migrants in the Netherlands." This chapter illuminates how Eritrean migrants draw on informal networks to adapt, integrate, and find belonging in an unfamiliar environment. By revealing how these connections complement and sometimes compensate for formal institutional support, Osman highlights the vital role of interpersonal relationships in shaping migration experiences.

Marta Martínez Fabiani's chapter, "Women's Non-Migrant Livelihoods in the Sundarbans: Intersecting Challenges and Opportunities in a Changing Social-Ecological System," turns our attention to the resourcefulness and agency of women in an ecologically fragile region. Fabiani's research challenges stereotypes of passivity, illustrating that women are central to household and community resilience amidst environmental and socio-economic change.

In "Influence of Mining Operations on Quality of Life of Local Communities: A Case Study of Extensive Open-Pit Mining in Chingola, Zambia," Mathijs van Baarle critically examines the socio-economic and environmental effects of large-scale mining operations. His analysis reveals the tensions between economic gain and broader social and environmental costs, underscoring the importance of equitable governance and sustainable resource management for just developmental outcomes.

Céline Londoño Hermann's "From Advocacy to Action: Understanding the Role of NGOs in Promoting Safe Abortion Services in Northern Ghana" explores how non-governmental organizations navigate complex socio-cultural environments to improve reproductive health services. By focusing on community engagement, Hermann illustrates how advocacy and local participation can transform health systems, enhancing equity and well-being.

Mélanie Rechnitzer's contribution, "Changing Food Practices: Exploring the Dynamics of Social Practices for Sustainable Food Innovations in Cotonou's Food System Lab," delves into the emergence of sustainable food initiatives at the intersection of tradition and innovation. Her examination of community-led adaptations offers crucial lessons for policymakers, advocating for approaches to food governance that foster resilience and sustainability in urban contexts.

In "Sowing Seeds of Understanding: Epistemic Justice in the Co-Creation of Nature-Based Solutions," Thirza Vos makes a compelling case for inclusive environmental governance. Demonstrating that the effectiveness of nature-based solutions hinges on incorporating diverse knowledge systems, Vos argues for co-creative practices that ensure epistemic justice, thereby strengthening both ecological outcomes and community ownership.

Finally, Spyridon Kafetzopoulos's "Home in Transition: Exploring Self-Settlement Pathways and Emplacement of Refugees and Asylum Seekers" examines how displaced populations negotiate notions of home amid ongoing mobility and uncertainty. Kafetzopoulos's study displays the resilience and creativity of refugees and asylum seekers, challenging static notions of identity and belonging and providing insights into the lived realities of displacement.

Collectively, these chapters present a rich tapestry of perspectives on the complexities and interconnected dimensions of development. They traverse issues ranging from migration and resource governance to food systems, health equity, and environmental justice. Together, they emphasize the necessity of inclusive, context-sensitive approaches in realizing more sustainable and just outcomes.

We encourage readers to engage deeply with these contributions, reflect on their lessons, and consider how this knowledge might shape future research, policy, and practice. This volume is more than a scholarly compilation; it is a call to action that challenges us to work collectively toward a more just, inclusive, and sustainable world.

Brent Sandtke, Pieter Offereins, Julia van den Berg, Celine Hermann,
Doeke Meijer

Research Articles

The Role of Social Networks in the Integration of Eritrean Migrants in the Netherlands

Hamed-Jame Osman

Abstract

This study investigates the role of social networks in integrating Eritrean migrants in the Netherlands, with a special focus on cultural adaptation, employment opportunities, and spiritual support. Currently, over 26,000 Eritreans reside in the Netherlands because of forced displacement driven by the ongoing political instability and economic challenges in Eritrea.

The research employs qualitative methods, including participant observations and semi-structured interviews with 18 Eritrean migrants from diverse areas in the Netherlands. The findings of the study reveal that social networks are crucial for cultural adaptation, providing a support system that enables migrants to preserve their cultural identity while simultaneously adjusting to Dutch societal norms. Furthermore, social networks significantly improve job opportunities by offering referrals, referrals, facilitating skill enhancement, and linking migrants with prospective employers. Amid widespread mistrust both within the Eritrean migrant community and between this group and Dutch society, these networks serve as vital sources of emotional support, contributing to mental health and nurturing a feeling of community. Overall, the study highlights the essential role of social networks in integrating Eritrean migrants, indicating a necessity for deeper investigation into methods for reinforcing these networks to assist larger migrant communities more effectively.

Keywords: social networks • Cultural adaptation • Social-capital theory • Social network theory • Mistrust and integration.

Introduction

Eritrea, situated in the Horn of Africa, achieved its independence in 1993 following an extended conflict with Ethiopia. In the following years, the country has faced significant political instability, economic difficulties, and widespread human rights violations. These adverse conditions have compelled many Eritreans to seek asylum abroad, with a considerable number relocating to European countries. The migration process for these individuals often entails a perilous journey across the Mediterranean Sea and the Sahara Desert, underscoring the severe challenges they encounter in their quest for safety and a more stable life (Frontières, 2017; Sterckx & Fessehazion, 2018).

The migration of Eritreans to the Netherlands began in the 1980s and 1990s, primarily due to the struggle for independence, and intensified significantly between 1998 and 2010 due to the Eritrea-Ethiopia border conflict (Amnesty International, 2021). A subsequent wave of migration emerged in 2011, primarily fueled by persistent political oppression, human rights violations, and indefinite military service (Derks & Sremac, 2020). By 2021, it was estimated that over 580,000 Eritreans resided outside their country, with around 26,000 settling in the Netherlands (Human Rights Watch, 2023; Darroch, 2024). The migration trend has intensified recently, with over 7,000 Eritreans arriving in the Netherlands in 2015 alone (CBS, 2023).

This research aims to address the knowledge gaps by investigating the role of social networks in integrating Eritrean migrants in the Netherlands. The primary focus is to examine the central question: *What role do social networks play in facilitating the integration of Eritrean migrants in The Netherlands?* The practical relevance of investigating the role of social networks in integrating Eritrean migrants in the Netherlands is underscored by its potential to enhance support systems that aid migrants' adaptation. Understanding how social networks impact employment opportunities, access to education, and social cohesion can help policymakers and organizations develop tailored programs that foster strong connections between Eritrean migrants and the local communities. Insights from this research could guide the development of community-oriented initiatives aimed at bridging cultural gaps, alleviating feelings of isolation, and empowering Eritrean migrants to engage more actively in Dutch society, thereby enhancing their overall well-being and integration experiences.

Migration scholars have defined networks as collections of family members, friends, and acquaintances who provide ongoing support to individuals during their migration journey, serving as channels for disseminating information and resources (Gurak & Caces, 1992). Building on this concept, Massey et al. (2005) offer an expanded perspective, describing migrant networks as intricate relationships among migrants, former migrants, and non-migrants in both the places of origin and the destinations.

Upon arrival, Eritrean migrants encounter various obstacles, such as language barriers, cultural disparities, and challenges in securing employment and educational opportunities, which considerably impede their integration into Dutch society. Social networks play a pivotal role in providing migrants with vital resources such as information, emotional support, and practical aid, essential for effectively navigating unfamiliar environments and addressing integration challenges. These networks significantly improve access to job opportunities, educational resources, and cultural adaptation, all of which are crucial for the economic and social prosperity of migrants. By investigating the influence of social networks and social capital, this study adds to the existing body of literature by analyzing how these connections shape the integration

experiences of Eritrean migrants residing in the Netherlands (Penninx & Garcés-Mascareñas, 2016; Klarenbeek, 2021).

The existing research predominantly focuses on broad integration strategies, overlooking the specific role of social networks. This study aims to fill this gap by exploring sub-questions: 1. How do social networks form and evolve among Eritrean migrants during integration into the Dutch community? 2. What challenges do migrants face in establishing social networks? 3. What strategies have been adopted to build and strengthen social networks with host communities? 4. To what extent does mistrust impede the integration efforts of Eritrean migrants? Examining these questions provides valuable insight into the role of social networks in facilitating the integration of Eritrean migrants in the Netherlands.

Therefore, this research provides a unique perspective by examining the role of social networks in integrating Eritrean migrants in the Netherlands, a group with unique cultural, historical, and migration experiences compared to other migrant populations. Unlike other migrant groups that often establish connections with the host community, Eritrean migrants primarily depend on internal networks for support and guidance (SCP, 2018). Unlike Syrians and Afghans, Eritreans generally arrive with a low level of education and are less prepared for integration into Dutch society (van Heelsum, 2017 & CBS, 2023). Limited education, rural agricultural backgrounds, and close-knit communal structures influence this. Having these unique challenges, this study highlights the crucial role social networks play in successfully integrating Eritrean migrants in the Netherlands.

Theoretical Framework: Social Networks and Social Capital

The integration of Eritrean migrants into Dutch society can be effectively analyzed using social networks and social capital theories, which provide valuable insights and guidance. These theories emphasize the importance of social connections and support systems in achieving successful integration. According to social capital theory, the networks migrants establish within their new communities are crucial as they offer essential resources, such as employment information, social support, and opportunities for cultural exchange (Yang & Guo, 2021). These connections help reduce the risks associated with migration by providing guidance, information, and support, thus facilitating the integration process (Pannell & Altman, 2009).

Social network theory further explores how individuals exist within interconnected social frameworks, where relationships significantly influence their actions, opportunities, and resource access (Scott, 2017). When applied to migration, this theory highlights the importance of the connections migrants form and maintain with various individuals and groups, including fellow migrants, locals in the host country, and transnational kinship networks. Social

network theory has advanced the understanding of migrant networks by showing how these social connections shape integration patterns and outcomes. Granovetter's (1973) concept of "weak ties" illustrates this by demonstrating the value of acquaintances and distant connections, which provide migrants with a broader range of information and opportunities, thereby enhancing their socio-economic mobility in the host country.

Building on social network theory, Putnam (2000) argues that social capital theory delves into the tangible and intangible resources available within social networks. Individuals can leverage these resources to create reciprocal advantages. For Eritrean migrants, increasing their bridging social capital—by participating in community activities, joining multicultural organizations, and engaging in educational and professional networks—can be particularly beneficial. Such interactions offer opportunities to improve language proficiency, understand Dutch cultural norms, and access employment opportunities.

Research suggests that migrants with higher levels of bridging social capital are more likely to achieve successful integration as they gain from diverse perspectives and a broader array of opportunities (Cheong et al., 2007). The social networks of Eritrean individuals holding asylum status predominantly consist of fellow members from their ethnic group. The research carried out by SCS (2018) emphasized that strong bonding plays a crucial role in the successful integration of Eritrean migrants during the post-settlement phase in the Netherlands. Still, they must cultivate relationships beyond their limited circle of immediate acquaintances.

Conceptualization of migrant Social Networks

Social network integration encompasses individuals or groups forming connections and developing interdependencies within a larger social framework. Various factors can significantly affect this process, with mistrust emerging as a particularly critical element. Mistrust, characterized as uncertainty or skepticism regarding the dependability and trustworthiness of others (Citrin & Stoker, 2018), can significantly obstruct integration within social networks. A pertinent illustration of this phenomenon can be observed among Eritrean migrants, whose political rifts contribute to a pervasive mistrust. Factors impeding integration into social networks encompass various elements, including educational background, language proficiency, and cultural disparities.

Education is particularly significant, as individuals with restricted access to high-quality educational resources may face difficulties developing the essential skills and knowledge required for meaningful engagement within social networks. Additionally, language differences can pose a considerable obstacle; individuals who do not share a common linguistic framework may encounter challenges in communication, thereby hindering their ability to forge

connections with others (Martinovic et al., 2009). Furthermore, variations in cultural backgrounds can pose considerable challenges to integrating social networks. People hailing from diverse cultural contexts often possess unique values, norms, and practices that may hinder mutual comprehension and acceptance, exacerbating the complexities associated with the integration process.

The concepts of mistrust, language, employment, and social integration are crucial for comprehending the impact of social networks in integrating Eritrean migrants in the Netherlands. Mistrust can significantly hinder migrants' readiness to establish relationships beyond their own community. At the same time, proficiency in the local language plays a vital role in broadening their networks and facilitating access to essential resources. Employment is both an outcome of social connections and a mechanism for fostering them, enhancing financial security and a sense of belonging. Theoretical frameworks surrounding social integration provide valuable insights into how social relationships can promote or hinder access to various opportunities. Collectively, these elements elucidate how social networks shape the integration experiences of Eritrean migrants, highlighting the challenges and support they encounter.

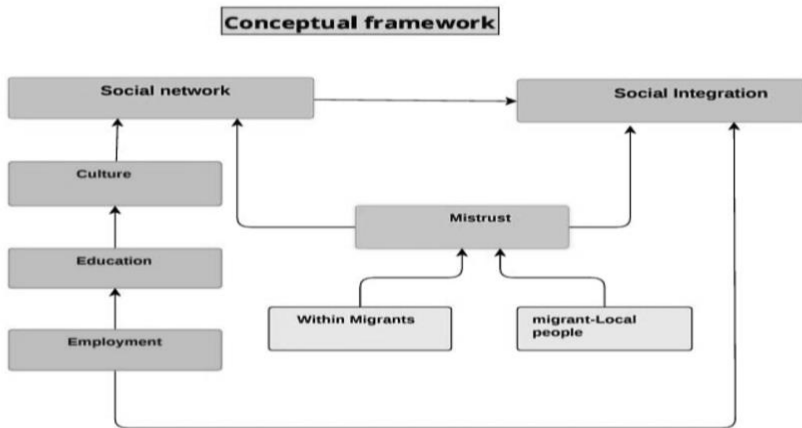

Figure 1: Conceptual Framework

Methodology and Data Collection

Data Analysis

As articulated by Clarke and Braun (2013), the thematic analysis approach serves as a valuable tool for analyzing transcripts to investigate the challenges, coping mechanisms, and trust-related concerns encountered by migrants. This

methodology is especially effective in qualitative research, facilitating the identification and examination of themes present in the data. The thematic analysis follows a structured procedure encompassing coding, the formulation of themes, and interpretation, empowering researchers to extract significant insights and relate the findings to pertinent theoretical frameworks (Riessman, 2008; Vaismoradi et al., 2016).

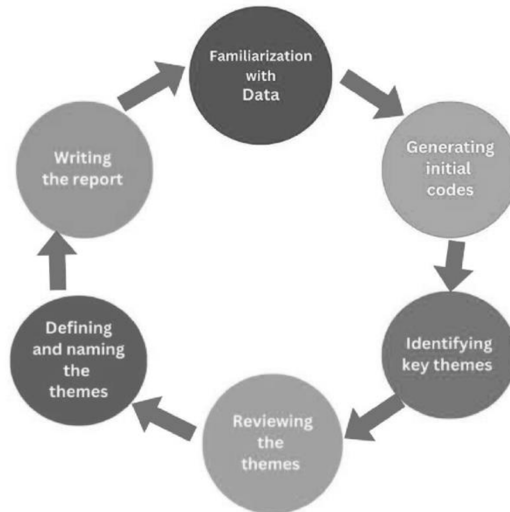

Figure 2: Thematic analysis process

Data Collection

This research adopted a qualitative methodology, conducting in-depth interviews to understand the social networks of Eritrean migrants residing in the Netherlands. Additionally, the study incorporated participant observation techniques to explore the role of these social networks in facilitating the integration of Eritrean migrants within various settings, including religious institutions, community centers, and social events.

In-depth Interviews and Participant observation

The study involved semi-structured interviews and participant observation mainly for several reasons. Semi-structured in-depth interviews allow researchers to explore Eritrean migrants' personal narratives, capturing their perceptions of and engagement with social networks. This flexible approach enables probing into complex experiences, such as belonging and support, while maintaining consistency on core topics. Participant observation complements this by providing firsthand insights into network interactions in real-life settings like communal gatherings and religious services. This combined

method helps observe social dynamics in action and builds trust with participants, which is essential for accessing deeper insights from potentially hesitant or traumatized individuals. Together, these methods effectively capture the nuanced role of social networks in migrant integration.

The process of gathering qualitative data included conducting semi-structured in-depth interviews, which yielded significant insights into the experiences and perceptions of Eritrean migrants regarding their social networks and integration in the Netherlands. The interviews were carried out in two of Eritrea's most commonly spoken languages, Tigrinya and Tigre, and subsequently translated into English for analysis. Although I am a native speaker of both languages, I encountered certain challenges during translation. For instance, when participants were asked about the role of social networks, they indicated that these networks helped them alleviate "stress." In their language, mental health terms such as trauma, depression, anxiety, and stress are often collectively described as "stress." This required me to probe further to clarify the specific mental health concerns they meant to express, as there are no distinct terms for each condition. Participants consistently used "stress" as a catch-all term for various mental health challenges, making it essential to approach the translation with particular care to capture their intended meanings accurately. Eighteen participants were scheduled for interviews as part of the qualitative study. Twelve of these were conducted in person, with each session lasting between 30 and 45 minutes. The remaining six interviews were conducted via video calls and extended to 60 to 90 minutes, largely due to the need for manual documentation.

The interview guide prompted detailed accounts of experiences with social networks, including challenges, strategies, and mistrust. Open-ended questions addressed the demographic, cultural, and social factors affecting integration. To accommodate participants', work and academic commitments, interviews were scheduled on weekends, allowing participants to choose dates and times that best suited their availability.

Participant observation is a qualitative research method that provides in-depth insight into social phenomena by immersing researchers in the participants' natural environments. In studying the integration of Eritrean migrants in the Netherlands, this method was used to examine the role of social networks, particularly within religious institutions and cultural events. By engaging directly with these communities, the research uncovers how these networks influence Eritrean migrants' integration processes and contribute to their overall experience. As a participant observer, I had the opportunity to attend various cultural events and religious gatherings, where I observed how Eritrean migrants create and nurture new social networks. These gatherings offer a platform for community members to share their personal experiences, exchange practical information, and find emotional support, reinforcing their sense of

belonging in a foreign environment. Through these connections, they also discuss challenges related to integration and explore collective strategies for coping with cultural adaptation, employment, and educational opportunities, thereby strengthening their social bonds and resilience in their new community.

Recruitment and Sampling

The research focused on a diverse group of Eritrean migrants aged 18 to 30, living in rural and urban areas across several Dutch regions, including Utrecht, Amsterdam, Apeldoorn, Barneveld, Hattemerbroek, and Leiderdorp. This age group represents a key demographic, as 75% of Eritrean migrants to the Netherlands in 2015 were under 30 (CBS, 2023; Dutch News, 2018). Participants for the study were recruited through snowball sampling, where individuals with relevant knowledge or experience were identified and asked to recommend others with similar expertise (Hennink et al., 2020). This method is often used when accessing participants through traditional methods is difficult, mainly when a sampling frame is unavailable (Noy, 2008). While snowball sampling lacks the rigorous standard of probability sampling, steps were taken to minimize potential selection and homogeneity biases. To accomplish this objective, participants are deliberately selected from various backgrounds, encompassing variations in geographic origin, age, religion, and gender. This approach offers a more comprehensive and equitable perspective by incorporating individuals from multiple cultural, social, and demographic contexts. By carefully considering these elements, the research seeks to avoid the disproportionate representation of any particular group, thereby ensuring that the findings reflect the experiences and perspectives of a broader range of participants. This approach promotes fairness and inclusivity, facilitating a deeper and more nuanced understanding of the studied subject.

Overview of Participants

The interview cohort consisted of ten men and eight women, aged 19 to 30, who arrived in the Netherlands between 2015 and 2022. Their educational backgrounds range from elementary schooling to higher vocational training (MBO). Some have only completed elementary education, while others are pursuing or have finished MBO studies. Their occupations include manual labor and service roles such as cleaners, gardeners, dishwashers, and shop assistants. A few hold positions aligned with their vocational training, such as mechanic or warehouse associate. Some participants are still students working to improve their qualifications, while others are currently unemployed.

Results and discussion

Dynamics of Social Network Formation and Its Challenges

When Eritrean migrants first arrive in the Netherlands, they often start forming social networks within reception centers. Initially, their connections mainly

include fellow Eritreans, individuals from various international backgrounds, and local community members. These interactions—especially with other migrants in the refugee camps—provide emotional support and a valuable exchange of information about adapting to their new environment.

The study findings underscore that Eritrean migrants in the Netherlands have significantly strengthened their social networks through active participation in community events. Most participants stated that their engagement in both local Eritrean and Dutch community events was instrumental in promoting their well-being and enhancing their sense of belonging and integration into Dutch society. At a community gathering in Utrecht on March 13, 2024, I had the opportunity to observe participants exchanging their experiences, discussing their well-being in the new environment, and sharing the challenges they faced during their integration into Dutch society.

Furthermore, the study's findings highlight the pivotal role of media platforms in facilitating experience-sharing and fostering connections among Eritrean migrants. Participants observed that digital platforms are instrumental in maintaining connections with fellow migrants from their countries of origin and strengthening relationships within their new communities. This connectivity significantly supports their social integration and overall well-being. However, building and expanding social networks in the new environment proved challenging. Eritrean migrants faced obstacles such as cultural differences, language barriers, and social discrimination.

Cultural disparity poses a significant challenge for Eritrean migrants striving to broaden their social networks and achieve integration into their new communities. Many participants have reported struggling with unfamiliar cultural norms and customs in the Netherlands, often leading to misunderstandings and a sense of exclusion. Eritrean culture is distinguished by its tradition of extending a warm welcome to newcomers and fostering close-knit community relationships, in contrast to Dutch customs, which place less emphasis on these practices. One participant noted, "*It's quite confusing when my neighbors don't greet or engage with me, particularly since we live in the same building and frequently see each other.*" Participants also highlighted the significant impact of cultural misunderstandings on interactions between Eritrean migrants and the local community. Residents frequently interpret the behavior of Eritrean migrants through their cultural perspectives, which can lead to misinterpretations. Samrawit, a 29-years- old female participant, pointed out:

"One day, a Dutch man was upset by how I greeted him. In my culture, bending slightly and placing one hand over the other when shaking hands is a sign of respect. He stared and asked if my right hand was broken, finding it strange and

maybe even offensive. I explained that it's a traditional gesture of respect, and once he understood, he appreciated it much more. "

The quote illustrates that cross-cultural misunderstanding arises from differences in cultural norms and values. Such divergence in cultural norms and values often hampers the development of genuine social connections with the Dutch community.

Eritrean migrants face considerable challenges in developing their social networks due to language barriers. Their limited Dutch proficiency hampers effective communication with the local community, thereby hindering their social integration efforts. This lack of language skills often leads to social isolation and feeling undervalued or overlooked. One participant described this experience: *"There have been occasions when people have disregarded me simply because my language skills were inadequate."* Consequently, the study highlights that Eritrean migrants tend to delay interactions with Dutch speakers until they gain more confidence and feel capable of engaging in meaningful conversations. As a result, they often rely on the support and companionship of fellow migrants who share their language.

Furthermore, enhancing social networks and integrating Eritrean migrants into Dutch society face another considerable challenge. These challenges are largely due to internal mistrust within the Eritrean migrant community, which political divisions and ethnic differences intensify. Furthermore, mistrust toward native Dutch citizens—stemming from hatred and privacy concerns—adds a layer of complexity to their integration and inclusion in the host country. A participant illustrated this challenge: "*The conflict between groups who support the Eritrean government and those who protest against it has made it difficult for everyone to come together and build stronger community connections."* Similarly, disclosing migrants' personal information affects their relationship with host communities. One participant remarked, *"One thing I cannot stand is when people expose private matters. It is frustrating when someone resorts to blackmail or spills personal information."* Both statements underscore that internal divisions within the Eritrean migrant community, combined with the public disclosure of migrants' private matters by the host society, contribute to a growing mistrust. This mistrust has adversely impacted social networks and efforts toward social integration. Even though establishing social networks poses considerable challenges for Eritrean migrants, it necessitates using diverse strategies to navigate these difficulties.

The research findings highlight that Eritrean migrant employed various strategies to address social network challenges, such as social engagement, language acquisition, and cultural adaptation. To implement these strategies, they connected with institutions for language improvement, participated in

social gatherings, and adopted approaches to foster cultural tolerance. Karim, a 22-years old participant, mentioned,

“I have a neighbor who used to just say "hi" or completely ignore me when I greeted her. Even though that was the case, I didn’t give up and kept saying hello. Gradually, she began to respond more often. I also started asking her about her family, and whenever she wasn’t around, I would bring in her packages for her. These little gestures helped us build trust, and as time went on, we became closer, with her even offering me support when I needed it”.

The above statement highlights building trust and mutual understanding, demonstrating cultural tolerance through patience, small gestures, and resilience. By doing so, migrants have navigated and overcome the social network challenges. Despite these challenges, social networks remain crucial for facilitating the integration of Eritrean migrants in the Netherlands.

Role of social networks

Social networks play a crucial role in helping Eritrean migrants adapt to the host community by offering essential support and resources necessary for successful cultural integration. These connections provide migrants with valuable insights into local customs, traditions, and social norms, which are key to navigating their new environment. Cultural values and practices are shared through social networks, allowing migrants to understand their surroundings better. A participant described his experience: *“Making connections with people in the communities where I stay helps me learn important things and understand their culture better. This is really important if I want to fit in well and become a part of their community*. Building relationships with the host communities is crucial for gaining valuable insights and understanding the new culture, essential for integrating and becoming part of the community. Additionally, interactions with the local Dutch population help migrants become aware of their rights, responsibilities, opportunities, and available resources, enhancing their ability to integrate effectively.

Social networks play a crucial role in shaping employment opportunities by creating valuable connections, providing essential information, and offering support that enhances job prospects and career growth. For instance, one participant mentioned, “*I secured my current job thanks to the assistance of an Eritrean woman who had been with an organization for five years.”* Furthermore, these networks enable individuals to access various resources—such as training programs, volunteer positions, and mentorship opportunities—essential for skill development and career advancement. Ultimately, these resources contribute to more excellent career progression and financial independence.

The study underscored the pivotal role that social networks play for Eritrean migrants, marking a significant milestone in their integration process. These networks facilitate connections, allowing migrants to engage with religious institutions. Participation in faith communities includes various activities, such as attending services, participating in religious events, and observing rituals. Moreover, social networks are crucial in fostering religious involvement by cultivating a sense of community, providing support, and enabling individuals to express their beliefs. Through these connections, individuals deepen their faith and establish a strong sense of belonging within their religious communities. Moreover, involvement in religious activities offers emotional and spiritual support, assisting migrants in navigating the challenges of adjusting to a new environment. One participant highlighted the soothing impact of these programs, noting, *"The religious programs were calming for me. Whenever I spent time at church, I'd come home feeling refreshed and at peace."*

Establishing a robust and effective social network is crucial for successful integration. Consequently, participants suggested that policymakers adopt bottom-up approaches, including assessing migrants' needs, offering additional job training, and funding community events to enhance social networks and support integration efforts. For instance, Sara, a 23-year-old female participant, recommended, "*Well, I know many talented friends who cannot use their skills because of language barriers and because their qualifications are not accepted in the Netherlands. The government should give them jobs and training to help them succeed so they can positively impact society."* Similarly, a 23-year-old female participant, Jerusalem added, *"I think it's really important for the government to create a program that helps us [Eritrean migrants] become more resilient. Many of us have gone through dangerous journeys and faced very difficult situations. To help us succeed in this new society, we need support for our health, especially to address the stress and trauma we have experienced."* The suggestions highlight two key aspects of migrant integration: practical support through job opportunities and training to address skill barriers and mental health support to help overcome past trauma. Addressing both aspects is essential for fostering resilience, thereby empowering migrants to succeed and make meaningful contributions to society in their new environment.

In summary, Eritrean migrants have greatly profited from their social networks, which have played a crucial role in facilitating their cultural adaptation, offering employment prospects, and fostering spiritual satisfaction, thereby enhancing their integration into the host community.

Discussion

The research findings highlight the complex relationship between social networks and the integration of Eritrean migrants in the Netherlands. Despite its significance, the role of social networks in facilitating the integration of

Eritrean migrants has been insufficiently explored. Consequently, this study aimed to investigate the role of social networks in the integration process of Eritrean migrants in the Netherlands. The study addressed the following research questions: (1) What role do social networks play in the integration process of Eritrean migrants in the Netherlands? (2) What challenges do Eritrean migrants encounter when leveraging social networks for integration, and what strategies do they employ to overcome these challenges? (3) Does mistrust impede the integration of Eritrean migrants into mainstream society?

The integration of Eritrean migrants in the Netherlands is a multifaceted process influenced significantly by social networks and social capital. Social capital serves as an essential theoretical framework for understanding the integration of migrants, as it comprises the resources found within social networks that individuals can leverage to fulfill both personal and communal objectives. Putnam (2000) identifies two key components of social capital: bonding capital, which pertains to connections within a specific group, and bridging capital, which relates to connections across different groups. In the context of Eritrean migrants residing in the Netherlands, bonding capital is predominantly evident in their robust relationships with other Eritreans. In contrast, bridging capital is vital for facilitating their engagement with Dutch society and other migrant communities.

Social network theory has greatly enhanced the understanding of migrant networks by highlighting the crucial role of social connections in shaping integration patterns and outcomes.

The study's findings indicate that migrants can strengthen their integration by building social connections with fellow Eritreans, individuals from diverse international backgrounds, and local community members. These relationships provide valuable insights into the local culture and ease the adjustment process. Building relationships with host communities aligns with Granovetter's (1973) "weak ties" concept, as these connections—though not deeply personal—provide access to diverse information and insights crucial for understanding and integrating into the new culture. These weaker ties can bridge different social networks and offer migrants valuable information and opportunities to facilitate community integration.

The study revealed that language is the primary barrier to establishing and maintaining effective communication between Eritrean migrants and host communities. This language barrier hinders everyday interactions and limits opportunities for Eritrean migrants to engage meaningfully in social, educational, and professional settings. This finding aligns with Martinovic et al.'s (2009) assertion that language differences can pose a significant obstacle. When individuals lack a common linguistic framework, they face challenges in communication, which can impede their ability to form meaningful connections

with others. In the case of Eritrean migrants, this language barrier not only disrupts social interactions but also undermines their efforts to integrate and build relationships within the host society.

The internal divisions within the Eritrean migrant community, coupled with the public revelation of their private affairs by the host society, have fostered increasing mistrust. This mistrust has negatively affected social networks and hindered efforts towards social integration. This issue is related to the concept of mistrust, which is defined by uncertainty or skepticism about the reliability and trustworthiness of others (Citrin & Stoker, 2018). This lack of trust greatly hinders the process of integration within social networks.

The research findings reveal that social networks play a vital role in the integration process by facilitating the cultural adaptation of Eritrean migrants in the Netherlands. These networks are essential as they offer a culturally familiar setting, which allows migrants to utilize local resources effectively for smoother integration into Dutch society. Cultural adaptation involves several aspects, such as mastering the local language, grasping societal norms, and managing bureaucratic processes.

The study's findings further demonstrate that social networks play a critical role in shaping employment opportunities by fostering valuable connections, providing key information, and offering support to enhance job prospects and career growth. This outcome is consistent with social capital theory, which highlights the crucial role of networks in supporting migrants in establishing themselves in their new communities. These networks serve as vital resources, offering access to employment information, social support, and opportunities for cultural exchange (Yang & Guo, 2021).

In conclusion, this study underscores the importance of overcoming the challenges migrants face in building and maintaining supportive social networks as a critical factor in their successful integration into host communities. By recognizing the complexities of migrant experiences and the intricate dynamics of social connections, we can foster more equitable and inclusive environments. Strengthening these networks is not only essential for the social and economic well-being of migrants but also enhances the cohesion and inclusivity of the broader society.

The research encountered certain limitations, especially in its efforts to engage with participants from politically fragmented communities and those with restricted availability. Although the primary emphasis was on the role of social networks in the integration process of Eritrean migrants, future studies could enhance their findings by incorporating additional migrant populations, thereby facilitating comparative analysis of their integration experiences. Such comparative investigations could yield valuable insights into the distinct

challenges and opportunities that various migrant groups encounter, ultimately contributing to developing more focused and effective integration policies.

Conclusion

This research investigated the impact of social networks on the integration of Eritrean migrants in the Netherlands, emphasizing how these networks affect the integration process, the challenges faced, and the strategies migrants employ to navigate these difficulties. The results indicate that although social networks offer essential assistance, they simultaneously present considerable constraints that hinder long-term integration.

The study identifies key challenges Eritrean migrants face integrating into Dutch society, including cultural differences, language barriers, and mistrust. Cultural disparities between Eritrean and Dutch norms lead to social alienation and isolation. Language barriers hinder migrants' ability to engage with Dutch institutions, limiting opportunities for education and employment. Mistrust emerged as a prominent theme in the study, affecting interactions with Dutch institutions and dynamics within the Eritrean community. Many Eritrean migrants reported skepticism toward Dutch society, feeling misunderstood or marginalized, which deepens their sense of alienation and limits their engagement with the broader Dutch community. This mistrust reinforces their dependence on ethnic networks for support. Additionally, internal mistrust within the Eritrean community—rooted in political divisions—impairs the effectiveness of social networks, as individuals may hesitate to share information or offer assistance to one another.

Despite the challenges, this thesis demonstrates that social networks support Eritrean migrants' cultural integration in the Netherlands. Through social events and community engagements, migrants share experiences, provide emotional support and gain insights into Dutch customs and societal norms. This reduces feelings of isolation and eases cultural adaptation. Additionally, social networks enhance access to employment opportunities, offering guidance on the Dutch labor market and facilitating job referrals.

The research also highlights the spiritual significance of these networks, with religious and cultural gatherings helping Eritrean migrants preserve their heritage and foster a sense of belonging. These interactions contribute to their emotional and psychological well-being. However, migrants face challenges such as cultural misunderstandings, language barriers, and discrimination, which complicate social integration. While social networks promote cultural acceptance, they are also affected by internal divisions, including political rifts and mistrust within the Eritrean community and toward Dutch society.

The key limitation of this study is its focus on migrants aged 18 to 30, excluding the experiences of other age groups. Older Eritrean migrants, in particular, may

encounter distinct integration challenges and often rely more heavily on established community networks for social and emotional support. Future research could address this gap, providing a broader understanding of the role of social networks in integrating older migrant groups in the Netherlands.

The perilous migration journey to Europe has exposed Eritrean migrants to significant mental health challenges. The study highlights the need for targeted health policies and for healthcare professionals to address the specific mental health concerns of Eritrean migrants, ultimately impeding their participation in the host society. Additionally, many Eritrean migrants struggle with unemployment due to the invalidation of their qualifications or their limited educational background. To address this, the government should enhance employment opportunities, offer training programs, and implement systems to recognize prior work experience, allowing migrants to utilize their skills fully.

The close-knit community nature of the Eritrean community underscores the necessity of fostering mutual understanding between migrants and the local population. Therefore, municipalities, institutions, and various organizations could significantly contribute to creating an inclusive atmosphere for Eritrean migrants. Initiatives such as cultural exchanges, community events, and educational workshops can promote respect and foster connections, while the engagement of cultural mediators can effectively address cultural gaps and facilitate integration.

Reflection

During my research on Eritrean migrants, I have learned that perceptions among migrants differ significantly based on their time of arrival. Those who arrived earlier often view newly arrived migrants as distinct in behavior and lifestyle. This understanding has helped me avoid making assumptions and led to a deeper appreciation of the diverse experiences within the Eritrean migrant community. As a researcher, I occupy a unique position—an insider and an outsider. Sharing a cultural background with my participants lets me connect with them. However, having migrated at a different time also allowed me to maintain objectivity in analyzing their experiences. This dual perspective has enriched my research by fostering both empathy and critical analysis.

Despite my shared background with the participants, I faced challenges in recruiting interviewees. Migrants often juggle work, family, and community obligations, making it challenging to participate in interviews. Additionally, concerns about confidentiality within the community make some hesitant to share personal stories. Through this research, I have understood the complexities of migrant social networks and how newly arrived Eritrean migrants rely heavily on peer support. Patience, trust, and transparency are essential in engaging participants and are critical to the success of any study on vulnerable populations.

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Women's Non-Migrant Livelihoods in the Sundarbans: Intersecting Challenges and Opportunities in a Changing Social-Ecological System.

Marta Martínez Fabiani

Abstract

Southwest Bangladesh is home to the Sundarbans, the world's largest contiguous mangrove forest, and is crucial for coastal peoples' livelihoods. However, increasing ecological degradation and socioeconomic pressures make these livelihoods more vulnerable, especially for women facing challenges in accessing natural resources and livelihood assets. While migration as a livelihood strategy is typically carried out by men, leaving women behind, others voluntarily or involuntarily opt for non-migration despite the risks. This study investigates women's non-migration decisions, focusing on their relationship with the Sundarbans' Social-Ecological System and its influence on their non-migration pathways. It employs a mixed-method empirical approach, drawing insights from social-ecological system theory, feminist political ecology, and the sustainable livelihoods framework. The analytical dataset builds on 150 household surveys, 12 in-depth interviews, 5 expert and 5 stakeholder interviews. The main findings demonstrate how women diversify their livelihood and challenge their traditional roles, with 80% considering staying put. Applying an intersectional lens strengthens the idea that addressing dimensions like access or agency in resource use, adaptation, and gender is critical to comprehending the livelihoods of non-migrant women and their challenges in resource-dependent communities. Future research should address the challenges posed by increasing salinity and water-related hazards and their effect on women's non-migration aspirations.

Keywords: Women • Sundarbans mangrove forest • Feminist political ecology • Non-migration • Sustainable livelihoods

Introduction

Background

It is evident that Bangladesh, a region highly susceptible to climatic stress, is particularly vulnerable to gradual and sudden hazards (Bernzen et al., 2019; Sharifi et al., 2021). Inhabitants of coastal Bangladesh face numerous socioeconomic challenges alongside their physical exposure, with 5% of Bay of

Bengal cyclones occurring in this region (Kabir et al., 2016). Furthermore, more than 6 million of the 43.8 million people (BBS, 2022) residing in the coastal zone districts are exposed to saline intrusion, as indicated by a report by the International Center for Climate Change and Development (ICCCAD, 2019). Khulna, Shatkira and Bagerhat districts are particularly affected (Khatun et al., 2022). They live near communities of the Sundarbans Mangrove Forest (SMF), the world's largest contiguous mangrove forest, designated a UNESCO World Heritage Site in 1997 and located in Southwest Bangladesh. are living nearby communities (Abdullah-Al-Mamun et al., 2017). It has been a crucial buffer to the adverse impacts of cyclones and other natural disasters (Sakib et al., 2015) while providing a wide range of ecosystem services to the adjacent communities (Mallick et al., 2021; MEA, 2011; Sakib et al., 2015). However, following the global trend, the SMF is experiencing rapid degradation due to increasing climate change effects (saline intrusion, excessive floods, cyclones, coastal erosion, etc.) and other human-derived causes like land use change, overexploitation of its natural resources, and other macro- and micro-level drivers of change (Goldberg et al., 2020; Islam & Bhuiyan, 2018). Consequently, local people's livelihoods are becoming increasingly vulnerable and difficult to maintain. This has especially been the case for the women residing in these communities (Ahmed & Kiester, 2021).

Theoretical Background

Climate change vulnerability is not gender-neutral (Denton, 2002; MacGregor, 2009; Sultana, 2014; Reggers, 2019). Women are likely to be "disproportionately affected by climate change because, on average, they tend to be poorer, less educated, have a lower health status and have limited direct access to, or ownership of natural resources" (Chindarkar, 2012, p.6). They face unique challenges and develop distinct strategies to remain in their communities despite various pressures on their livelihoods and ways of life (Alam & Khalil, 2022; Khalil & Jacobs, 2021). For non-migrant women living in the Sundarbans, their livelihood and adaptation options are influenced by the forest's health, impacted by climate change and how its resources are used and managed by conservation agencies and the private sector (Ela et al., 2021). How institutional interventions regulate resource management strategies at various levels will shape the community's well-being and conservation of the ecosystem (Fisher et al., 2014). This study considers explicitly the impact of the three-month total ban on forest entry—covering fishing, travel, tourism, and resource collection from June 1st to August 31st, as implemented by the Bangladesh Forest Department in 2022 (Siddique, 2022; UNB, 2022)—on women's livelihoods. Despite conservation measures driven by increasing vulnerability and lack of alternatives, women continue to enter the forest for resources and are criminalised for violating recent government regulations (Roy, 2018; Roy, 2019).

On the other hand, power relations within these communities are deeply gendered (Jordan, 2019). Traditionally, men hold formal positions of power, are the primary resource collectors and have greater mobility, while women are often responsible for managing household resources and ensuring family well-being (Lawless et al., 2019). This gendered division of labour implies that women's strategies for staying are shaped by their expected caregiver roles and the power dynamics at play within their communities. Further, women's roles

in maintaining social structures and traditions are vital for the cultural integrity of these communities (Khalil et al., 2020). However, non-migrant women can also gain agency in their livelihood decisions, migration aspirations or economic dependency once left behind by their male counterparts or after they start working outside their households (Rashid, 2013). By adopting a Feminist Political Ecology (FPE) approach (Elmhirst, 2015; Sultana, 2020), this study examines both household and community gender relations and women's interactions with formal and informal forest conservation regulations (Gillespie & Perry, 2018), addressing the complex and multidimensional experiences of women in these communities (Resurrección, 2017). FPE examines how gender relations are produced and reproduced within social, economic, and cultural power regimes embedded in a specific historical, ecological, geographical, and political context (Butler, 1990; Rocheleau & Nirmal 2015; Tuijnman et al., 2019). The applied intersectionality lens is informed by the FPE principles focusing on the intersectional analysis of social-ecological relationships and gender subjectivities, the recognition of the significance of considering people's embodied experiences with the different scales of power and decision-making to conduct 'research from the bottom-up'; and by questioning knowledge production, governance and policymaking (Resurrección, 2017).

Historically, men have performed migration within the coastal areas as a livelihood strategy (Bernzen et al., 2019), leaving women behind and driving them to change their traditional roles to develop their non-migrant livelihoods (Hadi, 2001). The way women experience immobility has been understudied, together with the lack of recognition of their contribution to adaption responses at the household level (Evertsen & Van Der Geest, 2020; Furlong et al., 2022; Khalil & Jacobs, 2021; Lama et al., 2020). Hence, it is pivotal to explore the complexities in the decision-making process to stay put and how the socioeconomic and cultural conditions inform the immobility experience of women (Adams et al., 2016; Furlong et al., 2022). Based on Carling's (2002) capability and aspiration framework, *'voluntary non-migrants*' are those who, despite the challenges and risks, consciously decide to stay put in their region (Mallick et al., 2023). Likewise, '*involuntary non-migrants'* can become long-term voluntary when their adaptation capacity increases their ability to cope with future climatic risks or vice versa (Khatun et al., 2022). As described by Khatun et al. (2022), "adaptability is enhanced if voluntary and involuntary non-migrants have the sufficient economic capacity to adjust to changing situations, whereas adequate and sufficient adaptive capacities make non-migrants more resilient to the effects and impacts of the extreme climatic event" (p.4).

Understanding these aspects in the face of climate change and resource scarcity, this study explored *how* non-migrant women interact with mangrove forest resources to build their livelihoods and adaptation strategies and how their livelihoods influence their migration aspirations. I also examine *how* the varying

interests of social stakeholders either enhance or hinder these women's abilities to develop effective adaptation strategies while maintaining ecosystem integrity and ensuring community service provision. The study aimed to explore potential migration pressures and women's role in maintaining their communities' sustainability and cultural integrity.

Methods

Analytical framework and operationalization

The analytical framework (Fig.1) for this research builds on the modified Sustainable Livelihood Approach (SLA) reformulated by Natarajan et al. (2022), incorporating a Feminist Political Ecology (FPE) lens. This adapted SLA acknowledges both the flaws and strengths of the original (DIFD, 1999; Scoones, 1998), considering globalisation, environmental change, and resource extraction's impact on rural livelihoods (Natarajan et al., 2022). Intersectionality and FPE address issues in adaptation and vulnerability to climate change, where gender and other cultural or power-related factors are considered vital (Djoudi et al., 2016; Jordan, 2019). It serves as an analytical tool defined as "the interaction between gender, race, and other categories of difference [...], and the outcomes of these interactions in terms of power" (Davis, 2008, p.68 in Kaijser & Kronsell, 2013). A simplified Social-Ecological System (SES) framework (Folke et al., 2005; McGinnis & Ostrom, 2014) is integrated to provide a comprehensive understanding of the complex interactions between social and ecological systems in rural livelihoods across different spatial scales and temporal dynamics (Bollettino et al., 2017; Fischer et al., 2015). The social subsystem incorporates the institutions' policies (ban scheme), cultural norms (e.g. "women do not go to the forest"), social groups (grass-root association, women groups), private (mud crab aquaculture business) and public actors (NGOs). The ecological subsystem provides the natural capital, administered by the conservation institutions and aquaculture sector and used by the communities.

Table 1 outlines the factors and indicators of the analytical components further employed as the independent variables shaping the livelihoods and migration considerations. Livelihoods can be understood as how people live, with material and social resources, to secure the basic needs of everyday life (De Haan & Zoomers, 2005). In resource-dependent communities, livelihoods heavily rely on place-based resources and access to them ensures that their basic needs are met to secure their livelihood outcome (Getzner & Islam, 2013; Khalil et al., 2020).

However, as SES literature often overlooks agency and power struggles (Calderón-Contreras & White, 2019; Fabinyi et al., 2014), this study focused on what resources women have access to, how they exercise this access, and how the institutions (e.g. Bangladesh Forest Department, NGOs) implement

interventions that affect the maintenance of access to those resources that will affect the status of the SMF and the future livelihood of the local population.

Different capitals, factors and circumstances, influenced by evolving power dynamics and resource management, have shaped how generations have interacted with the mangrove and women's adaptation capacity—especially social capital and its subdimensions, such as the relationship with social actors.

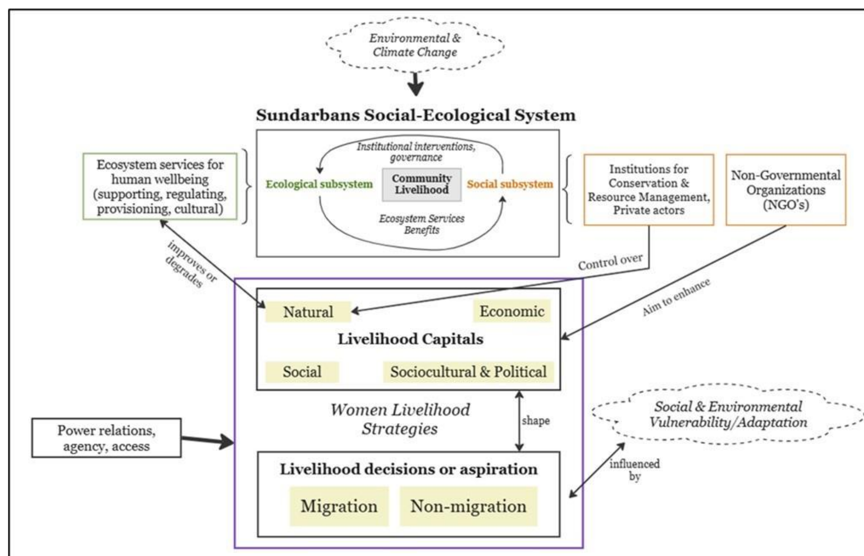

Figure 1: Analytical framework. Authors elaboration. Note: The dimensions surrounded by a dotted line indicate that they are not directly addressed in this study but helped to contextualise the studied factors. Source: Author's illustration

Other factors influencing women's livelihood, like the socioeconomic situation, religion, and power dynamics between women and men, are explored as part of the intersectional approach. Finally, migration and non-migration act as a way for people to secure their livelihoods, as in the case of Bangladesh.

Table 1: Factors and indicators of the analytical components for the social-ecological system and livelihood capitals shaping women's staying motivations.

Analytical Components	Factor	Examples of indicators/variables analysed for each component	Reference
Socialecological System	Social subsystem	Training from NGOs, access to market, impact of ban scheme,	Fabinyi et al., 2014

		employment in mud crab business	Folke et al., 2016 Hoque et al., 2017
	Ecological subsystem	Type of collected resources, members of the family collecting, perceived environmental changes, perception of the Sundarbans	Pearson et al., 2019 Hossain et al., 2021
Sustainable Livelihood Capitals	Economic	Savings, monthly income, remittances	De Haan & Zoomers, 2005; Natarajan et al., 2022; Sikder & Higgins, 2017
	Social	Women collaborating for profit, belonging to NGO, born in the village, women friendship	Mallick, 2023; Sultana, 2014
	Sociocultural & Political	Involvement in conservation activities, access to information related to conservation	Djoudi et al., 2016; Iftekhar & Islam, 2004
	Natural	Fuelwood collection, frequency of collection in ban season, drinking water	Khalil et al., 2020; Kibria et al., 2019
Livelihood Decision	Migration	Consideration of migration in the future, changes in the socioeconomic situation	Evertsen & Van Der Geest, 2019; Khatun et al., 2022; Mallick & Schanze, 2020
	Non-migration	Main occupation, additional occupation, social and economic capitals	
Intersectionality and Societal Power		Level of asset control, level of control livelihood strategies, religion, women in the household, involvement in household chores and caring activities, access to conservation information	Furlong et al., 2022; Khalil & Jacobs, 2021; Resurrección, 2017; Calderón-Contreras & White, 2019

Research design

The empirical research was conducted in the two coastal villages Buri Goalini and Munshiganj under the Shatkira district in Southwest Bangladesh (Figure.2). This area has been under study by previous research in the field of climate change and mobility (e.g., Biswas & Mallick, 2021; Braun et al., 2019; Hossain et al., 2023; Kartiki, 2011; Roy, 2018), and increasingly about the linkages with gender (e.g., Alam & Khalil, 2022; Boas et al., 2022; Everstsen & van der Geest, 2020). The rationale for choosing them was their high coastal exposure to tropical cyclones and environmental vulnerability (e.g., Kartiki, 2011; Mallick et al., 2011; Sakib et al., 2015) and designation as "Sundarbans dependent zone" units (Adams et al. 2016, 2018). The study was not explicitly designed to evaluate the voluntariness of consideration for non-migration. It did not explore differences between female-headed households and left-behind women or deepen the differences between men and women. I encountered challenges, including participants assuming my role due to frequent NGO visits. My background initially coloured my perceptions, particularly concerning gender roles, but immersing myself in the local community helped me shed biases and gain deeper insights.

I employed a mixed-method approach, obtaining the data through quantitative and qualitative methods (summarised in Table 2) in Shyamnagor district between July and September 2023. It was designed as a case study, widely adopted for the context of Bangladesh (e.g. Ahmed & Kiester, 2021; Azad et al., 2021; Boas et al., 2022).

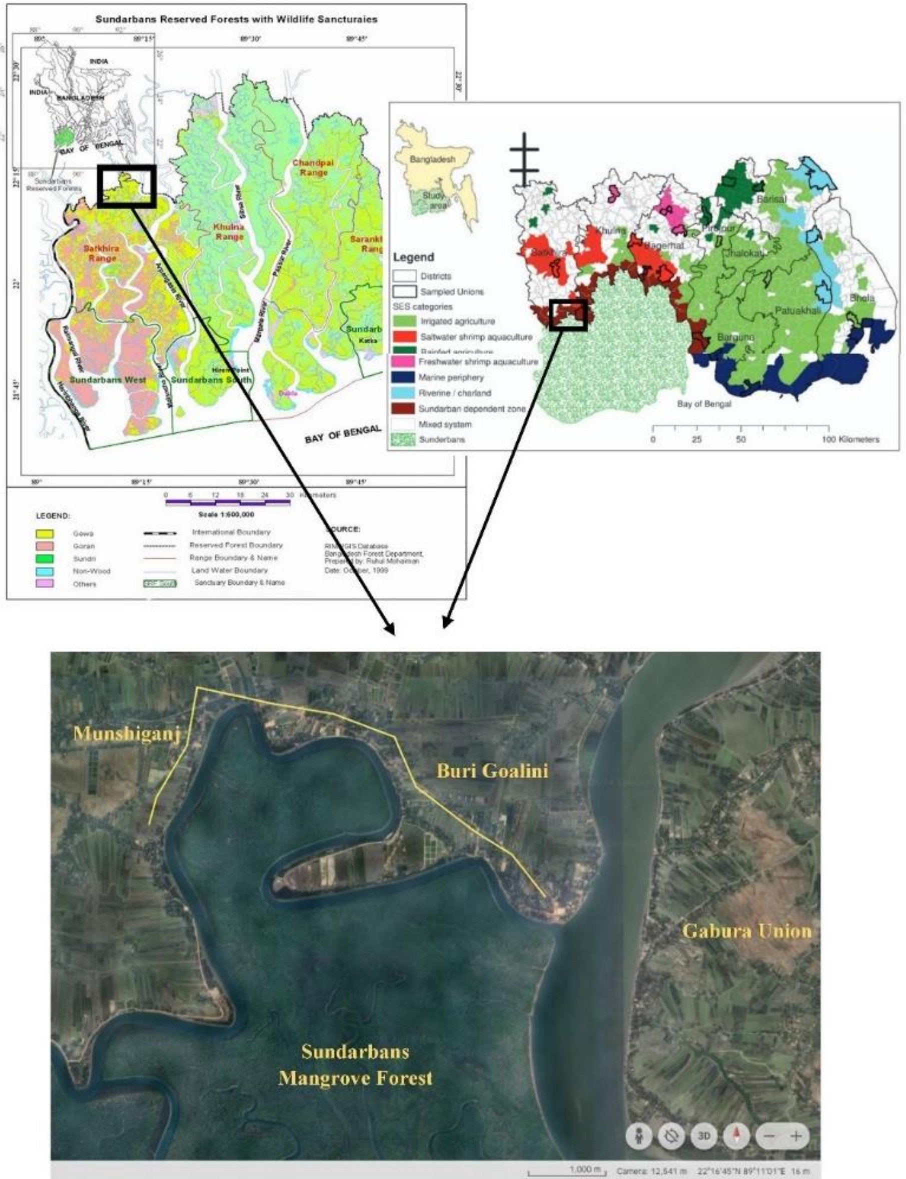

Figure 2: Study Area. Source: Top maps were redrawn from Adams et al. (2016) (right) and Ramsar Sites Information Service (left). Bottom map retrieved from Google Earth Pro 24/02/24

Table 2: Summary of methodological approach

Methodology	Participants	Description
Quantitative		
Household (HH) survey (n= 82 questions)	N=150 HH N= 87 HH in Munshiganj Village (Munshiganj Union) N= 63 HH in Buri Goalini Village (Buri Goalini Union)	The household survey was conducted by several assistants acquainted with the field area. The survey was conducted using Android Kobo Toolbox. The households were selected randomly, and only one woman was asked to complete the survey. The questionnaire focused on socio-demographic information about the individual, general household conditions and characteristics, livelihood capitals, gender aspects, livelihood strategies, and relationships with the Sundarbans.
Qualitative		
Semi-structured interviews (Snowballing technique)	N=12	Eight females: four from Buri Goalini and four from Munshiganj Four males: two from Buri Goalini and three from Munshiganj The interviews were conducted in the participants' houses or acquaintances' houses. The participants were chosen based on specific criteria (age, marriage status, education level) to capture diverse information. The age span of the participants goes between 24 and 62 (M=40)
Expert interviews (informal interviews)	N=5	Informal interviews were conducted with five expert professors from different departments of Khulna University to understand the context.

Stakeholder interviews (semi-structured and informal)	N=5	Several stakeholders were interviewed to understand their work in the field or their role in the functioning of the SES. **NGOs:** Solidaridad Network (informal), GIZ (semi-structured), Centre for Natural Resources Studies (CNRS)-*Protibesh Project-USAID* (informal). **Assistant Conservator of Forest (ACF)** representing the Forest Department for the Sundarbans Range of Shatkira (semi-structured). **Soft shell crab business** representative: an informal interview with the owners of Aquamax, which has been present in the study area since 2015.
Field observations		Preliminary fieldwork in Chadpai Range Fieldwork in the Shatkira range, both in the villages of study and other areas

The statistical analysis for the last sub-section of results followed, firstly, a general descriptive statistical analysis and correlation tests (Chi-square test of independence, Fisher's Exact Test and the t-test testing tool) between the independent variables (Table 1) and the dependent variable of the migration consideration (at 5% significant level). The dependent variable, which refers to either staying put or migrating, results from the following question: *Have you considered migration as a livelihood strategy for the future?* Lastly, a Binary Logistic Regression was carried out following Khatun et al. (2022), Mallick et al. (2020) and Manjur et al. (2014). The empirical model aimed to account for the influence of the selected predictors and control variables on the likelihood of migration, i.e., the dependent variable with a binary outcome of whether the woman aspires to migrate. The functional form of the odd ratio (equation 1) assesses the outcome variable for each explanatory/predicting variable level compared to the reference level

$$\log\left(\frac{p}{1-p}\right)=\beta_0+\beta_1X_1+\beta_2X_2+\ldots+\beta_kX_k$$

Where:

p= is the probability of considering migration (outcome 1, against not considering it, 0)

$\text{Log}\,\frac{p}{1-p}$ = log of the odds ratio of considering migration

β_0 = intercept

β_x=coefficient representing the change (increase if >0, decrease if <0) in the odd ratio of considering migration for one unit change in the predictor variable when the rest of the variables are constant.

$Exp(\beta_x)$ = exponentiated odd ratio representing the factor by which the odd change for a one-unit increases in the predictor

X_x=each of the variables

The independent variables revealed their influence on the odds of migration and the change in odds direction. The different combinations of the variables in the model revealed joint effects of the various variables on the interactions, modifying their contribution. The model's outcomes with the multiple variables were analysed through a contextual understanding provided by the qualitative data, providing a more comprehensive interpretation of the findings.

Results

Sociodemographic profile

Table 3 displays the socioeconomic characteristics of the survey respondents in this study. The low education level was also reflected during the semi-structured interviews, where seven of the 12 interviewees (including males) were illiterate regardless of age.

Over half of the survey respondents followed the Hindu religion (55.3%) and Islam (40.7%), yet all interviewees were identified as Muslim. Despite the Muslim majority in Bangladesh, the high percentage of Hindu respondents in the survey could be attributed to the presence of the Indigenous Adivasi Munda community in the Shyamnagar region, who follow Hindu rituals, as the region's proximity to India (Roy, 2018). The results of main occupations or livelihood activities show how resourceful women are in this area. The average monthly income is 6,777 BDT (~58 USD by June 2024), with a slightly high standard deviation demonstrating inequality between the respondents. Several questions were asked about the decision-making authority in the household (male head=68.7%), the women's perception of their control over their livelihood strategies (low control=48%), their economic negotiation capacities (occasional=64.7%), and their perception of the appropriate level of decision-making freedom for women (moderate= 60.7%). These findings highlight the context of underlying gender norms and power constraints where women cultivate their livelihoods.

Table 3: Sociodemographic characteristic of sample. Source: Survey

Individual	(%) *	Value(SD) * [Min-Max]	Household characteristics	(%)*	Value(SD)* [Min-Max]
Age			Roof		
Between 18-25	5.3		Brick	0.7	
Between 26-45	67.3		Goalpata	7.3	
Between 45-65	27.3		Other	13.3	
Education level**		3.46 (±2.83) [0-10]	Tin	78.7	
Religion			Wall		
Hindu	55.3		Bamboo	4	
Islam	40.7		Brick	1.3	
Other	4.0		Mud	12	
Marital status			Other	13.3	
Divorced/separated	1.3		Tin	49.3	
Married	92.7		Wood	20	
Widowed	6		Drinking water source		
Relationship with household head			Other	49.3	
Daughter	0.7		Pond/river	23.3	
Head	5.3		Supply water	10	
Spouse of son	1.3		Tube well	17.3	
Wife	92.7		Type of cooking source (multiple choice)		
Lives with husband			Electric	0	
Yes	90.7		Gas	2	
No (left behind)	9.3		Concrete Stove	0.7	
Main occupation			Traditional mud stove	99.3	
Business	0.7		Steel	0	
Handicraft	1.3		Number of household members		4.6 (±1.26) [2-8]

Housewife	82		Monthly income (BDT)		6,777 (±3,183) [1,500-20,000]
Other	5.3		Monthly income (USD)		57.82(±27.16) [12.8-170.64)
Resource collector	10.7		Received Remittances	33	
Additional occupation type (multiple choice)* **					
Business	1.3				
Crab farm	2				
Crab farm + Resource collector	1.3				
Farmer	0.7				
Handicraft	6				
Handicraft+ Resource collector	1.3				
Other	47.3				
Other +Resource collector	1.3				
Resource collector	8.7				
Village					
Buri Goalini	42				
Munshiganj	58				
Years in the village		21.76 (±10.8) [4-57]			
***Where applicable**					
****Primary level (class 1–8), Secondary level (class 9–12), compulsory until class 8**					
*****70% (N=105) of the women claimed to have an additional occupation**					

Women's involvement in natural resources, and the effect of social and policy interventions in a changing environment

Respondents were asked about their interaction with the environment and perceived environmental changes. The questions considered the last five years when several cyclones impacted the area, and the new ban scheme was implemented for the SMF. When asked about the increase in resource collection, 45.0% responded affirmatively, despite the perception of men as the primary collectors. This may be attributed to more women leaving household work to gather resources from the river and the forest, together with the lack of skills or knowledge to perform other non-forest-dependent activities, as illustrated by an interviewed woman: "after the storm, I go more to the forest [...]. The houses were all destroyed in the storm, and the people of the houses got sick, so we went to the forest more. This rise could imply an increase in the household's dependency on the forest and the long-term vulnerability of the households, especially for women.

Figure 3 displays the type of resources collected by women. Almost all the women collected fuelwood, generally used for household activities like cooking. Fuelwood, in this context, consists of various parts of mangrove species, including fruits, leaves, branches, and seedlings. The regeneration and growth of the mangrove species density depends on the seedling process (GoB, 2019). Therefore, to perform effective regeneration and conservation plans, it is crucial to understand how and which species women collect for their household chores and find ways to consider both livelihood needs and conservation aspirations. Interestingly, 28.7%% of women were also involved in processing resources, a factor often overlooked in livelihood assessments, as it may not provide direct economic compensation.

Processed products could serve as an income generation activity, as some women shared during the interviews, highlighting the need to continue the work on the direct links between women and the local market. In the last five years, 83% of the respondents' income from the forest had decreased despite the increase in collection, which may be related to the overexploitation of resources, considering, for instance, the proportion of women collecting resources from the forest (43%) or the river (91%). Fuelwood, fish and crab were the biggest extraction activities based on the survey that was done.

Discussions with the University experts and the literature revealed that saline intrusion has become the primary environmental stressor in the area, particularly after Cyclones Aila and Sidr in 2008, changes in the rain patterns or lack thereof affecting salinity intrusion, coupled with the impacts from crab aquaculture. One older woman reported: "When we were young, there was no salinity in this area, the soil was sweet, and we used to cultivate many paddies. [...] Back then, we used to cultivate crops twice a year. I used to cultivate paddy twice a year". The expanding mud crab (*Scylla serrata*) business directly

depended on the mangrove forest for the crabs, collected by the community and sold to the companies (employing especially women) or farmers, who continue the farming and processing in the inland ponds. Despite being a potential livelihood opportunity to stay put, from a conservation standpoint, the possible impact on the community (due to the increase in salinity) and the mangrove (due to the overexploitation of one crab species hatchery) should not be overlooked if the expansion of this business continues.

The area had been excluded from significant national and international resources co-management plans and conservation strategies like ecotourism. Instead, the government’s ban on forest access, aimed at conservation, was implemented, yet criticised by academia and NGOs, suggesting its arbitrary nature and the lack of consultation with the resource users, co-management organisations, or the scientific community. Therefore, the balance between conservation and women's livelihood was overlooked, with 65.3% of the survey respondents feeling negatively affected by these restrictions and lacking compensation to mitigate the effects. While women understood the need to protect the forest, with 74% of them finding it essential or very important, the lack of alternatives resulted in most of them collecting despite the ban.

NGOs’ current work in the area is highly focused on environmental awareness programmes (together with the BFD), claiming a gender approach following the current multilateral sustainable development agenda shift towards gender. However, they mainly targeted women, who are seen as more receptive to conservation efforts than men, despite the latter being described as the primary forest users, as shared during one interview: “*Women want the forest to be better. And it is straightforward to convince women about all these things, but men usually do not want to keep the forest well, and it isn't easy to convince men about these things. Men are destroying more forests.” (CNRS).* This approach that overlooks unequal social relationships, could overshadow women’s agency to adapt to climate change through their daily agency and create barriers to the potential inclusion of men in gender-aware programs. Despite this, the meetings and programs are providing safe spaces for women to discuss social issues like early and child marriage (GIZ). On the other hand, in the last ten years, more women participated in livelihood diversification training provided by NGOs, covering skills like poultry raising, vegetable cropping, and handicrafts. However, only 43% of women continued these activities, raising concerns about the effectiveness of these programs. These programs seem not to consider the gendered impact of environmental stressors such as water scarcity or salinity on women's participation in non-domestic activities. Women are primarily responsible for household tasks such as fetching water, which affects their ability to engage in other activities. NGOs also provide financial and material assistance, resulting in a perceived dependency on NGOs by the community and a reason for them to stay put.

Livelihood capitals and (non)migration pathways for women

One-fifth of the survey participants (20%) considered migration a future livelihood option. Although the survey did not delve into the underlying factors influencing this consideration, like capability, it did highlight that the majority preferred non-migrant livelihoods, whether voluntary or involuntary. The main characteristics of migrant and non-migrant women are as follows. [1]

Regarding non-migrant respondents, the staying motivation correlated (p-value<0.05) explicitly with those with less monthly income (t = -4.101), less income from the forest (t = -4.101), lack of land and lack of savings. This brings attention to the influence of economic security or lower vulnerability as an essential factor for the respondent to consider when migrating to another area. Surprisingly, the reception of remittances was not correlated with migration considerations. Interestingly, regarding the level of asset control in the household, the ones perceiving a 'moderate' and then 'little' control, the non-migration consideration was much higher (84% and 79%, respectively) than migration. This illustrates the need to attend to the dimension of agency and power relations as they do not necessarily shift when women start working outside their households. Collaborating in women's profit sharing was one of the factors correlated with a migration aspiration (p-value<0.05), which might be linked to the economic benefits of the grassroots-level women's groups emerging distinct from Shomiti1 or NGO structure, as observed in the field and during the interviews. Likewise, higher dependency on the forest (p-value<0.05), represented by the indicators of forest resources collection, collecting during the ban season, and agreeing with this ban (despite the hardships), appeared to be correlated with migration aspiration. Women collecting forest resources were 4.9 more likely to consider migration. One woman expressed her concern about this dependency: "I wanted to go [to the Sundarbans] because the baby couldn't eat. [My] husband could not go. My husband is ill. My husband has become weak. [If the Sundarbans would be closed completely] yes, if there is no other way, I will leave”. This result may be linked to the barriers and restrictions the Government implemented, pointing towards a more vulnerable future as forest income diminishes, a correlation previously addressed in the economic capital. The tendency to consider migration despite endorsing conservation measures could indicate that while supportive, respondents still struggle to meet their livelihood needs without relying on forest resources.

[1] Supporting materials and complete tables from the results section (i.e. detailed correlations between livelihood capitals and non-migration, all the variable combinations performed for the Logistic Regression Model) are available upon reasonable request by contacting the corresponding author at marta.martinezfabiani@outlook.es

Table 4: Logistic Regression Model

Hypothesis (H0)	Variables	Monthly Income	Resource collection from the forest	Control of assest			Women in family				Religion	
	Level	*Bangladeshi taka (BDT)*	Yes	High	Little	Moderate	No	2	3	4 or more	Islam	Other
1*	B	1.61E-04	1.598	-1.30	-2.612	-2.294	-19.98	1.41	2.27	3.27	2.05	-15.73
2*	Sig.	0.0864	0.008 **	0.46	0.079	0.114	0.99	0.29	0.10	0.056	0.001 **	0.99
3*	Exp (B)	1.000	4.943	0.27	0.073	0.101	0.00	4.11	9.75	26.25	7.791	0.00
Note reference levels:												
The model's intercept, corresponding to Women in the family = 1, control of assets = Complete, religion = Hindu, monthly income of the household = 0 and resource collection from the forest = No												
Significance	Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1											
Dependent variable:	Migration consideration (Yes/No											

Hypothesis from table 5

***1**. Changes in monthly income do not have a significant impact on the odds of migration when accounting for the effects of resource collection, assets control and the control variables

***2**. Changes in resource collection do not have a significant impact on the odds of migration when accounting for the effects of monthly income, assets control and control variables.

***3**. Changes in assets control do not have a significant impact on the odds of migration when accounting for the effects of monthly income, resource collection and control variables.

Several combinations for the binary logistic regression model were built to understand how the interaction between women and SMF-dependent livelihoods shapes their non-migration aspirations. Table 5 displays the model with all factors.

After assessing multicollinearity, the selected explanatory variables that aim to predict the (non)migration aspirations were the *mean monthly income of the household (*socioeconomic status of the women's family), the *collection of resources from the forest* (yes/no) (access of the women to the forest resources and their underlying forest dependency), and the *level of asset control within the household* (representing the decision-making power within the household between the members). The control variables following an intersectional lens were the *religion* of the respondent and the *gender composition of the household* (number of women).

Monthly income showed statistical significance in some models, indicating that this effect is unlikely to be due to random chance. Hence, it shows evidence of an association between monthly household income and the log odds of considering migration. *Forest resource collection* was significant in all the models regardless of considering other predictors. There was a high correlation between access to the forest and willingness to migrate, with women collecting being 4.9 more likely to consider migration, demonstrating the relevance of forest dependency in (non)migration decisions. The relationship between the number of women in the household and the migration consideration seemed to be influenced by the resource collection from the forest since the effect of women in the household significantly changed when forest resource collection was added. Although there was no significant correlation between the two components, when looking at the migration aspiration, there seemed to be more women going to the forest when the number of women in the household increased. This relationship could be attributed to the low number of income generation members as women generally stay home, resulting in some needing

to go out to the forest. Regarding the *level of control of assets*, women with 'little' control compared to those with 'complete' control are more likely to consider non-migration in one of the model combinations. The lower level of control of assets and the non-migration consideration might be associated with a low level of general decision-making resulting from household power relations among men and women. Resource collection and Islam religion appeared to be the key predictors explaining the odds of considering migration as they have a generally high association in all the models. There is evidence in the model that individuals identifying with Islam, as opposed to Hinduism (the reference level), are associated with a likelihood in the odds of considering migration. For Hindus, the willingness to stay may be influenced by community harmony due to their significant presence and closeness to India. In contrast, existing religious and social networks for Muslims may be easier to find elsewhere due to their majority nationwide. Nevertheless, it is still crucial to consider the variables mentioned earlier. These results highlight the essential effect of addressing this research from an intersectional perspective.

Discussion

Women’s agency to stay and resource dependency

The empirical study showcased how women in the sample had increased their resource collection in the last decade, regardless of increased protection measures in the forest and environmental awareness programs. Likewise, there seemed to be a common misconception or oversight among key social actors regarding the shift in women's livelihood activities towards more extract-intensive ones and the gendered dynamics of resource extraction. On the other hand, the actors were diverse in their interest in the functioning of the Sundarbans SES. The study found an apparent mismatch among the strategies, interests, and actions, which failed to provide a resilient and adaptive ground for the communities to develop their livelihoods to a certain extent. For instance, the resource users manifested how the restrictions were taken unilaterally by the BFD without the stakeholders' participation. Besides, it was found a high predominance of environmental awareness programs mainly directed at women, following the current development agenda on gender and climate change, portraying them simultaneously as victims and saviours -caregivers of the environment- implying a new burden upon them. In this study, women expressing a non-migration aspiration tended to have lower monthly income, less income from the forest, and a lack of land and savings. Interestingly, women's forest resource collection was closely tied to migration aspiration, emphasising the importance of this activity and showcasing the impacts of forest degradation on women’s livelihood. However, implications warrant careful interpretation due to the interplay of gender division of labour in resource utilisation and collection with women's identities. Collection patterns are largely tied to traditional reproductive roles like subsistence activities

(Torre-Castro et al. (2017). Similarly, despite the conventional understanding of the role of migrants' remittances in the immobile population, no correlation was found between remittances and migration consideration. The results of the current study demonstrated the women's different experiences regarding their use of resources, decision-making power, livelihood opportunities, relationship with other social actors, and ultimately their (non)migration considerations. One somewhat unexpected outcome is the correlation between the gender composition of households and the likelihood of migration, particularly driven by women's involvement in forest resource collection. The regression model findings showed the correlation between asset control and migration aspiration, revealing the intricate interplay of these variables in non-migration, especially when examined alongside other factors. A lower level of asset control was linked to a higher likelihood of staying put.

Reflection to the state-of-the-art

The analytical framework delved into how the livelihood diversification process carried out and experienced by women plays a role in challenging the gender system and patriarchal norms (e.g. Lawless et al., 2019; Smith, 2014; Stacey et al., 2018). These norms and rules are being slowly re-negotiated through interaction with external actors like NGOs in a context of adaptation (Khalil & Jacobs, 2021; Khalil et al., 2020). This study offered insights on the need to further delve into the intersection of the restriction's effects and environmental awareness, the use of natural resources, and the livelihood adaptive capacity, especially regarding women, due to their differentiated relationship with nature as seen by their high conservation attitudes.

Addressing this research with insights from FPE through intersectionality allowed the recognition of how women's agency differs at the individual household and community levels when addressed through livelihood capitals and strategies, intersecting with other factors like education level, religion, or poverty level (Lawless et al., 2019). This research went beyond the application of the commonly used aspiration-capabilities framework in the non-migration realm (Carling & Schewel, 2017), as it would not have adequately captured how power relations among household and community members influence women's decision-making and how changes in these dynamics could impact voluntariness over time. As described by Boudet et al. (2013), there is a distinction between the available set of livelihood opportunities to engage with and the capacity women have to exercise choice between those options (Lawless et al., 2019). It is important to attend to how women develop new livelihood strategies, engage in organisations, and act as the breadwinners while sustaining traditional gender roles related to unwaged domestic and reproductive work (Mies, 1989), and unpaid activities like resource processing (Wan et al., 2011). Some findings aligned with previous research on non-migration and livelihood capitals; however, most of these studies do not focus

solely on women. Consequently, some results seemed contradictory, like the lack of correlation with remittances (e.g. Aminuddin et al., 2018; Hadi, 2001; Oyebamiji & Asuelime, 2018), highlighting the nuanced nature of women's livelihoods and the decision-making process regarding (non)migration. It became evident how these processes are influenced by factors beyond the livelihood capitals and the differentiated experiences of women under climate-related stresses, aligning with insights from Kaijser and Kronsell (2014). Unlike previous research, this study explored the influence of power in unequal resource access and control and its impact on migration aspiration, contributing to understanding social-ecological relationships in the context of non-migration and gender in resource-dependent communities (Furlong et al., 2022).

Conclusion

This research explored the relationship between women and the Sundarbans and how it influences their livelihoods and non-migration aspirations. The study was grounded in the theoretical social-ecological systems framework and employed the livelihood framework for analysis. Additionally, it applied an intersectional lens to investigate the influence of power dynamics between women and men and within the community regarding their migration aspirations. The study was not specifically designed to evaluate the voluntariness of non-migration consideration, nor did it explore differences between female-headed households, left-behind women, or differences between men and women. Likewise, implementing other qualitative methods like focus group discussions could have provided a deeper understanding of gender dynamics.

Notwithstanding these main limitations, the study has set the groundwork for future research in non-migration and gender, raising awareness to develop effective interventions and policies that empower women and foster resilience in the face of environmental changes. Recommendations are made to initiate Sundarbans product valuation projects, strengthening the linkage between women processing these resources and the market. Collaboration among stakeholders is vital, such as between NGO training programs and the ecotourism projects that could benefit from local product valuation. Future research should explore how gender composition influences women's livelihood development as they move beyond traditional roles. This discussion highlights the need to target households with more women, addressing their migration tendencies and the potential vulnerability leading to early marriages and educational deprivation, as noted by White (2016). Another area for future work involves integrating the concept of (in)voluntariness into understanding women's non-migration status. Furthermore, this research has raised questions that require further investigation regarding the influence of certain livelihood capitals on women's non-migration considerations. Given the increasing salinity and its recognition as one of the main environmental stressors

disrupting coastal livelihoods, especially for women, further work should investigate the effect of water-related hazards on women's migration aspirations. It would also be essential to explore ways to enhance non-migrants' livelihoods despite the increasing challenges of a lack of drinking water sources.

Reflections

This research has offered new insights into the intersection of gender and environmental challenges in mangrove-dependent communities. Applying a Feminist Political Ecology lens allowed me to explore this vulnerable community from a more critical perspective. As women are seen to be more vulnerable due to the existing societal and cultural norms, this research will focus on and amplify the needs and realities of those women staying put and having to adapt to building resilient livelihoods in these highly exposed areas. In conducting this research, I had to self-reflect on my positionality as a Western European woman and constantly addressed and reflected upon to minimise their influence on the fieldwork dynamics and interpretation of findings. My background initially coloured my perceptions, particularly concerning gender roles, but immersing myself in the local community helped me shed biases and gain deeper insights. I also encountered challenges, including participants assuming my role due to frequent NGO visits. Overall, this experience emphasized the significance of acknowledging cultural nuances and being aware of my own biases in fieldwork. My research underscores the importance of implementing tailored, culturally sensitive approaches to addressing the climate crisis, especially in ensuring that women's voices, often marginalized in these critical discussions, are heard.

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From Advocacy to Action: Understanding the Role of NGO's in Promoting Safe Abortion Services in Northern Ghana

Céline Londoño Hermann

Abstract

Despite Ghana's efforts to decrease maternal mortality rates, unsafe abortions persist as one of its leading causes due to underfunding of the National Health Insurance Scheme or cultural norms and religious beliefs that are strongly stigmatizing. To tackle these issues, NGOs are playing an increasingly crucial role in improving the sexual lives of people across the northern regions. However, they face structural and institutional constraints that allow only slow progress. This paper aims to contribute to the knowledge of how NGOs in north of Ghana work towards promoting safe abortion services, employing the structure and agency approach and the reproductive justice framework. NGOs have positively contributed to advancing SRH issues and safe abortions in the north by educating people and raising awareness, influencing policies, and building the capacity of health staff and community workers. However, progress is slow. On the one hand, this is due to the underfinancing of the health sector that limits health providers to perform safe abortions and to the exclusion of safe abortion from the NHIS. Additionally, deeply rooted religious and cultural beliefs perpetuate gender inequalities and are challenging to shift.

Key words: NGOs • Abortion • Sexual and reproductive health • Mixed methods • Structure and agency

Introduction

In 2020, almost 800 women died globally every day due to pregnancy and childbirth complications, equating to a maternal death[1] almost every two minutes (World Health Organization (WHO) 2024). Around 70% of maternal deaths occurred in Sub-Saharan Africa, followed by Southern Asia with 16%. Most maternal deaths are preventable, often arising from complications that occur when carrying out unsafe abortions, such as severe bleeding and infections (WHO 2024). An abortion is unsafe when the person performing it is untrained

or, if the procedure takes place in an unapproved/unsanitary facility, or both (WHO 1993).

In Ghana, unsafe abortion remains a leading cause of maternal mortality (MM) (Der et al. 2019; Aniteye & Mayhew 2019), despite the country's commitment to international agreements like the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), the UN Security Council Resolution on Women, Peace and Security (WPS) and the Maputo Protocol (WHO 2021; GHANAP 2 2020; Bankole et al. 2020). Ghana's National Reproductive Service Policy guarantees comprehensive abortion care (CAC), making it part of integrated reproductive health services (GHS 2014). Abortions are allowed up to 28 weeks[2] of gestation, in cases of rape, incest, foetal abnormality, disease, or threats to the woman's physical or mental health. For incest or rape, "a client's word is sufficient", "no psychiatric assessment is required" for mental health-related abortions, and "parental (...) or spousal consent is encouraged but not mandatory" (GHS 2014, p. 14).

Despite Ghana's "relatively liberal" abortion law (Aniteye & Mayhew 2019, p. 1; Polis et al. 2020, p. 1), family planning needs remain unmet (Akazili et al. 2020). In 2017, nearly half of pregnancies were unintended, with about half ending in abortion (Polis et al. 2020). Women in northern regions are least likely to seek abortions (Polis et al. 2020), yet these areas experience high MM rates (Jakperik et al. 2023). This suggests that the low number of abortions may be due to women carrying pregnancies to term, or that unsafe abortions contribute to MM, but are underreported in official statistics.

State of Research

A study in Ghana's Ashanti (middle) Region found diverse reasons for unsafe abortions, including lack of knowledge about legal options and financial barriers (Atakro et al. 2019). The WHO (2023) notes that, poor women in rural areas are disproportionately disadvantaged, with only 68% of births in low-income countries attended by professionals[3]. In Ghana, healthcare provision is "patchy" (Aniteye & Mayhew 2019, p. 2), especially in rural areas where widespread poverty and long distances to clinics make basic care inaccessible (GSS 2021; GHS, n.d.). Additionally, underfunding of the public sector (partly funded by international aid and NGOs) translates into less than 20% of government facilities meeting quality standards (Owolabi et al. 2021), driving rural women toward unsafe abortion methods (Klu et al. 2020).

Cultural and religious norms also play a significant role. When community values are deeply rooted in a "conservative cultural belief system" (Klu et al. 2020, p. 10) and stem from the religious belief that abortion is unacceptable, they translate into negative attitudes, perpetuating unequal gender roles (Nuuri-Teg et al. 2023; Chavkin et al. 2018). "Religiously motivated opposition"

(Chavkin et al. 2018 p. 28) stigmatises not only women but also healthcare professionals, many of whom conscientiously object[4] to performing abortions (Aborigo et al. 2020; Naylor & O'Sullivan 2005). Indeed, 50% of surveyed health providers were not conducting abortions due to conscientious objection (Awonoor-Williams et al. 2018), perpetuating abortion stigma (Aniteye et al. 2016; Nuuri-Teg et al. 2023).

Theoretical Framework

Structure and Agency

This study applies the structure and agency approach, recognizing the dynamic between societal structures and individual agency (Giddens 1984, cited in Van der Ploeg 2006). Agency refers to individuals' freedom to make choices within a structure, while structure is a "system of rules and resources (...) [shaping] the extent to which those choices and actions are possible" (p. 267). It consists of formal rules (e.g., policies, laws, the healthcare, and education system) and informal aspects like societal norms influenced by religion and culture (Randell 2016). These two elements affect each other: structures shape agency but can also be reformed through individual actions (Giddens 1984). In Ghana, societal norms and religious beliefs create barriers, leading women to unsafe abortions to avoid stigma. However, NGOs in northern Ghana promote safe abortions, advocate for policy changes, and influence the attitudes of women, men, and healthcare providers, fostering a shift in values. By educating women and girls on sexual and reproductive health and rights (SRHR), NGOs not only exercise their agency but also empower women to take control of their own.

Reproductive Justice

The Reproductive Justice (RJ) framework complements the structure-agency approach by advocating for the human right to "have a child," "not to have a child," and to "parent children in safe environments" (Ross 2017, p. 290)[5]. RJ recognizes the intersection of race, class, and gender in reproductive politics (Ross 2017), which is crucial in post-colonial contexts like Ghana – where, abortion was rare but accepted until being criminalised under British colonial law (Aniteye & Mayhew 2019), which imposed "male gender privilege and power" (Braam & Hessini 2004, p. 45). Despite the liberalization of abortion laws in the 1980s, gender inequalities persist, hindering women's reproductive autonomy (Braam & Hessini 2004). This study uses RJ to illustrate how patriarchal structures limit women's agency, stressing the need for women to "reclaim their power" (Braam & Hessini 2004, p. 49).

Relevance of the problem, knowledge gap and research aim

Access to safe abortion care is a reproductive right essential for ensuring women's health, autonomy, and dignity (Thomson & Pierson 2018; Naylor & O'Sullivan 2005). NGOs often play a key role in providing legal abortion services,

complementing healthcare facilities, and improving access (Sundaram et al. 2014; Gambir & Jacobi 2020; Polis et al. 2020; Owolabi et al. 2021). However, research on this topic in Ghana is primarily focused on the central and coastal regions, such as the Reducing Maternal Mortality and Morbidity (R3M) program, while little is known about abortion access in the rural north. This study aims to explore how NGOs contribute to improving access to comprehensive abortion care (CAC) for women in northern Ghana and assess their broader impacts. This will be carried out by systematically answering three sub-questions to answer the main research questions finally:

What is the role of NGOs in promoting safe abortion services in northern Ghana?

Sub-questions:

1. How does the social, political, and healthcare structure around abortion work in Ghana?
2. How do the NGOs in the north operate embedded in the structure?
3. How have NGOs impacted the communities they work in?

Methodology

This study employs an explanatory sequential mixed methods approach to explore quantitative results and recognise societal. trends (Hennink et al. 2020). First, quantitative data from the 2007 and 2017 Ghana Maternal Health Surveys (GMHS) were analysed to assess the current state of women's reproductive health and access to abortion services (GMHS 2007; GMHS 2017). The GMHS is the only nationally representative health survey containing an extensive section on abortion, involving women aged 15-49, reporting on the five years preceding the survey (GMHS 2007; GMHS 2017). Access to this data was granted by the Ghana Statistical Service, offering insights into women's choices and access to abortion services, answering the first research question (RQ).

Eight in-depth interviews were conducted in Tamale Metropolitan district (Northern Region) with healthcare providers, including midwives, health officers, and NGO staff for qualitative data. One focus group was held with midwives in Mion District. The interviews lasted 40-60 minutes, using a semi-structured guide. Participants were aged 24-49. Non-probability sampling, including purposive and snowball sampling, was employed. NGOs were selected based on their relevance to the research question (Bryman 2016), with three organizations participating: Planned Parenthood Association of Ghana (PPAG), Norsaac, and Oxfam. Snowball sampling helped identify participants willing to discuss this sensitive topic (Bryman 2016). A university contact also helped connect with health professionals.

Results & Discussion

This section presents the quantitative and qualitative results and the discussion in an integrated/mixed manner, systematically addressing the previously mentioned three (3) RQ.

The structure around abortion: a 'formal' constraining structure

Table 1 provides an overview of GMHS 2007 and 2017 data, showing the percentage of women who *ever had an abortion*, *heard of abortion, could get an abortion/could decide on your own to get an abortion* and *know where to get an abortion* by *region of residence* (Northern vs. Middle & Coastal Zone). The data reveal stark regional differences. In 2007, only 1.4% of women in the north reported *ever* having *had an abortion,* compared to 17.7% elsewhere, with similar disparity in 2017 (3.9% compared to 21.4% respectively). The number of women who *ever heard of abortion* increased in the north (53.5% to 81.2%), while slightly decreasing in other regions (80% to 75.4%). The percentage of women who answered "no" increased (from 2.2% to 3.1%), while in the regions of the north, this figure has more than halved (from 44.9% to 14.9%). More northern women reported an inability to *decide to get an abortion* (51.6% to 64.4%), while this figure dropped elsewhere (69.2% to 54.7%). The percentage of northern women knowing *where to get an abortion* improved by 2017 (39.5% to 46.4%). Despite progress, participants confirm persisting knowledge gaps in the area:

"Sometimes they don't even know that there is a law that exists that governs those things, (...) and sometimes they don't even know that there is a way to have abortion safely" (NGO worker, P1).

"Some of them don't know that it's done at a hospital" (Midwife, P12).

The surveys show that most women believe abortion is illegal (Table 1). This belief decreased in the middle and coastal zones (from 80.3% to 75.8%) but rose in the north (from 46.8% to 62.4%), along with the share of women who "don't know" (from 6.5% to 11.9%). Low education levels exacerbate this lack of awareness, limiting access to information and resources (Klu et al. 2020; Baruwa et al. 2022). Awusabo-Asare et al. (2017) note that teachers often misinform students, emphasizing abstinence through fear.

Table 1: Percentage distribution of variables, according to year of survey and ecological zone. Own adaptation based on GMHS 2007, 2017.

			Northern Regions (Northern, Upper East, Upper West)		Middle and Coastal Zone	
			2007	2017	2007	2017
Done something to end pregnancy/ Ever had abortion			%	%	%	%
	Yes		1,4	3,9	17,7	21,4
	No		98,6	96,1	82,3	78,6
Ever heard of abortion						
	Yes		53,5	81,2	80	75,4
	No		44,9	14,9	2,2	3,1
Missing			0,2	-	0	-
	System		1,4	3,9	17,7	21,4
Could get herself an abortion/ Could decide on your own to get an abortion						
Valid	Yes		1,3	16,1	9,5	19,9
	No		51,6	64,4	69,2	54,7
	Don't Know		0,3	0,7	1,3	0,9
Missing			0,3	-	0	-
	System		46,5	18,8	20	24,6
Knows where to get an abortion						
Valid	Yes		11,8	46,4	32,1	43,3
	No		39,5	33,2	46	31,1
	Don't Know		2	1,6	1,9	1
Missing			0,3	-	0	-
	System		46,5	18,8	20	24,6
Abortion legal in Ghana						
Valid	Yes		1,6	10,8	4,2	11
	No		46,8	62,4	80,3	75,8
	Don't know		6,5	11,9	13,2	10,1
Missing			-	-	0,1	-
	System		45,1	14,9	2,3	3,1

Still, Table 2 highlights education's positive impact: over 60% of women who had *an* abortion ever attended school. Knowing abortion is legal and having resources is often insufficient without broader understanding of reproductive health, including FP methods to avoid unwanted pregnancies and abortions. Thus, poor knowledge and education limit women's ability to make informed SRH choices:

"They don't even know that it is their reproductive right to do family planning. Or it is even their reproductive right to have the number of babies they want to" (Midwife, P5).

"When it comes to contraceptives, they believe that 'oh, maybe when I have contraceptives, I can't give birth again in the future'. So, people would rather give birth. Whether they can take care of children is another question" (NGO Worker, P1).

Table 2: Crosstabulation of variables with Ever had an abortion, according to year of survey and ecological zone.

	Northern Regions (Northern, Upper East, Upper West)				Middle and Coastal Zone			
	2007		2017		2007		2017	
Ever attended school * Ever had an abortion	N	%	N	%	N	%	N	%
Ever attended school	22	88	251	68,1	1364	89,6	2992	89,8
Never attended school	3	12	118	31,9	159	10,4	341	10,2
Urban/Rural * Ever had an abortion								
Urban	15	60	179	48,5	975	64	2272	68,1
Rural	10	40	190	51,5	548	35,9	1061	31,8

The urban/rural disparity across Ghana is key when analysing abortion statistics since women in "rural areas are more at a disadvantage" (Nuuri-Teg et al. 2023, p. 558): in the mostly rural northern part of the country, official abortion figures have increased, but remain low compared to the middle and coastal zone (see Table 2). Participants attribute this to the low distribution of healthcare facilities and high costs, since the National Health Insurance Scheme (NHIS) does not cover CAC procedures:

"Especially our district, Mion District (…) we don't have a hospital. So, you know, our entire population is about (…) 106,000 plus, but we don't have a hospital" (HIO, P10).

"Because of the costs involved, (…) most of them are young people (…) and so, having to pay for some of these services is a challenge, and our National Health Insurance is not also covering those services" (NGO worker, P4).

But healthcare providers also face constrains. Due to underfunding, public facilities experience shortages of medical supplies for CAC services and midwives must bear the costs. Sometimes, they charge accordingly, but oftentimes, women cannot afford the service:

"The MVA[6] kit, I bought it. When Marie Stopes came and trained us, they gave us some, but after that… We have to buy it now. And the kits… it used to be 100 Cedis, 50 Cedis, but now it's 200, 300" (Midwife, P12).

"As we speak right now, the prices of the kits and other commodities (…) have doubled or tripled. So, (…) if (…) the government doesn't provide it (…), that means I've used my money to get the things that I need for the abortion services. So, you have to charge according to what you think would be able to cover up your cost and then, if there is a compensation for yourself (…). We did a client satisfaction survey, and the [health providers were charging] from 200 Cedis to 1000 Cedis" (NGO Worker, P1).

"Even when I meet someone without money, I still do it for [them]" (Midwife, P12).

"When I told her 'Go and get some money', she went and (…) if I had given her the drug, it wouldn't happen… She came back bleeding. (…) I don't know what she took, but she messed up and (…) they rushed her to the hospital" (Midwife, P12).

The structure around abortion: an 'informal' constraining structure
Interviewees highlight socio-cultural norms and religious beliefs perpetuate patriarchal structures, limiting women's decision-making power, especially in SRH, discouraging open discussions and access to services:

"I think women (…) have been relegated to… [gestures one hand being positioned below the other]. That is the reality. We know, even in the world, women are not being treated fairly, but when you come to our part of the world, women have been relegated to (…) [being] in the kitchen (…) to do household chores and have babies" (Midwife, P5).

"I know the community that we are all coming from, women are not allowed to talk, especially when it comes to their reproductive health. They will tag you as a bad person (…) when you open to talk about your reproductive health. Especially as a female." (NGO Worker, P2).

"Women find it difficult to talk in the presence of the men because of our patriarchal system. When the men are talking, women are not supposed to talk." (NGO Worker, P4).

Table 3: Crosstabulation of variables with region of residence, according to year of survey. Own adaptation based on GMHS 2007, 2017.

Region of residence * Religion: Muslim/Islam	2007	2017
Western	6%	9%
Central	9%	7%
Greater Accra	11%	11%
Volta	5%	6%
Eastern	4%	5%
Ashanti	11%	15%
Brong Ahafo	19%	16%
Northern	55%	60%
Upper East	40%	26%
Upper West	41%	46%
Region of Residence * Done something to end your pregnancy		
Western	14%	21%
Central	10%	19%
Greater Accra	21%	26%
Volta	11%	18%
Eastern	19%	20%
Ashanti	22%	24%
Brong Ahafo	16%	20%
Northern	3%	3%
Upper East	0%	4%
Upper West	0%	5%

Braam & Hessini (2004) link unequal gender roles to religious ideology, with Ghanaians deeply influenced by religion from a young age (Aniteye, 2012). While Christianity is dominant in the middle and coastal zone, Table 3 shows most Muslim women living in the north, where few abortions are reported.

Participants highlight how Islam and Catholicism shape negative attitudes toward abortion:

> *"And the other one too is religion (...) both Christianity and Islam (...), it is forbidden for them. They conclude that if you terminate a pregnancy, you are killing somebody" (HIO, P10).*
>
> *"Some religions frown on it [abortion], even our own religion. Those who haven't learnt it very well will tell you that 'No, it's a sin in Islam!' but that is not the reality" (Midwife, P5).*
>
> *"[Our colleagues] were calling us murderers" (Midwife, P7).*

In northern Ghana, formal and informal structures lead to misconceptions about family planning, poor knowledge of safe abortions, and limited access to health services. Desperate to avoid stigma, women often turn to unsafe, hidden abortion methods. GMHS (2007, 2017) data and interviews confirm women's reliance on traditional methods (e.g., taking medicine, drinking herbal concoctions), pharmacies for abortion drugs, and eventual medical assistance when these methods fail.

"Sometimes they are rushed in bleeding. (...) In most cases, products are always retained. Because they take their (...) concoctions and other things, they are bleeding uncontrollably so, when we do an ultrasound scan, and there are still products, we do all the necessary counseling, (...) seek their informed consent and then complete [the abortion] surgically" (Midwife, P5).

"Sometimes the pregnancy might be at an early age, but you'll have complications. So, if you use medication, you would increase the complications. (...) The pharmacies (...) don't do those counseling and check-ups before they give [it to] you. And when you buy the medicine from the pharmacist, you can even come later, and [they] will [say] that they've never seen you. (...) Some of them are fake drugs and it will not work. So, they'll still come back with retained products. That's why we still have a lot to do regarding the information about abortions" (NGO Worker, P9).

The results underline that women in northern rural Ghana face structural disadvantages, both formal and informal. Education and residence significantly impact their reproductive choices. Merely knowing about abortion's legality or having resources is often insufficient, as social norms and religious beliefs push many towards unsafe, discrete abortions (Coast et al., 2018). As participants describe, religion and traditional values create a culture of silence, limiting women's ability to discuss SRH issues or exercise agency without fear of judgment. This urges the "social norms, cultural beliefs and misconceptions inhibiting women's access to safe abortion services [to] be relaxed" (Klu et al. 2020, p.11). Ghana's underfunded health sector further limits providers from performing CAC. An unexpected finding is the shortage of medical supplies and

the costs falling on midwives when patients can't pay, possibly deterring future midwives from training.

Additionally, excluding CAC from the NHIS implies denying women their fundamental right, forcing them into unsafe options or unwanted pregnancies. The government's efforts to safeguard women's rights remain insufficient. Akazili et al. (2020) criticize the misallocation of resources, with most health funding covering salaries and little left for care improvements. Additionally, the absence of a national SRHR plan leaves donors prioritizing projects over essential services. Thomson & Pierson (2018) argue that failing to include abortion rights in the UN's Women, Peace, and Security (WPS) agenda limits women's agency. Empowering NGOs to address abortion rights within WPS could help close this gap and advance gender equality, as "ignoring reproductive rights (...) robs women of an important aspect of their agency" (p. 360).

How NGOs work embedded in the structure

Interviews revealed three (3) important pillars of NGOs' work on SRHR issues: awareness and education, policy influencing, and capacity building and training. Despite different approaches, their common goal is to address the knowledge gap.

Awareness and Education

NGOs recognize the lack of comprehensive SRH education and actively engage young and older generations together, aiming to inspire parents to discuss SRH topics with their children and encourage the latter to ask questions. These initiatives range from community outreaches, sensitisations and workshops to dialogues with religious leaders and the use of social media:

"We let them understand that there is something called safe abortion, '(...) this is how it is carried out, and this is what the law says about it. So, it's not always the case that abortions are unsafe. [We] also let them appreciate that they shouldn't think that (...) having an abortion is a crime per the Ghana law (...). 'When you get pregnant and it is affecting your health in any way, whether psychologically or physically, you have every right to opt for safe abortion" (NGO Worker, P3).

"[NGOs] are taking the role of parents in society because some parents are not able to sit their (...) children down to talk to them about 'this thing you are supposed to do, this thing you are not supposed to do'" (NGO Worker, P2).

"We (...) [talk] about gender roles, stereotypes (...) to let them appreciate what it means to be a male and (...) a female. (...) Then, when you have a challenge (...), we (...) answer the questions for you." (NGO Worker, P9).

“Through digital channels, WhatsApp, Twitter, Facebook, (...) we provide information and education on what services are available, how they can access them” (NGO Worker, P1).

Policy Influencing and Advocacy

NGO’s actively make use of their economic, social, cultural and political resources to advocate for and influence policy on SRHR. One example is their involvement in the removal of the luxury tax on sanitary materials, addressing the broader spectrum of RH issues. As one participant states:

“We were in Accra at the Parliament House (...) and at the end of the budget reading, they scraped off taxes on all locally produced sanitary pads, and (...) on all raw materials that are imported to produce [them]. We are still pushing for the removal of taxes to all the imported sanitary products” (NGO Worker, P3).

Capacity Building and Training

On account of the limitations of the healthcare system, NGOs work closely with private hospitals and the Ghana Health Service to build the capacity of service providers: they conduct trainings on CAC and equip them with necessary tools and knowledge to perform the services in their facilities. This can include a 'values clarification' workshops with healthcare providers, but can also involve community/religious leaders, where the individual “critically assesses his/her values, reflects on them, rationalizes and evaluates those values to help change his/her attitudes about something” (Aniteye, 2012, p. 15). These trainings particularly impact rural areas, where specialized medical personnel are scarce.

“It used to be a challenge. But since NGOs came into play (...), there was a value clarification workshop (...), where all the community leaders, (...) religious leaders, stakeholders (...) were invited (...). After that workshop, there has been a massive change. Even our own colleagues (...) used to stigmatize us midwifes (...) rendering CAC services. But after the workshops (...) they are referring people to us, even in the communities they refer women or couples to us for CAC services.” (Midwife, P5).

“There was a point made that as a mentor, you need to be updated (...). Before you know, [the young people] have a piece of information you don't even have. So, if (...) they don't train us or build our capacity, we'll be backdated whilst the young people are, should I say, current.” (NGO Worker, P9).

“They [Ghana Health Service] are also trying to incorporate [CAC services] into our main routine services. Yes, but... that’s why PPAG will come and help, because (...) government initiatives, sometimes it’s very slow.” (HIO, P10).

“We negotiate with them [Ghana Health Service], and they [facilitate] us their service providers. We build their capacity and increase their competence so that they can provide those services at their facilities” (NGO Worker, P1).

Challenges

However, formal and informal constrains present challenges for NGOs: issues of confidentiality in public facilities, the persistence of socio-cultural barriers, lack of funding that puts an end to projects and partnerships, and the slow pace of policy implementation:

“It's quite challenging, especially concerning [SRHR] issues. (...) [They] have been living with that norm for all through their lifetime and you come around to tell them that (...) they should move and change. Obviously, there will be some resistance, right? (...) And that is why we cannot move faster than we anticipate (...). But (...) it’s a gradual process. When they get to understand, so that they start accepting – not accepting to change the social norm but accepting it into their communities to initiate the education process, which will (...) change the narrative. And changing people's norms is not an easy task.” (NGO Worker, P4).

“Usually, it's not that the adults (...) will not permit young people to have discussions with them, but most of it is seen as a form of disrespect; for young people to freely discuss certain issues with adults” (NGO Worker, P3).

“There are some providers or some facilities when you go and they provide it [abortion] for you; anywhere they'll see you, they’ll point at you. ‘Oh, you don't know Afia... Afia came and did an abortion’” (NGO Worker, P9).

“As much as we are trying to sensitize communities... let’s say we pick a district that has probably 200 communities, then our funding can only allow us for three or four communities. That means (...) we cannot do a lot of education. So, it means that the larger communities that are left still do not [understand] the issues” (NGO Worker, P1).

“If you cannot afford the service, the project will assess your situation to confirm that genuinely you can't afford it [and] cover the cost. But now that the project is over (...) you need to pay for the service” (NGO Worker, P3).

“I think sometimes we are moving faster than people can absorb. (...) Yes, we are advancing digital services in Ghana, but so many people have no access to internet, (...) they have no access to education to read and understand. So why don't we get proper education before we get there?” (NGO Worker, P1).

Despite structural constraints, NGOs in northern Ghana have progressed in advancing "reproductive dignity" (Ross 2017, p. 291). Through government partnerships and funding, they bridge geographical gaps, educate remote communities on SRH, and train staff in providing CAC, empowering women and youth. NGOs focus on younger generations, as many seeking abortions are young and prioritizing education (Bankole et al. 2020). However, they face challenges like limited funding and conservative religious or cultural norms. Strengthening government-NGO partnerships for increased financial support and training,

especially in values clarification and attitude transformation (VCAT), is crucial. This aligns with Nuuri-Teg et al. (2023), who recommend expanding rural services. Enhanced partnerships could also normalize CAC through "medicalisation," reducing religious condemnation (Aniteye 2012, p. 249), while promoting family planning and liberalizing cultural norms (Klu et al. 2020). As participants emphasize, shifting these deep-rooted beliefs requires patience, sensitivity, and ongoing engagement.

The impact of NGOs on communities

Despite limitations, interviews indicate that NGO interventions have positively impacted communities by promoting dialogue on SRH, raising awareness, and encouraging young people to seek information and services. Capacity-building initiatives have improved healthcare delivery, with effects sometimes lasting beyond the project's duration.

"One of the impacts has been acceptance of abortion issues by the traditional authority, where we are able to have them participate in engagements and discussions on safe abortion issues" (NGO Worker, P3).

"This year, [the numbers are] increasing. (...) It means people now know about us and they know where to ask their questions about safe abortion. That's (...) good news for us, you understand? And if you look [at] how people get to know about us, is first recommendations" (NGO Worker, P9).

"It used to be very difficult for you to sit and hear people talk about contraceptives, abortion, sex. (...) But now (...) young people feel free to say 'Oh, I want to go in and do family planning'. I have friends who tell me 'Oh, I went to take this contraceptive. (...) I want to go and change it'. Or they text or call 'Which contraceptive will you recommend?' Now, the [way] young people accept issues of sexual and reproductive health has changed. It has (...) improved. And even the older generation, (...) they just accept that it is a good thing." (NGO Worker, P3).

"Day in day out, even though the project ended about three years ago. (...) They still get calls (...) where people say 'Oh, I want to have a safe abortion service, and I got your number from someone in my community who said if I reach out to you, you can help.'" (NGO Worker, P3).

This study shows the positive impact of NGO activities in rural northern Ghana, where participants reported an increase in women seeking comprehensive abortion care (CAC) and more open discussions about sexual and reproductive health (SRH). Many women, especially younger ones, appear to exercise more agency, "reclaiming their power" (Braam & Hessini 2004, p. 49), suggesting a reduction of stigma. However, these positive findings contrast with Yakong et al.'s (2010) study in two rural northern communities, where 27 women reported

negative healthcare experiences, including intimidation, limited options, and lack of privacy. Women often avoided seeking care “regardless of the seriousness of the condition” (p. 2435). Privacy concerns were echoed by midwives and NGO workers in this study. Still, judgmental attitudes from providers were mentioned only by NGO workers – highlighting the need for more women’s voices to understand the situation fully. Unfortunately, affected women were not included in this research due to the lack of approval from the Institutional Review Board.

While NGOs play a vital role in advancing SRH and CAC, many academics criticize NGOs’ dependence on international aid and this reliance requires critical reflection. Moyo (2009) argues that foreign aid has worsened poverty in Africa by fostering government reliance on external support instead of providing essential services. Sakue-Collins (2021) highlights the power imbalance, where NGOs must implement donor-driven policies, potentially misaligned with local needs, as one participant (P1, p. 12) expressed. Moyo (2009) suggests foreign direct investment, regional integration, and trade as better long-term solutions.

Conclusion

This analysis of NGOs promoting safe abortion services in northern Ghana reveals the significant impact of informal structures on women's lives and the formal structures governing societal norms. Despite efforts to secure women's constitutional rights to SRH and CAC, deeply intertwined systems perpetuate gender inequalities. Underfunding of the health sector and poverty in rural northern Ghana hinder progress toward reproductive justice. Local NGOs and CSOs play a key role in improving access to healthcare, but they lack the funds to reach all those affected. The government’s reliance on foreign aid leaves NGOs handling tasks like education, providing medical supplies, and training healthcare providers—responsibilities that should fall under public governance. While NGOs effectively promote safe abortion services and improve awareness, the root issues extend beyond abortion safety, emphasizing the need for comprehensive education on family planning, SRHR, and universal healthcare access, especially for rural and underserved communities in order to boost the fight for reproductive justice and indeed “leave no one behind” (UN, 2023, p. 4).

Limitations and future directions

This study offers valuable insights into NGOs promoting safe abortion services in northern Ghana but faces limitations. The Ghana Maternal Health Surveys (GMHS) provide quantitative data on abortion knowledge and prevalence but lack qualitative insights into NGO involvement and women's experiences. Ethical constraints limited the study to healthcare providers and NGO workers, excluding the voices in rural communities. However, participants’ close work within these communities offers deep understanding of local challenges.

Future research should explore rural communities' views on NGOs' advocacy for sexual and reproductive health (SRH), including their influence on social lives, and consider the experiences of women with disabilities accessing healthcare and abortion services.

Reflections

Although I have visited Ghana once and completed a 3-month internship in its neighbouring country Togo, adapting to a different surrounding is a process every time. Despite being the country's fastest-growing city, the water crisis, daily power outages and the heat made it a rather hostile environment in my eyes. Stepping out of the house meant stepping out of my comfort zone every time because no matter how well I had gotten used to my surroundings, I always attracted the local's attention as a foreigner. Regardless, every person I met engaged with me in a friendly and curious manner. Every encounter and impression I gathered taught me great life lessons. They also let me discover the longings and aspirations we all share as humans and yet how far apart our realities can be. This study intends to make a small contribution to making patriarchal and indirect structures of violence more visible so that politicians can work conscientiously to effectively protect the (sexual and reproductive) rights of women in the future.

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Changing Food Practices: Exploring the Dynamics of Social Practices for Sustainable Food Innovations in Cotonou's Food System Lab

Mélanie Rechnitzer

Abstract

The current food system fails to ensure food security and nutrition for millions. In Benin, 83% of households cannot afford a nutritious diet, and only 18% are food secure. In response, pathways towards more sustainable food systems, including Living Labs (LLs), are emerging. Yet, little research has examined the impact of the innovation developed within LLs on expected beneficiaries. This study addresses this gap by analyzing beneficiaries' ability to adopt the food innovations promoted by the LL of Healthy Food Africa (HFA) in Abomey-Calavi, Benin. Embedded in the framework of social practice theory (SPT), this study focuses on how changes in social practices—materials, competencies, and meanings—can enable sustainable and healthier food habits at home. Through semi-structured interviews and participant observations, this qualitative study explores: "What elements of social practice need to change to respond to the introduction of an innovation in creating more sustainable food practices at a household level?" The findings provide insights for both academia and development, offering recommendations for innovations tailored to people's capabilities and willingness to embrace change. This research serves as a pilot study for the Incubator project "From Lab to Mouth: Enhancing the capacities of households to adopt innovations from living labs in the food sector across Africa", which is part of the Pathways to Sustainability Incubator grant (2024).

Keywords: Food system labs • Food security and nutrition • Impact assessment • Benin • Food innovations • Social practice theory

Introduction

The current food system is undisputedly flawed, as it has failed to meet the needs of millions in terms of food security and nutrition. It has been criticized for its negative outcomes on the environment and human health, and the deterioration of natural resources (Rockström et al. 2020; World Health Organization, 2020). In 2019, 673 million (8.8%) of the global population were undernourished, and 194.4 million (9.2%) experienced severe food insecurity (World Health Organization 2020). Benin, the subject of this thesis, is particularly affected by these issues, with only 18% of the population being food secure (HealthyFoodAfrica 2020).

At the current rate of resource consumption, exploitation and waste, the food system will not be able to respond the demands of the world's growing population. Consequently, numerous voices have united in proclaiming the necessity to move away from the global food system towards a more just and sustainable one. Many scholars and organizations (Bruce & Bruce 2022; Pereira et al. 2020; Kropp et al. 2021; Schut et al. 2022; Potters et al. 2022) have examined the prominent role of innovations in disrupting the current food system to establish new sustainable pathways and ensure food security and nutrition (FSN). Living labs (LLs) are seen as promising spaces to develop innovations. They are defined as: "user-centred, open innovation ecosystems based on a systematic user co-creation approach, integrating research and innovation processes in real life communities and settings" (Gamache et al. 2020, p.93). This research investigates Food System Labs (FSLs), a type of Living Lab focused on food-related challenges. FSLs provide a space for people to reconnect with the decision-making process around food production and consumption, while also exploring alternatives to the global food system.

Research Gap

While innovations tackling food insecurity and malnutrition are emerging, there remains a significant need to assess their impact on food security (Rohr et al. 2021). Impact assessment ensures that innovations contribute to food security and sustainable food systems. By analyzing the impacts of these innovations, stakeholders can identify both their benefits and drawbacks and adapt future innovations accordingly. Since LLs test innovations in real-life settings, they provide a model for broader implementation, which facilitates the scaling up of successful innovations (Leminen et al. 2012). Therefore, more rigorous impact assessments are needed to ensure that the innovations developed by FSLs truly contribute to sustainable food system transformation and respond to beneficiaries' needs.

Despite the recognized potential of LLs to foster food system transformation, existing studies on the topic focus either on the drivers leading to change or the benefits of participating in LLs. Consequently, a knowledge gap exists in the literature on living labs and innovations, as it fails to investigate how these solutions impact expected beneficiaries and falls short in evaluating whether people have the capabilities to utilize innovations.

Research Objective and Research Question

This research's objective is to understand how social practices can change to enable the adoption of sustainable and healthier food habits in the household. With respect to this objective, the main research question of this thesis is as follows:

"What elements of social practice (material, competencies, meaning) need to change to respond to the introduction of an innovation in creating more sustainable food practices at a household level?"

The main research question is supported by the three following sub-questions:

SQ1: To what degree are participants able to integrate innovative food practices into their daily routines, and what specific changes have they implemented in their food practices?

SQ2: What challenges do participants encounter when attempting to adopt new food practices, and how do these obstacles impact their ability to change?

SQ3: How do participants perceive and value the process of learning and adopting innovative food practices?

Academic and Development Relevance

This thesis aims to contribute to the aforementioned knowledge gap by investigating the trickle-down effects of innovations. Therefore, the relevance of this research is two-fold. First, its academic relevance is to provide additional insight into the changes brought by these innovations on the expected beneficiaries. Secondly, regarding development, this research aims to provide recommendations to practitioners on the creation of innovation tailored to people's capabilities and willingness to accept change by examining the impacts of initiatives developed by Healthy Food Africa (HFA). HFA is a research and innovation project working towards the creation of more sustainable food systems in 10 African cities (Homepage HFA 2022).

Methodology

Rationale for Fieldwork Location and Selection of Innovations

HFA believes in FSLs as a promising strategy for achieving transformational impact. Consequently, this research was based at HFA's office in Cotonou, which is located at the University of Abomey-Calavi (Figure 1). Specifically, the fieldwork and data collection were conducted at two HFA-operated schools: Ahossougbeta School in Calavi and Djeffa Plage School in Sèmè-Kpodji (Figure 1). Conducting research in these two distinct schools allowed for comparative analysis of different contexts. Over three months of fieldwork, data was collected through interviews and observations to understand the factors influencing households' ability to adopt innovative food practices.

The mission of Cotonou's FSL is to "improve the diets of children and adolescents through school and urban gardening, through production (school and community gardens) and capacity building (curriculum, and policy

outreach)" (Awuh et al. 2022, p.45). This research will seek to analyze the capacity of the expected beneficiaries to adopt two innovations promoted by this FSL. The latter being the "Integration of nutrition into the school curriculum" and the "school gardens" (Table 1) (Awuh et al. 2022, p.46). These were set to be a unique collaboration between school principals, researchers and teachers (Awuh et al. 2022). The fact that these innovations not only target both parents and children but also involve multiple stakeholders renders them innovative (Thiele et al. 2022). In turn, it offers an interesting basis for investigating the adoption capacity and capacity building of beneficiaries since these innovations aim to initiate a change of social practices that go beyond those of the classroom to reach the household level through knowledge-sharing with both children and parents.

Table 1: Overview of HFA's Initiatives and Innovative Practices (Source: Awuh et al. 2022, p.132; HFA 2023)

Initiatives	Description	Objective	Innovative food practices	Targets
Nutritional workshop	Educate the students, teachers and the cooks about the roles of the different food groups and the concept of a well-balanced meal.	Participants can know the different food groups, their roles, and can define the notion of a balanced meal.	Increasing the knowledge on food groups and the adoption of more well-balanced meals.	1. Students from CE1, CE2 and CM1 (grade 2 till grade 4, age between 5 to 11 years old) 2. Teachers 3. Cooks 4. Parents
Workshop on Leafy vegetables	Instruct the cooks and the teachers on specific preparation techniques for leafy vegetable.	Enable participants to explain and understand the benefits of the cooking techniques.	Adopting the new cooking techniques of leafy vegetables at home.	

School Garden	Establish of school gardens to provide school canteens with fresh fruits and vegetables.	Recipes with high nutritional and sanitary values are cooked in canteens and served to children.	Improving diets with fruits and vegetables through gardening.	

Theoretical Background

This research explores changes in social practices needed for adopting sustainable and healthier food consumption habits. It examines not only behaviour change but also the broader societal and cultural contexts that influence and are influenced by individuals' perceptions and practices. This is why Social Practice Theory (SPT) is the main theory guiding this study.

The theory emerged as a response to the dualistic nature of micro and macro theories that either put rationality (individual behaviour) or structure at the center of their analysis. In contrast, SPT, as explained by Pouliot (2012), examines the interaction between individuals' agency and the social structures that shape their lives. It emphasizes that practices — the everyday actions of individuals — lie at the intersection of structure and agency. Scholars such as Giddens (1984) and Bourdieu (1977, 1990) have further developed SPT, arguing that practices reinforce existing norms and social structures, which in turn shape social practices.

Utilizing SPT implies examining practices as an "assemblage" of meanings, competencies, and materials (Hargreaves 2011, p.83; Pouliot 2012; Reckwitz 2002). Meanings refer to the images and symbols that individuals (agents) attribute to their practices, competencies refer to the skills and knowledge required to accomplish a social practice, and materials are the objects needed to accomplish a social practice (Pouliot 2012).

Since SPT studies the "doing of everyday practices", it requires a methodology that examines what occurs "in the performance of practice such as ethnography" (Hargreaves 2011, p.84). As such, this research engages with a collaborative ethnographic approach. This approach aims to enhance participants' agency by fostering collaboration between the researcher and participants throughout the research process (Seligmann & Estes 2020). Such collaboration ensures that "knowledge and expertise is shared" (Lassiter 2005, p.84). This approach is especially relevant for this research, as it aims to prioritize the local community's knowledge and concerns, recognizing their deeper familiarity with their social practices and the changes needed to integrate innovations.

This research is inductive since it studies the issues from participants' perspectives and field observations. Indeed, Pouliot (2012) explains that instead of imposing a scientific hypothesis extraneous to the everyday lives of participants, induction allows the researcher to "recover practical meanings and commonsense" (p. 50).

Methods

The specific methods used for data collection are semi-structured interviews, participant observations and focus group discussions. Interviews were conducted with the help of a translator until saturation was reached, leading to a sample of twenty participants.

Sample selection: The sample consists of twenty participants and three key informants. Participants qualified for the study by being either a parent whose children had participated in the workshops given in the schools (Table 1), or by being a teacher or a cook working in the schools in Calavi or Sèmè-Kpodji and having attended the FSL initiatives.

Key informants: The key informants were three colleagues of the researcher, all of whom had worked for the FSL for at least one year and were responsible for facilitating the workshops in the chosen schools. As well-known figures in the community, they acted as gatekeepers, facilitating initial contact between the researcher and the first participants at the two schools.

Snowball Sampling Method: The first participants were the people who attended the FSL's initiatives, the teachers and the cooks. They were the easiest to reach out to, given the direct involvement of the researcher with the schools. From these initial participants, the snowball method was used to reach out to the rest of the participants, particularly the non-attendees such as the parents.

Overall, the steps for the data analysis were as follows: Initially, categories were defined deductively based on the three SPT variables. This step provided a framework to ensure that the following steps would align with the theoretical framework of this research. Then, NVivo was used as a tool for the inductive coding of the transcripts. This process included linking the codes to the predefined themes while retaining the freedom to add themes when relevant. Main themes were then redefined based on the codes. Finally, a code tree was created to organize the different themes in such a way that it facilitated the alignment of the findings with the research questions. This methodological analysis that including a dual approach of deductive and inductive coding ensured that the findings were grounded in theory while retaining the most important aspects of the data.

Results

As the aim of this study is to examine whether and how innovations can be adopted and accepted among people, the following section provides the reader with a comprehensive understanding of the intricacies involved in adopting innovative food practices at home through school-based programs. In detail, the participants' ability to adopt new practices is analyzed with regard to the different innovations introduced by HFA through both the nutritional workshops and the school gardens (Table 1). This section will first provide a summary of the main findings in relation to the supporting research questions.

SQ1: To what degree are participants able to integrate innovative food practices into their daily routines, and what specific changes have they implemented in their food practices?

With respect to the household level, findings highlight diverse outcomes. First, the impacts of the nutritional workshops (Table 1) on promoting the adoption of well-balanced meals at home are examined. Findings show that while workshops help participants who attend the sessions adopt the novel practices themselves and at home, they have limited impact on those who do not directly attend. Second, the impacts of school gardens on improving beneficiaries' knowledge of healthy eating practices are assessed. Findings reveal that participants perceive the garden as an efficient tool for passing on knowledge to parents, as explained by this teacher who expressed their enthusiasm for the garden. They said:

"If children learn how to do it, they can do it at home and then if it works and the parents see the benefits, they will start doing it as well, that is why the garden is great." (t, p#12)

This quote illustrates that, in addition to providing practical gardening knowledge, students are more likely to share these practical skills at home than the theoretical concepts covered in the workshops.

Moreover, for participants directly involved with the garden, the initiative facilitates the incorporation of fruits and vegetables into their food habits. It inspires teachers to implement similar gardening practices at home to diversify their meals. These findings show that more accessible and practical knowledge sharing fosters greater practice adoption. Moreover, participant' hands-on involvement with the school garden allows them to embrace the innovative practices while also recognizing the broader benefits for their school. In short, the findings reveal that the garden's tangibility and capacity-building potential for participants explain its success and prospects for encouraging healthier and sustainable food practices at home (Figure 3 and 4 show school gardens).

Figures 1 & 2: School Garden (Evolution over three months)

SQ2: What challenges do participants encounter when attempting to adopt new food practices, and how do these obstacles impact their ability to change? The first component of SPT, material, is explored in relation to the challenges. Participants cite the lack of financial means and time management constraints, especially for mothers, as the main obstacles to adopting a well-balanced meal and adapting their current food practices.

This challenge is exemplified by the following quote from one mother in Calavi when expressing herself on the issue:

"The education sessions we do are a good thing, the only problem is money, money is needed to be able to diversify the diet. (...)" (m, p#1)

While participants not involved with the workshops believe that well-balanced meals are associated with higher costs, it is not necessarily the case. Interviews with workshop attendees reveal that, while economic constraints are a challenge, it is the perceived cost of adopting new food practices that predominantly hinders adoption. Indeed, the possibility of overcoming financial barriers through effective training in using available resources differently has been proven to be particularly effective for workshop attendees.

This finding is key as it demonstrates the need to disseminate knowledge beyond school grounds to improve innovations adoption at the household level. Building on this, the findings related to challenges also explore the second component of SPT: competencies. The main finding is that the unequal access to knowledge

prevents participants from acquiring the necessary competencies to adopt novel food practices.

Finally, the third component of SPT, regarding the meaning participants attribute to adopting new food practices, is analyzed in the following section, which addresses both the second and third supporting questions.

SQ3: How do participants perceive and value the process of learning and adopting innovative food practices?

Findings highlight participants' adverse opinions of school-based initiatives which hinder participants' adoption of novel practices. Indeed, participants share that many of their peers in the community have a strong reluctance to be taught about novel ways of cooking through school-based programs. This results from the mistrust community members hold toward these programs. One mother who works as a cook in Calavi expresses her understanding of this behaviour as follows:

"Some parents are reluctant, they'll say what's over there, I already know how to prepare food, what else are they going to show me?" (c, p#8)

This response speaks to the attachment and confidence of community members in their existing food practices and traditional methods. As a result, the need for change is questioned. Rigg et al. (2021) interpret this behaviour through the lens of "existential knowledge boundaries" (p. 625) which are deep-rooted knowledge and practices that are resistant to change. In this context, the community members' reluctance to engage with the new practices transmitted through school activities can be interpreted as an existential knowledge boundary.

While a subset of participants holds negative perceptions toward learning new food practices, which derive partly from the mistrust against school-based programs, many participants across the sample express a strong willingness to adopt new food consumption and preparation practices. For example, a mother testifies:

"The world is changing, and we can't rely solely on what we already know. It's important to learn new methods, while not forgetting our traditions." (m, p#3)

Participants recognize the importance of traditional recipes but do not feel obligated to replicate or teach them unchanged to their children. Instead, there is a strong desire to integrate new food practices into their current food preparation habits.

A crucial finding reveals that, while participants want to adopt innovative practices, they do not know how. As previously stated, the lack of trust between the community and the school, as well as the lack of accessibility to school

activities, prevents beneficiaries from having direct access to the FSL's initiatives. This inhibits their ability to learn about new practices and acquire the necessary competencies. This need for alternative approaches to sharing knowledge consists of this research's main inductive finding. As defined by Frisk & Larson (2011), knowledge transmission occurs when one party shares expertise, and the recipient understands and can apply it.

Discussion

This section provides the reader with a thorough interpretation of the findings in relation to the existing literature on the topic and discusses the implications of the findings to provide recommendations tailored to practitioners. While general recommendations were developed through data analysis, specific recommendations were also provided to HFA during the fieldwork phase, listed in the blue boxes.

Capacity-Building and Tangibility as Driving the Adoption of Sustainable Food Innovations

Two main findings on the factors facilitating the adoption of an innovative food practice are discussed in more depth here. First, participants directly involved with HFA's initiatives, such as teachers, seem to adopt the new food practices more easily than the participants who are not involved at school. Second, the tangible nature of an innovation like the school garden increases their potential for adoption and implementation at home.

These findings align with scholars such as Den Boer et al. (2021) and Gamache et al. (2020). Both discuss how capacity building needs to be a part of LLs for food system transformation pathways to be successful. The school gardens demonstrate the positive impact of such capacity-building efforts. The latter empower students with practical skills and knowledge which in turn foster a sharing of competencies between children and parents. This has the potential to overcome shortcomings due to the weak communication channels between the school and the parents. Dirkx (1998) emphasizes that capacity-building efforts within LLs lead to "transformative learning" which goes beyond simply acquiring new knowledge as it also involves critical reflection (Gamache et al. 2020, p.20).

These arguments suggest that for FSLs to provide individuals with the tools they need to fulfill food system transformation and promote sustainable food practices, the innovations need to be capacity-building driven, such as the school gardens. The fact that participants are equipped to implement effectively the new practices enhances the sustainability of the innovations. Frisk & Larson (2011) argue that educational programs should foster a sense of empowerment among participants for them to engage in action. Indeed, knowledge

dissemination without capacity-building limits the achievement of sustainable transformation. Therefore, for Cotonou's FSL to create sustainable innovative food practices among participants, it needs to make its educational programs more tangible and focused on capacity building.

Unequal Knowledge Access as the Primary Challenge to Adopting Innovative Practices

Whether due to a lack of time, financial constraints, or inadequate training, these material and competencies barriers converge to a common issue: unequal access to knowledge. This disparity is evident both within the sample and the broader communities. For instance, findings shed light on the unequal involvement of participants in school gardens between Calavi and Sèmè-Kpodji. Participants in Sèmè-Kpodji, equipped with pre-existing gardening skills, are more engaged with the project than those in Calavi, which prompts their willingness to adopt the practice at home. This finding suggests that existing skills within the community should be leveraged to enhance the adoption of new practices instead of depending on knowledge coming from sources outside of the community. Den Boer et al. (2021) articulate questions the researchers or practitioners should ask such as "who needs to acquire competences to contribute to food system transformation?" (p.120). While these were developed to improve the competencies of professionals for successful food system transformation, they are relevant as well for the FSL's beneficiaries. Since participants' pre-existing competencies are pivotal factors for them to engage with the innovations, future initiatives should develop innovations tailored to beneficiaries' existing abilities. By addressing local contexts and beneficiaries' competencies, initiatives can promote participation, improve access to knowledge, and facilitate the adoption of innovations.

Participants have unequal access to learning opportunities on innovative food practices which hinder the ability of non-attendees to acquire the necessary competencies to adopt the innovations at home. This disparity among beneficiaries not only limit innovation adoption within households but also hinders children's health. In their study, Nagahori et al. (2018) emphasize the critical role of women in ensuring child health through nutrition. Which puts

the emphasis on the importance of disseminating information on healthy food practices to mothers.

These findings suggest that the current initiatives are only partly fulfilling the intended outcomes of innovation adoption in the household (Schut et al. 2022, p.125). The authors further argue that evidence suggests various societal groups can face diverse challenges in benefitting from an innovation. Hence, future implementations need to address the discrepancies among participants and community members when offering educational sessions on innovations. For

that reason, the following concrete recommendations concerning “Unequal Knowledge Access as the Primary Challenge to Adopting Innovative Practices” are formed:

1. Make the workshops more concrete and less theoretical. For example, the food should be brought to class, not just presented in pictures on the poster. Students should be invited to touch, smell, engage with the new food products.

2. Incorporate concrete examples of balanced meals into the workshop content, flyers and poster, including products that parents have access to, so that they can integrate this practice at a lower cost.

3. Offer training on gardening to teachers, students and parents to ensure the sustainability of the project.

4. Encourage parents already involved in the garden to teach others basic gardening skills

5. Take advantage of parents' meetings to raise awareness on HFA's initiatives’ benefits and to facilitate the workshops.

6. Organize parents meetings according to parents’ availabilities, with particular attention given to accommodating the schedules of working mother

The Imperative to Overcome the Mistrust Between Community and School-Based Programs

In considering the value participants attribute to adopting novel practices, perceptions of the food innovations are negatively influenced by the lack of trust towards school-based programs. Through their research on knowledge transfer, Casprini et al. (2017) discuss how participants have a tendency to dismiss “anything not invented here” (Rigg et al. 2021, p.625) which speaks to the rejection of external innovations.

Consequently, trust between the school and the community must be strengthened to address beneficiaries’ skepticism about educational programs that teach new practices. The first step toward achieving this goal is to identify the sources of mistrust. The findings demonstrate that it is rooted in the frustration with previous school-based programs such as the canteens. Therefore, an initial measure involves improving the quality of the school canteen and encouraging parents’ direct involvement in HFA initiatives to improve communication about the benefits of food innovations. More broadly, these findings suggest that future initiatives should ensure the introduction of innovations through people or institutions that beneficiaries trust.

While some members of the community attribute negative meaning to learning new practices, a significant portion of the participants give positive value to

adopting novel practices. Although the ability to adopt a food practice needs to be accompanied by beneficiary acceptance to change, as argued by Siegrist & Hartmann (2020), the findings reveal that this is not sufficient if there is a lack of access to knowledge. Considering all the above-mentioned barriers to accessing information, a main recommendation for future implementation would be to reconsider knowledge sharing methods.

This study recommends peer-to-peer teaching, as participants view it positively and consider it an effective way to disseminate knowledge to those not involved with the school programs. Participants see this strategy as the most effective way to motivate people to adopt innovations since the new practices will be introduced by members of the community, overcoming trust issues and enhancing long-term adoption. The literature on knowledge sharing brings forth similar conclusions. Frisk & Larson (2011) argue that sustainable behaviour requires more than theory, and Rigg et al. (2021) assess that only interventions based on knowledge sharing and "peer exploration" (p.633) are effective. In other terms, Rigg et al. (2021) argue that discussing ideas and practices with peers helps to break down barriers between expertise and knowledge. Leading to the formulation of three recommendations for "overcoming trust" and "knowledge transfer":

1. Strengthen links between the school and the community to reduce the distrust that some parents have of the school. One idea would be to set up a WhatsApp group between parents and teachers to facilitate communication between the two groups.

2. Make parents aware of the importance of contributing to the canteen. This will break a vicious circle. If parents are better informed about their role in the canteen, cooks will have more resources to cook quality meals, which will encourage parents to give more.

3. Train teachers in gardening skills and workshop facilitation, enabling them to teach other community members. With this knowledge, teachers can extend facilitating skills to parents, creating a snowball effect of knowledge sharing.

Conclusion

This study concludes by answering the main question that guided this research. The findings indicate that financial means are not the primary barrier to adopting the FSL's proposed food innovations. Instead, the main issues lie in beneficiaries' attitudes towards being taught novel practices and access to knowledge. Thus, the challenges preventing adoption are primarily due to difficulties in acquiring competencies. Therefore, to answer the main research question, the findings suggest that promoting sustainable and healthier food practices requires altering the meaning attributed to the teaching methods and

improving the competencies required to adopt new practices, rather than merely addressing material constraints.

These findings have significant implications for sustainable development and methodologies driven by capacity building. Although the case of Cotonou's FSL focuses on food innovations, the findings highlight the importance of capacity-building initiatives and accessible, empowering methods of knowledge sharing. These approaches can be applied to other innovations aimed at fostering behaviour change for adopting sustainable practices. Food insecurity will become an increasingly significant issue if the current food system persists. While promoting solutions is essential, it is vital to ensure that they are tailored to beneficiaries' needs.

As for avenues for future research, this study stresses the importance of developing context-specific methodologies to assist households in adopting innovations. Therefore, this research serves as a pilot for the project: "From Lab to Mouth: Enhancing the capacities of households to adopt innovations from living labs in the food sector across Africa" which is part of the Pathways to Sustainability Incubator grant (2024). The incubator project focuses on enhancing households' capacity to adopt food system innovations from LLs in food system transformation.

Limitations

This study suffers from limitations, which also present opportunities for future research. First, this study is limited to exploring one living lab which prevents generalization of the findings. This reduces the depth of the analysis since comparisons with other living labs could provide nuanced insights, thereby enhancing relevance. Second, the omission of a mixed-method approach impedes this research's ability to generalize findings, weakening recommendations to practitioners. To gain more diverse insights and a larger sample, future research should incorporate more focus group discussions and quantitative methods such as surveys.

Reflection

I have always dreaded writing a thesis, but this experience helped me reconcile with the process. Spending three months in Benin and having the opportunity to follow HFA's team in the field, while witnessing the daily progress of my organization's initiatives, has been an enriching experience, to say the least. Beyond my daily tasks and research, I formed unforgettable human connections with my colleagues who were incredibly generous in sharing their culture with me.

My contribution to HFA was to evaluate the impact of the project's initiatives by drafting recommendations based on the beneficiaries' perspectives. The

interviews I conducted with the project's beneficiaries gave me deeper insights into how new initiatives are perceived by those on the receiving end of a development project. Seeing how on-the-ground realities are always more complex than expected, I have learned that the developmental field could benefit from professionals spending more time on the ground.

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Home in Transition: Exploring Self-settlement Pathways and Emplacement of Refugees and Asylum Seekers in Athens

Spyridon Kafetzopoulos

Abstract

This study aims to make a comparative analysis of the housing characteristics of refugees with international and temporary protection status, asylum seekers, and vulnerable Greek citizens in post-2008-crisis Greece. To advance studies focused on Clapham's Housing Pathways approach, we apply the theories of Emplacement and Segregation to examine newcomers' sociospatial integration within low-income, ethnically diverse neighborhoods of Athens. Additionally, the Capabilities approach emphasizes the ramifications of deficient social policies and substandard housing on livelihoods, along with the role of non-state actors in providing alternatives to the study population. The results indicate that newcomers exhibit self-settlement patterns due to inadequate governmental support, primarily relying on social networks to navigate the housing market. This approach often leads to precarious living conditions due to intricate legal status-related issues and financial hardships. Further findings show that vulnerable Greek citizens face similar housing predicaments, while two-way integration, or emplacement, is rarely achieved. Instead, social connectedness has emerged as a broader societal issue due to the ongoing restructuring of the urban fabric. Ukrainian refugees in Greece also struggle with challenging financial conditions, yet they benefit from greater levels of state and societal openness. This paper advances understanding of the intricate dynamics within Athens' housing regime and contributes to the broader discourse on refugee integration and urban social cohesion. Policy actions should reform the current ineffective refugee and housing systems to enhance livelihood improvement opportunities and contribute to a more inclusive society.

Keywords: refugees • housing pathways • social capital • segregation • emplacement • capabilities • internal borders

Introduction

Since 2015, the European Union (EU) has faced a growing wave of immigration from the Middle East and Sub-Saharan regions, intensifying security concerns and prompting what is now widely termed the "refugee crisis" (Bhagat &

Soederberg 2019). This framing has led to stricter border controls and has shifted scholarly focus from territorial borders to more nuanced forms of control within destination countries (Collyer 2020). Researchers have explored concepts like ''internal borders' to highlight how state policies restrict refugees' access to services and civil rights, like housing (El-Kayed & Hamann 2018; Dotsey & Lumley-Sapanski 2021).

Housing is considered one of the four key pillars of refugee integration (Ager & Strang 2008). Adequate housing goes beyond physical shelter, acting as the foundation for health, security, and community integration, thus influencing refugees' well-being and social connections (Brown et al. 2022). The recognition of housing as a human and social right underlines the imperative role of social policies in supporting accommodation for vulnerable groups, emphasizing the vital link between housing and societal well-being (Cheung & Phillimore 2017).

Scholars emphasize that the housing challenges faced by refugees are part of a broader ''housing crisis'' characterized by a lack of affordable housing, declining quality standards, and growing socio-spatial inequalities (Bhagat & Soederberg 2019; Powell & Robinson 2019). This crisis is largely attributed to the commodification of housing—treating housing as a market commodity rather than a social good—and neoliberal policies. These issues were exacerbated by the 2008 financial crisis, which shifted the responsibility for welfare provision from the state to municipalities, non-state actors, and individuals themselves (Darling 2016; Soederberg 2019).

There is a growing recognition of the need to study refugees' transition into independent living—following their departure from reception facilities—highlighting gaps in the literature related to housing systems, structural inequalities, and the impact of substandard housing on well-being (Brown et al. 2022). This research aims to address these gaps by focusing on the housing experiences of refugees and asylum seekers in Athens, the capital city of Greece. The research setting is particularly significant due to Greece's lack of a social housing system and the ongoing impact of the 2008 financial crisis on housing insecurity.

Research Objectives and Questions

This study investigates the housing conditions of refugees and asylum seekers in Athens, Greece, focusing on how housing impacts local integration and livelihood improvement. It explores whether specific refugee subgroups, such as Ukrainians, have better access to housing and social services and whether refugees face similar challenges as other vulnerable groups in Greek society. Adopting the housing pathways approach (Clapham 2002), the research examines refugees' self-settlement experiences, the role of social capital, and the effects of refugee and housing policies on well-being and social cohesion. It

also assesses perceptions of both refugees and locals regarding the effectiveness of state and non-state actors in addressing housing needs and the potential for shared vision or discriminatory attitudes. Drawing on the capabilities approach, the study evaluates the resilience of different groups and aims to provide policy recommendations to enhance refugee housing and integration in Athens.

Following the research objectives, the main research question that we seek to answer is the following:

''What are the housing characteristics and experiences of refugees and asylum seekers in Athens?''

To answer the main question, we formulate the following sub-questions:

1. What housing strategies are employed by distinct refugee subgroups and asylum seekers to secure housing, and what are their current housing conditions?
2. How do their housing conditions compare to those of vulnerable citizens within Greek society, and what are the implications for local emplacement?
3. What is the level of resilience exhibited by each demographic, and what plans and capabilities exist to improve livelihoods?

Research Relevance

This study highlights housing as a critical factor for refugee integration, linking it to health, security, and social connections (Ager & Strang 2008; Brown et al. 2022). By examining the housing conditions and perceptions of newcomers within the broader socioeconomic and political context, the research aims to inform policymakers and support mechanisms, offering alternatives to current refugee and housing policies while exploring strategies to enhance regional inclusivity. What sets this study apart is its unique comparison of the housing challenges faced by refugees and low-income locals; an area underexplored despite their spatial coexistence. Additionally, the research explores the differentiated responses to refugee groups, particularly considering the EU's Temporary Protection Status for Ukrainian refugees, contributing to a body of work that highlights the importance of such distinctions (De Coninck 2023). Through this innovative approach, the study aims to enhance understanding of refugee post-arrival experiences and advance inclusivity in policy and practice.

Literature review

Upon receiving International Protection status, refugees are entitled to transition out of the reception system and secure housing in the host country (Adam et al. 2021). However, systemic obstacles, economic constraints, individual characteristics, and discriminatory practices often hinder their ability

to obtain adequate accommodation (Bolt et al. 2010; Bhagat & Soederberg 2019; Dotsey & Lumley-Sapanski 2021). Most refugees living outside camps seek affordable rental apartments (Balkan et al. 2018). Consequently, they often reside in poor-quality, temporary housing located in unsafe areas (Brown et al. 2022).

Systemic barriers, influenced by neoliberal policies and austerity measures, have made affordable housing increasingly scarce (Soederberg 2019). Refugees often find themselves employed in low-wage sectors or facing unemployment (Carter & Osborne 2009). Discriminatory practices from landlords and housing agencies further exacerbate these challenges (Ziersch et al. 2017). Micro-level factors such as language proficiency and understanding of local housing regulations also play pivotal roles in refugees' housing patterns (Aigner 2019). Although housing challenges extend beyond refugees to other vulnerable groups (El-Kayed & Hamann 2018), newcomers are particularly disadvantaged due to their pre-migratory experiences and socio-legal status in the host country (Powell & Robinson 2019; Brown et al. 2020).

Housing precariousness, segregation and emplacement

Social networks, while crucial in providing refugees with essential information about employment and housing options (Adam et al. 2019), cannot fully mitigate the risks of substandard housing. The precarious nature of refugee housing has been well-documented (Ribera-Almandoz et al. 2022) and can be divided into two key dimensions: insecurity, where housing is unstable and subject to frequent changes (Flatau et al. 2015; Lombard 2023) and inadequacy, where housing conditions fail to meet basic standards of quality and safety (Borg 2015). These conditions leave vulnerable groups at a constant threat of homelessness and social exclusion, forcing them to rely on temporary solutions provided by NGOs or civil society networks (Aigner 2019).

Segregation, or the spatial separation of ethnic or faith groups within urban areas, often intersects with housing precariousness (Arbaci 2008). In Athens, segregation manifests not as *horizontal ethnic spatial segregation*—where distinct ethnic or faith groups are separated into different neighborhoods or areas—but as *micro-segregation* or *vertical segregation*, where social stratification occurs within the same residential buildings, with different groups often occupying different floors (Balampanidis and Polyzos 2016). According to this analysis, low-income inhabitants and migrants typically reside in basement, rear-facing, and lower-floor apartments. Hence, the urban fabric of Athens reveals a diverse interethnic coexistence and spatial proximity with locals, which can either foster harmonious integration or exacerbate social tensions (Papatzani et al. 2022).

Recognizing the pivotal role of social capital in refugee settlement, the concept of ‘’sociabilities of emplacement’ becomes essential for our theoretical

framework. This concept offers a valuable perspective by conceptualizing integration as a reciprocal and dynamic interaction between refugees and the host society, which aligns with the EU's vision (European Commission n.d). Thus, unlike ‘’social integration,’’ this concept entails mutual adaptation, shifting away from placing the burden solely on newcomers to adapt to the host society (Wessendorf & Phillimore 2019).

The Greek context: immigration patterns and economic conditions in Greece

Since 2014, Greece has become a key entry point for refugees and a central element of the European reception system (Papatzani et al. 2022). Initially a transit country, Greece’s role changed with the EU-Turkey Agreement in 2016, which closed the Balkan route and led to many refugees being 'trapped' in Greece (Vergou et al. 2021). This situation resulted in a rapid expansion of refugee camps and the implementation of the hotspot approach on Greek islands (Kourachanis 2018). Greek authorities were unprepared to manage this influx, and there are claims that the state has intentionally extended asylum processing times to deter new arrivals (Kourachanis 2018).

The Greek economic context, shaped by the 2008 financial crisis and subsequent austerity measures due to high sovereign debt, has strained the country’s social protection system (Petmesidou 2013). This fragile economic environment intersects with refugee flows, creating a context of ‘’humanitarian citizenship’’—a situation in which refugees and vulnerable groups access basic rights and services not as traditional citizens, but through emergency humanitarian aid (Cabot 2018). This shift leaves non-state actors to fill the gaps in integration support (Kourachanis 2018).

Athens’ housing market

The lingering effects of the 2008 financial crisis, combined with Greece’s market-led laissez-faire approach and the familistic structure of its welfare system (emphasizing family-based support over state intervention), have rendered affordable housing policies largely 'unnecessary' (Vergou et al. 2021). In Athens, rental prices have surged significantly since 2018 due to heightened competition. While homeownership rates in the city hover between 40-50%, a substantial vacancy rate of 31% has limited the available housing supply (Eteron Housing 360 n.d.). This shortage is further exacerbated by a lack of new housing development, an influx of Foreign Direct Investment (FDI)—particularly through the Golden Visa Program—and the rise of short-term rental platforms like Airbnb (Delmendo 2023). Attempts to regulate FDI and Airbnb have only been implemented in the last few years (Etias 2024).

Most rental properties in Athens are located in older, maintenance-heavy buildings (Eteron Housing 360 n.d.). Greek renters face significant affordability

challenges compared to European standards: while 19.6% of Europeans experience housing cost burdens, Greek tenants spend an average of 34.2% of their disposable income on rent (Eurostat 2023). Moreover, renters are more likely than homeowners to experience overcrowding, poverty, and housing deprivation (Eteron Housing 360 n.d.). Consequently, the lack of effective housing policies for both Greek citizens and refugees has contributed to a noticeable rise in homelessness across major urban centers (Kourachanis 2018).

Housing policy context for refugees

Greece's approach to refugee integration lacks a comprehensive, legally binding policy framework. Instead, the National Integration Strategy offers guidelines for supporting recognized refugees. Based on this strategy, the Greek state, in collaboration with the International Organization for Migration (IOM), has implemented the HELIOS program, which includes provisions for housing. This initiative aims to facilitate the transition from camp-based living to independent accommodation by offering rent subsidies and other integration support (IOM n.d.). Specifically, the program provides a housing allowance for recognized refugees who arrived after January 1, 2018, and lived in designated accommodation systems supported by authorities or NGOs.

Methods

This fieldwork study adopted a qualitative research design to delve into participants' perspectives and the contextual nuances of their lives (Hennink, Hutter, & Bailey 2020). This approach was chosen to gain profound insights into the housing characteristics of both newcomers and vulnerable Greek citizens, addressing the central research question guiding our study.

To explore newcomers' housing experiences beyond the reception phase, we use the ‘’housing pathways’’ approach which examines patterns of interaction with housing over time and space. This entails the sequence of dwellings, socio-economic relations and meanings within the housing context, while also considering individual aspirations and constraints (Balampanidis 2020). Subsequently, this approach aligns with Sen's capabilities approach (1999). Sen advocates for evaluating human development beyond economic criteria, focusing on enhancing individuals' capability to lead the lives they have reason to value (De Haas 2021). This framework aids in understanding how vulnerable groups adapt to overcome barriers to well-being, particularly their ‘’freedom to choose where to live—including the option to stay’’ (De Haas 2021: 2), central to this research.

Sampling and participant recruitment were based on purposive sampling, aiming to select participants who could provide rich information relevant to the research objectives. For the refugee population, eligibility criteria included asylum seekers and refugees with international or temporary status, prioritizing those who arrived in Greece within the last two years. However, recruitment

challenges led to the inclusion of earlier newcomers, necessitating a retrospective approach for this group. Greek participants were selected based on their status as beneficiaries of social services, ensuring representation of vulnerable Greek groups.

Recruitment methods included engaging gatekeepers—individuals or organizations that have access to the target population—from NGOs assisting the participants. Collaborating with grassroots organizations minimized bureaucratic hurdles and ensured key informants could speak freely. Since permission to interview HELIOS program beneficiaries was not granted, we interviewed administrative staff to gain insights into the beneficiaries' housing conditions and the program's strengths and weaknesses. Additionally, snowball sampling was employed to address potential selection biases introduced by gatekeepers (Hennink, Hutter, & Bailey 2020).

Primary data collection involved in-depth interviews to capture participants' emic perspectives—their views and experiences from their own cultural context (Hennink, Hutter, & Bailey 2020). Five key informant interviews with NGO administrators and academics were also conducted to contextualize local policies. Interviews ranged from 30 to 100 minutes. A semi-structured interview guide, featuring open-ended and follow-up questions, ensured comprehensive coverage of key themes. The research process included initial contact, obtaining informed consent, interview scheduling, recording, and transcription. In addition to interviews, participant observation, informal discussions, and field notes were used to enrich the data. These methods provided insights into participants' daily housing experiences, including neighborhood dynamics, community interactions, and living conditions. Field notes captured non-verbal cues and contextual details, which were integrated with interview data during thematic analysis to offer a comprehensive understanding of participants' housing trajectories.

Data analysis involved thematic analysis, with both deductive and inductive coding grouped into broad themes aligned with the research objectives. Themes were identified through a process of initial coding, where the data were closely examined for recurring patterns and key concepts. The researcher applied both a deductive approach—using predefined categories based on the theoretical frameworks (Housing Pathways and Capabilities Approach)—and an inductive approach, where themes emerged directly from the data. Once themes were identified, they were refined and grouped to create a comprehensive understanding of participants' housing experiences. Due to technical issues with the NVivo application provided by the university, coding was performed manually using a Word-based codebook, which facilitated a more hands-on and iterative approach to refining the themes.

Ethical Considerations

All interviews were conducted at locations convenient for the participants and were based on voluntary participation. A translated informed consent document, available in both English and Greek, was provided to all participants, detailing the study's goals and guaranteeing the confidentiality of their responses. Verbal consent was also obtained before recording. Given the vulnerable nature of the study population (newcomers and vulnerable Greek citizens), extra care was taken to ensure that participants fully understood their rights and the study's purpose. The informed consent process included explaining the confidentiality of their responses and the potential risks involved, especially in regard to any sensitive or personal information shared during interviews. During transcription, all names were replaced with pseudonyms, and any personal information that could identify the interviewees was removed to maintain anonymity and confidentiality, minimizing potential harm to the participants. All modified transcripts were stored on the researcher's password-protected laptop, while recordings were deleted upon completion of the transcription process.

Limitations

As with any empirical study, several limitations must be acknowledged. First, the limited participation of female refugees and the insufficient saturation of Ukrainian refugee perspectives restrict the generalizability of the findings within the scope of qualitative research. Second, regarding the Greek participants, the blurred distinction between refugees and other migrant populations may have affected the accuracy of their perceptions of the demographic under study. Third, the absence of recent secondary data from the 2021 census hindered the ability to draw definitive conclusions on segregation theory, despite qualitative findings supporting it. Similarly, the lack of data on the percentage of vacant state-owned buildings complicates proposals for using these properties to address the current housing crisis. Lastly, the researcher's familiarity with the study site may have influenced the framing of empirical findings, potentially introducing personal biases. These limitations highlight the need for cautious interpretation of the study's results.

Findings

The reception phase

Despite the EU-Turkey deal, most newcomers in Greece plan onward migration. However, their ability to move depends on their legal status. Among refugees with international protection, waiting periods for legal status ranged from 2 months to 3.5 years, depending on factors such as the status of the conflict in their country of origin. Those without refugee status cannot travel, while recognized refugees with travel documents under the Dublin III Regulation can move within the EU for up to three months but can only seek asylum in one

Dublin country (European Commission n.d). This effectively traps individuals in Greece, preventing them from restarting elsewhere in the EU. Therefore, these barriers have shifted their aspirations, leading them to consider building their lives in Greece.

Ukrainian refugees, in contrast, benefit from a fast-tracked asylum process and often have cultural or family ties influencing their -deliberate- decision to come to Greece. Conditions in camps also differ significantly. Refugees with international protection and asylum seekers report substandard living conditions, unemployment, and isolation from major cities. Conversely, Ukrainian refugees generally experience better conditions, with some camps even renovated before their arrival. This highlights disparities in treatment and capabilities between different refugee sub-groups.

Newcomers and low-income Greeks' barriers in accessing housing

Urban settlement is mainly driven by employment opportunities and the presence of co-ethnic enclaves, which facilitate relocation (Kobia & Cranfield 2009). However, interviews with non-Ukrainian newcomers in Athens highlight an additional factor influencing settlement patterns: the accessibility of smugglers who assist in migration processes.

Refugees, asylum seekers, and low-income Greeks face similar housing challenges, such as high rental prices, unemployment, and financial constraints. Asylum seekers are further disadvantaged by the 60-day waiting period before they can legally work. Recognized refugees also face difficulties due to Greece's limited integration policies, often securing only low-paid or informal jobs. They reported little guidance in navigating the housing search process and struggled with high down payments and commissions demanded by landlords. However, minors with relatives in Athens and Ukrainians face fewer financial struggles. Minors had better employment prospects as they worked at their relatives' businesses, while Ukrainians arrived with savings to afford housing costs.

Legal and bureaucratic barriers, particularly the lack of a tax identification number for those without refugee status, delay access to housing, while language barriers have affected nearly half of the non-Ukrainian participants when negotiating with landlords. Discrimination is also prevalent, with landlords favoring Greek and ''white'', affluent, or student tenants.

Low-income Greeks experience similar frustrations. Rising inflation, unemployment, the proliferation of Airbnb rentals, and the abundance of buildings left empty by foreign investors seeking residency permits exacerbate the housing shortage. Greeks also face high deposits and landlords' preference for stable tenants, such as civil servants. Cohabitation, though a potential solution, is culturally uncommon in Greece, further limiting their options. This

housing shortage is a source of widespread frustration among Greeks, who feel that landlords' focus on profit exacerbates the already dire housing needs of the population (see Figures 1 & 2).

Picture 1 & 2: Random writings on the wall. Figure 1 translation: ''No more Airbnb's, enough'. Picture 3: ''Decrease the rents, evict the landlords''. Picture 3: Overcrowding housing conditions

Housing Strategies

All participants, regardless of ethnicity or status, sought rental properties rather than homeownership. Despite challenges, newcomers displayed resilience by securing accommodation through their social networks, often relying on connections with acquaintances leaving apartments or forming friendships in camps to arrange shared living. Thus, camps facilitated networking, highlighting individual agencies in navigating the housing market. Additionally, half of the non-Ukrainian participants initially received financial support from relatives, though this assistance was typically short-term. Reliance on social networks was crucial for all, with no significant differences across subgroups.

Illegal subletting by pre-settled migrants was widespread among non-Ukrainian newcomers, while Ukrainians were less affected due to better financial resources and fewer legal uncertainties. Established migrants often sublet short-term properties to multiple people, providing a temporary solution to housing insecurity. While these arrangements could be exploitative, participants typically avoided complaints, as they were often the only alternative to homelessness.

Similarly, refugees with international protection and asylum seekers in Athens prioritized employment to cover rent, frequently relying on established migrants for informal job placements. This often led to exploitation, with some temporarily relocating to rural areas for agricultural work under harsh conditions, though it provided essential income upon arrival.

Another common strategy involves seeking assistance from NGOs. Despite offering various services such as legal aid, humanitarian support, and language courses, housing assistance from NGOs remains minimal. Due to budget constraints and reliance on donations, NGOs typically prioritize extremely vulnerable individuals.

The HELIOS program, extended for a third six-month period, faces funding shortages, leading to mistrust among potential beneficiaries. Furthermore, the mandatory nature of language courses, requiring three hours daily, inadvertently creates barriers to employment. Informal workers also face bureaucratic hurdles, whereas Ukrainians are treated differently, being exempt from Greek courses. Notably, the allowance for all beneficiaries was raised after Ukrainians joined the program.

(Precarious) Housing Conditions: **Housing Inadequacy**
Housing inadequacy appeared to be a prevalent issue for all demographics. Overcrowding, defined by Blake et al. (2007) as more than two people per bedroom, was widespread among newcomers, especially those in sublet housing. Participants reported having three to six people per room (see Figure 3), leading to concerns over privacy, sanitation, safety, and psychological well-being. In contrast, none of the Greek participants lived in overcrowded conditions, a difference attributed to their stable legal status. Nonetheless, housing unaffordability, measured by Eurostat's housing cost overburden rate (Eurostat 2024), was a persistent issue for all study groups. Non-Ukrainians' housing costs ranged from 40% to 100% of disposable income, with some Greek citizens reaching as high as 120%. This financial burden leaves little room for other basic needs, leading to debt, psychological distress, and a reliance on social services, which participants felt were insufficient. Notably, Ukrainian participants, despite better financial resources, also reported consuming 50% to 100% of their income on housing

Unfit housing was another common issue. Refugees, particularly non-Ukrainians, and Greek citizens alike often lived in poorly constructed, ageing buildings with dampness and water damage, resulting in respiratory health problems. Many also reported livings in basement apartments that lacked proper heating, ventilation, natural light, and security from break-ins (see Figures 4, 5 & 6). The only participants not facing these issues were two Ukrainian women and one minor employed by his relatives. However, having relatives did not always shield refugees from unfit housing, as another minor initially lived in an unsuitable dwelling, such as the family-owned store where he worked

While the HELIOS program provided a more structured approach for its beneficiaries by enforcing a comprehensive checklist to ensure sanitation and safety standards, it did not eliminate housing problems entirely. Some participants still encountered hidden issues, such as mold or faulty plumbing, while others rented out parts of their homes to make extra income, sometimes compromising living conditions.

Picture 4, 5 & 6: Basement apartments' view from the sidewalk

Housing Insecurity

Both newcomers and low-income Greeks experience significant housing insecurity. Refugees living in overcrowded sublets without formal contracts faced constant uncertainty, as informal arrangements provided no legal protection against eviction or poor living conditions. Only a minority of participants, including Ukrainians and minors with relative support, had formal rental contracts, but even these were often short-term, ranging from one to two years. Frequent relocations were common, though the reasons varied. Non-Ukrainians often moved due to inhumane conditions in sublet housing or demands from sublessors. On average, this demographic relocated 2.5 times per year. Relocation was less frequent among low-income Greek citizens but typically occurred due to financial pressures, evictions, or landlords' decisions to sell properties or convert them into short-term rentals. Unlike refugees,

Greeks typically engage in formal and long-term lease agreements with landlords and are accustomed to managing utility bills, which are often new and unfamiliar to newcomers. Nevertheless, a recurring theme among Greek participants was frustration over landlords withholding security deposits, fabricating outstanding invoices, or neglecting maintenance. All participants expressed that these relocations disrupted their social networks, caused stress, and negatively impacted children's education.

For HELIOS program beneficiaries, concerns arose about housing stability beyond the one-year housing allowance period. For refugees with international protection, it appears that the program strategically prolongs the transitional period—the time refugees spend in temporary support while awaiting resettlement. Consequently, despite receiving integration support, many beneficiaries depart for other countries upon receiving their passports, resulting in program ''leakages''—individuals leaving the program before successful integration—rather than successful ''outflows,'' which would indicate individuals fully integrating into Greek society.

Homelessness

According to the ETHOS typology (FEANTSA 2005), homelessness includes housing insecurity and inadequacy, such as the absence of legal tenant rights or living in unfit housing. More than half of the participants from both groups, except for Ukrainian refugees, reported experiencing rooflessness or sleeping rough. They described this condition as detrimental, citing social stigma, poor hygiene, and limited access to basic necessities, which hindered their ability to seek employment. Access to night shelters was also problematic due to strict entry requirements or even bribery. Some individuals avoided shelters because of rigid schedules or issues with cohabitation. Navigating complex bureaucratic processes to access social benefits further deepened the cycle of homelessness, leaving individuals feeling trapped in an inescapable limbo. Unlike newcomers, homelessness was not a recurrent issue among Greeks. However, three out of five Greek participants, aged 54 to 68, expressed concerns about this possibility, primarily due to the challenges of securing employment at an older age.

Segregation and emplacement

Our data show that newcomers and vulnerable Greek citizens mainly reside in specific Athens neighborhoods (see Map 1 and Tables 1 & 2), with Ukrainians being the exception, typically living in the southern suburbs—a trend confirmed through discussions on their co-ethnics' settlement patterns. Scholars Balampanidis and Polyzos (2016) argue that Athens' cultural and ethnic diversity defies traditional segregation patterns. While not challenging this view, our interviews revealed that both Greeks and foreigners believe that foreigners outnumber Greeks in these areas. African communities tend to reside in Patissia

and Kipseli, while Middle Eastern populations are concentrated in Attiki and Victoria Square. Many Greeks referred to the latter neighborhoods as 'ghettos,' noting heightened criminality, poor urban planning, and a decline in the native population. Additionally, findings suggest vertical segregation, with participants mostly residing on lower floors in apartment buildings (see Tables 1 & 2).

Table 1: Newcomers' residence patterns

Legal Status	Pseudonym	Gender	Ethnicity	Area of Residence	Apartment floor
Asylum seeker	Jamal	Male	Syrian	Attiki Square	2nd floor
Asylum Seeker	Cyrus	Male	Iranian	Victoria Square	2nd floor
International Protection	Anwar	Male	Palestinian	Attiki Square	1st floor
International Protection	Milad	Male	Syrian	Houseless	
International Protection	Amir	Male	Iranian	Kypseli	5th floor
International Protection	Hamza	Male	Syrian	Attiki Square	2nd floor
International Protection	Joaddan	Female	Cameroon	Patissia	Ground floor
International Protection	Ali	Male	Afghani	Attiki Square	Basement
International Protection	Samir	Male	Syrian	Attiki Square	2nd floor
Temporary Protection	Aleksander	Male	Ukrainian	Pangrati	Basement
Temporary Protection	Vlada	Female	Ukrainian	Helliniko n	3rd floor
Temporary Protection	Anna	Female	Ukrainian	Kypseli	Basement

Except for Ukrainians, newcomers reported difficulties in interacting with locals, which contrasts sharply with Greeks who described feeling completely isolated and having interactions limited to brief greetings. Additionally, racism, particularly against Middle Eastern individuals, was reported among Greeks, amplified by misinformation about refugee benefits, including housing. However, it is notable that all Greek participants expressed dissatisfaction with interpersonal relationships and solidarity, regardless of their neighbours' ethnicity.

Table 2: Greeks' residence patterns

Pseudonym	Gender	Area of Residence	Apartment floor
Athina	Female	Attiki Square	2nd floor
Socrates	Male	Pangrati	2nd floor
Diogenes	Male	Patissia	1st floor
Ifigenia	Female	Attiki Square	Basement
Nefeli	Female	Sepolia	2nd floor
Afrodite	Female	Patissia	2nd floor
Hercules	Male	Kypseli	Mezzazzine apartment
Tilemachos	Male	Patissia	2nd floor

Overall, evidence suggests that Greeks hardly envision a shared future with newcomers. Both groups pointed out that newcomers' desire to leave Greece impedes community building with locals. Despite this, all participants expressed a wish to adapt to Greek life, although they felt that living close to co-ethnics hindered their integration. Encouragingly, positive stories emerged of Greeks and newcomers building stronger relationships over time, with proficiency in the Greek language being a significant factor.

Discussion

The European reception system is structurally designed to perpetuate crisis phenomena. The notion of a 'refugee crisis's aptly explains the deterrent and exclusionary nature of reception policies, such as poor camp conditions, geographical isolation, and delays in asylum processes—all of which adversely affect the livelihoods and long-term integration of newcomers. However, since integration is managed at the national level, an examination of Greece's National Integration Strategy reveals further restrictions on refugees. Notably, Greece has never implemented a robust integration policy, instead opting for ad-hoc procedures. This approach can be interpreted as a preventative strategy to avoid making Greece an attractive destination for refugees. Subsequently, we contend that housing integration is intrinsically intertwined with the reception system.

Upon leaving camps, individuals find themselves ill-prepared for self-sufficiency, lacking vital information and resources. This abrupt transition exacerbates feelings of instability, while undocumented individuals face legal obstacles that push them into overcrowded housing situations as they repeatedly

reapply for asylum. To sustain themselves during this period, many turn to informal work within established migrant communities. Concurrently, difficulties in securing housing perpetuate a state of precariousness, potentially reinforcing segregation patterns in certain neighborhoods and fueling stigma against these individuals, who are often unfairly accused of contributing to urban decline. These structural impediments not only limit opportunities for improving livelihoods but also hinder community cohesion, preventing both newcomers and the host society from envisioning a shared and respectful future.

The HELIOS program is limited in scope and effectiveness, as it primarily assists recognized refugees who are awaiting travel documents to leave Greece. As such, it mainly targets individuals without aspirations for a future in Greece. This suggests that the program's primary focus is not on integration but rather on facilitating refugees' departure from the country. Additionally, the program’s short-term nature, combined with funding gaps and a lack of continuity from the reception phase, further impedes refugees' ability to achieve autonomy—the ultimate goal of integration. When it comes to housing stability, the lack of support services such as language training, employment assistance, and skills development presents a major shortfall in the reception system. These services are essential for refugees to secure stable housing independently, as language skills and job opportunities enable them to navigate the housing market and afford accommodation, raising concerns about Greece's overall integration objectives.

As discussed in the literature review, accessing the housing market presents significant challenges, especially given recent developments that have limited the available housing stock. We contend that these factors, combined with the absence of a social housing system and the commodification of housing driven by the Greek state, have incentivized housing providers to exploit the rental market for profit. Nonetheless, since housing is a fundamental social right, states are obligated to implement policies that, even if minimal and inefficient, guarantee a safety net for the most vulnerable. In this context, parallels can be drawn with policies targeting extreme poverty (Cabot 2018), where Greek citizens are offered shelter and refugees are accommodated in camps. Due to inadequate housing and social policies, both Greek citizens and newcomers have increasingly relied on NGOs for support. However, as scholars have noted (Kourachanis 2018; Aigner 2019), these organizations face funding limitations, leading to temporary and partial solutions.

Furthermore, as living conditions worsen for Greek citizens, existing pressures on a populace already harboring prejudices against migrants intensify. Interestingly, our research indicates that tensions do not solely arise between locals and foreigners. Rather, inclusivity has become a broader societal issue due to urban super-diversity—a condition where neighborhoods consist of residents

from highly diverse ethnic, cultural, and socioeconomic backgrounds. This creates a complex web of cohabitation, with diverse housing arrangements within apartment buildings, such as homeownership, short- or long-term rentals, overcrowded living situations, etc. Subsequently, our findings align with prior studies (Balampanidis & Polyzos 2016; Balampanidis & Bourlessas 2018; Papatzani et al. 2022), suggesting that this ongoing transformation of the urban landscape is likely to contribute to social unrest and exclusion.

An important observation concerns refugees granted temporary protection status. We argue that, aside from disparities in their ability to migrate within the EU, current policies and societal attitudes are significantly more favorable toward this group. This is evident in faster asylum processing times, better conditions in camps, and their involvement in the HELIOS program—all highlighting the differential treatment they receive. Additionally, Ukrainians faced fewer obstacles in securing housing, largely due to their relatively better financial standing. Nonetheless, like other vulnerable groups, they still struggled to integrate into the job market and relied heavily on social networks formed by established Ukrainian communities in Athens. Many Ukrainians also live in precarious conditions, mirroring broader livelihood challenges in post-crisis Greek society. Lastly, Ukrainians tended to settle in more affluent neighborhoods, fostering positive relationships with their Neighbours, which suggests they are not seen as disrupting cultural homogeneity (Costello 2022).

Research Implications

Our findings align with existing scholarship (Flatau et al. 2015; Ribera-Almandoz et al. 2022), highlighting the precarious housing conditions that most newcomers face. A notable discovery is that many more established migrants have created an informal rental submarket, akin to the situation observed in Vienna (Aigner 2019). Likewise, newcomers, despite being aware of exploitative practices, often avoid reporting issues to prevent the risk of homelessness. Interestingly, our results are consistent with Flatau et al. (2015), indicating that refugees may not necessarily view doubling up as a form of homelessness.

Privacy concerns in cramped environments were prevalent in our study, alongside safety concerns (Lombard 2023). In addition to overcrowding, housing unaffordability was a major issue, often accompanied by poor quality and insufficient amenities—factors associated with declining physical and mental health or the onset of new health issues (Ziersch & Due 2018; Brown et al. 2022). Frequent residential mobility was also reported by participants, who struggled to establish a sense of belonging as their social networks were frequently disrupted, similar to other studies (Fozdar & Hartley 2014; Adam et al. 2019). Homelessness, a recurrent challenge particularly for newcomers, also aligns with findings from previous research (Dotsey & Lumley-Sapanski 2021; Ribera-Almandoz et al. 2022). A notable distinction in our study is the use of the ETHOS

typology to provide a more nuanced analysis of homelessness types, which is absent in prior studies.

Our findings highlight the super-diversity and cultural heterogeneity in Athens. Nonetheless, participants' responses reveal horizontal segregation in two neighbourhoods, partially diverging from other studies (Balampanidis & Polyzos 2016; Papatzani et al. 2022). Moreover, although the data indicate patterns of vertical segregation (Balampanidis & Bourlessas 2018), participants reported that foreign residents are present on every floor, further substantiating our observation of horizontal segregation. Finally, the emplacement theory suggests that locals and newcomers coexist spatially, forming a community with shared problems and interests (Wessendorf & Phillimore 2019). Yet, instances of racism from locals reveal a divide in their vision for the future. While small-scale examples of harmony exist, true inclusivity remains elusive.

Policy Implications

The research findings underscore critical areas in need of immediate action. Firstly, regarding refugee policies, we urge the Greek state to establish a comprehensive National Policy for holistic newcomer integration, beginning at arrival and spanning the reception phase to long-term integration. Language acquisition should be mandatory but provided in a supportive manner, improving newcomers' understanding of their rights and facilitating interaction with the host society. Integration programs should focus on long-term sustainability, promoting refugee autonomy while adapting successful practices from other countries to Greece's unique context.

In housing policy, immediate actions and long-term strategies are needed for sustainable solutions. The Greek state should create a social housing institution responsible for overseeing the construction and distribution of low-cost rental housing. This institution should continuously monitor market trends and societal conditions, enabling it to better understand the evolving housing challenges. Prioritizing quality over quantity, social housing initiatives should focus on meeting the genuine needs of the population. Rather than simply aiming to meet a set number of housing units, the focus should be on addressing the actual demand for affordable housing, ensuring that the stock aligns with the population's needs. Drawing from international models, such as the Netherlands' mixed-income housing model or Austria's publicly funded rental housing sector, can offer valuable insights for developing a sustainable and inclusive housing policy.

To address the housing crisis, the state should implement stricter regulations for platforms like Airbnb and reconsider the Golden Visa program, focusing on increasing housing stock and affordability. Other potential strategies include repurposing state-owned vacant buildings, incentivizing landlords to convert

properties into social housing, and supporting housing cooperatives to expand the housing supply.

Lastly, fostering interethnic coexistence should be a policy priority to strengthen social cohesion. Improving the reception system will promote better integration and interethnic interactions. Additionally, raising awareness within the host society about refugees' experiences and encouraging NGOs to organize initiatives that promote meaningful interactions will contribute to a more inclusive community.

Conclusion

This fieldwork research contributes to three different theoretical frameworks. First, it complements a body of literature examining refugee housing pathways, offering fresh insights by focusing on a Southern European context where neither refugees nor the state envision a shared future. Conducted in Greece during its ongoing financial and housing crisis, this is the first study to compare newcomers with low-income citizens in this context. Second, despite limitations stemming from a small sample size, the research highlights how, within the EU and against the backdrop of global events like the Ukraine war, racialized border enforcement and selective inclusivity are applied to specific refugee groups. Finally, it advances emplacement theory through qualitative analysis, stressing the vital role of reception and integration systems, as well as the unique characteristics of each host country in fostering inclusivity in today's increasingly diverse urban societies.

This research lays the groundwork for interdisciplinary studies to build upon and provide deeper insights. Future research should focus on examining refugee housing pathways through an intersectional lens, particularly analyzing gender dynamics to generate new perspectives on the study population. Longitudinal studies could assess whether housing conditions improve for newcomers over time and if homeownership becomes an attainable goal. Including landlords' perspectives to explore profit motivations and attitudes toward different refugee subgroups and low-income Greeks would further enrich understanding. Additionally, discourse analysis could uncover underlying power dynamics and the role of media in reinforcing fears toward specific refugee groups. It is also recommended that mixed-methods research be employed, combining quantitative data to assess horizontal segregation with qualitative analysis to explore whether trends like gentrification lead to the displacement or marginalization of low-income citizens, thus deepening the understanding of urban societal changes.

In essence, this research addresses two increasingly pressing issues on the global policy agenda: housing and migration. Beyond this specific case study,

refugee and housing systems across Europe face persistent challenges, fueling social resentment among EU citizens and political turmoil, as evidenced in recent national and EU elections. Moreover, both EU citizens and refugees encounter constant difficulties, creating space for critical dialogue on the EU's approach to democracy and human rights. Housing, migration, urban inclusivity, and decent employment are also core components of the Sustainable Development Goals (United Nations 2024), placing a responsibility on both the EU and individual member states to uphold these rights. Migration, in particular, has played a fundamental role throughout human history, shaping civilizations through patterns of human mobility (Harari 2011). Recognizing this deep historical significance highlights the imperative to address contemporary migration issues in order to foster more inclusive and sustainable societies in Europe.

Reflections:
This fieldwork allowed me to dive deep into the complexities of international migration, not just through theory but by talking directly to those impacted. These conversations gave me a richer understanding of social justice and human rights, reminding me that development must be rooted in a people-first perspective. However, being on the field made me realize that even with the best intentions, helping people overcome structural challenges is difficult. Real change requires collective action, and academia plays a crucial role in pushing for policies that build more equitable societies.

As someone passionate about both Greek and global issues, I've always been drawn to topics like migration and housing, especially given their prominence in political discussions. In an era where far-right extremism threatens democracy and human rights, I felt it was important to show that we have more in common than what divides us, which led me to compare refugees and the local population in my research.

This project not only developed my research and organizational skills but also led to personal growth. Engaging with communities I'd lived near but never really understood pushed me to confront my own biases. I'm grateful for this experience and for how my findings contributed to the larger conversation on migration and equality.

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Influence of Mining Operations on Quality of Life of Local Communities: A Case Study of Extensive Open-Pit Mining in Chingola, Zambia

Mathijs van Baarle

Abstract

While mining operations play a crucial part in local development and employment worldwide, they also raise concerns. Prior studies have shown mixed impacts of mining on communities, highlighting benefits like economic stimulation against drawbacks such as environmental degradation and health risks. Existing literature highlights this dual perspective but lacks depth, as few studies examine both the positive and negative impacts of mining, as well as mining's general influence on the overall quality of life in local communities — particularly within the context of Africa. Moreover, the decarbonization of the global energy transition cannot occur without African resources. Therefore, this study employs a Mixed Method Approach to investigate the influence of mining activities on the quality of life of local communities, focusing on an open-pit copper mine in Chingola, Zambia. The findings indicate a wide range of negative environmental and social impacts, as well as some positive social and economic impacts. The data further reveals an unequal distribution of these impacts within the community, with those living near the mine suffering the most from the negative effects. The research also highlights the importance of economic satisfaction on quality of life and the absence of accessible and reliable compensation processes. Furthermore, the research points out the community's dependency on the success of the mine, as times of adversity can increase the crime rate and reduce Corporate Social Responsibility efforts.

Keywords: Energy transition • Mining impacts • Mining dependency • Quality of life • Resource curse • Decarbonization

Introduction

The impact of global warming and climate change can be seen in every inhabited region in the world and across the global climate system (IPCC, 2021, p.10). To combat climate change, a transition from a fossil-based- to a zero-carbon society, in which energy is produced by renewables and used by electricity driven technologies, is needed (IRENA, 2023; Vora, 2023). Most of these renewables and 'clean' technologies heavily depend on Rare Earth Elements and critical minerals like lithium, cobalt, graphite, and copper (IEA, 2021). Copper in particular plays a crucial role in generating power from sources like solar, hydro, thermal, and wind energy and is essential for advancing electrification in the energy sector, with renewable energy systems needing roughly 12 times more copper than traditional systems (Mo Ibrahim Foundation, 2023). The International Energy Agency (IEA, 2021) therefore estimates that this

decarbonization process is expected to cause a massive increase in the demand for these mineral resources.

Although a substantial amount of these minerals is extracted to facilitate a more sustainable way of living, mineral extraction also has its ‘dark’ side, as human mine-related activities also pose inherent challenges to both human and non-human life (Mononen et al., 2022). The main challenges are located in the social and environmental domain. Examples are health impacts, inequality and pollution (Leuenberger et al., 2021; Carrington et al., 2011).

Besides challenges, mining also creates benefits as can be seen in the scale of employment opportunities, with an estimated 45 million people directly, and 134 million people indirectly working in the mining industry (World Bank, 2020; World Bank 2019). Mining is especially a vital source of employment in Africa, with 14 out of the 26 mining-dependent countries located on the continent (Bauer, 2023). In general, Africa holds around 30% of the world's mineral reserves (Mo Ibrahim Foundation, 2023). The importance of the continent in terms of mineral production can also be seen in the fact that it produced 73% of the world's copper in 2021 (Reichl & Schatz, 2023). However, although African mining codes have undergone changes over time, regulations concerning mineral exploration in various African nations often still lack clarity, exhibit inconsistencies, and prove to be unpredictable (Lane & Reggio, 2013), hindering efforts to address the challenges associated with mining (Renzi, 2021).

As the extraction of the minerals needed for the energy transition cannot happen without local impacts (Mononen et al., 2022), and to steer the ongoing energy transition in a direction that is not only sustainable but also socially, economically, environmentally, and spiritually ‘just’ (Hund et al., 2020), examination of the consequences of mining is needed. Existing research has primarily focused on identifying the social, economic, and environmental impacts of mining (Leuenberger et al., 2021; Carrington et al., 2011; Emuze & Hauptfleisch, 2014). However, there is a lack of studies examining the relationship between these impacts and the quality of life of residents. Knowledge about this relationship is important as it could help develop sustainable and equitable policies needed to prevent and treat a degradation of quality of life induced by mining activities. Previous research done on the impact of mining on the quality of life shows both positive and negative effects (Dikgwatlhe & Mulenga, 2023; Li et al., 2017). However, within exciting literature, a comprehensive analysis that combines statistical data on quality-of-life aspects with people's perceptions on the mining-induced impacts is lacking. Moreover, no studies have analyzed this relationship in the context of Zambia, which is one of the world's largest exporters of unrefined copper (Mo Ibrahim Foundation, 2023). Therefore, this research aims to provide a comprehensive understanding of the potential impact of mining on the quality

of life of local communities by analysing the impact of an extensive open-pit copper mine in Zambia, using a Mixed Method Approach (MMA).

The question that acts as the guideline in this paper is as follows: *how is the quality of life affected by the presence of a copper mine (and its temporary halt) in Chingola town?* To address the main research question, several sub-questions have been explored. These include:

1. What is the perceived impact of the mining presence? And which positive and negative aspects do residents link to it?
2. How are the perceived benefits and costs of mining distributed within the community?
3. How is satisfaction with the mine distributed within the community? And how is this related to the overall quality of life?
4. How does life satisfaction across various domains influence the overall quality of life in Chingola? And what role do mining operations play in this?
5. Is the mining in Chingola done in a socially responsible and sustainable way? And how can this be improved?

Quality of life

There are two main ways to measure quality of life: objective and subjective. Objective measures, such as GDP per capita and other economic indicators, provide a broad overview of a country's economic performance (European Union, 2016) and are often linked to citizens' well-being (Callen, 2019). However, these measures have limitations as they may not fully capture individuals' feelings and personal satisfaction with their lives (Seligman & Royzman, 2003). Subjective measures, like those in the WHO Quality of Life Questionnaire (WHOQOL), assess people's satisfaction with various aspects of their lives, considering personal, cultural, and social contexts (World Health Organization, 2012). In general, the WHOQOL models are seen as reliable instruments in measuring people's quality of life (Kalfoss et al., 2021), as the satisfaction of people might reflect the difference between people's desires and their ability of realization. Therefore, combining both objective and subjective measures provides a more comprehensive understanding of quality of life.

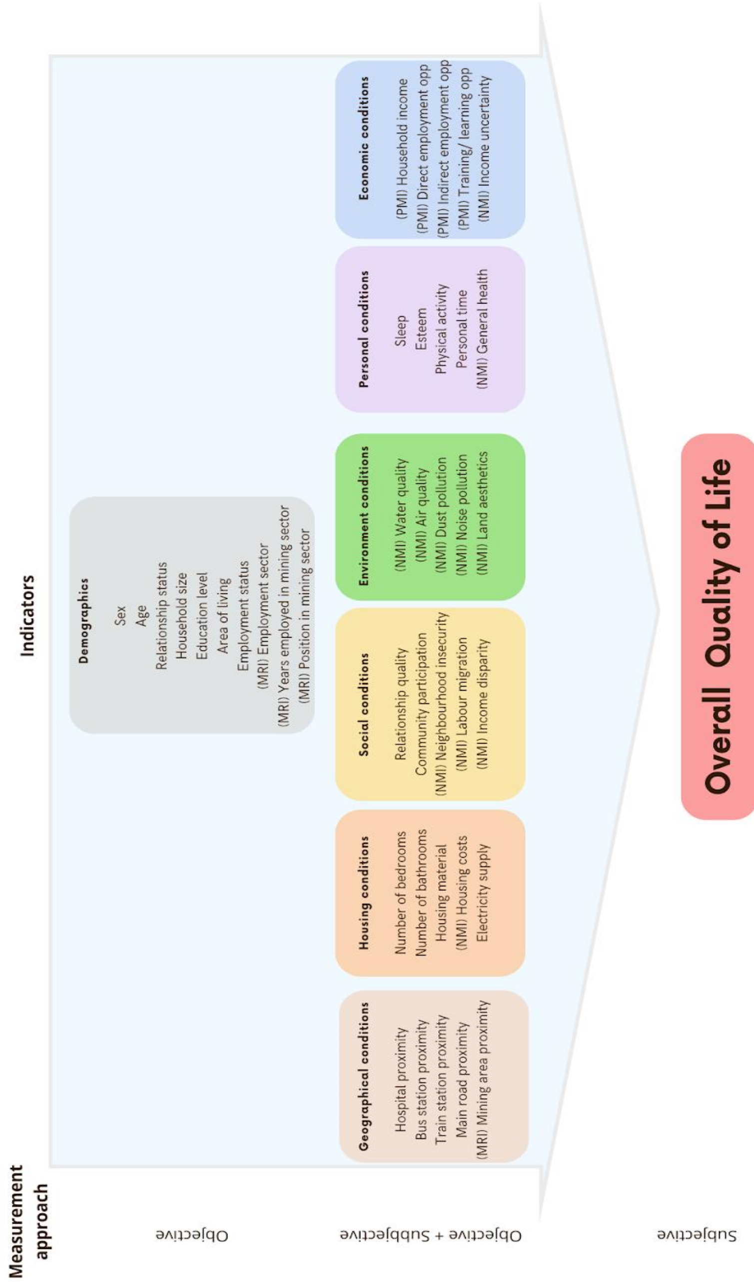


Figure 1: Conceptual Framework; *Opp = opportunities.

Methods

Conceptual framework

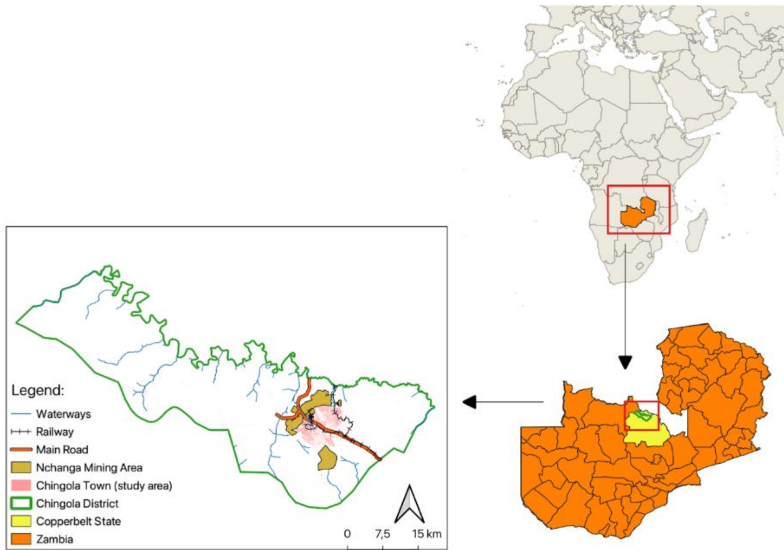
To address the existing knowledge gap, this study combines both objective and subjective quality of life approaches with mining and non-mining related factors. The mining factors include positive (PMI), negative (NMI) mining impacts, and mining-related indicators (MRI) - demographics that previous research have found to be significant in determining the influence of mining on the quality of life. Non-mining factors, aligned with WHOQOL-100 indicators, are included to minimize confounding effects and enhance the understanding of overall quality of life. These factors are categorized within six quality of life domains - Geographical, Housing, Social, Environment, Personal, and Economic conditions - mirroring WHOQOL-100 and related research for a comprehensive framework. These factors are categorized within six quality-of-life domains - Geographical, Housing, Social, Environment, Personal, and Economic conditions - mirroring WHOQOL-100 and related research for a comprehensive framework (Fig.1).

Relevance of study location

Zambia's copper mining industry, rooted in colonial-era exploration and exploitation, has deeply shaped the country's economic and social landscape (Sikamo et al., 2016). Initially dominated by foreign companies, such as Anglo American and Glencore, the industry attracted a large influx of foreign workers, transforming local demographics (Sikamo et al., 2016). Following post-independence nationalization, recent waves of privatization have once again reinforced foreign dominance, with corporate interests often prioritized over local welfare (Noyoo, 2021; Lungu, 2008; Simutanyi, 2008). While large-scale mines still dominate, recent years have seen a rise in small-scale artisanal mining by local communities, working independently to pursue new opportunities in this historically foreign-controlled sector (Jønsson & Fold, 2011; Ledwaba, 2017).

Over the past five years, Zambia has been the world's largest exporter of unrefined copper, contributing significantly to the country's economy by generating over 70% of export revenue (Mo Ibrahim Foundation, 2023; International Trade Administration, 2020). This economic reliance on copper has made mining a pivotal sector in Zambia, both in terms of employment and economic activity (Standard Bank, 2023). Recent discoveries of substantial copper deposits have brought new opportunities and challenges to the country. With concerns including water contamination, air pollution, unequal distribution of benefits, and wildlife displacement, which are supported by past incidents in the mining regions of Zambia (e.g. Fraser & Lungu, 2007; World Bank, 2011).

Chingola, a city in the Copperbelt province (Map.1), has faced both the benefits and drawbacks of extensive mining activities, as the city is located next to the Nchanga open pit mine, Africa's largest and the second largest globally (Pilot Guides, n.d.). The city is unique as it has grown as a logistical hub for trade between Zambia and the Democratic Republic of Congo (DRC) (Blaszkiewicz, n.d.). Despite infrastructure development and economic gains, Chingola has struggled with environmental and social challenges, such as pollution and job losses due to mechanization (Kolala and Umar, 2019; Malama, 2020). In response to these challenges, the Zambian government has periodically intervened by placing Konkola Copper Mines (KCM) and it's Nchanga open pit mine into liquidation after repeated safety violations and tax disputes (AfricaNews, 2023). However, mining operations are set to resume as Vedanta Resources, the parent company of KCM, regains control and plans to invest in local community development (Dalmia, 2024).



Map 1: Case study location in an Africa perspective (data extracted from: DIVA-GIS, n.d.).

Mixed Method Approach

This study employed a Mixed Method Approach (MMA), meaning it combined the strengths of both quantitative and qualitative research methodologies (Creswell, 2015). In practice this means that the quantitative analysis has been used to establish a picture of the quality of life of people living in Chingola, their satisfaction with the mine, the influence of the perceived mining impacts, and the distribution of these impacts within the community. The qualitative analysis

is used to validate/contradict these findings, but also to establish a more nuanced picture of the daily mining impacts, mining dependency, social responsibility, sustainability, changes over time, prospects, and policy recommendations. Both data sources have been collected simultaneously.

Data collection

The quantitative data has been collected by conducting a survey in the Chingola Town area (Map.1). By utilizing a survey, this research enhances the scalability of the data collection process (Cornell, 2023), increasing the likelihood of covering a larger and more diverse population group. To increase the accessibility of the survey, paper copies were created and distributed across various locations in Chingola. To create a diverse demographic study sample, most copies were given to large hotels, shops and churches, as these locations attract people from all over the Chingola area. Additionally, the paper copies were distributed through local contacts. The online version of the survey was circulated using local contacts, the Chingola Facebook group, and the local radio.

The survey started with some demographics. The respondents were then asked to give their life a satisfaction score ranging between 0 and 100. Next, they were asked to identify the impact of the mine on their quality of life, their satisfaction with the mining presence, and impacts specific to their area. The last part of the survey consisted of objective and subjective questions which are directly linked with the domains from the framework. In this part of the survey, all the subjective questions are measured using a Likert Scale. At these questions, the respondents were given the possibility of 5 different answers, ranging from 1: Strongly Satisfied to 5: Strongly Dissatisfied.

In total, data was collected from 394 valid responses. The data indicates a diverse distribution among the neighborhoods in the Chingola town area. The study sample also includes slightly more males (61%) than females (39%), with a mean age of 31 years old. Nearly half of the respondents are employed (49.2%), with the majority working in non-mining related sectors (45.4%), followed by the mining sector (41.1%), and mining-related sectors (13.5%).

This research utilizes a variety of qualitative methods, including interviews, a focus group discussion, and participatory research. The interviews aim to capture diverse perspectives from a range of actors, focusing on both governmental and non-governmental actors, as well as mining-related and non-mining-related actors. The interviews included local government officials, healthcare professionals, seasonal farmers, mining sector employees/ business owners, and various non-mining-related actors. In total, 14 semi-structured interviews were conducted, averaging 37 minutes each, in private settings. To ensure rich data, purposive sampling was used to select participants from government, healthcare, farming, and mining sectors, along with young adults.

Random sampling was employed for non-mining-related actors. Additionally, a focus group discussion with 40 secondary school students (aged 16 to 18) provides insights into the next generation's outlook on the future of mining. Participatory research, consisting of continuous observations throughout the fieldwork, offers context and enhances the interpretation of the findings (Hennink et al., 2020).

Positionality

As a white European researcher conducting research in an African country, it was crucial to recognize the complexities associated with the positionality of an 'outsider' engaging with a community that has a different cultural, social, and historical background. The colonial history of Zambia might have played an important role in how the local community perceived me, as the country had been colonized by the British until 1964 (Gordan, 2012). This colonial perspective might explain why mining was a sensitive topic, as the country's mineral wealth was a primary motive for British colonization. Furthermore, the industry's colonial legacy has created a path-dependent "enclave economy", primarily benefiting foreign actors at the expense of local communities (Noyoo, 2021). Therefore, reflexivity, humility, and trust-building were crucial aspects while conducting this research.

Data analysis

Multilinear regressions were conducted to analyze the relationships between quality of life, satisfaction with mining, mining impacts, housing prices, and various demographic variables. Due to limited data, some variables, such as 'years in mining' and 'position in the mining industry', were excluded. A 'Mining dependency' variable was created to differentiate between those dependent on the mining industry and others. In terms of employment status, the 'Retired' category was excluded to focus on the stress associated with looking for employment. Additionally, relationship status categories were combined to distinguish between individuals in a relationship and those who are not. The multi linear regression used to measure the impact of mining proximity on the housing prices is performed with and without controlling for the geographical location, housing characteristics, and safety level, thereby controlling for potential cofounding factors. A single linear regression has been performed to examine the relation between individuals' quality of life score and their satisfaction with the mining presence. Lastly, the relationship between employment status/sector and the quality-of-life score, mining presence satisfaction, education level, and income, have been analyzed using an ANOVA test. The analysis used SPSS and Python, with an alpha value of 0.10 for statistical significance. Missing data were handled using listwise deletion, assuming the data were Missing Completely at Random (Van Buuren, 2018). The

interviews have been transcribed and systematically coded to highlight and exemplify the core themes, patterns, and key insights, allowing for a deeper interpretation and critical analysis of the data (Fereday & Muir-Cochrane, 2006).

Results & Discussion

While mining activities are integral to the supply of critical minerals, necessary for renewable energy technologies, they present both economic opportunities and significant challenges. Therefore, this study showcases both the benefits and burdens of mining as well as its impact on quality of life. Among the respondents in Chingola, 16% indicated that mining has no impact on their quality of life, while 20% reported minimal impact, 30% perceived moderate influence, and 34% reported that mining affects their quality of life significantly. Negative impacts were primarily linked to environmental degradation, with water and air pollution (56% each), noise pollution (48%), dust pollution (44%), and landscape degradation (37%) being the most concerning. These issues were corroborated by interviews highlighting water contamination from chemical dumping, which has harmed crop farming and natural ecosystems. Air and dust pollution have been associated with occupational lung diseases, particularly silicosis, and respiratory infections. Housing damage from mining explosives is another common issue. Despite this, when controlling for confounding factors, the mine itself does not appear to have a degrading impact on housing prices. Furthermore, a substantial part (31%) of the respondents' report having safety concerns, income insecurity (19%), and/ or experiencing income inequality (21%). Some interviewees suggested the latter could be explained by the relatively scarce number of high-paying positions in the sector. Furthermore, the observations and interview data highlight an increase in criminal activity, prostitution, substance use and general violence, because of the closure of the mine.

Despite these negative impacts, mining also has positive impacts for the people of Chingola. Over half of the respondents cited household income (53%) and employment opportunities in the mine (50%) as significant benefits. Community facilities like schools, hospitals, and sports grounds, funded through Corporate Social Responsibility (CSR) initiatives, have also been mentioned as positive mining contributions, though their extent depends on the mine's success and goals. Therefore, there is concern about short-term profit goals and political corruption limiting these investments, which, according to the interviews, has been the reason for a lack of CSR in the past decade. This dependency on mining underscores the need for economic diversification to reduce community vulnerability.

The analysis further shows that these impacts are not equally distributed within the community (Table 1). For instance, the proximity to the mine significantly

correlates with increased water and air pollution. Additionally, the areas closer to the mining site often consist of lower-quality housing, with more residents unable to afford bottled water or medical assistance. In contrast, more affluent neighborhoods, farther from the mine, have higher rental prices and are inhabited by a population of older and higher educated individuals, often employed in the mining sector. Based on the interview data, this could be attributed to more employment and CSR in the past. Furthermore, women notably experience fewer mining- and mining related job opportunities compared to males.

The unequal distribution of the PMI and NMI is of great importance as residents' satisfaction with the mining presence is significantly correlated with the quality-of-life score, with lower satisfactions corresponding to lower quality of life scores. Only mining dependency has been found to be a significant demographic predictor for higher levels of mining presence satisfaction. However, this satisfaction level is also significantly influenced by the residents' environmental and geographical satisfaction. Respondents with lower satisfaction in these two domains are less satisfied with the presence of the mine. Geographical satisfaction is significantly lower for respondents that live closer to the mine and environmental satisfaction is significantly lower for respondents with higher levels of water-, air-, and noise pollution, and landscape degradation (Table.3). The importance of economic satisfaction comes forth when examining the relationship between the quality-of-life domains and the quality-of-life score (Table.2), as besides environmental and geographical satisfaction, economic satisfaction exhibits a significant correlation as well (the largest). When satisfaction with these three domains decreases, there is a significant decrease in overall quality of life. Moreover, economic satisfaction is positively influenced by mining related job opportunities and income and negatively influenced by income insecurity (Table.3). The significant role of job opportunities is supported by the fact that respondents who are employed report an average quality of life score that is 7.7% higher than those who are unemployed, with those who work in the mining and mining related sector reporting the highest quality of life scores.

Table 1: Demographic distributions of mining impacts (unstandardized coefficients) Confidence interval =*90%,95%,***99%**

	Dependent variable(s)													
	Negative										*Positive*			
Independent variable(s)	Water pollution (N=277)	Air pollution (N=276)	Health (N=240)	Noise pollution (N=275)	Dust pollution (N=275)	Landscape degradation (N=274)	Safety (N=258)	Labour migrants (N=258)	Income disparity (N=257)	Income insecurity (N=268)	Income (N=134)	Mining job opportunities (N=268)	Mining related job opportunities (N=266)	Training/ learning opportunities. (N=265)
(Constant)	3.107 *** (0.400)	3.132*** (0.331)	103.227*** (8.034)	2.498*** (0.345)	2.428*** (0.320)	2.613*** (0.252)	2.693*** (0.443)	2.150*** (0.291)	1.872*** (0.322)	2.204*** (0.287)	-30,314.555** (11,357.323)	1.604*** (0.347)	1.991*** (0.339)	2.382*** (0.404)
Area of residence	-0.196** (0.081)	-0.109* (0.067)	-1.940 (1.568)	-0.100 (0.070)	-0.007 (0.065)	0.005 (0.051)	-0.106 (0.089)	-0.066 (0.058)	-0.036 (0.064)	-0.003 (0.058)	855.413 (2,366.628)	-0.040 (0.070)	-0.067 (0.068)	-0.082 (0.082)
Sex	-0.070 (0.146)	-0.027 (0.121)	-3.371 (2.869)	-0.019 (0.126)	0.039 (0.117)	-0.127 (0.092)	-0.062 (0.159)	-0.208** (0.104)	0.081 (0.116)	-0.041 (0.105)	-3,277.427 (4,482.961)	-0.324** (0.126)	-0.308** (0.124)	-0.144 (0.148)
Age	0.006 (0.008)	0.005 (0.007)	-.397* (0.154)	0.002 (0.007)	-0.001 (0.006)	0.017*** (0.005)	-0.006 (0.009)	-0.004 (0.006)	0.012* (0.006)	-0.001 (0.006)	776.793** (242.587)	0.001 (0.007)	0.003 (0.007)	-0.006 (0.008)
Relationship status	0.076 (0.147)	0.182 (0.122)	-.070 (2.964)	-0.004 (0.127)	0.057 (0.119)	-0.061 (0.093)	0.199 (0.163)	0.032 (0.107)	-0.038 (0.119)	-0.271** (0.107)	-6,098.635 (4,493.580)	-0.208 (0.128)	-0.249** (0.126)	-0.355** (0.151)
Household size	0.006 (0.029)	-0.001 (0.024)	0.146 (0.570)	0.008 (0.025)	0.043* (0.023)	0.005 (0.018)	-0.033 (0.032)	0.036* (0.021)	-0.023 (0.023)	0.008 (0.021)	-1,108.024 (824.753)	0.035 (0.025)	0.055** (0.025)	0.049* (0.029)
Education level	0.032 (0.078)	-0.070 (0.064)	-1.071 (1.531)	-0.111* (0.067)	-0.126** (0.062)	0.012 (0.049)	0.158* (0.085)	-0.003 (0.056)	0.203*** (0.062)	0.081 (0.056)	4,891.405** (2,196.839)	0.019 (0.067)	-0.030 (0.066)	-0.064 (0.079)
Employment status	0.082 (0.150)	-0.207* (0.124)	-.852 (2.979)	0.090 (0.130)	0.056 (0.121)	-0.083 (0.095)	-0.090 (0.165)	0.131 (0.108)	0.059 (0.120)	0.118 (0.108)	-247.951 (4,377.637)	0.511*** (0.130)	0.290** (0.127)	0.455** (0.152)
Mining dependency	0.184 (0.144)	-0.040 (0.120)	-.058 (2.824)	0.012 (0.125)	-0.089 (0.116)	-0.018 (0.091)	-0.050 (0.157)	0.014 (0.103)	-0.141 (0.114)	0.053 (0.103)	2,335.855 (4,069.592)	-0.031 (0.123)	-0.018 (0.121)	-0.041 (0.144)

Table 2: Influence quality of life domain satisfaction on quality-of-life score; Controlled for demographics; Confidence interval =*90%,95%,***99%; Grey: significant variable.**

		Unstandardized Coefficient		***Standardised Coefficients***	***Significance***
Dependent variable	Independent variable(s)	*B*	*Std. Error*	*Beta*	*P-Value*
Quality of life (N=251)	(Constant)	87.539	9.144		<0.001
	Environmental satisfaction	-3.940	1.342	-0.199	0.004**
	Economic satisfaction	-7.173	1.368	-0.351	<0.001***
	Social satisfaction	-1.178	1.589	-0.051	0.459
	Geographical satisfaction	-2.343	1.272	-0.116	0.067*
	Personal satisfaction	0.094	1.264	0.005	0.941
	Housing satisfaction	0.565	1.216	0.029	0.643

*R= 0.595

*R Square= 0.354

*Adjusted R Square= 0.315

Table 3: Influence of satisfaction indicators on the domain satisfaction levels; Controlled for demographics; Unstandardized Coefficient (Coefficients Standard Error); Confidence interval=*90%,95%,***99%; Grey: significant variable; Red: linked NMI; Green: linked PMI; Blue: MRI; IV's = Independent variables, DV's = Dependent variables.**

	Quality of life domain indicators (IV's)				
Quality of life domains (DV's)	Water pollution	Air pollution	Dust pollution	Noise pollution	Landscape degradation
Environmental satisfaction (N=287)	0.356*** (0.061)	0.200** (0.082)	0.080 (0.089)	0.147* (0.082)	0.266** (0.091)
	Income	Mining job opportunities	Mining related job opportunities	Training/ learning opportunities	Income insecurity
Economic satisfaction (N=140)	-1.364E-5*** (0.000)	0.048 (0.119)	-0.418*** (0.123)	0.004 (0.101)	0.340** (0.123)
	Relationship quality	Community participation	Safety concerns	Labour migration	Income disparity
Social satisfaction (N=143)	-0.125*** (0.029)	0.117 (0.077)	0.232** (0.074)	0.134 (0.115)	-0.093 (0.093)

	Hospital proximity	Bus station proximity	Train station proximity	Main road proximity	Mining area proximity
Geographical satisfaction (N=238)	0.349*** (0.064)	-0.039 (0.076)	0.019** (0.053)	0.067 (0.074)	-0.097* (0.060)
	Sleep	Self-esteem	Physical activity	Personal time	General health
Personal satisfaction (N=246)	-0.093 (0.094)	-0.102*** (0.029)	-0.008 (0.031)	0.077 (0.049)	-0.027*** (0.003)
	Number bedrooms	Number bathroom	Housing material	Housing price (rent)	Electricity supply
Housing satisfaction (N=108)	-0.367** (0.160)	-0.266 (0.189)	-0.100 (0.175)	-4.759E-5 (0.000)	-1.578** (0.645)

However, although mining is currently the most prominent employer in Chingola and many other African cities (Bauer, 2023), the data highlights the fear among the population regarding the persistent modernization of the industry, which will potentially make low-skilled mining employees redundant (Inter Governmental Forum, 2023). In the case of Chingola, where much of the population is 'low-skilled' and have few employment alternatives, this will likely only exaggerate the inequality between those "who have" and those "who don't have". Only in terms of gender inequality, literature suggests that modernization has the potential to increase job opportunities for women

(Corneau, 2019). Furthermore, technological advancements reduce local entrepreneurial opportunities, making diversification even more urgent (Olvera & Iizuka, 2023).

While modernization might pose a threat for the local communities in terms of a reduction in employment, the modernization of the mining industry — e.g. more advanced filters, precise extraction, and the use of green energy sources — seems to be necessary to increase the sustainability of the mining activities (Buzinkay, 2022). As evident from this research, mining induced pollution and degradation heavily influences residents' general satisfaction with their environment, which is extremely important for an individual's quality of life (Table.2). Although the government/mining officials, including the DC, the Mayor, and the KCM employee, present a narrative that is markedly optimistic about the mining industry's impact on the community, emphasing the sector's vital role in generating employment, economic growth, and enhancing the community's overall standard of living, they overshadow the prevalent NMI experienced by the local residents. This contrasting view is also evident in the data regarding compensation related to the NMI, as only mining employees are getting compensated by the mining companies. The interviews and observations largely attribute this to government corruption which obstructs the fair and transparent evaluation of compensation claims. Therefore, this study advocates for an independent (reliable) mining complaints office, which would be located in important mining regions to increase its accessibility.

In short, the modernization of the mining industry seems to be having a negative impact on the benefits of mining - which have a positive influence on residents' quality of life - and a positive impact on the costs of mining - which have a negative impact on quality of life. To make mining towns like Chingola prone to the future and in line with a 'just' energy transition, policy interventions need to be implemented to guide the modernization in a responsible way. These policies are advised to focus on the diversification of the economic sector, as this would provide space for mining companies to apply sustainable and efficient modern technologies without concern about its impact on the job market. The possibility of diversification primarily lies in agriculture. To make sure that the responsibility to diversify is not only put on the government but also recommended to make diversification of the local community a mandatory component in the mining companies' CSR programs.

Limitations

The quantitative study sample has limitations due to uneven representation across demographic categories, particularly in areas of residence, as only three neighbourhoods had more than 40 respondents. This uneven representation affects the generalizability of the results. To mitigate this, neighborhoods were

grouped by proximity to the mine, but specific area-based conclusions regarding PMI and NMI cannot be drawn. Excluding 'retired' respondents also skewed the age variable, underrepresenting older groups, and the exclusion of 'mining-position' and 'mining-experience' variables, further limits the analysis. The qualitative sample is constrained by the lack of data from year-round farmers, who rely on river water and are likely more affected by contamination. This data is vital, especially given the government's interest in expanding the agricultural sector (ZDA, 2020). Finally, the survey questions on mining impacts did not specify a timeframe, potentially leading to variability in responses regarding the mine's positive impacts during different operational periods.

Recommendations for future research

While this research provides important insights into how mining affects various aspects of quality of life, further investigation is needed into the role of political control and governmental strategies in balancing mining's positive and negative effects. Such research would help identify necessary political actions to ensure a sustainable impact on residents' quality of life. Finally, re-conducting this research when the mine is fully operational would improve data accuracy and allow for comparative analysis under different conditions, as the closing of the mine has had an enormous impact on the living environment and mental state of the people of Chingola.

Conclusion

By employing a Mixed Method Approach, this study investigated the impact of extensive open-pit mining on the quality of life of local communities in Chingola, Zambia. The findings indicate that a majority of the residents feel that their quality of life is impacted a lot by the mining presence. When looking at how the residents are impacted by the mine, the results indicate a complex interplay of positive and negative impacts. On one hand, mining significantly contributed to local employment and social- and transportational infrastructure development (CSR), which has enhanced quality of life for many residents. However, the employment benefits are not evenly distributed, leading to income disparities and income insecurity within the community, from which the latter is primarily applied to those who are unemployed, which are often also less educated. Moreover, women highlight having fewer mining (related) job opportunities than men.

This economic 'polarization' is further exacerbated by the negative environmental impacts caused by mining activities, as those who are unemployed experience significantly more air pollution, and those who are lower educated express more noise and dust pollution. This could be primarily attributed to the proximity to the mine, as those who are higher educated live in

more expensive houses further away from the mine. The importance of mining proximity can also be seen in the fact that those who live close to the mine highlight having poorer water and air quality, suffer more from housing damage due to the mining explosions, and are less satisfied with their living location, which has been found to be significantly important in determining quality of life. Those whose health is negatively affected by the mine, but do not work for the mine, are not compensated for their suffering, exaggerating the inequality between the mining beneficiaries and the remaining population. Contrary to what the local authorities claim, compensation for the negative mining induced impacts is more the exception than the rule. This could be attributed to a lack of accessibility (where to complain) and reliability (corruption). This is important as residents who are dissatisfied with their environmental conditions tend to have significantly lower satisfaction with the mine in general. In contrast, those who work in mining or mining-related jobs, typically higher educated, are generally more satisfied with the mine than those whose income does not depend directly on it. Moreover, a lower satisfaction with the mine has been found to be significantly correlated with a lower quality of life score. On the contrary, an increase of satisfaction in terms of economic conditions is significantly correlated with an increase in quality-of-life score. Therefore, employed individuals, primarily those employed by the mining sector, indicate to have a better quality of life than those who are unemployed. The Chingola residents are, however, totally dependent on the employment opportunities created by the mine. A sudden halt therefore has disastrous consequences, e.g. the increase of crime and violence. The rise of modern mining technologies could have the same consequences, as low-skilled mining job opportunities would potentially be reduced. However, to mine in a sustainable way, these modern technologies seem to be needed. It is therefore of utmost importance to address the negative impact of modernization. According to this study, this requires a reduction in mining dependency, which could be done by diversification investments. As this would increase governmental expenses, the government is advised to make diversification investments mandatory in CSR programs. Furthermore, more responsibility must be taken in preventing environmental degradation and pollution (regulations & control) and the compensation process must be made more accessible and reliable, which could be done by initiating an independent complaint office. These measurements would potentially decrease the community's dependency on mining profits and jobs; decrease environmental degradation; and improve the compensation processes, all contributing to a better quality of life.

Reflection

I learned that mining, while often economically beneficial, can have significant negative impacts on the quality of life in local communities, as demonstrated by the case study of Chingola, Zambia. The research highlights this complex

interplay by showing both positive impacts, e.g. local investments and job opportunities, and negative impacts, e.g. environmental degradation, economic inequality, and community dependency. Most of these impacts have a significant impact on residents' satisfaction with the mine and its general quality of life. This matters because it shows how crucial it is to address these challenges, especially in the context of Africa's role in the global energy transition, which relies heavily on the extraction of critical minerals.

This experience highlights the need to balance development with environmental and social responsibility. Understanding these dynamics is crucial for creating policies that ensure a fair distribution of benefits, especially in regions where mining drives both progress and challenges. Culturally, the research also reminds us of the lingering effects of colonial exploitation, as modern mining practices can continue to mirror past inequalities if not properly managed. Therefore, to ensure a 'just' energy transition, research must continue in trying to understand this complex duality.

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The invisible side of nickel in EV batteries: The social impacts of nickel industries on local communities

O. Liang

Policy brief

The invisible side of nickel in EV batteries:

The social impacts of nickel industries on local communities

Summary

- The nickel industries have led to significant social impacts, drastically changing the livelihoods of the local communities.
- Social impacts lead to disruption of people's daily life and a total transformation of livelihood. Livelihood goes beyond the economic capabilities of people and include social and cultural values.
- The positive impacts of nickel industries have provided job and business opportunities and diversification of income sources.
- The nickel industries have also multiple negative impacts: environmental, social and cultural.
- The impacts are different for nickel extraction (upstream) and nickel processing (downstream). Downstream activities lead to more industrialisation and disorganised urbanisation, exacerbating negative impacts.
- The nickel companies affect the local communities differently, depending on the history, characteristics and needs of each local village, as well as the characteristics of the companies involved.
- CSR implementations by the nickel companies are insufficient to address the problems faced by local communities.

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Background

The **energy transition** is considered a pivotal step in achieving climate neutrality and reducing carbon emissions. To address climate change and reduce dependency on fossil fuels, the solutions have shifted towards **"green" energy technologies**, such as electric batteries. The production of these "green" technologies necessitates **minerals** such as lithium, cobalt, and nickel. Especially the **demand for nickel is growing**, as **nickel is considered a crucial component for vehicle batteries**. Western governments are eager to secure these nickel minerals.

The **largest nickel reserves are in Indonesia**, particularly in Sulawesi. Initially focused on nickel extraction, Indonesia has expanded its nickel industry to include downstream processing. This expansion is supported by Sino-Indonesian cooperation under the Belt and Road Initiative (BRI). Indonesia plans to establish more nickel industrial parks to meet global nickel demand.

While green technologies are seen as solutions for combating climate change, and investments in mineral extraction are increasing, it is important to examine the conditions in which nickel is extracted and processed **considering sustainability and social responsibility**. This raises the question about what the **social impacts** are of nickel extraction and processing.

How do the nickel industries impact the livelihoods of local communities in Morowali, Indonesia? With this research questions, the research aims to understand how the livelihoods and experiences of local communities have changed since the arrival of the nickel industries. The study conducted twenty-eight in-depth interviews and three focus group discussions with local communities. Additionally, interviews with various actors, including representatives from nickel companies, government, and local NGOs have been taken to study the social impacts of the nickel industry on local communities.

Case:

"Due to the water pollution from the nickel industrial operations the amount of fish in the sea has reduced. Now we have to go fishing to a place much further away. It uses more gasoline but we get less revenue. Instead, I had to work at the nickel company, but I resigned as I became physically ill. My wife stays at home to take care of the children and to earn a bit more money she collects plastic waste for recycling. We cannot afford to send our children to school. Meanwhile, migrants have moved here to start small businesses, while we the fishermen do not have the capital to start a business."

- 36 years old, fishermen from the fisher community Kurisa

Negative social impacts:

- physical displacement
- health problems due to air pollution
- heavy daily traffic
- bad quality of road
- inflation
- increase of prostitution
- limited access to education and bad quality of education
- limited access to basic services: housing, sanitation and waste management

Negative environmental impacts:

- loss of agriculture land
- dust
- noise pollution
- air pollution
- water pollution
- deforestation

Key findings

The nickel industries have led to significant changes to the daily life and livelihoods of the local communities surrounding the nickel industries in Indonesia. Social impacts are lived experiences of people.

Disorganised urbanisation. The visual landscape has changed from farmland and forest to a disorganized and informal urban area resembling a slum. The expansion of the nickel industrial park leads to the rapid, disorganised urbanisation, occurring at a pace that the government, companies, and population cannot keep up with.

The industrialization driven by nickel companies has led to an informal economy and attracted a substantial number of migrant workers and families (from more than ten different ethnic backgrounds). This leads to inequality, competition and social conflicts between local people and newcomers. Furthermore, disputes among neighbours have increased and escalated. The emergence of prostitution has led to fears of infidelity and higher chance of family disruptions. Relationships among villagers have weakened compared to the farming era, with a shift from communal to individualistic lifestyles.

Livelihood Transformations. People's livelihoods have changed, shifting from farming to industrial work and businesses. Only a few farmers remain, with some livestock. Most people from the local communities now work in the nickel industry or engage in informal businesses. This represents a drastic change in their daily lives, not only economically but also in term of social relations, cultural practices and values. There is a noticeable lack of social cohesion and a loss of cultural traditions among the local communities.

Furthermore, there is a lack of transparency regarding the operations of the nickel companies. As the nickel processing industries expand, people are being driven away from their land. This situation leaves people living in uncertainty, unsure when their land might be occupied by the nickel companies. Without sufficient channels for the communities to address their problems and concerns, people feel hopeless and worried.

Not everyone is able to adapt to the new livelihoods. Certain groups struggle to adapt due to a lack of assets, resources, social networks, and financial management skills. The community of landless fishers, in particular, finds itself in a vulnerable position. Their daily cultural practices and traditional values are diminished as they are forced to change livelihoods.

The impacts are different for nickel extraction (upstream) and nickel processing (downstream). Downstream activities lead to more industrialisation and disorganised urbanisation, exacerbating negative impacts. In addition, the nickel companies affect the local communities differently, depending on the history, characteristics and needs of each local village, as well as the characteristics of the companies involved.

CSR. The CSR programs of the nickel companies fail to adequately support the vulnerable groups, the most impacted by the nickel industries. These programs do not effectively help them adapt to new livelihoods or provide them alternatives. The material and financial support provided are insufficient, not tailored to the specific needs of the community, and it does not reach the vulnerable people within the communities.

Policy recommendations

1. Examine the entire value chain

Examine the entire value chain of the electric vehicle batteries, from the early stage of the production process, such as extraction to the final stages of disposal or recycling. The production of every part of the battery cycle should be examined to minimise its socio-environmental impacts. Enhancing supply chain transparency of EV batteries is therefore essential.

2. Prioritise social impacts

Policies should prioritise social impacts over mineral security in the energy transition. It is crucial to prioritise sustainability and social, environmental and cultural impacts in the extraction of minerals. It should incentivize companies to integrate socio-environmental considerations into their operations, emphasizing meaningful social impact assessments that extend beyond quantitative metrics.

3. Support local organisations

International stakeholders should actively **support local organisations** that advocate for community concerns and priorities. Establishing accessible grievance techanisms is equally crucial to ensure effective resolution of the issues faced by the local communities.

Author:
Oei Men Liang

Disclaimer:

This brief was developed as part of the fulfilment of the Master's program International Development Studies at Utrecht University. The author conducted qualitative ethnographic research with twenty eight in-depth interviews and three focus group discussions with the local communities on the social impacts of the nickel industries on the local communities in Morowali, Central Sulawesi, Indonesia from January to June 2024. The author reports no conflict of interest.

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Working towards a Fair Green Hydrogen Partnership between the Port of Pecém and the Port of Rotterdam

T. de Coninck

Policy Brief

03/07/2024
Tomas de Coninck

Verde Para Todos ("Green for Everyone")

Working towards a Fair Green Hydrogen Partnership between the Port of Pecém and the Port of Rotterdam

Introduction

On May 10th 2023 an agreement was signed between the Port of Pecém, located in Ceará, the northeast state of Brazil, and the Port of Rotterdam for the creation of a Brazilian-Dutch 'Green Hydrogen Corridor' (Port of Rotterdam, 2023). This agreement created a partnership between both ports in which green hydrogen produced in the Complex of Pecém will be shipped to the Port of Rotterdam, to then distribute it over the Netherlands and the rest of Europe. With this partnership they hope to create a win-win situation for both sides: contributing to decarbonisation of the European energy market, while promoting sustainable development in the region of Ceará.

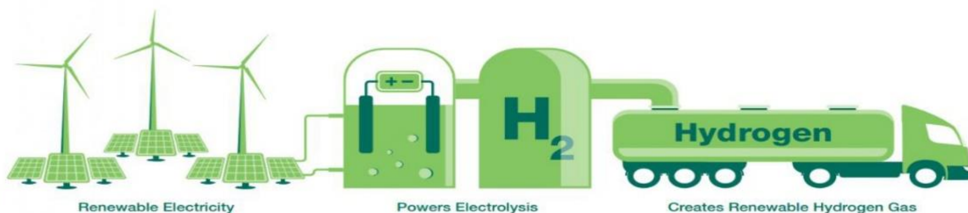
Port of Rotterdam (2023)

Lots of developments are currently taking place within Ceará to build the infrastructure that is needed to facilitate green hydrogen production there. All these developments demand a lot of land, water and energy. Among these new infrastructures are hydrogen pipelines, renewable energy generation projects, and port expansions. These are infrastructures that have all been proven before to impact the population and environment in which they are sited. The increasing amount of infrastructures for GH2 production could, therefore, have negative consequences for the people and the environment of Ceará (de Andrade Meireles et al., 2013; Freitas, 2006; Gorayeb et al., 2016 Meireles et al., 2018).

How is the Pecém-Rotterdam partnership addressing these impacts and risks? If the Pecém-Rotterdam partnership truly wants to contribute to sustainable development in Ceará they will need to make sure that the benefits and risks of green hydrogen production and trade are evenly distributed over the population in Ceará. Integrating factors like inclusivity and equal recognition of all societal groups in the development plans for the Green Hydrogen Corridor will be important to work towards this goal of sustainable development. Only then can they make sure that the partnership leads to a true win-win scenario for everyone.

About the Study

This document provides an evaluation of the Pecém-Rotterdam partnership in their development of a Brazilian-Dutch 'Green Hydrogen Corridor'. It seeks to examine how the partnership contributes to fair and inclusive sustainable development for the region of Ceará. It will provide limitations and recommendations for the partnership's practices. The document draws from the MSc thesis on Energy Justice within the Pecém-Rotterdam GH2 partnership by de Coninck (2024), provided in the annex. In this study qualitative analysis was done by conducting six stakeholder/expert interviews, observations at green hydrogen events, a field visit to the Port of Pecém, and an extensive document analysis.



Flowserve (2022)

Green Hydrogen

Hydrogen is an energy carrier that can be used to store, move and deliver energy produced from other sources. It is a low-carbon energy fuel, which in opposition to other energy fuel processes, such as burning natural gas, does not release high amounts of carbon dioxide in its production process (IEA, 2023).

Hydrogen can be produced from a variety of resources, such as natural gas, nuclear power, biogas and renewable power (e.i. wind or solar). When renewable energy resources are used to produce hydrogen it is called green hydrogen. In this process hydrogen is created by utilizing electricity to operate an electrolyzer, which separates hydrogen from water molecules. The low amount of carbon dioxide that is released throughout the production process makes green hydrogen a useful energy source for the energy transition (IEA, 2023).

Main Findings

Economic over Social Priorities

The Pecém-Rotterdam GH2 partnership is mainly seen by actors as a business opportunity. For this reason, economic considerations are found to be prioritized by its actors over social considerations. A Port of Rotterdam manager indicated, for instance, that it is too early to integrate energy justice, which looks at the ways in which energy transitions can create or exacerbate existing inequalities between social groups, in the plans and decision-making in the Pecém-Rotterdam GH2 corridor. Although the manager indicated that energy justice is definitely something they want to integrate in the future, they did not think that it was feasible yet.

> ***"There are too many other problems in the field of economic feasibility to worry about that right now."***
>
> - Port of Rotterdam Manager

Not integrating such perspectives in the early development of the GH2 corridor could already show to be harmful. The prospects of the Pecém-Rotterdam GH2 corridor create a high demand for renewable energy generation. These renewable energy projects are creating conflicts with the communities that live near these proposed projects, as they are found to have a considerable impact on the livelihoods of these communities. It is unsure whether the partnership can contribute to inclusive sustainable development if the even distribution of negative impacts of the GH2 industry is not accounted for by the partnership.

Development for Whom?

In addition, the Pecém-Rotterdam GH2 partnership states that it will bring considerable development to the state of Ceará through job opportunities, income opportunities, and private investments. They, for instance, say that 80.000 jobs will be created by the future Pecém-Rotterdam 'Green Hydrogen Corridor'. These protections have questionable prospects, as most of the jobs that will be created are only temporary (Caiafa et al., 2023). After the construction phase of green hydrogen industries there will be only a limited amount of jobs available in the sector. Green hydrogen industries will only need a small number of employees to operate them. This would mean the benefits of the industries will only be gained by a small part of the population of Ceará. Only the already advantaged high-educated population will most likely benefit, in opposition to the low-skilled disadvantaged groups of society. Consequently, the Pecém-Rotterdam GH2 corridor could increase the already existing inequalities in the state of Ceará

Despite these concerns, the partnership does not indicate any clear plans to have more disadvantaged groups in Cearense society benefiting from the Pecém-Rotterdam GH2 corridor. This can be attributed to the fact that there are no general documents in relation to the specific partnership in itself and the development of the GH2 corridor.

Policy Recommendations

1. Enhance Transparency and Accountability

Create a comprehensive document that describes how future developments of the Pecém-Rotterdam GH2 corridor will take place.

2. Prioritize Inclusivity and Energy Justice Principles

Prioritizing inclusivity and energy justice over economic considerations to make sure that a fair partnership will take place, integrating how benefits will be distributed evenly and how impacts will be accounted for and compensated for in a fair way.

3. Create Community Benefit Initiatives

Programs such as Renda do Sol, which include poor families through community solar microgeneration projects are examples of projects that can help to create a broader distribution of benefits over different groups in Cearense society. Expanding on such projects and creating new projects like this one can help to improve inclusivity and equal development.

Author:
Tomas de Coninck

Disclaimer:
This brief was developed as part of the partial fulfilment of the Master's program International Development Studies at Utrecht University. The Author conducted 6 in-depth interviews, in combination with events' observations, and a document review from February till June. The author reports no conflict of interest.

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Valedictory lecture Annelies Zoomers

Brave New World? About Development as Freedom, the Foreignization of Space and Migration

Annelies Zoomers

Valedictory lecture, delivered at the farewell as professor of International Development Studies at Utrecht University on September 26, 2024, Utrecht University (complete version).

Esteemed Colleagues, dear students, (...),

Introduction

Let me start on the bright side – not with science, but with fantasy. Ninety-three years ago (in 1931) Aldous Huxley wrote his famous novel – Brave New World (!). In this fantastic book, Huxley looks ahead to the future. The book was written in a gloomy period (sandwiched between World War I and World War II); a period of severe crises; but also, at the height of an era of technological optimism in the West. It was the time of Henry Ford (the great industrialist who pioneered industrialized, standardized mass production and mass consumption). In his book, Huxley tries to show a picture of what technological innovation means for the future of the Western world.

Just Imagine: it is the year 632 after Ford (or converted: the year 2540). The planet is united politically as "World State". The Controllers who govern the World State have maximized human happiness by using advanced technology to shape and control society. It is a society in which babies are no longer 'normally' born (that is primitive): people are raised in bottles and children do not go to school (but are brainwashed in their sleep – sleep teaching!). The citizens of the World State are physically and mentally conditioned to be happy with their place in society and the work they are assigned. Everyone belongs to a "caste", ranging from highly intelligent and physically strong Alphas to Epsilon (a kind of inferior group called "semi-morons"). Lower-caste people are produced in batches of more than a hundred identical twins and live their whole lives alongside their duplicates. Within the class into which you are born, everyone is identical and 'fit for purpose': 100% suitable for the tasks assigned to you (what employer doesn't dream of that?). Everything is also in order from a material point of view: all citizens have instant access to pleasures of all kinds. People are conditioned and socially encouraged to be sexually active (not for

reproduction – but purely for pleasure, a distraction from daily routine) . "Whenever citizens do experience an unpleasant feeling, they are encouraged to take soma, a drug which provides a 'holiday' from negative emotion; or go to the movies (but of a type providing people with a physical sensation)".

In this 'brave new world' everyone is happy: there is no stress - and no suffering. Within the World State, there are no reasons for resistance: emotions have been banished and distraction through art or religion is unnecessary. The only exception –people who still have reasons to be unhappy- might be a small group of 'primitives' who - confined in the Savage Reservation - still gave birth, believe in gods and endure physical pain and emotional suffering. The main reason for maintaining this reserve was science: a good place to do research!

Unfortunately, I do not have time to discuss the book in full detail. I recommend that you find time to read it yourself! The core of the story is that - no matter how well-organized the new society is and how high the material prosperity - a dystopia has emerged: this brave new world turns out to be the opposite of a 'real brave world'. It happens to be a very unpleasant society: People are not only identical (which is of course boring) – they are completely conditioned and only do the predictable. 'Soft' things such as true love, lifetime marriage or friendship, or family relations no longer exist. Most important, however: here - people cannot live life according to their own standards or aspirations. People become 'depersonalized' and are no longer able to make their own decisions.

Paraguay

When carrying out PhD research in Paraguay - during the regime of Alfredo Stroessner, I experienced what it is like to live under totalitarianism - a system in which the entire society is subordinated to the idea of the state and where politics penetrates through the entire society - There was a culture of fear among the population – the Colorado Party followed you in everything you did; fake information and propaganda allowed Alfredo Stoessner to remain in power for more than 35 years (from 1954 to 1989). Stroessner was president, military commander-in-chief and honorary chairman of the Colorado party. He turned the Colorados into a hierarchical instrument of power that permeated the entire society. The only way to have a career was to become a member of the Colorado party - as a non-party member the only thing you could do was to follow the rules – obey - and keep silent.

Brave new world is a warning against the dehumanizing aspects of scientific and material progress. The book shows what happens when people become subordinated (for whatever reason) to a 'system' that puts an end to individual freedom! It's about the inability to exercise control over your own life (and body) and about the loss of personal responsibility! There are great parallels with

George Orwell's 'Nineteen Eighty-Four', which was written in 1948, but where not 'consumption and pleasure' bring ruin - but an evil government: big brother: Orwell shows a society where the government (through technology) is able to monitor and control every aspect of human life. Big brother sees to it that all people follow the rules and obey authority. I am sure: also, in this society you would not want to live. In Huxley's case, it is technology and science – pleasure and distraction – that hold sway and capture people. In Orwell's case it is the totalitarian government that controls society – Big Brother ruling from above and depriving people of their freedoms - a society permeated by a culture of fear and misinformation. In both cases we see brave people trying to rebel against society, but in all cases such individuals do not have the power to change the system.

When Huxley in 1958 (16 years after the publications of his book) gave an update, he concluded that both societies – Brave New world and Orwell's 1984 had come into existence. The feared dystopias presented themselves much earlier than he could have expected – and side by side. He was very surprised by the speed with which developments had taken place. Looking for an explanation, he refers, in the first place, to the direct link between population growth and resource scarcity (very much in line with the 18th century economist Malthus). He explains how population pressure and resources pressure create conditions that threaten individual freedom – and can so easily lead to the rise of a totalitarian government: "When economic life becomes precarious - and crises emerge, governments can easily take permanent control of everyone and everything". In this respect, the use of the word crisis by our own current cabinet should not be dismissed as something innocent. A permanent crisis justifies central government intervening more intensely and frequently – individual freedoms being restricted. Second, he also refers to the undermining effect of the media. Already in 1958, Huxley observes how mass communication has increasingly been controlled by power elites and technology, which he considers a threat. "The survival of democracy (and individual freedom) depends on the ability of large numbers of people to make realistic choices in the light of adequate information: press and radio etc. are indispensable to the survival of democracy" (Huxley 1958). Many years before the arrival of Bill Gates, Elon Musk (or the use of Chat GTP), he noted how we could be distracted or fooled by the media:" people's appetite for distraction prevents people from paying too much attention to the realization of the social and political situation. (...) A society, most of whose members spend a great part of their time not 'on the spot' – not here and now and in the calculable future, but somewhere else – in irrelevant other worlds of sports, pop stars and soap operas - and we find it hard to resist the encroachment of those who manipulate (...). Too often there is simply no time to collect the relevant facts or to weigh their significance" (Huxley 1958: p. 45).

Focusing on today, both Huxley and Orwell appear to be right. Anno 2024, we see 1984 and Brave New World coexist – both societies emerged next to each other and even overlap! We live in a time where technology is used extensively by governments, not only by totalitarian states (such as China or North Korea), but also closer to home. Since terrorist attacks - but also due to Corona - big brother is playing an increasingly important role in the world. People must toe the line – be subordinated – particularly through technology. Especially during corona times, everyone was able to experience what it is like to live in a regime where the government imposes rules. Everyone had to obey – and most of us did (!): we followed the rules of staying at home and no longer interacted with the elderly. Control was the order of the day and individual interests were subordinated to the 'public interest.

Our behavior is of course not only about such 'big brother' type of rules and regulations, but We also live in a world of pleasure and distraction. According to Huxley (1958) we consume ourselves 'to death'. As the world becomes more complicated, escaping from real life (and watching 'B&B vol liefde' or 'boer zoekt vrouw') becomes more and more attractive. Surfing the Internet, in our own little bubble, we are inundated with information. It is increasingly difficult to determine what is true and what is not. We are trapped and our individual freedom of movement is under threat.

What does this have to do with my field: International Development Studies?

This was a long introduction – a prelude to the second part of my lecture, which is about my own field. What does Brave New World have to do with International Development Studies? And what does it have to do with my own work?

At first glance the answer is a simple one. A first commonality is that in my discipline - International Development Studies (or development geography), the focus is on the world - ways that can help move us towards a more perfect and more just society, with less poverty and conflict and more equality. It is about progress – the way forward – how to move in the direction of a (more) ideal world. The Sustainable Development Goals (SDGs), accepted in 2016, provide some guidelines that give direction for transforming our world by 2030. They are a call to action to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice and prosperity - no one should be left behind.

Second, what we also share is the importance we give to 'freedom'. According to Amartya Sen (winner of the 1998 Nobel Prize in Economics) development is about the 'freedom to choose'. In his book 'Development as Freedom' (1999) Sen stated that the overarching goal of development is expanding people's choices – so that people can choose a life one has reason to value" (Sen 1999: 74). This approach to human well-being emphasizes the importance of freedom of choice,

individual heterogeneity and the multi-dimensional nature of welfare. Development cannot be reduced to simply increasing basic incomes, nor to rising average per capita incomes – but needs to be analyzed in close relation to people's individual priorities and aspirations, which are very much context dependent.

A brave new world is of course in many respects also very different from what we do: there is no single 'World State'. There are enormous differences between countries and regions that determine people's ability to have a 'decent life'. It is precisely these enormous differences that exist between areas - and the incomparable circumstances in which different population groups find themselves – that is the core of our analysis. In our research we aim at gaining a better understanding of livelihood dynamics, focusing on different groups of vulnerable people in different regions (mainly the global south, but also within Europe). Rather than perceiving 'the poor' as a passive group of victims, the emphasis is on understanding their agency – how people deal with rapidly changing circumstances of life – how they cope with unexpected events and extremes. This is of course at odds with the situation in Brave New World. In our research we do not fantasize but rather try to collect data 'on the spot and in the here and now' about how people (in different contexts) manage to build a life in line with their own ambitions and aspirations.

Livelihood and translocal development

Livelihood research over the past decades has deepened our understanding of how access and control of land, water and forests (and its transformation from local assets into global goods) generates significant impacts on the livelihood security of vulnerable groups. Increasing numbers of people have opted for a development path characterized by multi-tasking and income diversification: households construct an increasingly diverse portfolio of activities and assets in various places in order to survive and to improve their standard of living. Along with displacement and resettlement of vulnerable groups, mobility – the right to move or to stay, and having sufficient maneuvering space – are crucial livelihood assets. Acknowledging the importance of mobility and multi-local livelihoods, in many localities, livelihood opportunities are ever more shaped by positionality, and the ways in which people are attached to and participate in translocal and transnational networks.

Focusing on the real world – and looking back over the past decades- we see that various changes have occurred in the way governments and international organizations have dealt with the world, and, more specifically, tried to intervene to move in the direction of a (more) ideal world. There are major shifts in approaching 'progress' or 'development'. I distinguish four periods, taking the period after World War II as my point of departure: Europe was in ruins - and thanks to the Marshall Plan and the establishment of Bretton Woods

institutions (WB and UN) it was possible to work vigorously on the reconstruction of the European economy. In many ways, the Marshall Plan can be seen as the first development project which helped Europe to recover from the war. After Europe's recovery the attention shifted towards Africa, Asia and Latin America. Europe's recovery coincided with new notions of decolonization and European countries saw the need to re-engage – support countries to 'progress'. Even though I'll present the various phases chronologically – and as separate - it is important to realize that they often happen simultaneously, and they are enmeshed and entangled together!

In the first period (1950s-1970s) it was all about 'modernization' according to the Western model. At this time (the time of our parents, grandparents for most of you), the focus was mainly on economic growth following a Western example - with a crucial role for national governments – the Nation State. Henry Ford had just died, but it was still very much about technology – industrialization - the assembly line – the mechanization of agriculture (e.g. tractors, sophisticated irrigation systems); It was also period of a progressive green revolution with new 'modern' crop varieties. There was an enormous belief in progress in which 'industrialized, standardized mass production and mass consumption' were being considered as the highest achievement - there was only one development model - the Western one. A model where the fruits of economic growth would spread automatically through 'trickle down'.

But gradually people came to realize that industrialization and agricultural modernization were accompanied by growing inequality. The focus shifted to 'growth and redistribution' and for many countries this led to land reforms and agricultural colonization - also large-scale development projects (WB). Gradually, a kind of countermovement emerged from Latin America: *Dependencia* thinkers pointed out the negative consequences of capitalist expansion for developing countries - the high degree of dependency - which led to exploitation and structural inequality. *I know this in my bones as it was during this time - the heyday of dependency thinking that I in 1984 finalized my study Sociale Geografie van de Ontwikkelingslanden (SGO).*

A second period runs from around 1980 until the end of the century: it is the period that starts with the so-called Washington Consensus – the Chicago boys – or rather the neoliberal period with market thinking right at center stage. In the previous period, developing countries had fallen into debt due to structural inequality. Led by the IMF and the World Bank (and with the US backstage), developing countries were forced to cut government spending. This is the time of privatization, of state companies and services (e.g. agricultural extension services). Land markets were privatized, and land became a commodity; subsidies were abolished - civil servants lost their jobs - and farmers were left to themselves. It was the time of Structural Adjustment Programmes – a time

that often went hand in hand with increasing levels of inequality and poverty levels giving rise to UNICEF's 'adjustment with the human face'. Acknowledging the limitations of a 'pure' market approach, we gradually see a shift in the direction of a good governance agenda, focusing on the importance of transparency, integrity, lawfulness, sound policy, participation, accountability, responsiveness, and the absence of corruption and wrongdoing. To the extent that attention was given to 'poverty' we see that the belief in 'trickle down' had come to an end. This went hand in hand with a rise of the 'development industry' with donors and NGOs, dedicating to 'poverty alleviation' and sustainability issues. And *it is during this period that I worked at the Netherlands Economic Institute (now Ecorys) and the Royal Tropical Institute (KIT) - and where I was working in 'integrated rural development projects' in Peru and Mali.*

That brings us to the third period: the period of globalization. Since the beginning of the 21st century -we have been in a new period: globalization! It was the time of Friedman's 'the world is flat' in which he explains what the flattening world meant to countries, companies and societies; and how governments and societies adapted. The world seemed to move in the direction of a global village – where everyone and everything was connected, resulting in a 'McDonaldization of the world': the penetration of American Culture and products throughout the world. Principles of efficiency, calculability, predictability and control were center stage – supposedly leading in the direction of uniformization. This became the period of the financialization of the global economy and the emergence of global value and supply chains – rich countries relying on a large net appropriation of resources and labor from what we started to call 'the global south'. The world increasingly became an interconnected place with a high degree of dependency: what happens in place A has major consequences for place B: places are part of interconnected networks – and even the most remote parts of the world experience the consequences of development elsewhere. It was also the period of the emerging BRIC countries (from about 2009): Brazil, Russia, India, China and South Africa joined together. These, but also other countries, experienced strong growth and hoped to influence the hegemony of the countries in the north and challenge the supremacy of the dollar. It was however also a period in which climate change was put on the agenda more explicitly and it was the time of the Sustainable Development Goals (SDGs). *It was in this period, since my appointment in Utrecht in 2007, that we started to work on our ideas about translocal development, development corridors and development chains.*

This brings us into the present. We are now entering into a new period that we cannot name yet - but which is in many ways characterized by increasing fragmentation – some would say new regionalism. Today we are going in the direction of a 'polarizing' world - with new power blocs - accompanied by 'de-globalization'. Countries in what we have come to call the Global South are in

the process of repositioning themselves, with 'the West' being confronted about their colonial past. As expressed by Adriaan van Dis in his essay “The colony hits back”: the wounds caused by forced relocation, Western expansionism and the politics of divide and rule have not yet healed. Europe is under scrutiny, the worldview dictated by white power is tilting and the descendants of the colonized are raising their voices. (van Dis 2024). According to Achille Mbembe, Fortress Europe is crumbling. In his essay “The idea of a borderless world” (2018) he writes: “Europe is retreating into a policy of hostility. And that is why it is important that Africa finally completes decolonization and gets rid of the borders drawn by foreign powers: Borders of divide and rule – across languages and cultures. Mbembe calls for the wounded map of Africa to be changed 'into a vast space of circulation for itself; for its descendants and for everyone who wants to tie his or her fate with our continent”.

The world is changing. Old patterns of Western expansionism must make room for a new world order in which relations have tightened: the West is being challenged for its superiority and hypocrisy of double standards. It is this subject that I will be examining together with the colleagues of the Advisory Council on International Affairs (AIV) in the coming period; Unsolicited we will advise our government and parliament (quite a challenge!)

After decades of being 'dismissed' by the West as ‘underdeveloped’ or ‘developing’ countries, “the Third World” (its denomination during the time of the Cold War) and the Global South (its name during the time of globalization), many countries in Africa, Asia and South America have started to identify itself as 'majority world'. And that term is justified: collectively, the countries in the Global South represent 85 percent of the world population, 39 percent of the global GDP and they own the most gas and oil reserves. Asia – especially China, India and the Southeast Asian Nations (ASEAN) – will account for 60 percent of global GDP growth by 2024, according to the IMF. While the G7 comprised 70 percent of the world economy in the early 1990s, today this has shrunk to 43 percent. Apart from the shift in insights and political relationships, we also see major demographic shifts. While the US and Europe, India and China are ageing at a rapid pace, Africa is becoming younger and fuller for the time being. Around 1914 there were an estimated 124 million people - now the population is close to 1.4 billion - in 2050 a quarter of the world's population will live in Africa. In short, a majority of the world has emerged – and its rise and emancipation have a growing impact on the 21st century global order. Looking at the current situation, there is a major imbalance: Southern countries are underrepresented in collaborations such as the G20 and the Security Council - reflecting an unjust – also unrealistic and outdated view of the world of the 21st century (AIV, forthcoming).

The ‘once upon a time’ well-organized world, with the West on one side and the 'rest of the world' on the other, is crumbling. This applies also to the US and Europe – who still want to deal with their crises within their own region. It also applies to the 'majority world' with a growing gap between a 'powerful south' on the one hand (BRIC countries, since 2024 also including Iran, Saudi Arabia and the United Arab Emirates, etc.) but also countries such as Vietnam and Indonesia - and on the other hand the 'poor south' - countries that are increasingly 'hunted' for critical raw materials without being able to define their own criteria for development. Simultaneously, we see significant shifts occurring in global migration. According to the latest World Migration Report 2024 (IOM) there are about 281 million international migrants in the world, which equates to 3.6 per cent of the global population: But increasing numbers of people are being displaced, within and out of their country of origin, because of conflict, violence, political or economic instability as well as climate change and other natural disasters. In 2022, there were 117 million displaced people in the world, and 71.2 million internally displaced people. The number of asylum-seekers has risen from 4.1 million in 2020 to 5.4 million in 2022, an increase of more than 30 per cent (IOM World migration report 2024). In addition to the record number of displaced people, there appears to be a huge increase in international remittances: worldwide, the flow increased by 650%, from USD 128 billion to USD 831 billion between 2000 and 2022. This is also confirmed by the World Bank (2023): Officially recorded remittance flows to low- and middle-income countries (LMICs) reached an estimated $656 billion in 2023; India remained the top recipient among remittance-recipient countries, followed by Mexico ($66 billion), China ($50 billion), the Philippines ($39 billion), and Pakistan ($27 billion). Worldwide, the volume of remittances to developing countries is greater than the volume of direct investments and development cooperation combined.

In conclusion: while worldwide capital flows have increased and while climate change has created a new run - or ***grab on raw materials*** - we simultaneously see a rapid increase in population mobility. With its countries try to ***defend themselves against migrants***. These topics have been central to my research over the 17 – actually 40 years – and will be the focus on the rest of my farewell lecture.

Before I proceed with each of these topics, I would like to use this moment to thank all international colleagues with whom I collaborated in many different projects: in Paraguay, Bolivia and Peru; Indonesia and India; Ghana – Kenya – Ethiopia – Mozambique – Mali (also all colleagues from LANDac, Diamonds in the Delta and our H2020 Welcoming Space Programme. It was a privilege to work with you and gain insight into the local realities (thanks for showing the world through your eyes!) but also for your trust and friendship over all those years.

My Research

So let me zoom into my research: focusing on gaining a better understanding of, on the one hand, the 'run of countries on raw materials' and the consequences of large-scale international investments in land, or 'land grabbing'; and on the other hand, the rapid increase in international migration and how countries defend themselves against migrants. In my research I mainly looked at the consequences for the livelihoods of people 'on the ground' - and how different groups deal (differently) with opportunities and risks in different circumstances. As I said: In our research we do not fantasize - but collect data through field research - - 'on the spot and here and now' - that is only possible by working together internationally and across disciplinary boundaries.

To each of these two topics – international migration and resource grabbing, particularly land grabbing - I have devoted an inaugural lecture: "In search of *Eldorado" (in Nijmegen, 2006)* and "*Buy your own paradise" (in Utrecht 2008)*. In the rest of my farewell lecture today I want to give a summary of each of these topics – and then look at these in combination.

Op zoek naar Eldorado

When I was appointed professor of International Migration in Nijmegen in 2006, I gave a talk entitled: in search of Eldorado (about international migration – social mobility and development). My lecture started with a story about Latin America: how people (outsiders!) had been looking for decades (or perhaps centuries) for a place that did not exist: El Dorado – a place of gold.

Eldorado was a mythical gold country located in South America in the early sixteenth century. The Spanish colonists - who had already appropriated a lot of gold at that time - heard from the Indians about the existence of a native prince who was said to own so much gold that he rubbed himself with gold dust during an annual ritual and then immersed himself in the Lake of Parima to rinse it off: the golden man or El Dorado in Spanish. This had been going on for centuries and there must have been a thick layer of gold on the bottom of the lake (Mann 2006:374). Anyone who bathed in Lake Parima would end the bath completely covered in gold. Possibly the Indians mainly told the legend to get rid of the gold seekers - the gold lake was always further away - but their story was counterproductive and actually attracted people. Many expeditions were launched: Spanish, Dutch, German, French and English adventurers went in search of the gold lake which is indicated on various maps from the sixteenth and seventeenth centuries in the area of the upper reaches of the Orinoco. Searches continued well into the eighteenth century in Colombia, Venezuela, Brazil and Guyana, but despite the many rumors about possible sites, all that

glittered was gold. Despite the many expeditions and the hard work of adventurers, El Dorado was never found (and in the Netherlands we started using the name for campsites and swimming pools).

Thinking about international migration, it is a fact that many people - in search of a perfect world - often have the idea that things are better elsewhere. The old Dutch proverb says: wat van ver komt is lekker (what comes from far away is nice). If something comes from far away it will be special, it will have cost a lot of effort to obtain and therefore people pretend that it is very pleasant and good. The proverb is at odds with the current times – in which what comes from outside is viewed with suspicion or even fear. At the same time, we have proverbs such as 'het gras is groener aan de andere kant' - the grass is always greener on the other side'. In the Netherlands this is often used to indicate that you should not be dissatisfied with what you have. Things that seem to be better somewhere else, might not always be. In other words: 'be happy with the place you are'.

In Brave New World everyone is completely happy – and 'fit for purpose' in a predestined place. Unfortunately, this is for many the opposite of the reality of our time. Sometimes forced by crisis - but also guided by aspirations and ambitions - people go in search of 'eldorado' often without knowing exactly what opportunities and bottlenecks they will encounter - or what risks they run. I also want to stress that these mobile people – migrants - play crucial roles as agents of development: not only in destination areas (where they work in construction, agriculture or healthcare - or as highly skilled professionals), but also for the family members left behind. For a long time, migration was seen as a positive factor because 'sending sites and the migrants themselves benefit because migrants get jobs, develop their skills, earn some money and remit part of it to their places of origin while destination sites benefit from the skills and labor they get from migrants'; it leads to a balance in the labor market (Jones 1992; in Mafukidze 2006:105) and importantly contributing to the elimination of inequality and a better distribution of parts of globalization. According to Adams & Page (2003), migration through remittances has a direct effect on poverty reduction: an increase of 10 per cent in a country's share of international migrants leads to a 2 per cent decline in 1$ a day poverty (Adams & Page 2003; in de Haan 2005:2). In addition to financial remittances, a positive value is also attributed to social 'remittances' (the flow of information and ideas): countries of origin might benefit from brain gain, quite apart from the positive effects of return migration (Zoomers 2008). Looking at the link between migration and development from the perspective of 'sending areas' it is clear that migrant social networks help to build social capital which in turn helps to increase the social resilience in the communities of origin and triggers innovations across regions by the transfer of knowledge, technology, remittances and other resources. These could increase the flexibility, diversity and creativity of communities in addressing climate stress and open new pathways for co-

development connecting the home and host communities' (Scheffran, Marmer, Sow 2012).

Today, however, this positive-tuned old-fashioned migration *and* development debate has increasingly become overshadowed by crisis thinking and anti-migration policies that focus on a one-sided and limited view of excluding and returning individuals (also in the Netherlands). The EU spends billions on Frontex ships, tightening border controls; and building walls. More than 1,800 kilometers of European borders have now been fitted with a barrier to keep migrants out. Also, reception camps and asylum centres, detention, repatriation and an entire army of officials involved in screening 'others. In addition to installing border fences, this involves a whole package: border guards, police surveillance, cameras, searchlights, electric fence; surveillance drones and sound and motion sensors. In comparison to current practices - Big brother was nothing!

Despite these expenditures, the migration crisis has not ended, and it has contributed to a worsening of the plight of migrants. As the 'fences' get higher, costs rise, migrants take more risks and are driven into the arms of human traffickers. Large groups of migrants live in overcrowded reception camps on the edges of Europe. In my various research projects, I have called for a stop to the money-consuming anti-migration policy. For the sake of time I cannot dwell on all the arguments in favor of this: but the anti-migration policy is opposite to the human rights values we advocate and it does not meet the criteria for good management: it is top-down, not transparent, and people do not end up in places where they can thrive.

As I argued in an opinion article (Trouw) in 2018: the many billions that are now wasted could be better used for additional investments in housing and jobs. These billions are not only especially useful in the poorest areas of Africa and Asia, but also within Europe. Current debates are exclusively about the upper limit of migration. However, there is also a lower limit to the number of people needed to maintain our welfare state. With increasing investments in jobs and houses - or maybe also the growing number of retirees in need of 'a sweet nurse', new support might gradually arise for the arrival of extra migrants – even though migration should not be considered the ultimate solution for aging populations. It is also important to mention that war and climate change place new demands on 'mobility'. Issues of movement – be this too little movement for some people or too much for others or the wrong sort of movement or at the wrong time - become more central to many people's lives.

Buy your own paradise

That brings me to my second topic, the global land grab. 17 years ago, I delivered my inaugural lecture: Buy your own paradise, about land, mobility and

development policy (in this same room). In this lecture I reflected on the international land grab - at the time a new phenomenon, in which in response to the food and energy crisis and also the financial crisis - there was 'a dramatic spike in large-scale agricultural investments, primarily foreign, in the Global South (now 'majority world') for the purpose of industrial food and biofuel production. That was also the time when we started the Netherlands Land Academy (LANDac) together including Gemma van de Haar and Guus van Westen, with whom I have worked right up until now). This was a time when Ministries attached great importance to scientific knowledge (good old times!).

What we have learned over the years (also thanks to the work of our PhDs) is that, due to large-scale investments in land, not only for food and energy - but also for nature conservation - mining - tourist complexes and urban expansions etc. etc. people – and environments are increasingly under pressure. As opposed to Brave New World, where population numbers are controlled in line with the carrying capacity of world state (we see that in countries like Ethiopia - Mozambique - Ghana - Vietnam or Indonesia – Brazil or Paraguay, resources and communities are increasingly under pressure.

Large-scale investments in land are part of a process of foreignization of space whereby populations have hardly any influence over their own environment. We also note that it is often the start of a process of drastic and often irreversible land use change: the creation of engineered landscapes intended for monocropping (e.g. sugar and soy) - enormous deforestation (for example in the case of oil palm) and devastating destruction of landscapes through mining and dams. The acquisition of land by outsiders is all too often accompanied by negative effects for local populations: the poorer groups are usually the first to lose their land – especially if they do not possess property rights despite large-scale land titling programmes. People with only customary rights enjoy little protection from the law – and for them, new means of livelihood are not readily available. It is often too expensive to buy land elsewhere. And the overwhelming majority of the poor do not possess the skills needed to become eligible for newly created employment. As a result, newly created jobs are often taken up by better qualified migrants from elsewhere – especially when willing to accept lower wages. In short: as a direct consequence of the land grab, local groups see their home territories radically changed; an invasion of agro-industrial firms, hotels or elderly tourists does not go unnoticed. People who were born and bred there no longer feel at home. They are often forced to move elsewhere, with or without adequate compensation.

Land governance and development

The last three decades have seen a growing interest from academia, policymaking and media in the increasingly contentious issue of land grabbing

– particularly the large-scale acquisition of land in the global South. It is a phenomenon against which locals are often defenseless, and it is a phenomenon about which multilateral organizations, such as the World Bank, as well as civil-society organizations and activist NGOs groups have become increasingly vocal. This research line focusses on research questions such as does the 'global land grab' actually exist? If so, what is new about it? And beyond the immediately visible dynamics and practices, what are the real problems? (see for example Zoomers 2010; Kaag & Zoomers 2014: Zoomers et al. 2016). It has been argued that conventional land governance and land related policies often go in quite the opposite direction to that which is required for making communities climate resilient and for promoting inclusive development.

In the most recent article that I wrote together with Kei Otsuki (still in the pipeline), we conclude that the future does not look very rosy. We show that there is a new hunt for land, driven by climate policy – and the availability of huge amounts of climate funding. Two decades after the start of the land grabbing, new waves of land investments are currently underway. Here the thrust is for land to produce biofuels and green energy, construct dams, extract critical minerals, farm carbon through forestry, and to expand solar parks and windmills (Wolford et al., 2024). At the same time, land resources are under pressure by ongoing urbanization and the consequences of climate change such as flooding, salination, and desertification. These processes further increase pressure on land and water, pushing vulnerable groups towards marginal, more climate vulnerable areas and exacerbating their possibilities to reconstruct their livelihoods (Zoomers and Otsuki, forthcoming). Considering these new investments and land pressures in the context of climate change and making a comparison between land grabbing in the previous two decades and the current wave of climate-related investments, we identify seven reasons why land governance (our thinking about how to deal with land and land use) need to be radically reformed. Land governance should help to overcome structural inequalities and (given climate change) provide people with sufficient room to maneuver. This is different from ‘fixing people to the land’. We call for a new approach, showing the urgency to stop further commoditization – but also show the need to explicitly target climate vulnerable groups in climate risky places, people susceptible to climate-induced loss and damage: women, smallholders, pastoralists and indigenous people who have not contributed to the climate crisis in any significant way are already and will in the future, bear the full force of climate change impacts. Future policies should be less production or ‘productivity’ oriented, but support land poor and landless groups to be safe, also in the longer run.

In summary: the picture I paint is not very encouraging: when it comes to migration, anti-migration policies make it increasingly difficult to settle freely. When it comes to large-scale investments in land, more and more people are

losing access to land, and it is becoming increasingly difficult to stay. In cases of displacement (planned or spontaneous) we often see that vulnerable groups are pushed towards the most marginal – often most risky – areas: increasing numbers of people end up living in areas which are unsuitable for long-term habitation. According to the African Center for Strategic Studies, globally, 44% of all the internally or externally displaced persons originate from an African country. Their total number stood at 36 million in 2022 (a 12% increase (or an increase of 3.7 million persons) in comparison to 2021; 75% are displaced inside their home country; 19% are hosted in a neighboring country and 6% have sought Asylum further afield. The number of Africans displaced has more than tripled over the last decade (ICMPD :12).

Our real world is very far from perfect – we are everything but brave. Spaces for people to maneuver in are increasingly limited: when pushed from their lands, possibilities to re-settle in safe areas are limited. We are living in a period where it is difficult to be optimistic.

But of course, I can't and don't want to end this on a pessimist and gloomy note (!). We should not forget to keep looking at the brighter side. Based on our research we learned not to underestimate people's capacity to fight and persist – adapt – or improve their conditions. How important it is to not stigmatize – not looking at people as victims but rather as 'agents of change'. Not focus on what people 'lack' but what they have – who they are – what they say, how they interact (!). Looking at development 'real time' shows the importance of going beyond the individual. Development is about communities, building mutually respectful relationships, connectedness and trustworthiness among people. Development is also networks and involvement: communities serve as a safety net, offering support when life takes unexpected turns. By mobilizing resources, advocating for change, and addressing common challenges, communities can affect positive social change and contribute to broader societal goals. It's about diversity, difference, working together – not despite differences but because of them.

Following this optimistic note – I would like to raise three 'wild' ideas that could give a new impulse to development thinking (colleagues – feel free to reject!). After that I'll close and invite you for drinks (sometimes the best remedy to forget or see the brighter side of life!)

Looking into the future

When I had to decide on the title of my farewell lecture, I chose Brave New World – not just because it sounds cheerful and light-hearted (also a strategy to attract your attention). But mainly because I see clear parallels with the core of – but also concerns in - development studies and international development. I tried

to give you an overview of various trends in development thinking – but also showing that current trends - such as the rush for resources and resistance against migration – put 'development as freedom' under pressure. Increasing numbers of people (especially in the more vulnerable regions) experience new types of unfreedom – are not able to make their own decisions – and are unable to become who they want to be. I ended with a more positive note – showing human resilience – but also the need to go beyond the individual and strengthen community. We cannot do without empirical field research. Doing research on the ground – observing with our ears and eyes - and describing what we hear and see – gives voice to people living under the radar, unraveling unrealistic assumptions – and understanding intended and unintended policy outcomes.

I have three statements that I believe are decisive for the development of our field:

Statement 1: Development is about unravelling the status quo.

It took me a long time - but after 40 years I started thinking about the word de-velopment: why is there no hyphen? In discussions about development 'development is often projected as a kind of end-goal: development as a kind of "status quo" – achieving a situation that is inclusive, resilient and sustainable. But thinking about current times, we need to better understand also the significant processes of 'dismantling' and 'undoing': we live in a time of de-velopment (in the sense of acknowledging the need to rethink – there are many things that need to be dismantled). What we are doing is always coupled with what we are undoing. Starting today, I propose to write the word de-velopment with a hyphen. Until now the orientation in development studies has been mainly on understanding the 'way up' – but what a paradox as we think more and more of 'downward development'. De-velopment has to do with phasing out fossil fuel - closing mines, decommissioning dams; and the transformation of sectors. It is also about bringing in the ageing population. Our old ideas need to be adjusted.

Statement 2: Development is about surfing the wave: learning to deal with extremes, the unknown and the unexpected.

I just proposed a hyphen in the word de-velopment – but development has more to do with waves than straight lines. Development is about wave-surfing: short waves and long waves – learning to live with turbulence. In academia, much value is given to scenario-development and predicting the future in models. Looking back, however, it is clear that futures are difficult to capture. Life is about negotiating the unexpected – the unknown, sometimes extremes. If I have learnt one thing, it is that our future is unpredictable. If somebody had predicted Corona (and its overnight impact) – the war within Europe, Brexit, or the return of the wolf in the Netherlands – I would have dismissed that as a fairy tale. In

science our impulse is to find models, rules, laws that govern reality. The ‘new’ normal is acknowledging that ‘deviation’ from these norms, or extremes are now part of our normal life. And we need to be flexible, ready to change, to interrogate, renegotiate - and to be agile and constantly on the move in our thinking.

Development is increasingly a matter of 'riding the waves': rafting without prior knowledge – coping with risks and being willing to learn and ‘unthink’! Until now – and with so much research - we have still not been able to predict. The only thing that can be said with certainty is that the future is very different from what we might have thought. To prepare ourselves, I recommend learning from the theory of long wave surfing: Building on this metaphor (and learning from my nephew who is a kitesurfer), what we need to understand development, or deal with rapid changes, is having requires a certain attitude. You must be flexible enough to let adventure in, must practice becoming better; stay alert and know your course (which is not at all the same as going with the flow). You have to be open to change and able to adapt with purpose. It is not about minimizing risks – but maximizing responsiveness! The art of wave surfing goes beyond individuals' behaviour. It is about sense of community: If you are in perilous waters, it is only the others who can save you. When I worked in the Andes and the Amazon (Bolivia and Peru), but also in the Sahel (Mali), I noticed how capable people are to dealing with extreme circumstances and unexpected events. In the Netherlands, we still have a lot to learn. We need to invest in a better understanding of adaptation and responsiveness – but what we also need is solidarity. This is diametrically opposed to our government’s decision to cut bthe budget for development cooperation.

Statement 3: Development is about rethinking inter-generations.

Preparing for the future, it is essential to better understand generations and intergenerational dependencies. Thinking about the future requires us to re-think our conceptualisation of ‘generation’ and ageing - and that is not just because I am standing here as a pensionada (!). In development studies we often talk about ‘the next generation’. The definition of sustainable development is centered on the notion of 'future generations'. It defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (emphasis added). So why are we so stuck in a short-term mindset when it comes to addressing the SDGs and a sustainable future? Climate activist grandfathers and grandmothers speak about the need to 'save our earth' because we have to take care of our children and grandchildren. Ageing requires us to think about the society we want to become. Generations are wrongly pitched 'one after the other'. Yet it is precisely the generations next to each other – at the same time - that matters. According to the UN – the number of people aged

65 or older worldwide is projected to more than double rising from 761 million in 2021 to 1.6 billion in 2050. The new world will be an old world. High time for the baby boomers (currently the most influential generation) to be living side by side with the 'millennials', 'generation x' and the 'lost generation' –working together – towards a more just and equal world. Nice to see such a good mix of people in this room.

Acknowledgements

This brings me to the end of my lecture: the acknowledgements.

A farewell lecture includes words of thanks and a long list of all the people I am grateful to. This does not only concern Utrecht colleagues - it also largely concerns former colleagues, from Nijmegen (the geographers), Rotterdam (NEI) and Amsterdam (KIT and CEDLA). It was very nice to see so many 'old' faces. Also not to forget our colleagues from LANDac, Shared Value Foundation, and WOTRO. Thank you very much for your support – sharing your knowledge and friendship over all these years. To my new colleagues from the AIV and COS: I consider it an honour to be among you and look forward to continuing to work with you.

In the rest of my closing words, I would like to focus on Utrecht University – my home where I have been able to work for the past 17 years. The place where I also studied with Jan Hinderink (who passed away two years ago) in whose footsteps I was allowed to walk. To the 'College van Bestuur' and our Dean of Geosciences: many thanks for the confidence you placed in me. It is very positive to see the enormous changes that have taken place: I am no longer the only female professor in our department; it is no longer just about rankings and scientific output - but societal impact; and there are, compared to 2007, many more colleagues who are interested in 'global development' (the PTS programme, Uglobe and Copernicus). But: please stay alert for what Huxley calls the dehumanizing effect of over organisation!

Within that, of course: our own SGPL department – and my direct IDS colleagues: *compañeros* in the fight! That also includes our postdocs, PhD students and students! When I started, I became the supervisor of 'old' staff members with whom I had graduated (it is of course not easy to be 'ruled' by an old student). We now have a completely renewed crowd - some (such as Joris, Muca, Murtah and Maggi) have flown out, but you can't object to that if you attach so much value to mobility! I am proud and grateful for our group. We are champions of diversity. Together we represent many corners of the world (recently including Friesland). The experience for me in the group was one of surfing together. I am grateful and will miss you. I wish you - with Ajay and Kei

at the helm - safe sailing! If you need some time off – tired of surfing all the time: welcome to the mudflats of Harlingen.

(...)

Ik heb gezegd

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