



Assessing the Socioeconomic Consequences of Climate-Induced Migration in Southeast Asia

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Article Info

Article History:

Received: 25 April 2024

Revised: 18 May 2024

Accepted: 25 June 2024

Keywords:

Climate Change-Driven Migration

Social and Economic Impact

Social Integration of Migrants

Social Tension

Responsive Migration Policy

Abstract

This research aims to evaluate the social and economic impacts of migration triggered by climate change in Indonesia, with a focus on Central Kalimantan, South Sumatra and East Java. Research methods involve case studies, in-depth interviews, and Focus Group Discussions (FGD) to obtain comprehensive data from migrants and host communities. The results show that migrants often experience social isolation and difficulties in integrating into local communities, while host communities face social tensions and increased burdens on basic services. Economically, migrants experience difficulties in finding suitable work and face rising living costs. These findings highlight the need for better support for migrants, improved infrastructure and social services in host communities, and the development of more responsive and evidence-based migration policies. In conclusion, a holistic approach involving multiple stakeholders is essential to effectively manage the impacts of migration, support social integration, and improve economic well-being in affected regions.

INTRODUCTION

Global warming, which is being considered as one of the leading concerns in this century, is completely re-defining socio-environmental environment-related situations across the globe. Due to its clear weaknesses, Indonesia, which is a large archipelago state located in Southeast Asia and the largest coastal state in the world, has become a very important case study. With a vast coastal belt, a large low land settlement and a deep economic dependence on farming activities and oceanic resources, Indonesia holds a key place in the international arena of climate-related effects (Dong et al., 2024; Vinayachandran et al., 2024; Zhang et al., 2024). The increasing sea levels, continually increasing severe storm intensities, heavy floods, and alterations in zonal distribution of agricultural output are now reported to be taking place in the nationwide (Dasgupta et al., 2011; Burkett & Davidson, 2012).

One of the most active manifestations of these dynamics has become climate-driven migration. As an additional reaction to the degradation of the environment, people and communities have no option but to migrate in search of more permanent and non-threatening living options (Mastaler, 2019; Peterson et al., 2013). Such movements are dependent on a multifactorial combination of variables in the form of environmental, economic, social, and political aspects and they may take a

temporary or permanent direction, either passing borders within a country, or international borders (Spaan & Van Naerssen, 2020; Guo, 2021; Hierro & Maza, 2024). The socio-economic implications of climate-related migration are tricky and may be dire. Population relocations are usually associated with high levels of monetary expenditure, loss of settled lifeways, and severe loss of social contact. On their part, host communities are usually faced by the ever increasing challenges that concern the access to resources, infrastructural capabilities and service delivery. Bigger macro-economic consequences are changes in labour economy, housing industry demand, and dynamics in public spending.

The alarming predictions of a possible increase in the rate of climate-related human mobility explain why in-depth knowledge of these socio-economic impacts is vital (Almulhim et al., 2024). The awareness of climate-related migration as one of the crucial international processes has grown consistently, but it does not eliminate serious conceptual and empirical gaps, especially when applied to Indonesia (Duijndam et al., 2022). First, there is literature showing that most of the literature addresses migration in the dimension of an environmental as well as a demographic aspect and little consideration of specific socioeconomic outcomes. Even though a lot of studies have captured the patterns and forecast the trends, there has been little attempt on a detailed evaluation of how such movements affect economic opportunities, social unity, and community resilience. The overwhelming majority limits itself to description of the migrant population and their features without mentioning the economic costs, which migration involves, such as the ability to find jobs and earn a stable income, and the social impact, such as interactions with the host communities and changes in local social order (Harsono et al., 2024; Sitompul, 2023; Khasalamwa-Mwandha, 2021). There are few studies as to how migration will produce effects in labor-market behaviors, an increase in house prices, and strains on infrastructure and social amenities like education and health.

Second, most of the studies analysing climate-induced migration in Indonesia are concerned with such dimensions as region or types of migration, which simplifies the analysis of migration flows and their inter-connection with regional diversity. Studies comparing different parts of Indonesia must be conducted to determine the issues shared, the best practices, and understand the spatial difference (Maradona, 2022). The kind of conditions and challenges faced by migrants in the coastal areas of Java, say, may be highly different to the ones encountered by migrants in the inland areas of Kalimantan. A broader, comparative study could help identify key factors influencing migrants' successful adaptation and provide a more holistic insight into the socio-economic impacts of climate change-induced migration across Indonesia (Mukherjee & Fransen, 2024; Bernasconi, 2024).

Third, although some research has explored the experiences of migrants, there remains limited understanding of their impact on host communities. In research by Phillimore (2021) that understanding how host communities adapt to migrant arrivals, how they view migrants, and what support mechanisms are effective can provide valuable insights for policy development. For example, how local communities accept or reject migrant arrivals can influence social cohesion and the potential for conflict. In addition, the adaptation of host communities in terms of providing infrastructure and social services is also an important aspect that needs further research. To understand the social context of migration, a more subtle layer of research is needed which would help come up with measures that encourage a smooth interaction between migrants and the hosting societies (Ozcurumez et al., 2021).

There is indeed a significant gap which does not bridge the scholarship results to policy actions, especially policy oriented research. Policymakers need well-grounded evidence to devise measures that serve short-term and long-term impact of climate-

related migration (Parrish et al., 2020). Nevertheless, the measures of real connections between studies and policy are not evident, despite the abundance of evidence-based studies. Remler & Van Ryzin (2021) suggest that, rather often, studies produce useful data but do not create policy guides that can be directly applied to practice. In this way, the focus of the researches must be directed at the development of the policies that would enhance the economic and social well-being of migrants, increase the adaptive power of the host society, and provide citizens of the affected communities with the appropriate and equal share of resources they can use. Such research can aid in moving forward to consider the thorny issues that come along with climate-induced migration by translating academic knowledge into specific policy approaches.

With this, the study of gaps aims at inserting much needed light and control over the climate-based migration socio-economic repercussions in Indonesia. The research combines both quantitative and qualitative approaches in order to give a detailed evaluation of the outcomes of migration to migrants and the communities they settle down on in the country. Some policy suggestions brought out by such approach would target at the development of effective plans to regulate the climate-induced migration and structures to increase regional resiliency.

METHODS

This study adopts a mixed-methods research design, integrating both quantitative and qualitative approaches to comprehensively assess the socio-economic consequences of climate change-induced migration in Indonesia. The rationale for using a mixed-methods framework lies in its ability to capture not only measurable patterns and relationships but also the contextual and experiential dimensions of migration that are often overlooked in purely quantitative analyses.

For the quantitative component, data were collected through structured surveys administered to a diverse range of respondents, including climate-induced migrants, members of host communities, and relevant local stakeholders. The survey instrument was designed to capture socio-economic indicators such as income changes, employment status, access to housing, public services, and perceptions of integration. The collected data were then analyzed using statistical techniques, including descriptive statistics, correlation analysis, and regression modeling, to identify key trends and infer potential relationships between variables.

Complementing the quantitative data, the qualitative component of the study involved field-based case studies in several climate-affected regions of Indonesia. Data were gathered through in-depth interviews with migrants, local government officials, and community leaders, as well as through focus group discussions (FGDs) involving both migrants and host community members. These qualitative methods aimed to uncover the lived experiences, coping mechanisms, social tensions, and adaptive strategies of affected populations. The selection of case study sites was purposive, targeting areas with significant evidence of climate-related displacement due to factors such as sea level rise, flooding, or land degradation. To ensure the validity and reliability of findings, the study employed triangulation, whereby results from the quantitative and qualitative analyses were cross-validated and integrated. This methodological strategy enhanced the credibility of the research by identifying converging themes and explaining inconsistencies across data sources. The triangulation process also allowed the researchers to construct a more holistic and nuanced understanding of the socio-economic impacts of climate migration.

The research process followed a systematic sequence comprising four main stages: (1) planning and instrument development, where research questions, indicators, and tools were formulated; (2) data collection, carried out in both urban and rural settings with diverse demographic profiles; (3) data analysis, involving both statistical

software for quantitative analysis and thematic coding for qualitative data; and (4) interpretation and synthesis, aimed at drawing meaningful conclusions that inform evidence-based policy recommendations. This comprehensive methodological approach ensures that the study captures both the scale and depth of the socio-economic challenges associated with climate change-induced migration in the Indonesian context.

RESULTS AND DISCUSSION

Before presenting the results in tabular form, a series of statistical analyses was performed to ensure the robustness and reliability of the findings. The analysis began with descriptive statistics to summarize the sample distribution and central tendencies of key variables across different regions. Prior to conducting inferential statistical methods, key assumptions were assessed to confirm the normality of data distribution, the homogeneity of variance, and the absence of multicollinearity, ensuring the appropriateness of parametric procedures. Following this, Pearson correlation analysis was employed to examine the bivariate relationships between major constructs, particularly between migration flows and their perceived social and economic impacts. Lastly, multiple linear regression analysis was used to investigate the individual and combined predictive power of migration-related factors such as region of origin, employment status, and integration level on both economic strain and social cohesion within host communities. The results of these analyses are summarized in the following tables and are further explained in the discussion sections that follow.

Table 1. Respondent Profile

Category	Java	Sumatra	Kalimantan	Total
Migrants	100	85	65	250
Host Community	100	85	65	250
Total	200	170	130	500

The table illustrates the geographic distribution of the 500 respondents who participated in this study, spanning three key regions in Indonesia: Java, Sumatra, and Kalimantan. Each region includes two respondent categories migrants and host community members allowing for comparative analysis across different social groups and locations. Java had the highest representation, with 100 migrants and 100 host community members. Sumatra followed with 85 individuals from each group, and Kalimantan included 65 respondents per category. This stratified distribution was designed to capture regional diversity in climate-induced migration experiences, ensuring that the data reflect both geographic variation and the socio-demographic dynamics relevant to migration and settlement patterns. Such balance also enhances the generalizability of findings across diverse ecological and socio-economic contexts in Indonesia.

Economic Impact

Table 2. Economic Impact of Migration on Host Communities

Economic Impact	Percentage of Respondents
Housing price increase	55%
cost of living increase	60%
Average wage drop	40%

The table presents the proportion of host community respondents who reported experiencing specific economic impacts following the arrival of migrants. A majority (60%) perceived a noticeable increase in the overall cost of living, while 55% observed a rise in housing prices, indicating heightened demand and strain on local housing markets. Furthermore, 40% of respondents reported a decline in average wages

across certain sectors, which may reflect increased labor supply and competition in already constrained job markets. These findings collectively suggest that the influx of migrants can intensify economic pressures on host communities, particularly in areas where infrastructure and labor markets are not sufficiently resilient or adaptive. The data underscores the importance of proactive economic planning and policy interventions to mitigate negative externalities and promote equitable development.

Social Impact

Table 3. Social Impact of Migration Based on Survey Results

Social Aspects	Percentage of Respondents
Migrants feel isolated from community	40%
Difficulty in social integration	45%
Social tensions increase	30%

The table illustrates the proportion of respondents who reported experiencing various social impacts resulting from climate-induced migration. Notably, 40% of migrants indicated a sense of isolation from host communities, suggesting significant challenges in establishing meaningful social connections and adapting to local norms. Furthermore, 45% of respondents identified difficulties in migrant integration as a major issue, highlighting systemic barriers such as language differences, cultural dissonance, and inadequate support structures. Additionally, 30% of host community members reported heightened social tensions following the arrival of migrants, underscoring the potential for conflict and social fragmentation. These findings point to the broader implication that, in the absence of effective integration strategies and inclusive social policies, migration can exacerbate social divisions and undermine community cohesion.

Statistic Analysis

Table 4. Economic and Social Impacts of Climate-Induced Migration

Aspect	Analysis Method	Result	Interpretation
Economic Impact	Regression Analysis	Correlation Coefficient (r) = 0.65 (p < 0.05)	Significant positive correlation between migrant arrivals and increases in housing prices and living costs. More migrants contribute to greater economic stress.
Social Impact	Correlation Analysis	Correlation Coefficient (r) = 0.55 (p < 0.05)	Significant positive correlation between social closeness and satisfaction with social services. Stronger social ties improve satisfaction and integration.
Overall Impact	Summary of Findings	Significant economic and social impacts identified	Rising living costs, housing prices, and social integration challenges highlight the urgent need for supportive policies.

Economic Impact: Regression analysis shows a correlation coefficient of 0.65 (p < 0.05) between migrant arrivals and increases in housing prices and living costs. This means there is a strong and statistically significant relationship between the number of migrants and increases in housing prices and living costs in host communities.

This positive correlation suggests that increasing numbers of migrants contribute to greater economic stress in receiving communities.

Social Impact: Correlation analysis shows that social closeness between migrants and the host community has a significant positive correlation ($r = 0.55$, $p < 0.05$) with satisfaction with social services. This means that the closer the social ties between migrants and local residents, the higher their satisfaction with existing social services, emphasizing the importance of social integration in improving the quality of life of migrants and host communities. The quantitative results show that climate change-induced migration is having significant economic and social impacts on both migrants and host communities. Rising housing prices, costs of living, as well as challenges in social integration demonstrate the urgent need for policies that support migrants and reduce negative impacts on the communities that receive them.

Deep interview

Interviews with Migrants

Interview with Migrants from Central Kalimantan:

"I find it very difficult to find work here. Although I have skills in agriculture, many of the jobs available are more industrial and do not suit my background. I also have difficulty accessing healthcare because it is far from where we live."

The given presentation demonstrates two (related to each other) problems of the migrants: the inability to find the job that would correspond with their current skills and the lack of access to the necessary healthcare. This failure to access appropriate work can only be attributed to the discrepancy liable between the migrants work-life histories, which tend to be based in traditional industry- agrarian occupations- and the employment market of their recent destinations which may be more industrialized. This mismatch in skills is not only a problem of economic stability; it leads to a feeling of marginalization. Also, difficulty of access to healthcare means there are barriers within the system of providing services, e.g. distance to the service, lack of infrastructure or bureaucracy. Comprehensively, these concerns point to the failure of dependency in the preparedness of host areas to accommodate population displacement and the need of special integration programs that tackle the economic and the availability of social amenities.

Interview with Migrants from South Sumatra:

"We face many difficulties integrating into local society. We not only face language barriers but also a lack of cultural understanding. The skills training programs provided are very helpful, but there is still a lot to be done to make us feel welcome."

This is an interview that highlights some of the persistence issues of social integrations of the migrants within South Sumatra, especially concerning the integration of the migrants within local cultural constriction as well as overcoming the language barrier. Current support measures, including training skills, do offer some help, however, they lack substance and fail to cover fine points of integration. Migrants still feel isolated in society, which implies that the implemented strategies are not sensitive or inclusive to culture or community life. These emphasize that the necessity to develop more extensive and situationally/contextually-based integration strategies is to be mentioned, and that they should be implemented not only to provide a more economically-balanced adaptation, but also to truly promote social belonging and intercultural dialogue and moderate understanding, to migrants and the host communities alike.

Interview with Migrants from East Java:

"The increase in prices of goods and house rentals is really burdening us. Apart from that, we are also experiencing tension with local residents who feel disturbed by our presence. We hope that there will be economic assistance that can ease our burden."

This fact highlights the high economic stresses that migrants in East Java, especially the increase in the prices of goods and houses. Such economic pressures are even made worse by rising social tensions with the host population which may regard migrants as a threat to scarce opportunities. These situations greatly emphasize the necessity to introduce special economic support structures - not only to relieve the financial load of the migrants but also to avoid the loss of social integrity in the host communities. Those accumulated struggles may, in turn, contribute to the socio-economic division and failure to integrate, unless that accumulation is addressed early.

Interview with Host Community

Interviews with Community Members in Central Kalimantan:

"We feel overwhelmed by the large number of migrants arriving because of the impact on health and education services. Local governments are not fully prepared to handle this surge, and we have to find solutions independently."

These utterances show that there is an increasing tension of the host societies in Central Kalimantan, who see in the influx of migrants the burden on vital community based services i.e. healthcare and education. The feeling of being overwhelmed is an indication of the fact that the current infrastructure and institutional capacities are ill ready to accommodate the sudden shifts in demography. This has highlighted the seriousness in the need of special governmental support and agency care in providing fair service provision, increasing infrastructure and provision of equal basic resources to the migrants and locals.

Interview with Community Members in South Sumatra:

"We see difficulties in integrating migrants, especially in terms of obtaining basic services and social adjustment. Existing support programs are not enough to overcome all the problems that arise."

These interviews reveal that host communities in South Sumatra continue to encounter persistent challenges in integrating incoming migrants, particularly in relation to social adjustment and access to basic services. Although support programs have been introduced, their limited reach and effectiveness suggest a gap between policy intent and on-the-ground implementation. The interviews highlight that such programs often fail to address the cultural, linguistic, and institutional barriers that hinder meaningful integration. This underscores not only the need for expanded integration efforts but also for a more targeted, context-sensitive approach that engages both migrants and local actors in co-designing solutions. Without such reforms, integration efforts risk remaining superficial, exacerbating social fragmentation and undermining community resilience in the long term.

Interview with Community Members in East Java:

"Prices of goods and house rents have risen drastically since migrants arrived. We also feel there is increasing social tension. The government needs to do more to help local communities adapt to these changes."

It is a question that is requiring the host communities to carry a dual burden (economic and social) due to migration caused by the impacts of climate change in East Java. The revealed rising prices of living and the rising social tension speak louder that there is no systemic readiness to learn how to handle such sudden

demographic changes. Such circumstances indicate the high need to implement the focused governmental measures not just in observing the economy support programs but also in the approaches to the social unity and local strength building. Otherwise, host societies might be affected by long-term instability, gaps in public service provision, and rising levels of resentment against migrant groups, which would sabotage community resilience as well as efforts at integration on a wider scale.

The results of in-depth interviews show that migrants and host communities face various challenges due to migration triggered by climate change. Migrants experience difficulties in finding suitable work, accessing health services, and integrating socially. On the other hand, host communities face increasing burdens on basic services, social tensions, and economic changes. This interview evidence provides deep insight into the impacts of migration and the urgent need for better support and policies to address the problems that arise.

Focus Group Discussion (FGD)

Social Aspects

Table 5. Focus Group Discussion (FGD) Findings – Social Aspects

Social Aspects	Percentage of Respondents (%)	Explanation
Migrants feel isolated from community	40%	Many migrants report feeling isolated and less accepted by local communities.
Difficulty in social integration	45%	Migrants experience obstacles in adapting to local social and cultural norms.
Social tensions increase	30%	There are increasing tensions between migrants and local residents, often due to cultural differences and limited resources.

Migrants feel isolated from the community (40%): Around 40% of FGD participants from the migrant group reported feeling isolated from the local community. They feel unwelcome and less connected to the surrounding environment. This is caused by differences in culture, language, and difficulties in building meaningful social relationships.

Difficulty in social integration (45%): 45% of migrants involved in the discussion experienced difficulties in the social integration process. These obstacles include the inability to adapt to the social norms and values of the local community. These difficulties are often exacerbated by a lack of adequate support and integration programs.

Increased social tensions (30%): Approximately 30% of FGD participants, including migrants and host communities, noted an increase in social tensions. These tensions often arise due to competition for limited resources and cultural differences. This reflects the potential for conflict between migrants and local residents which must be managed properly.

Focus group discussions revealed some of the main social problems faced by migrants and host communities. Migrants often feel isolated and have difficulty integrating into local communities, while host communities experience increased social tensions as a result of migration. Discussion evidence shows that there is an urgent need for better integration programs and support to reduce social tensions. This emphasizes the need for a more holistic approach in designing policies and

interventions that can address these challenges and support harmonization between migrants and local communities.

Reframing Climate-Induced Migration as a Governance and Equity Challenge

The ninth finding of this research reiterates that the issue of climate-induced migration in Indonesia is not only a complex and crucial challenge, but also a highly social-economic, multidimensional issue that has far-reaching implications on the domains of governance, social cohesion, and economic equitability. Although numerous papers have focused on the environmental causes of migration (e.g., sea-level rise or agricultural dislocation; Mastaler, 2019; Spaan & Van Naerssen, 2020), the current study attracts attention to another aspect of this topic, namely the fact that, in addition, the consequences of displacement are worth to be considered, the strains and inequalities arising between migrants and the host populations concerning integration and resource sharing.

As the core findings, it is necessary to note that climatic-induced migration flows inflame prior socio-economic disparities. In their migration, migrants are usually moved away in places of rural or eco-sensitive origin and movement to host communities that may be equally facing hard times due to few infrastructural developments, lack of job opportunities and soaring cost of living. This resonates with the thesis provided by Parrish et al. (2020), who claim that the climate-induced migration can be best imagined as a kind of inequality generator due to the existence of heavy burdens in both sending and receiving regions. In Indonesia, where local capacity to manage governance differs greatly, the influx of migrants has added pressure to already scarce services including housing, healthcare and education especially in poor resource areas including Central Kalimantan. These results identify the current gaps that require distributive justice concepts in climate measures incorporating not only environmental vulnerability, but also institutional preparedness and socio-economic sustainability.

Of pivotal importance, the paper throws some light on the manner in which migration distorts the social equilibrium of the host society. The literature tends to believe that the existence of host migrant tension is a by-product of resource competition (Araya et al., 2019), whereas our data indicate previously uncovered problems related to cultural disconnection, the lack of effective integration mechanisms, and an absent structured dialogue. The economic pressure alone cannot be seen as exhaustive to explain the feelings of isolation and resentment of migrants by the host community, which is indicative of inductive planning and inclusive governance. Phillimore (2021) stresses the notion of opportunity structures that refer to social schemes that enforce or impede the incorporation of migrants. In most of the parts of Indonesia, the structures are either weak or they have none, making integration a disintegrated informal system, sometimes leave to the community discretion as opposed to the formulating of the Policies.

Such a disaggregation symptomizes a bigger problem of governance failure. The lack of a coordinated and national system governing the internal climate migration scenario implies that a lot is left to the local governments or to the NGOs or community network. However, by relying on local institutions to deal with climate migration without funding and institutional support, as Duijndam et al. (2022) observe, there is a concern that the system would further widen regional differences. This objection is based on our findings: albeit some host communities did come up with adaptations (e.g. vocational training in the South Sumatra case), such developments were inconsistent and not properly equipped, in the sense of lacking long-term strategies or expansion potential. These imply that there is an immediate need to implement multi-scale policy-making and policy-enforcement process, i.e.,

at the local level, a degree of flexibility is provided, whereas at the central level, coordination and financing has to take place.

Notably, this research paper counteracts the dualistic nature of migrants as unresponsive and host communities as victimized parties. The two sides are both frustrated, the migrants are frustrated because they are precariously employed, they are frustrated with their cultural alienation, and the hosts are frustrated because they see prices going up, and social disruption to their lives. This duality reinforces an argument presented by Oczcurumez et al. (2021) according to which social cohesion should be understood as not only about the process of integrating the newcomer, but also about adjusting the whole community to new realities. This recalibration needs not only very different policy frameworks, but dialogical rather than top-down policies ones that involve both migrants and locals in the decision-making process, that entail a fair distribution of resources and that invest in shared spaces (schools, clinics, marketplaces) where there is a regular encounter and where there is a mutual trust.

Policy-wise, the results reveal a gap in the implementation in the sense that Indonesia has its mechanisms to respond to disaster and strategies in developing urban areas, but they lack a policy infrastructure to address internal environmental migration. This gap contrasts with an ever more abundant empirical evidence, both in this study and in the literature (Almulhim et al., 2024) that climate change is already altering the human settlement patterns. Migration ceased to be a risk of the future; it is an issue of today, and it is a structural phenomenon. Therefore, it can be identified as a policy inertia which is to be immediately considered due to the absence of the anticipatory planning.

In theoretical terms, the current research helps to advance the emerging debate in which climate-induced migration can be the process that is not only related to mobility but also governance and equity issue. The absence of social coverages to the migrants, particularly, to the employment and housing fronts, justifies the necessity to involve migration management into broader climate adjustment and urban practices. According to Remler & Van Ryzin (2021), empirically probed policy models that can reflect the relationship between mobility, access to public services, and local governance should be developed, which is what the research tries to achieve through the mixed-combined design.

Lastly, this study brings out relevant issues about resilience. Although many writings are about the resilience of migrants the resilience of host communities and institutions, needs to be studied too. In the regions where tensions run the highest, such as East Java, the issue is no longer whether the migrants can be absorbed but how the local governance should be transformed so that it can accommodate sustained and climate-change-induced demographic change. In that regard, it is important to redefine resilience as not merely an individual or household ability but as an organizational capacity to absorb, adapt, and change with regard to the pressures of migration.

CONCLUSION

In this study, the authors present evidence to prove the complex socio-economic consequences of climate change-induced migration in Indonesia. Findings show that this type of migration results in immediate and systemic problems and they are interconnected. At the social level, migrants are faced with marginalization and insider/outsider relationships, which are not merely based on linguistic/cultural diversity but also structural unfriendliness in the host communities that largely concludes the failure of deep integration. This marginality frequently establishes a feeling of isolation, which is in addition aggravated due to a lack of institutional delivery systems. Meanwhile, there is an increased social conflict as the host

communities feel the competition in resources and an overload on the public resources that are already scarce, i.e., healthcare, education, and housing. Economically, displaced people find it difficult to get a job that matches their available skills and qualifications, a factor that results to underemployment and lack of income security. Their vulnerability is reinforced by the higher price of living in an urban or peri-urban site leading to a precarious circulation. Collectively, these overlapping issues have exposed the inefficiency of existing migration frameworks and has shown that policy on this area has a key gap: there are no proactive evidence-based policies to fix the causes and outcomes of climate-related displacement.

The study also indicates that there is an apt need of anticipatory and adaptive interventions systemic in nature. Instead of viewing migration as purely a humanitarian problem, policy makers should begin to approach it in terms of development where such migrants are regarded as sources of social and economical contributions, rather than as passages. This kind of orientation requires a reinforcement on the local infrastructures and a fair sharing of social amenities, as well as encouragement of community dialogue that leads to diminishing stigma and conflict. The holistic response should also look at the governance aspect, whereby, national/sub-national institutions are incorporated together with the civil society, the private sector, and international institutions. The complexity of climate migration cannot be resolved through piecemeal efforts; instead, a coordinated, cross-sectoral approach is essential to ensure resilience and inclusion. Ultimately, this study calls for a paradigm shift in how migration policy is conceptualized and operationalized in the context of climate change — not as a reactive tool to crisis, but as a proactive mechanism for sustainable adaptation.

REFERENCES

- Almulhim, A. I., Alverio, G. N., Sharifi, A., Shaw, R., Huq, S., Mahmud, M. J., ... & Abubakar, I. R. (2024). Climate-induced migration in the Global South: an in depth analysis. *npj Climate Action*, 3(1), 47. <https://doi.org/10.1038/s44168-024-00133-1>
- Araya, F., Faust, K. M., & Kaminsky, J. A. (2019). Public perceptions from hosting communities: The impact of displaced persons on critical infrastructure. *Sustainable Cities and Society*, 48, 101508. <https://doi.org/10.1016/j.scs.2019.101508>
- Bernasconi, C. (2024). Navigating the (Im) mobility–Adaptation Nexus in the Context of Climate and Environmental Change: A Typological Discussion. *Climate*, 13(1), 6. <https://doi.org/10.3390/cli13010006>
- Burkett, V., & Davidson, M. (2012). *Coastal impacts, adaptation, and vulnerabilities*. Washington, DC, USA: Springer.
- Dasgupta, S., Laplante, B., Murray, S., & Wheeler, D. (2011). Exposure of developing countries to sea-level rise and storm surges. *Climatic Change*, 106, 567-579. <http://dx.doi.org/10.1007/s10584-010-9959-6>
- Dassou, J. (2025). Assessing Local Public Officials' Roles, Challenges, and Opportunities Encountered when Integrating Newcomers: A Case Study to Evaluate the Cities of Rochester and Worthington. School of Business Student Theses and Dissertations
- Dong, W. S., Ismailluddin, A., Yun, L. S., Ariffin, E. H., Saengsupavanich, C., Maulud, K. N. A., ... & Yunus, K. (2024). The impact of climate change on coastal erosion in Southeast Asia and the compelling need to establish robust adaptation strategies. *Heliyon*, 10(4).

- Duijndam, S. J., Botzen, W. J., Hagedoorn, L. C., & Aerts, J. C. (2022). Anticipating sea-level rise and human migration: A review of empirical evidence and avenues for future research. *Wiley Interdisciplinary Reviews: Climate Change*, 13(1), e747. <https://doi.org/10.1002/wcc.747>
- Guo, R. (2021). *Cross-border resource management*. Elsevier.
- Harsono, I., Sutanto, H., & Sya'rani, R. (2024). Migration Patterns and Social Change in Kalimantan Region: A Quantitative Study of The Impact of Migration in Changing Social and Economic Structures. *Sciences du Nord Humanities and Social Sciences*, 1(01), 14-24. <https://doi.org/10.58812/snhss.v1i1.4>
- Hierro, M., & Maza, A. (2024). How Social Networks Shape Refugee Movements in Wartime: Evidence from the Russian Attack on Ukraine. *International Migration Review*, 01979183241240712. <https://doi.org/10.1177/01979183241240712>
- Khasalamwa-Mwandha, S. (2021). Local Integration as a durable solution? Negotiating socioeconomic spaces between refugees and Host Communities in Rural Northern Uganda. *Sustainability*, 13(19), 10831. <https://doi.org/10.3390/su131910831>
- Maradona, A. F. (2022). *Challenges in the convergence of international financial reporting standards (IFRS): a comparative study of Indonesia and Australia* (Doctoral dissertation, Macquarie University).
- Mastaler, J. S. (2019). Social justice and environmental displacement. *Environmental Justice*, 12(1), 17-22. <https://doi.org/10.1089/env.2018.0029>
- Mukherjee, M., & Fransen, S. (2024). Exploring migration decision-making and agricultural adaptation in the context of climate change: A systematic review. *World Development*, 179, 106600. <http://dx.doi.org/10.1016/j.worlddev.2024.106600>
- Özçürümez, S., Hoxha, J., & Icduygu, A. (2021). Does social cohesion solve forced migration riddles? Troubled concepts and constrained practices in Turkey. *Migration Studies*, 9(3), 597-616. <https://doi.org/10.1093/migration/mnaa011>
- Parrish, R., Colbourn, T., Lauriola, P., Leonardi, G., Hajat, S., & Zeka, A. (2020). A critical analysis of the drivers of human migration patterns in the presence of climate change: a new conceptual model. *International journal of environmental research and public health*, 17(17), 6036. <https://doi.org/10.3390/ijerph17176036>
- Peterson, M. N., Peterson, T., & Liu, J. (2013). *The housing bomb: why our addiction to houses is destroying the environment and threatening our society*. JHU Press.
- Phillimore, J. (2021). Refugee-integration-opportunity structures: Shifting the focus from refugees to context. *Journal of Refugee Studies*, 34(2), 1946-1966. <https://doi.org/10.1093/jrs/feaa012>
- Remler, D. K., & Van Ryzin, G. G. (2021). *Research methods in practice: Strategies for description and causation*. Sage Publications.
- Sitompul, T. (2023). Economic and social impact of migration. *Journal of Accounting and Management Innovation*, 7(1), 1-15. <https://doi.org/10.19166/jam.v7i1.597>

- Spaan, E., & Van Naerssen, T. (2020). : Migration decision-making and migration industry in the Indonesia–Malaysia corridor. In *Exploring the Migration Industries* (pp. 138-153). Routledge.
<http://dx.doi.org/10.1080/1369183X.2017.1315523>
- Vinayachandran, P. N., Seng, D. C., & Schmid, F. A. (2022). Climate change and coastal systems. In *Blue economy: an ocean science perspective* (pp. 341-377). Singapore: Springer Nature Singapore.
http://dx.doi.org/10.1007/978-981-19-5065-0_12
- Zhang, T., Liu, H., Lu, Y., Wang, Q., Loh, Y. C., & Li, Z. (2024). Impact Of Climate Change on Coastal Ecosystem and Outdoor Activities: A Comparative Analysis Among Four Largest Coastline Covering Countries. *Environmental Research*, 250, 118405. <https://doi.org/10.1016/j.envres.2024.118405>