CHALLENGES AND POTENTIALS OF (NON-)MIGRATION AS CLIMATE CHANGE ADAPTATION IN BANGLADESH AND BEYOND

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ABSTRACT

Climate-induced migration is an increasingly prominent global issue, but it is more complex than the conventional picture of 'environmental refugees' suggests. Climate and migration's nexus entails various concerns for both climate-induced migrants and non-migrants. This article summarises the complexities surrounding climate-induced migration, outlining the variables that influence why people choose or decline migration as an adaptation strategy. It identifies the main challenges and gaps that current environmental migration trends and their management present, offering examples of improving practices in response to climate-induced movement. It concludes that migration and non-migration in response to climate change should be facilitated based on consideration of needs and aspirations rooted in local contexts, opining that non-migration should be prioritised where possible for the welfare of affected peoples.

KEYWORDS: Migration; Non-Migration; Climate Change Adaptation; Bangladesh.

1. INTRODUCTION

Climate-induced migration is an increasingly prominent issue in today's world, but it is a more complex and varied phenomenon than the conventional picture of 'environmental refugees' suggests. Migration as adaptation entails an array of concerns for both climate-induced migrants and non-migrants. According to the Internal Displacement Monitoring Centre (IDMC, 2020), 23.9 million people were displaced by weather-related disasters in 2019, with another 9.8 million displaced by natural disaster in the first half of 2020. The World Bank estimates that three regions (Sub-Saharan Africa, South Asia, and Latin America) could face a combined total of over 140 million internal climate migrants by 2050 (Rigaud et al., 2018). However, around 25.2 million people were displaced by natural disasters annually in 135 countries during 2008-2016 (IDMC, 2018), meaning almost 85% of those affected by disasters in this period actually stayed put. Besides, estimates claim there could be anywhere between 25 million and 1 billion people displaced by climate change by 2050—a figure whose imprecision indicates the difficulty of predicting climate-induced migration (IOM, 2009).

While environmental factors will continue to exert an ever more pivotal influence on migration, what ultimately matters are their interplay with social, economic, political, and other interlinked

drivers (Black, Adger, et al., 2011). The high mobility rates currently anticipated in climate-vulnerable regions worldwide encourage us to understand the diverse forms of climate-induced migration and non-migration, especially to direct attention to non-migration as an under-attended point in climate-migration discourses (Mallick & Schanze, 2020). Examining (non)-migration as an adaptation strategy encourages us to consider how policy initiatives can interact with mobility trends to best equip migrants, non-migrants, and communities for a climate-resilient future. Here, we provide an outline of climate-induced migration, illuminating the variables that influence why people adopt or decline migration as an adaptation strategy; the challenges and gaps that current environmental migration trends and policies demonstrate; and examples of best practices in response to the phenomenon. To illustrate the contextually specific patterns of climate-induced migration, we spotlight Bangladesh, one of the countries at greatest risk from climate change.

2. COMPLEXITY OF CLIMATE-INDUCED (NON-) MIGRATION

The root causes of population movements are multifarious, though the concept of 'pull' and 'push' factors, including 'environmental push', is long established (Hunter, 2005). A principal challenge in the discourses on climate change and migration arises from whether migration is framed as a 'failure of adaptation', and the migrants a 'security risk', or as an 'adaptation strategy', and the migrants 'agents of change'. The consequence of the former notion would be to develop policy interventions that strengthen resilience to environmental degradation so people can stay in place. Conversely, the consequence of viewing migration as adaptation would be to embrace mobility. Planned relocation, voluntary resettlement, labour migration, translocal lifestyles, and transnational diaspora relations could be actively fostered to enhance resilience against climate change.

Furthermore, 'environmental migration' traditionally conjures images of refugees fleeing their homes with catastrophic natural disaster on their heels (Gemenne, 2013). However, this is far from the only form of climate-induced migration. As a phenomenon with diverse, localised, and multi-scale impacts, climate change in turn influences migration in myriad ways. The IOM's (2007) definition of environmental migration highlights key aspects of this variation: whether migration is temporary or permanent, forced or voluntary, internal or international, motivated by slow or rapid onset changes. By extension, environmental migrants at different 'thresholds' may be distinguished: those forced to flee by a destructive event, those coerced by a slower progression of impacts, and those who may decide to leave to bypass challenges further on the horizon (McLeman, 2018). While quantifying migration caused by rapid-onset hazards is simpler (Warner et al., 2010), people forcibly displaced by disaster do not exemplify the broader category of environmentally motivated migrants. Equally, climate adversities do not invariably cause migration—many wishing to move are trapped, while others who can move remain (Delazeri et al., 2021; Mallick & Schanze, 2020; Nawrotzki & DeWaard, 2017).

Thus, 'climate migration', as the junction of climate and migration, encompasses a host of livelihood conditions and options. Based on their aspirations and capabilities, we can broadly split migrants and non-migrants into four categories (Carling, 2002). Those aspiring to migrate

but unable due to lack of capital are termed 'involuntary non-migrants' or 'trapped populations', while those who can migrate but desire to stay are termed 'voluntary non-migrants'. Those unwilling to migrate but compelled to move are 'forced migrants', and those with high aspirations to move and corresponding abilities are 'voluntary migrants.' Significantly, although traditionally perceived as passive victims of disaster, people whose lives are disrupted by climate change have increasingly come to be recognised as having agency and intricate motivations (Adams, 2016). Faced with upheaval, they make complex, considered choices about how to migrate—or not. Whilst the environmental migration context considers environmental issues as the primary 'push factor', the overall picture is complex, and the variables converging to produce migration outcomes may not be easily extricable (Hunter, 2005; Warner et al., 2010). Black et al. (2011a) identify five major drivers which influence the final migration decision: the social, economic, political, demographic and environmental. Just as vulnerability to hazards is determined by individual circumstances of sensitivity as much as exposure, climate migration outcomes are usually the product of localised, personalised situations comprising intersecting factors (Kakinuma et al., 2020). For example, landedness, crucial to attachment to the place of origin, might motivate family members to migrate temporarily rather than permanently (Biswas & Mallick, 2020). Foregrounding migrants' agency compels us to examine the element of choice in these considerations; households suffering similar conditions might choose to diverge strategies to shore up their futures.

Overly simplistic, linear, and environmentally deterministic accounts of 'environmental refugees' who have simply fled deteriorating conditions should be resisted (Kazcan & Orgill-Meyer, 2020). Complex migration processes cannot be determined by nature. They are rather structured by people's perceptions and everyday experience of environmental, economic, and political changes, socio-cultural embeddedness, and their (in)ability to identify and assume livelihood opportunities at multiple places (Mallick et al., 2020). Based on this understanding of climate change and migration, the following section describes the situation in Bangladesh.

3. CLIMATE-INDUCED (NON-)MIGRATION IN BANGLADESH

Climate change could displace 13.3 million Bangladeshis by 2050 (Rigaud et al., 2018). As one of the most climate-vulnerable countries, Bangladesh is a hotspot for climate-induced migration. It has a history of recurrent climate hazards, predominantly flooding and cyclones, and subsequent environmental migration. Coastal residents, particularly, regularly migrate to escape destruction from rapid-onset environmental these hazards. Simultaneously, the creeping tide of sea-level rise—riverbank erosion, coastal erosion, and salinity intrusion—exerts a slower, prolonged effect on people's livelihoods. These changes are motivating long-term shifts in people's residence and livelihood strategies (Chen & Mueller, 2018). 18% of the coastal region is likely to be inundated by the 2080s, propelling considerable climate-induced migration inland (Etzold & Mallick, 2016). As an adaptive response to this looming rise, environmental migration can disrupt and possibly transform existing systems on a grand scale.

As Bangladesh's rural economy heavily depends on natural resources, environmental conditions influence livelihood options. Regarding migration decision analysis, however, economic

migration literature shows that economic and social capital are also essential predictors (Serrat, 2017). Climate-induced migration patterns in Bangladesh reflect the fact that seasonal labour migration has long been the norm for many communities (Martin et al., 2014). This is because of economic and socio-cultural conditions and climate, including rural poverty, food insecurity, and the concentration of diverse income and educational opportunities in cities (Etzold & Mallick, 2016). Rural farmers often rely on a dual livelihood strategy whereby income from urban employment in one part of the year supplements agricultural livelihood in another. For much of the Bangladeshi population, migration is defined by translocality—multi-directional and flexible patterns of mobility defying easy characterisation (ibid). This lays the context for intensifying trends of climate-induced migration within the country.

Temporary migration is favoured by Bangladeshi people—although this is proving untenable for a growing contingent of coastal residents (Penning-Roswell et al., 2013). Many practise the characteristic seasonal migration to support long-term aspirations not to migrate from their original homes. For most, existing social networks and capital determine migration's viability as a coping strategy against climate change; for the poorest 'trapped populations', the initial investment required to migrate is unavailable (Etzold & Mallick, 2016). Moreover, socioeconomic vulnerability is not escaped through mobility but follows people across locations and livelihood strategies (Adri & Simon, 2018). As ever more people throng to cities like Dhaka in search of security, only to encounter yet more hardship, it is critical to consider how robust, coherent policymaking can address environmental migration issues (Ahsan, 2019; Naser, 2015).

4. CHALLENGES AND GAPS

The first hurdle to a constructive approach to climate-induced migration is the notion that it is uniformly negative. Alarmist narratives characterise climate-induced movement as a problem to be solved (Gemenne, 2013). Both humanitarian and security-minded framings strip migrants of agency (Bettini, 2013; Methmann, 2014), flattening them as monolithic populations encroaching on the status quo. Popular narratives often imply that 'solving' climate-induced migration means preventing or reversing movement indiscriminately (White, 2011). In Dhaka, the City Corporation has admitted reluctance to invest in facilities for slums populated by climate migrants because it may encourage permanent settlement (McDonnell, 2019). Repudiating such adverse attitudes towards migrants, many researchers call for the reframing of migration as a viable, necessary adaptation strategy against climate change—one with many positive potentials if done right (Black, Bennett, et al., 2011). Reviewing existing state-led relocation schemes to help bridge this knowledge gap, Arnall (2019) affirms the need to confront governmental perceptions of rural populations, and for more refined understandings of people's self-determination.

Whether migration presents a problem or solution depends on how and whether it is facilitated (Gemenne, 2013). Currently, a cohesive understanding of climate migration amongst governing agencies is lacking (Das Sharma et al., 2020). Successful migration is predicated on the preparedness of migrants and destinations. Unplanned migration often compounds vulnerability (Adri & Simon, 2018; Thomas & Benjamin, 2018). In Bangladesh and other developing regions,

climate migration flows are linked with tumultuous urbanisation and high economic and environmental precarity in urban destinations (Ahsan, 2019). Therefore, more work is required to pre-empt and guide migrants and destinations alike. Initiatives for climate-smart urbanisation, diversified industry, and affordable housing that anticipate increasing migration flows are critical. For migrants, social protection schemes to get them on their feet at the destination can improve life chances (Schwan & Yu, 2018). The need for a legal definition of climate-induced displacement, to streamline advocacy and integration of migrants into policymaking and governance, has been stressed (Kolmannskog, 2012). A rights-based approach is one option, as mobility is considered a human right. Crucially, recognising the specific motivations, populations, and time scales summed up behind 'climate migration' is essential. Improved preparation requires prediction, but as mentioned, predicting migration is tricky. Detailed collaborative modelling is recognised necessary to shape migration as a viable adaptive strategy (Till et al., 2018). Thus, recent work models environmental migration with a focus on factors like socioeconomic status, individuals' decision-making processes, and historical movement patterns (Marotzke et al., 2020; Whitley et al., 2018).

Moreover, non-migrants are at risk of being neglected within this discourse. In the broader climate migration context, there are those preferring to stay in place, regardless of migration ability. Treating the challenges faced by all climate-vulnerable people with consideration means safeguarding these aspirations (Mallick & Schanze, 2020). If migration's full potential as an adaptive strategy is to be tapped, its limits and supplements must also be understood and pulled into the frame. This is pertinent for low-lying countries where resources and space are far from abundant. While thousands migrate to cities like Dhaka to evade environmental threats, these places themselves face high climate risks in coming decades (Black, Bennett, et al., 2011). Instead of merely moving the goalposts to higher ground, adaptive strategies other than migration merit research and development. Just as climate change does not categorically produce migration, it does not inevitably erode the desire and capacity to stay in place (Adams, 2016). Rather, the historical, social and political factors underpinning and facilitating non-migration merit greater attention, beyond the simple absence of the facilitation of mobility (Pemberton et al., 2021). In a longitudinal study in China, migrants returned home after years to participate in resilient livelihood activities, indicating how climate migration might decline over time, outpacing mounting climate change effects through successful in situ adaptation (Gray et al., 2020). Further studies on whether adaptation strategies have influenced the trajectory of environmental migration scenarios may prove instructive. Non-migration remains the preferred course for most affected by a natural disaster (Nawrotzki & DeWaard, 2018; Penning-Rowsell et al., 2013) in terms of both place attachment and economic feasibility. Promotion of non-migration strategies alongside migration, prioritising flexibility and people's self-determination, offers the best path to climate change resilience.

5. BEST PRACTICES DEALING WITH CLIMATE-INDUCED (NON-)MIGRANTS
While climate migration remains an issue hindered by data gaps and weak integration into climate frameworks, organisations worldwide have begun to emphasise the importance of developing policy coherence to parse this complex phenomenon for mainstreaming into climate

agendas. Policy frameworks like the Global Compact on Safe, Orderly and Regular Migration have made steps by advocating better migration mapping, and integration of migrants' needs into regional climate strategies (UN, 2019). Understanding the mechanisms linking climate change, migration, and development in different locales is vital to building up the elusive climate-migration knowledge. Current projects like the IOM's 'Transformative human mobilities in a changing climate' in the Pacific Islands assess migration's adaptive potential by investigating specific pathways vulnerable populations could take to improve their futures (Farbotko et al., 2018). Equipping policymakers to treat climate migration discerningly can also promote sustained change. The IOM provides training projects for regional policymakers to build their capacity to tackle migration as a long-term climate concern. Notably, Cuba's Tarea Vida project emerges as one of the most ambitious national initiatives embracing adaptive migration. The 100-year plan includes schemes to relocate low-lying communities and agricultural livelihoods at risk, and supply a programme of environmental education to wider populations (Stone, 2018).

As an already highly affected location, Bangladesh has emerged as a hub for innovative approaches to the management of climate-induced migration. GIZ leads several ongoing projects. The 'Urban Management of Internal Migration due to Climate Change' project seeks to improve living conditions of climate migrants in urban slums according to a needs-based approach, providing skills and financial education, as well as improving the administrative structures of the partner cities to better meet the challenges of climate-induced migration. The 'Climate Resilient Inclusive Smart Cities' project is working to ensure that selected cities' urban development considers local climate adaptation needs. Similarly, ICCCAD's urban climate change programmes aim to collaborate with local authorities to establish climate-resilient, migrant-friendly cities—allaying the overwhelming pressure on the capital by preparing towns beyond Dhaka to accommodate expanding climate migrant flows (ICCCAD, 2019). Adaptation in situ has also seen its share of successful programmes. The UNDP's 'Integrating Community-based Adaptation into Afforestation and Reforestation' project, among others, promotes innovative climate-tolerant agriculture that enables people to maintain rural livelihoods, helping thousands, including return migrants, to stay in place (UNDP Bangladesh, 2019). Such practices, which engage constructively with local conditions to improve adaptive capacity of both climate migrants and non-migrants, must continue to be championed across climate-vulnerable regions worldwide. In particular, adaptation must not be neglected, but prioritised where possible.

6. OUTLOOK

Climate-induced migration is a global problem requiring largely local solutions. It is practically impossible, for example, to resettle all the vulnerable people in Bangladesh in a new place. Therefore, should we not think about keeping people in their places instead of advocating only 'migration as adaptation', when such a shift in settlement patterns requires a gigantic fund availability for the poor countries at greatest risk (Jahan, 2020)? An overly simplistic, static, and culturally uniform understanding of mobility not only misrepresents the social reality, but leads to narrow solutions that compromise welfare. Border closures and other rigid measures against

migrants only cause further suffering and human rights violations. Equally, unplanned, unwanted movement is unlikely to improve lives. Eschewing simplistic views of migration as an uncomplicated adaptation failure or strategy, policy perspectives should seek to assess differential migration contexts and provide assistance based on local evaluations (Wiegel et al., 2019). To this end, contingency planning that prepares for adaptive migration whilst honouring non-migration desires where possible may be a suitable path for high-risk places (Noy, 2017). To facilitate such responses, bilateral regional and international cooperation is necessary. The Paris Agreement (UNFCCC, 2015) or even the New York Declarations (UN, 2016) comprehend many agendas for the protection of people threatened by climate change. These global agendas provide entry points for addressing environmentally-linked root causes of forced migration like access to water, food, energy—particularly for supporting the livelihood needs that enable people to remain where they live. Researchers already dispute the 'normality of mobility' and emphasise the significance of place-based identities (Adams 2016; Mallick & Schanze, 2020). Therefore, we urge that climate leaders should also propose programs that prioritise people's ability to stay in place, even against environmental disruptions. Policies should aim to ensure the socio-economic and infrastructural development necessary for the maintenance of these livelihoods wherever possible.

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