



CLIMATE-RELATED MOBILITY AND HUMAN SECURITY IN PAKISTAN AND BANGLADESH: IMPLICATIONS FOR EUROPEAN UNION MIGRATION GOVERNANCE

Anmol

BS Student, Department of International Relations University of Okara, Pakistan

Email: razzaqanmol10@gmail.com

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Corresponding Author*:

Anmol

Abstract

Climate-related human mobility has become a major human-security challenge, particularly in South Asia, where environmental exposure intersects with poverty, livelihood dependence, rapid urbanization, inequality, and limited adaptive capacity. This article examines how sudden- and slow-onset climate hazards generate different patterns of mobility and insecurity in Pakistan and Bangladesh and considers their implications for European Union migration and protection governance. It adopts a qualitative comparative case-study design supported by structured document, policy, and legal analysis. The study applies the seven dimensions of human security economic, food, health, environmental, personal, community, and political security to compare flood-related displacement in Pakistan with mobility and involuntary immobility associated with salinity intrusion, sea-level rise, erosion, and livelihood decline in coastal Bangladesh. The findings show that climate-related mobility is predominantly internal, multi-causal, and socially unequal. Environmental hazards interact with existing vulnerabilities, while movement does not necessarily restore security and may transfer people from one form of risk to another. The analysis further finds that national and regional systems remain oriented toward emergency response, whereas international and EU protection mechanisms rely mainly on legal categories developed around persecution, armed conflict, or clearly defined mass emergencies. Existing protection is therefore not entirely absent, but it remains fragmented and poorly adapted to cumulative environmental harm. The article argues for a layered human-security approach combining anticipatory adaptation, portable social protection, inclusive urban planning, carefully designed mobility pathways, stronger non-refoulement assessment, and greater coherence between EU migration, climate, humanitarian, and development policies.

Keywords: Climate-related human mobility; climate-induced displacement; human security; South Asia; Pakistan; Bangladesh; European Union migration governance



1. Introduction

Climate change is increasingly influencing where people can live, work, and sustain their livelihoods. Sudden-onset disasters such as floods and cyclones may force households to leave with little warning, while slower environmental processes—including sea-level rise, salinity intrusion, water scarcity, erosion, and declining agricultural productivity—can gradually weaken established ways of life. Yet environmental change rarely operates alone. Decisions to move, remain, return, or relocate are also shaped by poverty, employment, land ownership, social networks, gender, access to services, political conditions, and the costs and legal possibilities of movement. Climate mobility is therefore better understood as a multi-causal process encompassing displacement, migration, planned relocation, return, and involuntary immobility rather than as a direct movement from environmental danger to safety (Black et al., 2011; IPCC, 2022).

The possible scale of this challenge has attracted considerable international attention. The World Bank estimates that, without sufficient climate and development action, as many as 216 million people across six regions could become internal climate migrants by 2050, including up to 40 million in South Asia (Rigaud et al., 2021). These figures are scenario-based projections of movement within countries, not forecasts of international “climate refugees.” The distinction matters because inflated or poorly defined claims may generate alarmist narratives and encourage responses centred on border containment rather than adaptation, protection, and safe mobility.

South Asia provides an important context for studying these dynamics. High exposure to climate hazards intersects with dense populations, rapid urbanization, climate-sensitive livelihoods, inequality, and uneven institutional capacity. Pakistan and Bangladesh offer analytically useful but contrasting cases. Pakistan has experienced major sudden-onset disasters, particularly the floods of 2010 and 2022, which caused extensive displacement and damage to homes, agriculture, public services, and infrastructure. Bangladesh illustrates how coastal erosion, salinity intrusion, sea-level rise, recurrent cyclones, and declining freshwater availability may gradually reduce livelihood viability. These pressures can produce temporary migration, rural–urban movement, livelihood diversification, permanent relocation, or continued residence in increasingly unsafe places among those unable to move.

The consequences extend far beyond the loss of shelter. Displacement may undermine economic security through the loss of land, livestock, employment, or productive assets. It may weaken food and health security through disrupted markets, contaminated water, disease exposure, and reduced access to services. Women, children, older people, persons with disabilities, landless households, and marginalized communities may face heightened risks during evacuation, settlement, and recovery. Movement may also disrupt family networks, community belonging, political representation, and access to state assistance.

The human-security framework is valuable because it shifts attention from the defence of territory to the protection of



people's lives, livelihoods, dignity, and agency. It identifies seven interconnected dimensions: economic, food, health, environmental, personal, community, and political security (UNDP, 1994). From this perspective, migration is not automatically a security threat. It may be a consequence of insecurity, an attempt to restore security, or a source of further insecurity where movement occurs without adequate legal pathways, services, or protection.

International protection nevertheless remains fragmented. The 1951 Refugee Convention does not recognize climate change or environmental degradation as an independent basis for refugee status. However, people moving in climate-affected contexts may qualify for protection where environmental harm interacts with persecution, conflict, discriminatory denial of assistance, or other serious human-rights risks (UNHCR, 2020, 2023). The term "climate refugee" should therefore be used cautiously because it suggests a uniform legal category that does not presently exist and obscures the diversity of climate-related mobility.

This protection gap also has implications for the European Union. The EU is not only a possible destination region but also a major climate-finance actor, humanitarian donor, development partner, and participant in international migration governance. The EU Pact on Migration and Asylum reorganized important aspects of border screening, asylum procedures, responsibility-sharing, reception, and crisis management. However, EU protection mechanisms remain mainly structured around persecution, armed conflict, individualized serious harm, and temporary mass influx. They are less clearly equipped to address gradual livelihood collapse, repeated disasters, or environmentally unsafe conditions that are difficult to classify within established legal categories.

The connection between South Asian climate mobility and EU governance should not be reduced to the unsupported prediction that displaced people from Pakistan and Bangladesh will inevitably move to Europe. Most climate-related movement is likely to remain internal or regional, while international migration will continue to be shaped by employment, family networks, visa rules, migration costs, and political circumstances. The stronger relationship concerns policy coherence and shared responsibility: whether EU migration, development, climate, humanitarian, and external policies respond consistently to the human insecurities shaping mobility in climate-vulnerable regions.

Existing scholarship has examined environmental migration, human security, securitization, refugee law, and EU border governance. However, these debates are often developed separately. Less attention has been given to how contrasting forms of climate-related mobility expose different limitations across national, regional, international, and EU governance frameworks. Addressing this gap, the article examines how sudden- and slow-onset climate hazards in Pakistan and Bangladesh produce different patterns of human insecurity and what protection and governance gaps these patterns reveal.

The article makes three contributions. First, it compares sudden-onset displacement with slower mobility and involuntary immobility within one analytical framework. Second, it applies the seven dimensions of human security as a structured standard for evaluating mobility and policy responses. Third, it uses the comparison to assess the



substantive fit of national, international, and EU protection mechanisms rather than treating climate mobility primarily as a future border-security threat.

2. Literature Review and Conceptual Framework

2.1 Climate Change and Human Mobility

Early migration theories commonly relied on push–pull models, in which adverse conditions encourage departure while perceived opportunities attract migrants elsewhere (Lee, 1966). Although useful as an introductory account, this model is too linear to explain climate-related mobility. Environmental pressures are mediated by employment, household income, land ownership, political stability, public services, social networks, gender relations, and migration costs. Households exposed to the same hazard may therefore respond differently: one may relocate, another may send a family member elsewhere for work, while a third may remain because movement is unaffordable.

Contemporary scholarship consequently treats climate mobility as multi-causal and socially differentiated. Black et al. (2011) argue that environmental change influences migration through economic, political, social, demographic, and environmental drivers rather than functioning as an isolated cause. Cattaneo et al. (2019) similarly show that climate conditions may increase, reduce, or redirect migration depending on exposure, resources, development, and available adaptation options. Labelling everyone leaving an environmentally affected area as a “climate migrant” therefore risks overlooking the overlapping pressures shaping individual and household decisions.

Migration may also function as adaptation. Temporary or labour migration can diversify income, reduce dependence on climate-sensitive livelihoods, and generate remittances supporting recovery or local investment (McLeman & Smit, 2006). Yet movement is not automatically safe or beneficial. It may become maladaptive when people lose productive assets, enter exploitative employment, settle in hazard-prone urban areas, or experience repeated displacement. The poorest households may be unable to move at all. Climate change can therefore produce mobility and involuntary immobility, often described as the condition of “trapped populations” (IPCC, 2022).

The distinction between sudden- and slow-onset hazards helps clarify these varied outcomes. Floods and cyclones may generate rapid evacuation and large-scale displacement, although many affected households later return or move again. Sea-level rise, salinity intrusion, erosion, and declining agricultural productivity may instead produce seasonal, repeated, or gradual mobility. These categories overlap: sudden disasters may cause prolonged insecurity, while slow environmental decline may eventually trigger abrupt movement. Nevertheless, the distinction provides a useful basis for comparing Pakistan and Bangladesh.

2.2 Human Security and Unequal Adaptation

The human-security approach shifts the focus of security from territorial defence to the protection of individuals and communities. UNDP’s seven dimensions—economic, food, health, environmental, personal, community, and political security—are especially relevant to climate mobility because environmental hazards rarely create only one form of



harm (UNDP, 1994). A flood may destroy housing while also eliminating income, contaminating water, disrupting education, exposing women and children to violence, and weakening access to political representation.

Human security also offers a more balanced understanding of movement. From a state-centred perspective, migration may be framed as pressure on borders, services, or political stability. From the perspective of affected households, movement may represent an attempt to restore safety, dignity, income, and control over the future. Migration can therefore be a consequence of insecurity, a response to insecurity, and a source of new insecurity when legal pathways and social protection are absent.

In this article, the seven dimensions operate as analytical categories. Economic and food security concern the loss or reconstruction of livelihoods. Health and personal security address disease exposure, service access, exploitation, and violence. Environmental security concerns continuing exposure to hazards. Community security captures disrupted relationships, identity, and belonging. Political security includes documentation, participation, recognition, and equitable access to state protection. This framework allows the analysis to ask not only whether people move but whether mobility and governance improve or deepen their insecurity.

2.3 Securitization and the Protection Gap

Securitization theory explains how political actors represent an issue as an existential threat requiring extraordinary measures (Buzan et al., 1998). Applied to migration, such framing may portray mobile populations as threats to borders, public order, identity, or national stability and legitimize surveillance, detention, accelerated return, and border externalization.

Predictions of large future climate movements may be especially vulnerable to securitized narratives. Alarmist representations of “climate refugees” can simplify complex mobility patterns and recast affected populations as threats to wealthier destination states (Bettini, 2013). This framing is empirically questionable because much climate-related movement remains internal or regional. It may also divert attention from historical responsibility, adaptation finance, development inequality, and the rights of affected communities.

However, securitization should not be assumed whenever migration controls exist. A rigorous analysis should identify who presents mobility as a threat, what is said to require protection, which audience accepts that claim, and what restrictive measures follow. This article therefore contrasts state-centred governance, which evaluates mobility primarily in relation to borders and stability, with human-security governance, which assesses whether policies protect people’s rights, livelihoods, safety, and agency.

International refugee law offers no automatic status to people moving solely because of disaster or environmental degradation. Climate conditions may nevertheless become legally relevant where they interact with persecution, conflict, discriminatory denial of assistance, or serious human-rights harm. Human-rights-based non-refoulement and national humanitarian arrangements may also prevent removal in exceptional circumstances (UNHCR, 2020, 2023). The



problem is therefore not a complete absence of law but a fragmented and uncertain protection landscape.

The Global Compact for Safe, Orderly and Regular Migration recognizes disasters, climate change, and environmental degradation as drivers of mobility and encourages adaptation, planned relocation, disaster preparedness, and regular migration pathways. However, it is non-legally binding and does not create an enforceable international status (United Nations General Assembly, 2018).

This produces a governance mismatch. Climate mobility is often gradual, multi-causal, and connected to livelihood decline, whereas protection systems commonly require identifiable persecution, conflict-related harm, or an immediate humanitarian emergency. The integrated framework used here therefore links five elements: the climate hazard, pre-existing vulnerability, the form of mobility or immobility, the resulting human-security consequences, and the adequacy of governance responses.

3. Methodology

3.1 Research Design and Sources

The study adopted a qualitative comparative case-study design supported by structured document, policy, and legal analysis. Comparative case studies are appropriate for examining complex processes in their real-world settings and identifying how a shared problem develops under contrasting environmental and institutional conditions (Yin, 2018).

Pakistan and Bangladesh were selected as contrasting cases of climate-related mobility in South Asia. Pakistan represented displacement associated primarily with sudden-onset flooding, particularly the 2010 and 2022 disasters. Bangladesh represented cumulative mobility pressures associated with salinity intrusion, coastal erosion, sea-level rise, livelihood decline, waterlogging, and recurrent cyclones. The distinction was analytical rather than absolute because sudden disasters can create prolonged insecurity, while gradual deterioration may eventually produce abrupt displacement.

The study relied on secondary documentary evidence and did not involve interviews or surveys. The document search covered January 2010 to July 2026. Earlier sources were included where foundational to migration theory, human security, securitization, or refugee law. Academic literature was identified through Scopus, Web of Science, Google Scholar, and HeinOnline using combinations of terms including “climate migration” and “Pakistan,” “flood displacement” and “Pakistan,” “climate mobility” and “Bangladesh,” “salinity intrusion” and “migration,” “trapped populations” and “South Asia,” and “EU asylum law” and “climate change.”

The evidence included peer-reviewed scholarship, reports from the IPCC, World Bank, UNDP, UNHCR, IOM, IDMC, and UNDRR, national policy documents from Pakistan and Bangladesh, international and regional frameworks, and selected EU legal instruments. Sources were included where they directly addressed climate-related displacement, migration, immobility, human security, or protection governance and provided sufficient evidentiary or legal detail. Duplicative, unsupported, or methodologically unclear sources were excluded.



3.2 Analytical Procedure and Limitations

The documents were examined through structured qualitative content analysis (Bowen, 2009; Schreier, 2012). The coding framework considered five elements: type of hazard, form of mobility or immobility, pre-existing vulnerability, human-security consequences, and governance response.

Mobility outcomes were classified as evacuation, temporary displacement, return, rural–urban migration, circular migration, permanent relocation, planned relocation, or involuntary immobility. Vulnerability factors included poverty, gender, age, disability, landlessness, minority status, insecure employment, and limited access to public services.

Human-security effects were coded across the seven UNDP dimensions. Governance frameworks were assessed according to whether they recognized relevant mobility patterns, addressed identified harms, included vulnerable groups, supported safe movement or adaptation, assigned institutional responsibility, and created enforceable rights or voluntary commitments.

Each country was first analysed separately and then compared. The EU legal analysis distinguished refugee status, subsidiary protection, temporary protection, humanitarian admission, regular pathways, and non-refoulement.

Credibility was strengthened through source triangulation. Major statistics and legal claims were checked against authoritative sources wherever possible, and divergent estimates were acknowledged rather than resolved by selecting the most dramatic figure.

The study had several limitations. Documentary sources used different definitions of migration and displacement, reducing comparability. The multi-causal nature of migration made it difficult to attribute individual movement exclusively to climate change. The study also could not forecast how many climate-affected people might eventually migrate from South Asia to Europe or fully capture the lived experiences of affected communities. Its purpose was therefore to identify comparative human-security patterns and evaluate governance capacity rather than predict migration flows.

4. Comparative Case Studies

4.1 Pakistan: Sudden Displacement and Prolonged Insecurity

Pakistan demonstrates how a sudden environmental shock may cause immediate displacement while generating effects that continue long after floodwaters recede. The 2010 floods affected more than 20 million people, damaged approximately 1.6 million homes, and caused extensive losses to crops, infrastructure, and livelihoods (World Bank, 2013). The 2022 floods revealed that major weaknesses remained in preparedness, infrastructure, local implementation, and long-term protection.

The 2022 floods followed exceptional monsoon rainfall alongside glacial melt and earlier heat extremes. Climate change intensified several conditions associated with the disaster, but the level of destruction was also shaped by poverty, settlement patterns, inadequate drainage, weak infrastructure, land use, and unequal access to protection.



The event is therefore more accurately described as a climate-intensified disaster than as an outcome caused exclusively by climate change.

Approximately 33 million people were affected, while nearly eight million were displaced. More than 1,700 people died, around two million homes were damaged or destroyed, and substantial losses occurred across agriculture, transport, education, healthcare, water, and sanitation. Physical damage and economic losses exceeded US\$30 billion, while reconstruction needs were estimated at more than US\$16 billion (Government of Pakistan et al., 2022).

These figures show that displacement involved more than temporary shelter loss. Many households simultaneously lost homes, crops, livestock, employment, savings, markets, public services, and infrastructure. Economic and food security declined as agricultural land and local markets were damaged. Households faced difficult choices: remain near damaged property, move to relief sites, seek work elsewhere, return before conditions were safe, or depend on debt and humanitarian support. Movement did not necessarily restore security because displaced people often entered unfamiliar labour markets without stable employment, adequate housing, or social protection.

Health and environmental insecurity continued after the immediate flooding. Contaminated and stagnant water increased exposure to diarrhoeal and vector-borne diseases, while damaged health facilities reduced access to treatment. Inadequate sanitation, overcrowding, unsafe water, and disrupted maternal and child healthcare created further risks (Government of Pakistan et al., 2022; UNICEF, 2022).

The effects were socially unequal. Women and girls faced barriers to private sanitation, reproductive healthcare, documentation, secure shelter, and relief registration. Female-headed households and women without recognized land ownership could encounter difficulties accessing reconstruction support. Children experienced disrupted education, nutrition, and healthcare. Older people and persons with disabilities could face particular obstacles during evacuation and relief distribution. These risks reflected inequalities that existed before the floods but became more severe during displacement.

Community security weakened when families were separated, villages became temporarily uninhabitable, and established support networks were disrupted. Some households remained close to their communities, while others moved to neighbouring districts, relief sites, or urban areas. It would be inaccurate to assume that all flood-displaced people permanently migrated to cities such as Karachi. Post-disaster movement may include evacuation, return, repeated displacement, seasonal work, and gradual onward migration.

The absence of reliable longitudinal data on these trajectories is itself a governance weakness. Emergency agencies may record people at the moment of displacement but lose contact as they leave camps, return, or relocate. Pakistan's case therefore reveals a gap between short-term disaster response and long-term human security. Relief may prevent immediate suffering, but it does not automatically restore livelihoods, land rights, healthcare, education, political participation, or community stability.



4.2 Bangladesh: Gradual Mobility and Involuntary Immobility

Bangladesh illustrates how climate-related mobility may develop gradually through the combined effects of salinity intrusion, sea-level rise, coastal erosion, cyclones, storm surges, waterlogging, and livelihood insecurity. These pressures do not always produce one clearly identifiable moment of mass displacement. Instead, they may progressively reduce the viability of farming, fishing, livestock rearing, and access to freshwater.

Salinity intrusion is particularly significant in coastal districts. Rising sea levels, storm surges, reduced freshwater availability, and changes in river systems can increase the salinity of soil and water. World Bank modelling projected a median increase of approximately 26 per cent in soil salinity in coastal Bangladesh by 2050, with larger increases in some exposed areas (Dasgupta et al., 2015). Such figures are projections rather than uniform predictions, but they illustrate the possible pressure on agriculture, drinking water, public health, and ecosystems.

Households respond through different strategies. Some change crops, diversify work, engage in aquaculture, or send one family member elsewhere. Others migrate seasonally or relocate after repeated losses and physical erosion of homes or land. These decisions remain multi-causal. Environmental decline may interact with debt, unemployment, education, marriage, transport, and family networks. Research in coastal Bangladesh consequently shows that much environmentally influenced movement is internal and temporary rather than a single permanent migration attributable solely to climate change (Bernzen et al., 2019).

The economic effects are uneven. A transition from rice cultivation to brackish-water aquaculture may benefit some landowners or businesses while reducing employment, food production, or access to common resources for landless labourers, tenant farmers, smallholders, and women. The key issue is not merely whether a livelihood change qualifies as adaptation, but who controls the benefits and who bears the costs.

Food, water, and health security are closely linked. Salinity may reduce crop yields and freshwater availability while increasing the time required to collect drinking water. Women and girls may carry a disproportionate burden where household water collection is gendered. Cyclones and storm surges can further damage sanitation, schools, markets, healthcare, and transport. Households may therefore remain physically present while the conditions necessary for a secure life gradually deteriorate.

Bangladesh also highlights involuntary immobility. Migration requires money, information, transport, social networks, and a viable destination. Better-resourced households may use migration to diversify income or reduce exposure. Poorer households, older people, persons with disabilities, and those with limited networks may remain in unsafe places because they lack realistic alternatives. Their immobility should not automatically be interpreted as preference or resilience (IPCC, 2022).

Those who move may not achieve lasting security. Rural–urban migrants can enter informal labour markets and settle in neighbourhoods with inadequate housing, unsafe water, limited healthcare, environmental hazards, and insecure



legal recognition. Some therefore exchange coastal risk for urban flooding, heat exposure, eviction, or exploitative work. Migration may function as adaptation for some while transferring or intensifying insecurity for others.

World Bank scenarios suggest that Bangladesh could experience up to 13.3 million internal climate migrants by 2050 under a pessimistic pathway (Rigaud et al., 2018). This should not be treated as a precise prediction or evidence of future international migration. Its value lies in showing the scale of internal planning that may be required for housing, employment, services, infrastructure, and urban adaptation.

4.3 Comparative Findings

Pakistan and Bangladesh reveal different temporal pathways into human insecurity. In Pakistan, flooding produced immediate and visible displacement. In Bangladesh, environmental change often weakened water access, livelihoods, health, and income before movement occurred. Sudden disasters tend to attract humanitarian attention because they are connected to a specific event. Slow-onset deterioration is harder to recognize and may be treated as economic migration even where environmental pressures have progressively narrowed household choices.

Despite these differences, both cases show that mobility is shaped by inequality. People with savings, education, property, documentation, and social networks have more options regarding when and where to move. Those with fewer resources may undertake unsafe movement, accept exploitative work, return prematurely, or remain trapped.

The cases also challenge a strict division between voluntary and forced migration. A household may decide to move, yet its options may have been constrained by crop failure, debt, unsafe water, destroyed housing, or limited public assistance. Conversely, describing all movement as forced may overlook household agency and the role of mobility as adaptation. A human-security approach captures this complexity by asking whether people possess meaningful choices and whether movement improves safety, dignity, and livelihood prospects.

Most importantly, displacement does not end upon arrival. Human security depends on access to housing, work, food, healthcare, education, documentation, community support, and political recognition. The governance challenge is therefore not merely to manage movement after environmental harm occurs but to expand safe and dignified choices before, during, and after mobility.

5. Analysis and Discussion

5.1 Climate Mobility as a Human-Security Process

The comparison demonstrates that climate mobility is not a single event beginning with an environmental shock and ending when a person reaches another location. It is a process through which hazards interact with existing economic, social, political, and institutional vulnerabilities. Climate change should therefore be understood as a risk multiplier rather than an automatic cause of migration (IPCC, 2022).

In Pakistan, the destruction of agricultural land and assets threatened food, health, housing, personal safety, education, and community stability. In Bangladesh, the gradual deterioration of soil and water could undermine



income, nutrition, health, and family relationships before relocation occurred. The seven dimensions of human security were therefore interconnected. Harm in one dimension frequently intensified insecurity in others.

This interdependence explains why emergency relief is essential but insufficient. Temporary shelter may reduce immediate exposure without restoring work, land rights, education, healthcare, documentation, or representation. Similarly, supporting people to remain cannot be treated as successful adaptation where water is unsafe, livelihoods are disappearing, or public services are unavailable. Human security requires attention to whether people retain rights, resources, dignity, and agency, not merely whether they survive (UNDP, 1994).

The comparison also exposes unequal visibility. Sudden displacement is more readily counted and recognized, while slow-onset deterioration may remain administratively invisible. A household leaving coastal Bangladesh after years of declining yields, repeated cyclone damage, debt, and water insecurity may be classified as economically motivated even where environmental change has significantly constrained its options. Governance systems designed around declared emergencies may therefore overlook gradual forms of displacement.

5.2 Mobility, Adaptation, and the Redistribution of Risk

Mobility may function as adaptation when it allows households to diversify income, access safer places, or reduce dependence on climate-sensitive livelihoods. However, movement becomes maladaptive when it produces dangerous journeys, exploitative work, insecure housing, loss of services, or renewed environmental exposure. Policy should therefore neither seek to prevent nor promote all migration. It should ensure that movement is a meaningful option rather than a desperate necessity.

The findings show that people facing the greatest exposure may possess the least capacity to move. Remaining in an unsafe place is not always an expression of resilience. It may reflect poverty, restricted mobility, poor health, limited information, or weak social networks. At the same time, movement does not necessarily eliminate vulnerability. Displaced households may relocate from flood-prone villages to informal settlements exposed to heat, flooding, eviction, or insecure employment. Their location changes, but risk may simply be redistributed.

The key questions are therefore who can move safely, who moves under constraint, who cannot move, and what becomes available after relocation. Housing, employment, healthcare, education, documentation, community acceptance, and political recognition determine whether mobility reduces or intensifies insecurity.

5.3 From Emergency Response to Anticipatory Governance

The comparison reveals a gap between managing disasters and governing mobility. Disaster response commonly prioritizes rescue, emergency shelter, relief, and reconstruction. Climate mobility also requires long-term policies addressing livelihood recovery, urban settlement, social protection, education, health, documentation, return, repeated movement, and relocation.

A UNDRR review found that mobility terminology had become more common in disaster-risk-reduction strategies, but



many instruments still contained weak definitions, limited data provisions, and few detailed measures addressing migration, host communities, or durable solutions (UNDRR, 2024). The problem is therefore not simply whether mobility appears in policy language but whether responsibilities, funding, rights, and implementation mechanisms are clearly established.

Anticipatory human-security governance would connect disaster-risk reduction with adaptation, urban planning, livelihood policy, health, education, and social protection. Before displacement, it would support risk mapping, early warning, resilient infrastructure, livelihood diversification, insurance or financial assistance, and community participation. During movement, it would require safe evacuation, inclusive registration, healthcare and education continuity, and protection from violence. After movement, it would address housing, employment, documentation, community integration, safe return, or planned relocation.

The EU relevance arises from this need for coherence, not from predictions of an inevitable migration wave. The Pakistan and Bangladesh cases show that climate mobility is mainly internal, unequal, and multi-causal. However, they also raise questions about international finance, safe mobility pathways, return conditions, protection assessment, and responsibility-sharing.

6. EU Migration Governance and the Climate-Protection Gap

6.1 Existing Protection Categories

The Pakistan and Bangladesh cases expose a mismatch between climate-related harm and the categories used by EU asylum law. EU law does not divide all arrivals simply into refugees and economic migrants. It also includes subsidiary protection, temporary protection, humanitarian admission, national humanitarian arrangements, and protection against removal. Nevertheless, no harmonized EU status specifically covers people displaced by climate-related hazards.

Under Regulation (EU) 2024/1347, refugee status remains linked to a well-founded fear of persecution based on race, religion, nationality, political opinion, or membership of a particular social group. Environmental harm alone does not meet this definition. Climate conditions may, however, become relevant where they interact with Convention-based persecution. Examples may include discriminatory denial of disaster assistance or environmental stress interacting with conflict and targeted harm.

Subsidiary protection also has limited direct application. Serious harm is defined through the death penalty, torture or inhuman or degrading treatment, or a serious individual threat arising from indiscriminate violence in armed conflict. Flooding, salinity intrusion, sea-level rise, livelihood collapse, and environmental uninhabitability are not listed as independent grounds. A person may therefore experience severe human insecurity without fitting the formal definition.

The gap is consequently one of legal fit rather than total absence. Decision-makers must examine whether climate



conditions interact with persecution, conflict, discrimination, serious health risks, or treatment reaching the relevant human-rights threshold. The difficulty is that environmental harm is often cumulative and may occur without one identifiable persecutor or armed conflict.

6.2 Temporary Protection, Admission, and Non-Refoulement

The Temporary Protection Directive provides collective protection where a mass influx risks overwhelming ordinary asylum systems. Its activation requires a Council decision; individuals cannot trigger it through an application. The Directive is not expressly limited to armed conflict, but its implementation has centred on people fleeing war and widespread violence. It could theoretically become relevant to an extreme disaster producing a clearly defined mass influx and preventing safe return. However, it is poorly suited to gradual mobility in which people leave over extended periods and through different routes (Council of the European Union, 2001).

The Union Resettlement and Humanitarian Admission Framework provides another possible route. Regulation (EU) 2024/1350 allows Member States to organize admission from outside EU territory but does not create an individual entitlement or a climate-specific category. Its relevance would depend on future EU plans and Member State willingness to include climate-affected people who also meet protection or humanitarian criteria.

Human-rights-based non-refoulement provides a further safeguard. Articles 4 and 19 of the EU Charter prevent removal where a person would face a serious risk of torture or inhuman or degrading treatment. In exceptional circumstances, environmental destruction combined with lack of food, water, shelter, healthcare, or state protection may become relevant. However, the threshold is demanding and requires an individualized assessment. Non-refoulement prevents removal; it does not automatically create a right of entry, durable residence, or organized migration pathway.

This distinction is crucial. A person may fail to establish refugee status but still face conditions making removal unlawful or unsafe. Even where return is suspended, uncertainty may remain concerning residence, employment, family unity, and integration.

6.3 The EU Pact and Policy Coherence

The EU Pact on Migration and Asylum substantially restructured screening, asylum procedures, border processing, solidarity, reception, responsibility allocation, and crisis management. However, it did not make climate change or environmental degradation an independent basis for protection. Greater procedural efficiency cannot resolve a substantive recognition gap where an applicant's experience does not correspond to existing legal categories.

The Crisis and Force Majeure Regulation should also be interpreted carefully. It helps the EU and Member States manage exceptional pressure on asylum and migration systems. It does not grant protection simply because a country of origin has experienced a climate-related disaster. Its purpose concerns system management, not the substantive definition of protection.



Member States retain some flexibility through national humanitarian arrangements. A European Migration Network review found that most lacked dedicated climate-migration legislation, although Italy and some other states had mechanisms capable of responding to serious disaster-related conditions (European Migration Network, 2023). Such variation may assist individual applicants but also produces unequal outcomes across the Union.

Frontex cannot solve this protection gap because it does not determine asylum status or create admission programmes. Its relevance lies in screening, referral, rescue, border management, and return operations. Climate-related vulnerability should therefore be incorporated into procedures for identifying people whose environmental displacement intersects with trafficking, medical emergencies, family separation, discrimination, or unsafe return conditions.

The broader EU responsibility extends beyond borders. As a climate-finance provider, development partner, humanitarian donor, and migration-governance actor, the Union should ensure coherence among its external policies. The strongest response is not the creation of one category labelled “climate refugee,” but a layered approach combining clearer asylum guidance, stronger non-refoulement assessment, targeted humanitarian admission, temporary protection in genuine mass-influx emergencies, and investment in adaptation and safe mobility.

7. Policy Recommendations

7.1 South Asian Governance

Pakistan and Bangladesh should integrate mobility more explicitly into climate adaptation, disaster-risk reduction, social protection, housing, labour, health, education, and urban planning. National climate-mobility frameworks should identify locations at risk of sudden displacement, areas experiencing gradual livelihood decline, groups unable to move, and cities likely to receive displaced households. They should distinguish evacuation, temporary displacement, migration, return, repeated movement, and planned relocation.

Data systems should follow displacement beyond the initial emergency. Registration should record whether households return, relocate, move repeatedly, or remain in temporary settlements and should be disaggregated by gender, age, disability, livelihood, location, and documentation status. Such systems must support access to services rather than become instruments of surveillance or exclusion.

Social protection should be portable across districts and provinces. Cash assistance, healthcare, education, documentation, and livelihood support should remain accessible when families move. This would help flood-displaced households in Pakistan and seasonal or temporary migrants in Bangladesh avoid losing eligibility after relocation.

Planned relocation should remain a measure of last resort. Communities must participate in selecting sites, designing housing, restoring livelihoods, and maintaining cultural and social ties. Compensation should include property, livelihood assets, common resources, and the wider social costs of displacement.

Receiving cities also require investment. Affordable housing, water, sanitation, healthcare, education, transport, and



livelihood programmes should serve both newcomers and existing low-income residents. This would reduce the risk that climate mobility intensifies competition over already inadequate services.

Regional cooperation should initially focus on practical areas such as early warning, river and weather information, disaster-response coordination, public-health risks, and displacement data. Over time, bilateral arrangements could support temporary stay, family reunification, labour mobility, or evacuation following severe disasters.

7.2 European Union Measures

The European Commission and EU Agency for Asylum should develop guidance on assessing climate- and disaster-related protection claims. This should explain how environmental harm may interact with persecution, discrimination, conflict, trafficking, serious illness, destitution, or inhuman treatment. Country-of-origin information should include climate hazards, water and healthcare access, displacement conditions, state assistance, and the feasibility of internal relocation.

The EU and Member States should use the Union Resettlement and Humanitarian Admission Framework to pilot organized admission for people whose climate-related vulnerability is compounded by serious medical needs, persecution, conflict, family separation, or the absence of a safe regional solution. Such programmes should remain targeted and evidence based.

Operational guidance should also clarify whether the Temporary Protection Directive could respond to an exceptional disaster-related mass influx. It should specify activation criteria, evidence requirements, duration, eligibility, and transition to other statuses. It should not be presented as a general climate visa.

Border authorities and Frontex personnel should be trained to identify cases in which environmental displacement intersects with trafficking, health emergencies, discrimination, or unsafe return. They should refer vulnerable individuals to competent national authorities rather than determine protection status themselves.

EU climate finance should not be used mainly to prevent migration to Europe. It should enable communities to remain safely where possible, support dignified internal mobility, strengthen receiving areas, and reduce the need for dangerous movement. Programmes should be evaluated through human-security indicators such as restored livelihoods, safe water, healthcare, education, secure housing, and community participation.

7.3 Global Cooperation

At the global level, the immediate priority should be to implement existing commitments rather than begin with negotiations for a new universal treaty. The Global Compact for Migration already encourages states to develop flexible pathways responding to disasters, climate change, and environmental degradation. Bilateral and regional initiatives could include labour mobility, temporary stay, humanitarian admission, family reunification, and planned relocation.

Climate mobility should also be integrated into national adaptation plans, disaster-risk-reduction strategies, and loss-



and-damage programming. The Task Force on Displacement under the Warsaw International Mechanism already provides a foundation for addressing sudden- and slow-onset displacement (UNFCCC, 2018).

The Fund for Responding to Loss and Damage should explicitly support projects concerning displacement, host communities, planned relocation, mobility data, and climate-resilient reconstruction. Funding should reach vulnerable countries and affected communities through accessible and accountable mechanisms.

A future binding protection instrument may remain a legitimate long-term objective. At present, however, regional agreements, national humanitarian statuses, regular pathways, non-refoulement safeguards, and climate-finance mechanisms are more achievable. These measures can also generate the evidence and state practice required for stronger legal development in the future.

8. Conclusion

This article examined how sudden- and slow-onset climate hazards produce different forms of mobility and human insecurity in Pakistan and Bangladesh and what these patterns reveal about governance in South Asia and the European Union. The findings confirm that climate mobility is not an automatic movement from environmental danger to safety. It is a multi-causal and socially unequal process shaped by exposure, poverty, livelihoods, gender, social networks, access to services, and institutional capacity.

Pakistan demonstrated how extreme flooding can produce immediate and highly visible displacement while creating prolonged losses of livelihoods, health, housing, education, and community stability. Bangladesh showed how salinity intrusion, erosion, recurrent cyclones, and livelihood decline can gradually influence temporary migration, permanent relocation, livelihood diversification, or involuntary immobility.

Across both cases, environmental, economic, food, health, personal, community, and political insecurities were closely connected. The human-security framework therefore offers greater analytical value than approaches that focus only on displacement numbers or border pressure. It asks whether people possess meaningful choices, rights, resources, and dignity before, during, and after movement.

The analysis also identified a governance gap. National systems remain more developed in emergency response than in long-term mobility planning, urban integration, portable protection, and relocation. International and EU frameworks recognize aspects of climate-related harm but do not provide predictable protection across the full range of mobility experiences. Existing legal mechanisms may apply where climate conditions interact with persecution, conflict, serious human-rights risks, or unsafe return, but protection remains fragmented and dependent on demanding legal tests.

The relationship between South Asian climate mobility and the European Union should not be framed through predictions of an inevitable migration wave. Most mobility is likely to remain internal or regional. EU relevance instead arises from its role in climate finance, development, humanitarian action, protection, and global migration governance. The study was limited by its reliance on documentary evidence, inconsistent definitions across sources, and the



difficulty of attributing individual migration decisions exclusively to climate change. Future research should incorporate longitudinal and participatory evidence from affected households, host communities, policymakers, and legal practitioners.

The central conclusion is that climate mobility should be governed neither solely as an emergency nor mainly as a border-security threat. Effective governance must expand the choices available to affected people: enabling them to remain safely where adaptation is possible, supporting dignified movement where relocation becomes necessary, and providing meaningful protection where return would expose them to serious harm.

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